MODEL TEST PAPERS

(RELEVANT FOR MAY, 2025 EXAMINATION AND ONWARDS)

INTERMEDIATE COURSE

GROUP - II

BOARD OF STUDIES

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA

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MODEL TEST PAPERS

INTERMEDAITE COURSE GROUP - II

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PAPER – 4: COST AND MANAGEMENT ACCOUNTING

Answers are to be given only in English except in the case of the candidates who have opted for Hindi medium. If a candidate has not opted for Hindi medium his/ her answer in Hindi will not be valued.

Working notes should form part of the answer.

Time Allowed – 3 Hours **Maximum Marks – 100**

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs) for 30 marks*
3. *Part II comprises questions which require descriptive type answers for 70 marks.*

PART I – Case Scenario based MCQs

Part I is compulsory.

Write the most appropriate answer to each of the following multiple-choice questions by choosing one of the four options given. All questions are compulsory.

1. Arnav Ltd. manufactures chemical solutions used in paint and adhesive products. Chemical solutions are produced in different processes. Some of the processes are hazardous in nature which may results in fire accidents.

   At the end of the last month, one fire accident occurred in the factory. The fire destroyed some of the paper files containing records of the process operations for the month.

   You being an associate to the Chief Manager (Finance), are assigned to prepare the process accounts for the month during which the fire occurred. From the documents and files of other sources, following information could be retrieved:

   Opening work-in-process at the beginning of the month was 500 litres, 80% complete for labour and 60% complete for overheads. Opening work-in-process was valued at ₹ 2,78,000.

   Closing work-in-process at the end of the month was 100 litres, 20% complete for labour and 10% complete for overheads.

   Normal loss is 10% of input (fresh) and total losses during the month were 800 litres partly due to the fire damage.

   Output transferred to finished goods was 3,400 litres.

   Losses have a scrap value of ₹ 20 per litre.

   All raw materials are added at the commencement of the process.

The cost per equivalent unit is ₹ 660 for the month made up as follows:

Raw Material ₹ 300 Labour ₹ 200 Overheads ₹ 160

The company uses FIFO method to value work-in-process and finished goods.

The following information are required for managerial decisions:

i. How much quantity of raw material introduced during the month?

A. 4,300 Litres

B. 3,500 Litres

C. 4,200 Litres

D. 3,800 Litres

ii. The Quantity of normal loss and abnormal loss are:

A. Normal loss- 380 litres & Abnormal loss- 420 litres

B. Normal loss- 350 litres & Abnormal loss – 450 litres

C. Normal loss- 430 litres & Abnormal loss – 370 litres

D. Normal loss- 420 litres & Abnormal loss – 380 litres.

iii. Value of raw material added to the process during the month is:

A. ₹ 10,10,000

B. ₹ 10,33,600

C. ₹ 10,18,400

D. ₹ 10,20,000

iv. Value of labour and overhead in closing Work-in-process are:

A. ₹ 4,000 & ₹ 1,600 respectively

B. ₹ 20,000 & ₹ 16,000 respectively

C. ₹ 16,000 & ₹ 9,000 respectively

D. ₹ 13,200 & ₹ 6,600 respectively

v. Value of output transferred to finished goods is:

A. ₹ 22,57,200

B. ₹ 20,06,400

C. ₹ 22,44,000

D. ₹ 19,27,200 **(5 x 2 = 10 Marks)**

2. M Ltd. is producing a single product and may expand into product diversification in next one to two years. M Ltd. is amongst a labour-intensive company where majority of processes are done manually. Employee cost is a major cost

element in the total cost of the company. The company conventionally uses performance parameters Earnings per manshift (EMS) to measure cost paid to an employee for a shift of 8 hours, and Output per manshift (OMS) to measure an employee's output in a shift of 8 hours.

The Chief Manager (Finance) of the company has emailed you few information related to the last month. The email contains the following data related to the last month:

During the last month, the company has produced 2,34,000 tonnes of output. Expenditures for the last months are:

(i) Raw materials consumed ₹ 50,00,000

(ii) Power consumed 13,000 Kwh @ ₹ 8 per Kwh to run the machines for production.

(iii) Diesels consumed 2,000 litres @ ₹ 93 per litre to run power generator used as alternative or backup for power cuts.

(iv) Wages & salary paid – ₹ 6,40,00,000

(v) Gratuity & leave encashment paid – ₹ 64,20,000

(vi) Hiring charges paid for HEMM- ₹ 30,00,000. HEMM are directly used in production.

(vii) Hiring charges paid for cars used for official purpose – ₹ 66,000

(viii) Reimbursement of diesel cost for the cars – ₹ 22,000

(ix) The hiring of cars attracts GST under RCM @5% without credit.

(x) Maintenance cost paid for weighing bridge (used for weighing of final goods at the time of dispatch) – ₹ 12,000

(xi) AMC cost of CCTV installed at weighing bridge (used for weighing of final goods at the time of dispatch) and factory premises is ₹ 8,000 and ₹ 18,000 per month respectively.

(xii) TA/ DA and hotel bill paid for sales manager- ₹ 36,000

(xiii) The company has 1,800 employees works for 26 days in a month.

You are asked to calculate the followings:

i. What is the amount of prime cost incurred during the last month:

A. ₹ 7,54,20,000

B. ₹ 7,57,10,000

C. ₹ 7,56,06,000

D. ₹ 7,87,10,000

ii. What is the total and per shift cost of production for last month:

A. ₹ 7,87,10,000 and ₹ 336.37 respectively

B. ₹ 7,87,10,000 and ₹ 1,681.84 respectively

C. ₹ 7,87,28,000 and ₹ 1,682.22 respectively

D. ₹ 7,87,28,000 and ₹ 336.44 respectively

iii. What is the value of administrative cost incurred during the last month:

A. ₹ 92,400

B. ₹ 88,000

C. ₹ 1,48,400

D. ₹ 1,44,000

iv. What is the value of selling and distribution cost and total cost of sales:

A. ₹ 36,000 & ₹ 7,88,76,400 respectively

B. ₹ 56,000 & ₹ 7,88,76,400 respectively

C. ₹ 36,000 & ₹ 7,88,72,000 respectively

D. ₹ 56,000 & ₹ 7,88,72,000 respectively

v. What is the value EMS and OMS for the last month:

A. ₹ 1,504.70 & 5 tonnes respectively

B. ₹ 1,367.52 & 5 tonnes respectively

C. ₹ 1,504.70 & 4.37 tonnes respectively

D. ₹ 1,367.52 & 4.37 tonnes respectively **(5 x 2 = 10 Marks)**

3. The wages budget for the last period was based on a standard repair time of 30 minutes per unit and a standard wage rate of ₹ 50 per hour. The actual data for the last period are as follows:

Number of units = 30,000

Labour rate variance = 7,500 (A)

Labour efficiency variance = Nil

From the information find out the actual rate of wages per unit

A. ₹ 50

B. ₹ 25.50

C. ₹ 50.50

D. ₹ 25.25 **(2 Marks)**

4. The following extract is taken from the overhead budget of X:

Budgeted activity	50%	75%
Budgeted overhead (₹)	30,00,000	40,00,000

What would be the budgeted overhead for 60% level of activity:

A. ₹ 32,00,0000

B. ₹ 34,00,000

C. ₹ 30,00,000

D. ₹ 36,00,000 **(2 Marks)**

5. Which of the following statements relating to Zero Based Budgeting (ZBB) is false:

   A. It is a method of budgeting whereby all activities are re-evaluated each time a budget is formulated.

   B. ZBB attempts to eliminate unnecessary expenditure being retained in budgets.

   C. It is probably the least time consuming and least costly approach to budgeting.

   D. It requires that budgets are built up from scratch. **(2 Marks)**

6. Based on the data below, what is the amount of the overhead under-/over-absorbed?

   Budgeted overhead – ₹ 5,25,000

   Budgeted machine hours- 17,500

   Actual machine hours- 17,040

   Actual overheads- ₹ 5,20,000

   A. 5,000 under-absorbed

   B. 8,800 under-absorbed

   C. 8,800 over-absorbed

   D. 5,000 over-absorbed **(2 Marks)**

7. A customer has been ordering 80,000 caps during the year. It is estimated that it costs ₹ 1 as inventory holding cost per cap per month and that the set up cost per run of cap manufacture is ₹ 3,500

   What is optimum run size of cap manufacture?

   A. 12 runs

   B. 10 runs

   C. 15 runs

   D. 7 runs **(2 Marks)**

PART-II – Descriptive Questions (70 Marks)

*Question No. **1** is compulsory.*

*Attempt any **four** questions out of the remaining **five** questions.*

1. P Ltd. manufactures two products called 'X' and 'Y'. Both products use a common raw material Z. The raw material Z is purchased @ ₹ 72 per kg from

the market. The company has decided to review inventory management policies for the forthcoming year.

The following forecast information has been extracted from departmental estimates for the year ended 31st March 2025 (the budget period):

	Product X	Product Y
Sales (units)	28,000	13,000
Finished goods stock increase by year-end	320	160
Post-production rejection rate (%)	4	6
Material Z usage (per completed unit, net of wastage)	5 kg	6 kg
Material Z wastage (%)	10	5

Additional information:

- Usage of raw material Z is expected to be at a constant rate over the period.
- Annual cost of holding one unit of raw material in stock is 11% of the material cost.
- The cost of placing an order is ₹ 15,600 per order.
- The management of P Ltd. has decided that there should not be more than 40 orders in a year for the raw material Z.

Required:

(a) (i) Prepare Production budget for Products X and Y (in units) for the year ended 31st March 2025.

(ii) Calculate the Economic Order Quantity for Material Z (in kgs).

(3+2=5 Marks)

(b) Prepare Purchases budget for Material Z (in kgs and value) for the year ended 31st March 2025. **(5 Marks)**

(c) If there is a sole supplier for the raw material Z in the market and the supplier do not sale more than 4,000 kg. of material Z at a time. Keeping the management purchase policy and production quantity mix into consideration, calculate the maximum number of units of Product X and Y that could be produced. **(4 Marks)**

2. (a) Chiku Transport Service is a Delhi based national goods transport service provider, owning four trucks for this purpose. The cost of running and maintaining these trucks are as follows:

Particulars	Amount
Diesel cost	₹ 19.20 per km.
Engine oil	₹ 4,200 for every 13,000 km.

Repair and maintenance	₹ 36,000 for every 10,000 km.
Driver's salary	₹ 24,000 per truck per month
Cleaner's salary	₹ 15,000 per truck per month
Supervision and other general expenses	₹ 14,000 per month
Cost of loading of goods	₹ 180 per Metric Ton (MT)

All four trucks were purchased for ₹ 30 lakhs with an estimated life of 7,20,000 km each.

During the next month, it is expecting 6 bookings, the details are as follows:

Sl. No.	Journey	Distance in km	Weight- Up (in MT)	Weight- Down (in MT)
1.	Delhi to Kochi	2,700	14	6
2.	Delhi to Guwahati	1,890	12	0
3.	Delhi to Vijayawada	1,840	15	0
4.	Delhi to Varanasi	815	10	0
5.	Delhi to Asansol	1,280	12	4
6.	Delhi to Chennai	2,185	10	8
	Total	10,710	73	18

Required

(i) Calculate the total absolute Ton-km for the vehicles. **(3 Marks)**

(ii) Calculate the cost per ton-km. **(6 Marks)**

(b) S & Sons, an unregistered supplier under GST, purchases material from V Ltd. which is a GST registered supplier. The following information is available for one lot of 5,000 units of material purchased:

Listed price of one lot	₹ 5,00,000
Trade discount	@ 10% on listed price
CGST and SGST (Credit Not available)	18% (9% CGST + 9% SGST)
Cash discount	@ 10%

(Will be given only if payment is made within 30 days.)

Toll Tax paid	₹ 1,800
Freight and Insurance	₹ 36,000
Demurrage paid to transporter	₹ 5,000
Commission and brokerage on purchases	₹ 10,000
Amount deposited for returnable containers	₹ 30,000

Amount of refund on returning the container ₹ 26,000

Other Expenses @ 2% of total cost

5% of material shortage is due to normal reasons.

The payment to the supplier was made within 21 days of the purchases.

You are required to calculate cost per unit of material purchased by S & Sons. **(5 Marks)**

3. (a) What are the important ledgers to be maintained under non-integrated accounting system in the Cost Accounting? **(4 Marks)**

(b) The following particulars have been compiled in respect of three workers, which are under consideration of the management.

	I	**II**	**III**
Actual hours worked	380	100	540
Hourly rate of wages (in ₹)	40	50	60
Productions in units:			
- Product X	210	-	600
- Product Y	360	-	1350
- Product Z	460	250	-
Standard time allowed per unit of each product is:			
	X	**Y**	**Z**
Minutes	15	20	30

For the purpose of piece rate, each minute is valued at ₹ 1/-

You are required to calculate the wages of each worker under:

(i) Guaranteed hourly rate basis

(ii) Piece work earning basis, but guaranteed at 75% of basic pay (Guaranteed hourly rate if his earnings are less than 50% of basic pay.)

(iii) Premium bonus basis where the worker received bonus based on Rowan scheme. **(10 Marks)**

4. (a) AB Ltd produces a single product V2 and sells it at a fixed price of ₹ 2,050 per unit. The production and sales data for first quarter of the year 2023-24 are as follows:

	April	**May**	**June**
Sales in units	4,200	4,500	5,200
Production in units	4,600	4,400	5,500

Actual/budget information for each month was as follows:

Direct materials	4 kilograms at ₹ 120 per kilogram
Direct labour	6 hours at ₹ 60 per hour
Variable production overheads	150% of direct labour
Fixed production overheads	₹ 5,00,000
Fixed selling overheads	₹ 95,000

There was no opening inventory at the start of the quarter. Fixed production overheads are budgeted at ₹ 60,00,000 per annum and are absorbed into products based on a budgeted normal output of 60,000 units per annum.

Required:

(i) Prepare a profit statement for each of the three months using absorption costing principles.

(ii) Prepare a profit statement for each of the three months using marginal costing principles.

(iii) Present a reconciliation of the profit or loss figures given in your answer to (i) and (ii). **(10 Marks)**

(b) PQ Ltd. sells bottles and currently is trying to find out the profitability of opening another store which will have the following expenses and revenues:

	Amount per piece (₹)
Selling Price	600
Variable costs:	
Material cost	410
Salesmen's commission	60
Total variable cost	470
Annual fixed expenses are:	**(₹)**
- Rent	6,00,000
- Office and administrative expenses	20,00,000
- Advertising	8,00,000
- Other fixed expenses	2,00,000

Calculate the annual break-even point in units and in value. Also determine the profit or loss if 35,000 units of bottles are sold. **(4 Marks)**

5. (a) SARA Ltd. has furnished the following standard cost data per' unit of production:

Material 15 kg @ ₹ 15 per kg.

Labour 6 hours @ ₹ 5 per hour

Variable overhead 6 hours @ ₹ 12 per hour.

Fixed overhead ₹ 4,50,000 per month (Based on a normal volume of 30,000 labour hours.)

The actual cost data for the month of August 2023 are as follows:

Material used 65,000 kg at a cost of ₹ 9,85,000.

Labour paid ₹ 1,40,000 for 31,500 hours worked.

Variable overheads ₹ 3,60,200

Fixed overheads ₹ 4,70,000

Actual production 4,800 units.

CALCULATE:

(i) Material Cost Variance.

(ii) Labour Cost Variance.

(iii) Fixed Overhead Cost Variance.

(iv) Variable Overhead Cost Variance. **(6 Marks)**

(b) The following budgeted information relates to Pinku Ltd. for the year 2024:

	Products		
	A	**B**	**C**
Production and Sales (units)	1,00,000	80,000	60,000
	(₹)	**(₹)**	**(₹)**
Selling price per unit	90	180	140
Direct cost per unit	50	90	95
	Hours	**Hours**	**Hours**
Machine department (machine hours per unit)	3	4	5
Assembly department (direct labour hours per unit)	6	4	3

The estimated overhead expenses for the year 2024 will be as below:

Machine Department ₹ 73,60,000

Assembly Department₹ 55,00,000

Overhead expenses are apportioned to the products on the following basis:

Machine Department On the basis of machine hours

Assembly DepartmentOn the basis of labour hours

After a detailed study of the activities the following cost pools and their respective cost drivers are found:

Cost Pool	Amount (₹)	Cost Driver	Quantity
Machining services	64,40,000	Machine hours	9,20,000 hours
Assembly services	44,00,000	Direct labour hours	11,00,000 hours
Set-up costs	9,00,000	Machine set-ups	9,000 set-ups
Order processing	7,20,000	Customer orders	7,200 orders
Purchasing	4,00,000	Purchase orders	800 orders

As per an estimate the activities will be used by the three products:

	Products		
	A	B	C
Machine set-ups	4,500	3,000	1,500
Customer orders	2,200	2,400	2,600
Purchase orders	300	350	150

Prepare a product-wise profit statement using Activity-based method.

(8 Marks)

6. (a) EXPLAIN the treatment of over and under absorption of overheads in cost accounts. **(5 Marks)**

(b) "Technology has played a significant role in cost accounting enabling business to automate their process."

EXPLAIN the impact of Information Technology in Cost Accounting in the light of above statement. **(5 Marks)**

(c) As per the controllability, cost can be classified as controllable & uncontrollable costs. How will you DIFFERENTIATE them? **(4 Marks)**

OR

(d) How apportionment of joint costs upto the point of separation amongst the joint products using market value at the point of separation and net realizable value method is done? DISCUSS. **(4 Marks)**

MODEL TEST PAPER 2

INTERMEDIATE: GROUP – II

PAPER – 4: COST AND MANAGEMENT ACCOUNTING

Answers are to be given only in English except in the case of the candidates who have opted for Hindi medium. If a candidate has not opted for Hindi medium his/ her answer in Hindi will not be valued.

Working notes should form part of the answer.

Time Allowed – 3 Hours **Maximum Marks – 100**

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs) for 30 marks*
3. *Part II comprises questions which require descriptive type answers for 70 marks.*

PART I – Case Scenario based MCQs

Part I is compulsory.

Write the most appropriate answer to each of the following multiple-choice questions by choosing one of the four options given. All questions are compulsory.

1. A meeting of the heads of departments of the Arnav Ltd. has been called to review the operating performance of the company in the last financial year. The head of the production department appraised that during the last year the company could operate at 70% capacity level but in the coming financial year 95% capacity level can be achieved if an additional amount of ₹100 Crore on capex and working capital is incurred.

   The head of the finance department has presented that during the last financial year the company had a P/V ratio of 40%, margin of safety and the break-even were ₹50 crore and ₹200 crore respectively.

   To the reply to the proposal of increasing the production capacity level to 95%, the head of the finance department has informed that this could be achieved if the selling price and variable cost are reduced by 8% and 5% of sales respectively. Fixed cost will also increase by ₹20 crore due to increased depreciation on additional assets. The additional capital will be arranged at a cost of 15% p.a. from a bank.

   In the coming financial year, it has been aimed to achieve an additional profit of ₹10 crore over and above the last year's profit after adjusting the interest cost on the additional capital.

   The following points is required to be calculated on urgent basis to put the same in the meeting. You being an assistant to the head of finance, has been asked the followings:

   i. What will be the revised sales for the coming financial year?

      A. ₹ 322.22 Crore

B. ₹ 311.11 Crore

C. ₹ 300.00 Crore

D. ₹ 324.24 Crore

ii. What will be the revised break-even point for the coming financial year?

A. ₹ 222.22 Crore

B. ₹ 252.22 Crore

C. ₹ 244.44 Crore

D. ₹ 255.56 Crore

iii. What will be the revised margin of safety for the coming financial year?

A. ₹ 100 Crore

B. ₹ 58.89 Crore

C. ₹ 55.56 Crore

D. ₹ 66.66 Crore

iv. The profit of the last year and for the coming year are:

A. ₹ 50 Crore & ₹95 Crore respectively

B. ₹ 20 Crore & ₹ 65 Crore respectively

C. ₹ 20 Crore & ₹ 30 Crore respectively

D. ₹ 45 Crore & ₹ 66.66 Crore respectively

v. The total cost of the last year and for the coming year are:

A. ₹ 230 Crore & ₹292.22

B. ₹ 230 Crore & ₹275 Crore

C. ₹ 220 Crore & ₹282.22 Crore

D. ₹ 220 Crore & ₹292.22 Crore **(5 x 2 = 10 Marks)**

2. K Ltd. is a manufacturer of a single product A. 8,000 units of the product A has been produced in the month of March 2024. At the beginning of the year a total 1,20,000 units of the product-A has been planned for production. The cost department has provided the following estimates of overheads:

Fixed	₹ 12,00,000	Variable	₹ 6,00,000
Semi-Variable	₹ 1,80,000		

Semi-variable charges are considered to include 60 per cent expenses of fixed nature and 40 per cent of variable character.

The records of the production department shows that the company could have operated for 20 days but there was a festival holiday during the month.

The actual cost data for the month of March 2024 are as follows:

Fixed	₹ 1,19,000	Variable	₹ 48,000
Semi-Variable	₹ 19,200		

The cost department of the company is now preparing a cost variance report for managerial information and action. You being an accounts officer of the company are asked to calculate the following information for preparation of the variance report:

i. What is the amount of variable overhead cost variance for the month of March 2024:

A. ₹ 10,200 (A)

B. ₹ 10,400 (A)

C. ₹ 10,800 (A)

D. ₹ 10,880 (A)

ii. What is the amount of fixed overhead volume variance for the month of March 2024:

A. ₹ 9,000 (F)

B. ₹ 9,000 (A)

C. ₹ 21,800 (A)

D. ₹ 11,000 (A)

iii. What is the amount of fixed overhead expenditure variance for the month of March 2024:

A. ₹ 21,520 (A)

B. ₹ 21,500 (A)

C. ₹ 21,400 (A)

D. ₹ 21,480 (A)

iv. What is the amount of fixed overhead calendar variance for the month of March 2024:

A. ₹ 5,400 (A)

B. ₹ 5,450 (A)

C. ₹ 5,480 (A)

D. ₹ 5.420 (A)

v. What is the amount of fixed overhead cost variance for the month of March 2024:

A. ₹ 43,320 (A)

B. ₹ 43,300 (A)

C. ₹ 43,200 (A)

D. ₹ 43,380 (A) **(5 x 2 = 10 Marks)**

3. If the amount of wages under Halsey plan is ₹ 420, total time allowed is 8 hours and the guaranteed time rate is ₹ 60 per hour. What is the total time saved by the worker?

A. 2 hours

B. 3 hours

C. 6 hours

D. 3.5 hours **(2 Marks)**

4. From the following information, calculate the Total cost of Product A and B using the ABC analysis:

	Product A	**Product B**
Units	5,000	5,000
Number of purchase orders placed	100	220
Number of deliveries received	70	200
Ordering Cost	₹ 4,00,000	
Delivery Cost	₹ 1,35,000	

A. A = ₹ 47,500; B = ₹ 1,27,500

B. A = ₹ 2,67,500; B = ₹ 2,67,500

C. A = ₹ 1,60,00; B = ₹ 3,75,000

D. A = ₹ 1,47,500; B = ₹ 1,47,500 **(2 Marks)**

5. What would be Prime cost from below information?

Direct materials Purchased	:	₹ 75,000
Direct labour	:	₹ 45,000
Direct expenses	:	₹ 15,000
Manufacturing overheads	:	₹ 22,500
Direct materials consumed	:	₹ 67,500

A. ₹ 1,35,000

B. ₹ 1,27,500

C. ₹ 1,57,500

D. ₹ 1,50,000 **(2 Marks)**

6. A product passes through Process-I. Input raw material issued were 8,000 units. Normal loss anticipated was 10% of input with realisable value of ₹ 5 per unit. 7,600 units of output were produced and transferred to next process. If the total cost incurred under Process-I was ₹ 40,000, then amount of abnormal gain/(loss) is:

A. ₹ 2,000

B. (₹ 5,000)

C. (₹ 2,500)

D. ₹ 3,000 **(2 Marks)**

7. Find out the most appropriate unit cost from the following information of ZMD Transport Services Ltd. dealing in goods carriage:

Total cost	= ₹ 5,25,000
Kms. Travelled	= 8,75,000
Tonnes carries	= 4,000
No. of Drivers	= 25
No. of trucks	= 20
Tonnes Km carried	= 6,55,000

A. ₹ 0.6

B. ₹ 0.8

C. ₹ 21,000

D. ₹ 131.25 **(2 Marks)**

PART-II – Descriptive Questions (70 Marks)

*Question No. **1** is compulsory.*

*Attempt any **four** questions out of the remaining **five** questions.*

1. (a) The product of a manufacturing concern passes through two processes A and B and then to finished stock. The details of expenses incurred on the two processes during the year were as under:

	Process A (₹)	Process B (₹)
Materials	40,000	--
Labour	40,000	56,000
Overheads	16,000	40,000

On completion, the output of Process A is transferred to Process B at a price calculated to give a profit of 20% on the transfer price and the output of Process B is charged to finished stock at a profit of 25% on the transfer price. The finished stock department realized ₹ 4,00,000 for the finished goods received from Process B.

You are asked to SHOW process accounts and total profit, assuming that there was no opening or closing work-in-progress. **(5 Marks)**

(b) DSM Ltd manufactures speed boats which require propeller TP-M4. The following particulars are collected for the year 2023-24:

(i) Annual demand of TP-M4 12,000 units

(ii) Cost of placing an order ₹1,200 per order

(iii) Cost per unit of TP-M4 is ₹1,740/-

(iv) Carrying cost p.a. 12%

The company has been offered a quantity discount of 5 % on the purchase of TP-M4, provided the order size is 6,000 units at a time.

Required to:

(i) COMPUTE the economic order quantity (EOQ)

(ii) ADVISE whether the quantity discount offer can be accepted.

(5 Marks)

(c) A skilled worker in Shanu Ltd. is paid a guaranteed wage rate of ₹ 30 per hour. The standard time per unit for a particular product is 4 hours. Sam, a machine-man, has been paid wages under the Rowan Incentive Plan and he had earned an effective hourly rate of ₹ 37.50 on the manufacture of that particular product.

WHAT could have been his total earnings and effective hourly rate, had he been put on Halsey Incentive Scheme (50%)? **(4 Marks)**

2. (a) The following information are available for the three machines of a manufacturing department of KBC Ltd.:

	Preliminary estimates of expenses			
	Total	(per annum)		
		Machines		
		P	Q	R
	(₹)	(₹)	(₹)	(₹)
Depreciation	20,000	7,500	7,500	5,000
Spare parts	10,000	4,000	4,000	2,000
Power	40,000			
Consumable stores	10,000	4,000	3,000	3,000
Insurance of machinery	8,000			
Indirect labour	20,000			
Building maintenance expenses	20,000			
Annual interest on capital outlay	60,000	25,000	25,000	10,000
Monthly charge for rent and rates	10,000			
Salary of foreman (per month)	20,000			
Salary of Attendant (per month)	5,000			

(The foreman and the attendant control all the three machines and spend equal time on them.)

The following additional information is also available:

	Machines		
	P	**Q**	**R**
Estimated Direct Labour Hours	1,00,000	1,50,000	1,50,000
Ratio of K.W. Rating	3	2	3
Floor space (sq. ft.)	40,000	40,000	20,000

There are 14 holidays besides Sundays in the year, of which two were on Saturdays. The manufacturing department works 8 hours in a day but Saturdays are half days. All machines work at 85% capacity throughout the year and 2% is reasonable for breakdown.

You are required to :

CALCULATE predetermined machine hour rates for the above machines after taking into consideration the following factors:

- An increase of 15% in the price of spare parts.
- An increase of 25% in the consumption of spare parts for machine 'Q' & 'R' only.
- 20% general increase in wages rates.
- An 10% decrease in the consumption of consumable stores.

(10 Marks)

(b) Happi Ltd. Produces product RP in batches, management of the Happi Ltd. wants to know the number of batches of product RP to be produced where the cost incurred on batch setup and carrying cost of production is at optimum level. **(4 Marks)**

3. (a) Aman International School has a total of 180 students consisting of 6 sections with 30 students per section. The school plans for a picnic around the city during the week-end to places such as Prayag zoo, the Capi Park, Azad planetarium etc. A private transport operator has come forward to lease out the buses for taking the students. Each bus will have a maximum capacity of 50 (excluding 2 seats reserved for the teachers accompanying the students). The school will employ two teachers for each bus, paying them an allowance of ₹ 500 per teacher. It will also lease out the required number of buses. The following are the other cost estimates:

	Cost per student (₹)
Breakfast	50
Lunch	100
Tea	10
Entrance fee at zoo	20

Rent ₹ 6500 per bus.

Special permit fee ₹ 500 per bus.

Block entrance fee at the planetarium ₹ 2500.

Prizes to students for games ₹ 500.

No cost are incurred in respect of the accompanying teachers (except the allowance of ₹ 500 per teacher).

You are required to PREPARE:

(a) A flexible budget estimating the total cost for the levels of 60, 90,120,150 and 180 students. Each item of cost is to be indicated separately.

(b) COMPARE the average cost per student at these levels.

(c) WHAT will be your conclusions regarding the break-been level of student if the school proposes to collect ₹ 400 per student?

(10 Marks)

(b) Anju Limited has collected the following data for its two activities. It calculates activity cost rates based on cost driver capacity.

Activity	Cost Driver	Capacity	Cost (₹)
Power	Kilowatt hours	60,000 kilowatt hours	60,00,000
Quality Inspections	Number of Inspections	10,000 Inspections	90,00,000

The company makes three products A, B and C. For the year ended March 31, 20XX, the following consumption of cost drivers was reported:

Product	Kilowatt hours	Quality Inspections
A	10,000	3,500
B	20,000	2,500
C	15,000	3,000

Required:

(i) PREPARE a statement showing cost allocation to each product from each activity.

(ii) CALCULATE the cost of unused capacity for each activity.

(4 Marks)

4. (a) The following are the budgeted details are available from the records of a manufacturing company SP Ltd.:

	₹	₹
Direct Materials		2,13,000
Direct Wages:		
Machine Shop (12,000 hours)	63,000	
Assembly Shop (10,000 hours)	48,000	1,11,000

Works Overhead:		
Machine Shop	88,200	
Assembly Shop	51,800	1,40,000
Administrative Overhead		92,800
Selling Overhead		81,000
Distribution Overhead		62,100

You are required to:

(a) PREPARE a Schedule of Overhead Rates from the figures available stating the basis of overhead recovery rates used under the given circumstances.

(b) WORK OUT a Cost Estimate for the following job based on overhead calculated on above basis.

Direct Material:	25 kg @ ₹ 17.20/kg
	15 kg @ ₹ 21.00/kg
Direct labour: (On the basis of hourly rate	Machine shop 30 hours
For machine shop and assembly shop)	Assembly shop 42 hours

(8 Marks)

(b) HOW is slow moving and non-moving item of stores detected and WHAT steps are necessary to reduce such stocks? **(4 Marks)**

(c) WHEN is the reconciliation statement of Cost and Financial accounts not required? **(2 Marks)**

5. (a) Following information relate to a manufacturing concern for the year ended 31st March, 2023:

	(₹)
Raw Material (opening)	2,28,000
Raw Material (closing)	3,05,000
Purchases of Raw Material	43,50,000
Freight Inwards	1,20,000
Direct wages paid	12,56,000
Direct wages-outstanding at the end of the year	1,50,000
Factory Overheads	20% of prime cost
Work-in-progress (opening)	1,92,500
Work-in-progress (closing)	1,40,700
Administrative Overheads (related to production)	1,73,000
Distribution Expenses	₹ 16 per unit

Finished Stock (opening)- 1,320 Units	6,08,500
Sale of scrap of material	7,000

The firm produced 14,350 units of output during the year. The stock of finished goods at the end of the year is valued at cost of production. The firm sold 14,903 units at a price of ₹579 per unit during the year.

PREPARE cost sheet of the firm. **(8 Marks)**

(b) A hotel having 20 single rooms is having 80% occupancy in normal season (8 months) and 50% in off- season (4 months) in a year (take 30 days month).

Annual fixed expenses	Amount in ₹
Salary of the staff (excluding room attendant)	15,00,000
Repair & maintenance	12,60,000
Depreciation on building & furniture	12,40,000
Other fixed expenses like dusting, sweeping etc.	13,25,000
	53,25,000
Variable expenses (per guest per day)	
Linen, laundry & security support	80.00
Electricity & other facilities	120.00
Misc. expenses like attendant etc.	300.00
	500.00

Management wishes to make a margin of 25% of total cost.

Required

(a) CALCULATE the Tariff per room per day.

(b) CALCULATE the break-even occupancy in normal season (in percentage also) assuming there is 50% occupancy in off-season.

(6 Marks)

6. (a) Why is it necessary to reconcile the Profits between the Cost Accounts and Financial Accounts? **(5 Marks)**

(b) DISCUSS the essential features of a good cost accounting system?

(5 Marks)

(c) ENUMERATE the remedial steps to be taken to minimize the labour turnover **(4 Marks)**

OR

(c) DISCUSS basic assumptions of Cost Volume Profit analysis. **(4 Marks)**

MODEL TEST PAPER 3

INTERMEDIATE: GROUP – II

PAPER – 4: COST AND MANAGEMENT ACCOUNTING

Answers are to be given only in English except in the case of the candidates who have opted for Hindi medium. If a candidate has not opted for Hindi medium his/ her answer in Hindi will not be valued.

Working notes should form part of the answer.

Time Allowed – 3 Hours **Maximum Marks – 100**

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs) for 30 marks*
3. *Part II comprises questions which require descriptive type answers for 70 marks.*

PART I – Case Scenario based MCQs

Part I is compulsory.

Write the most appropriate answer to each of the following multiple-choice questions by choosing one of the four options given. All questions are compulsory.

1. The board of the J Ltd. has been appraised by the General Manager (HR) that the employee attrition rate in the company has increased. The following facts has been presented by the GM(HR):

   (1) Training period of the new recruits is 50,000 hours. During this period their productivity is 60% of the experienced workers. Time required by an experienced worker is 10 hours per unit.

   (2) 20% of the output during training period was defective. Cost of rectification of a defective unit was ₹ 25.

   (3) Potential productive hours lost due to delay in recruitment were 1,00,000 hours.

   (4) Selling price per unit is ₹ 180 and P/V ratio is 20%.

   (5) Settlement cost of the workers leaving the organization was ₹ 1,83,480.

   (6) Recruitment cost was ₹ 1,56,340

   (7) Training cost was ₹ 1,13,180

   You being an associate finance to GM(HR), has been asked the following questions:

   (i) How much quantity of output is lost due to labour turnover?

   (a) 10,000 units

   (b) 8,000 units

   (c) 12,000 units

   (d) 12,600 units

(ii) How much loss in the form of contribution, the company incurred due to labour turnover?

(a) ₹ 4,32,000

(b) ₹ 4,20,000

(c) ₹ 4,36,000

(d) ₹ 4,28,000

(iii) What is the cost repairing of defective units?

(a) ₹ 75,000

(b) ₹ 15,000

(c) ₹ 50,000

(d) ₹ 25,000

(iv) Calculate the profit lost by the company due to increased labour turnover.

(a) ₹ 7,50,000

(b) ₹ 15,00,000

(c) ₹ 5,00,000

(d) ₹ 9,00,000

(v) How much quantity of output is lost due to inexperience of the new worker?

(a) 1,000 units

(b) 2,600 units

(c) 2,000 units

(d) 12,600 units **(5 x 2 = 10 Marks)**

2. P Ltd. has gathered cost information from ledgers and other sources for the year ended 31st December 2023. The information are tabulated below:

Sl. No.		Amount (₹)	Amount (₹)
(i)	Raw materials purchased		5,00,00,000
(ii)	Freight inward		9,20,600
(iii)	Wages paid to factory workers		25,20,000
(iv)	Royalty paid for production		1,80,000
(v)	Amount paid for power & fuel		3,50,000
(vi)	Job charges paid to job workers		3,10,000
(vii)	Stores and spares consumed		1,10,000
(viii)	Depreciation on office building		50,000
(ix)	Repairs & Maintenance paid for:		
	- Plant & Machinery	40,000	

	- Sales office building	20,000	60,000
(x)	Insurance premium paid for:		
	- Plant & Machinery	28,200	
	- Factory building	18,800	47,000
(xi)	Expenses paid for quality control check activities		18,000
(xii)	Research & development cost paid for improvement in production process		20,000
(xiii)	Expenses paid for pollution control and engineering & maintenance		36,000
(xiv)	Salary paid to Sales & Marketing mangers		5,60,000
(xv)	Salary paid to General Manager		6,40,000
(xvi)	Packing cost paid for:		
	- Primary packing necessary to maintain quality	46,000	
	- For re-distribution of finished goods	80,000	1,26,000
(xvii)	Fee paid to independent directors		1,20,000
(xviii)	Performance bonus paid to sales staffs		1,20,000
(xix)	Value of stock as on 1st January, 2023:		
	- Raw materials	10,00,000	
	- Work-in-process	8,60,000	
	- Finished goods	12,00,000	30,60,000
(xx)	Value of stock as on 31st December, 2023:		
	- Raw materials	8,40,000	
	- Work-in-process	6,60,000	
	- Finished goods	10,50,000	25,50,000

Amount realized by selling of scrap and waste generated during manufacturing process – ₹ 48,000/-

The board meeting is scheduled to be held in next week and you being an associate to the chief cost controller of the company, has been asked to be prepared with the following figures:

(i) How much is the prime cost of the company?

(a) ₹ 5,10,80,600

(b) ₹ 5,44,40,600

(c) ₹ 5,36,00,600

(d) ₹ 5,19,20,600

(ii) How much is the cost of production?

(a) ₹ 5,49,09,600

(b) ₹ 5,50,59,600

(c) ₹ 5,48,73,600

(d) ₹ 5,50,59,000

(iii) What is the value of cost of goods sold?

(a) ₹ 5,49,09,600

(b) ₹ 5,50,59,600

(c) ₹ 5,48,73,600

(d) ₹ 5,50,59,000

(iv) How much is the factory cost?

(a) ₹ 5,49,09,600

(b) ₹ 5,50,59,600

(c) ₹ 5,48,73,600

(d) ₹ 5,50,59,000

(v) What is the value of cost of sales?

(a) ₹ 5,66,49,600

(b) ₹ 5,50,59,600

(c) ₹ 5,48,73,600

(d) ₹ 5,50,59,000 **(5 x 2 = 10 Marks)**

3. What is 'Variable Overhead Efficiency Variance' based on information given below:

Budgeted production	12,000 units
Budgeted variable overhead	₹ 2,40,000
Standard time for one unit of output	2 hours
Actual production	11,800 units
Actual overhead incurred	₹ 2,44,000
Actual hours worked	23,200 hours

(a) ₹ 4000 (A)

(b) ₹ 6000 (A)

(c) ₹ 2000 (F)

(d) ₹ 4000 (F) **(2 Marks)**

4. A company sells two products, A and B. The sales mix is 4 units of A and 3 units of B. The contribution margins per unit are ₹ 140 for A and ₹ 70 for B. Fixed costs are ₹ 6,16,000 per month. What is Break Even Point for Product B?

(a) 5,600 units

(b) 2,400 units

(c) 3,200 units

(d) 800 units **(2 Marks)**

5. Total passenger km run by APL logistic Ltd. was ₹ 43,80,480 for the year between Delhi and Manesar. The bus made 3 round trips per day. Seating capacity of the bus was 52 passengers and average daily occupancy was 75% and the bus runs on an average 26 days in a month. Calculate the distance between Delhi and Manesar.

(a) 55 km

(b) 720 km

(c) 65 km

(d) 60 km **(2 Marks)**

6.

Purchase price	₹ 10,00,000
Custom duty	₹ 2,00,000
GST	@12% on Purchase price
(input credit available)	
Octroi	₹ 5,000
Carriage inward	₹ 12,000
Demurrage charges	₹ 16,100
Commission on purchase	₹ 10,000
Stock of Raw Material:	
Opening	₹ 1,00,000
Closing	₹ 2,00,000

Raw material consumed will be:

(a) ₹ 11,27,000

(b) ₹ 11,43,100

(c) ₹ 12,63,100

(d) ₹ 12,58,100 **(2 Marks)**

7. In case of joint products, the main objective of accounting of the cost is to apportion the joint costs incurred up to the split off point. For cost apportionment one company has chosen Physical Quantity Method. Three joint products ‘A’, ‘B’ and ‘C’ are produced in the same process. Up to the point of split off the total production of A, B and C is 60,000 kg, out of which ‘A’ produces 30,000 kg and joint costs are ₹ 3,60,000. Joint costs allocated to product A is -

(a) ₹ 1,20,000

(b) ₹ 60,000

(c) ₹ 1,80,000

(d) ₹ 2,00,000 **(2 Marks)**

PART-II – Descriptive Questions (70 Marks)

*Question No. **1** is compulsory.*

*Attempt any **four** questions out of the remaining **five** questions.*

1. (a) X Ltd. has entered into an agreement with Y Ltd. for supplying 1,50,000 empty bottles every year. X Ltd. estimates machine set up cost of ₹ 520 for per set up and carrying cost ₹ 0.05 per empty bottle per month.

   (i) DETERMINE the optimum run size for empty bottle manufacture?

   (ii) WHAT would be the interval between two consecutive optimum runs?

   (iii) FIND out the minimum inventory cost per annum. **(5 Marks)**

   (b) CALCULATE a suggested fare per passenger-km from the following information for a Mini Bus:

   (i) Length of route: 30 km

   (ii) Purchase price ₹ 4,00,000

   (iii) Part of above cost met by loan, annual interest of which is ₹ 10,000 p.a.

   (iv) Other annual charges: Insurance ₹ 15,000, Garage rent ₹ 9,000, Road tax ₹ 3,000, Repairs & maintenance ₹ 15,000, Administrative charges ₹ 5,000.

   (v) Running Expenses: Driver & Conductor ₹ 5,000 p.m., Repairs/Replacement of tyre-tube ₹ 3,600 p.a., Diesel and oil cost per km ₹ 5.

   (vi) Effective life of vehicle is estimated at 5 years at the end of which it will have a scrap value of ₹ 10,000.

   (vii) Mini Bus has 20 seats and is planned to make Six no. two way trips for 25 days/p.m.

   (viii) Provide profit @ 20% of total revenue. **(5 Marks)**

   (c) 40 units of Part-B is required everyday for producing a product. A cost of ₹ 100 is incurred for placing an order and the inventory carrying cost is ₹ 0.06 per unit per day and the lead period is 26 days.

   You are required to COMPUTE

   (i) Economic Order Quantity

   (ii) Re-order level **(4 Marks)**

2. (a) ABC Ltd has calculated a predetermined overhead rate of ₹ 22 per machine hour for its Testing department. This rate has been calculated for the budgeted level of activity and is considered as appropriate for absorbing overheads. The following overhead expenditures at various

activity levels had been estimated.

Testing department

Total overheads	Number of machine hours
₹ 3,38,875	14,500
₹ 3,47,625	15,500
₹ 3,56,375	16,500

You are required to:

(a) CALCULATE the variable overhead absorption rate per machine hour.

(b) CALCULATE the estimated total fixed overheads.

(c) CALCULATE the budgeted level of activity in machine hours.

(d) CALCULATE the amount of under/over –recovery of overheads if the actual machine hours were 15,850 and actual overheads were ₹ 3,55,050.

(e) STATE the arguments for and against using departmental absorption rates as opposed to a single or blanket factory wide rate.

(10 Marks)

(b) DISCUSS the essentials of good Cost Accounting System. **(4 Marks)**

3. (a) Cost Ledger of Beta Ltd. shows the following balances as on 31st March.

	Dr.	Cr.
	₹	₹
Stores ledger control A/c	6,02,870	—
Work-in-progress ledger control A/c	2,44,730	—
Finished stock ledger control A/c	5,03,890	—
Manufacturing overhead control A/c	—	21,050
Cost ledger control A/c	—	13,30,440
	13,51,490	13,51,490

During the next three months, the transactions that took place is as follows:

	₹
Finished product (at cost)	4,21,670
Manufacturing overhead incurred	1,83,020
Raw materials purchased	2,46,000
Factory wages	1,01,060
Indirect labour	43,330
Cost of sales	3,71,780

Materials issued to production	2,54,630
Sales returned at cost	10,760
Materials returned to suppliers	5,800
Manufacturing overhead charged to production	1,54,400

You are required to WRITE UP the accounts and schedule the balances stating what each balance represents. **(7 Marks)**

(b) Outlook Ltd. produces and sells a single product. Sales budget for calendar year 2023 by quarters is as under:

Quarter	**I**	**II**	**III**	**IV**
No of units to be sold	12,000	15,000	16,500	18,000

The year is expected to open with an inventory of 4,000 units of finished products and close with an inventory of 6,500 units.

Production is customarily scheduled to provide for two-thirds of the current quarter's sales demand plus one-third of the following quarter's demand. Thus production anticipates sales volume by about one month.

The standard cost details for one unit of the product is as follows:

Direct materials 10 kgs @ 50 paise per kg.

Direct labour 1 hour 30 minutes @ ₹ 4 per hour

Variable overhead 1 hour 30 minutes @ ₹ 1 per hour

Fixed overheads 1 hour 30 minutes @₹ 2 per hour based on budgeted production volume of 90,000 direct labour hours for the year.

(i) PREPARE a Production budget for 2023, by quarters, showing the number of units to be produced and the total costs of direct material, direct labour, variable overhead and fixed overheads.

(ii) If the budgeted selling price per unit is ₹ 17, WHAT would be the budgeted profit for the year as a whole? **(7 Marks)**

4. (a) R Ltd has set standards for producing a product called 'X', which are as follows:

Direct Materials

3 units of A @ ₹ 3.5 per unit	₹ 10.50
6 units of B @ ₹ 5.00 per unit	₹ 30.00
4 units of C @ ₹ 4.25 per unit	₹ 17.00

Direct Labours

	Skilled Workers	Semi-Skilled workers	Un-skilled workers
Standard no. of workers	26	10	8
Standard wage rate per hour (₹)	5	4	2

The actual data are as follows:

During the 45 hours working week, the gang produced 1900 standard labour hours of work.

Company has produced 6000 units of the product during the last week and the materials and labours are as follows:

17,200 units of A @ ₹ 4.00 per unit

36,500 units of B @ ₹ 4.50 per unit

23,800 units of C @ ₹ 4.30 per unit

	Skilled Workers	Semi-Skilled workers	Un-skilled workers
Actual no. of workers	24	12	6
Actual wage rate per hour (₹)	6	4.25	3.25

You are required to CALCULATE:

(a) Material price variance

(b) Material usage variance

(c) Labour rate variance

(d) Labour mix variance

(e) Labour yield variance **(10 Marks)**

(b) The ratio of variable cost to sales is 80%. The break-even point occurs at 65% of the capacity sales. FIND the capacity sales when fixed costs are ₹ 65,000. Also COMPUTE profit at 95% of the capacity sales.

(4 Marks)

5. (a) Product-K passes through three processes. The output of each process is treated as the raw material of the next process to which it is transferred and output of the third process is transferred to finished stock.

	1st Process ₹	2nd Process ₹	3rd Process ₹
Material issued	45,000	23,500	11,200
Labour	6,100	4,280	1,200
Manufacturing overhead	9,800	9,800	16,100

10,000 units have been issued to the 1st process and after processing, the output of each process is as under :

	Output	Normal Loss
Process No. 1	9,600 units	3%
Process No. 2	9,300 units	6%
Process No. 3	8,000 units	7%

No stock of materials or of work-in-progress was left at the end. CALCULATE the cost of the finished articles. **(10 Marks)**

(b) HOW normal and abnormal loss of material arising during storage treated in Cost Accounts? **(4 Marks)**

6. (a) EXPLAIN the difference between Cost Accounting and Management Accounting **(5 Marks)**

(b) DISCUSS basic assumptions of Cost Volume Profit analysis. **(5 Marks)**

(c) DISTINGUISH between Fixed and flexible budget. **(4 Marks)**

OR

(d) DESCRIBE job Costing and Batch Costing giving example of industries where these are used. **(4 Marks)**

MODEL TEST PAPER 4

INTERMEDIATE: GROUP – II

PAPER – 4: COST AND MANAGEMENT ACCOUNTING

Answers are to be given only in English except in the case of the candidates who have opted for Hindi medium. If a candidate has not opted for Hindi medium his/ her answer in Hindi will not be valued.

Working notes should form part of the answer.

Time Allowed – 3 Hours **Maximum Marks – 100**

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs) for 30 marks*
3. *Part II comprises questions which require descriptive type answers for 70 marks.*

PART I – Case Scenario based MCQs

Part I is compulsory.

Write the most appropriate answer to each of the following multiple-choice questions by choosing one of the four options given. All questions are compulsory.

Tropic Pvt Ltd was engaged in the business of manufacturing Product P. The product P required 2 units of Material R. The company intends to sell 24,000 units of Product P and does not wish to retain any closing stock. However the opening stock of Product P is 4,000 units. Raw Material R has to be procured after considering the opening stock of R amounting to 10,000 units. The technical team further confirms that the yield in the course of manufacture of Product P is 80% of the input.

The company presently procures its annual requirement of materials on a quarterly basis from its regular supplier enjoying a discount of 2.5% on the invoice price of the material of ₹ 20 per unit. Every time the company places orders for Material R, it incurs ₹ 125 for each of the order placed. The company also has taken a rented warehouse for storing material R and the annual cost of storage is ₹ 10 per unit. The company appointed Mr. T a Chartered Accountant to review the cost of inventory and provide measures of improvement of cost. After reviewing the material purchase and consumption pattern, Mr. T suggested that the implementation of Wilson's EOQ would be beneficial to the company. He emphasized that the change in the quantity ordered would result in reduction of inventory carrying costs.

Mr. T further reviewed the labour costing and identified that the employees were paid overtime wages to ensure timely completion of projects. Overtime wages comprised of daily wage and 100% of daily wages as overtime premium. Based on the cost record it was understood that every month had 180 hours of regular working hours which was remunerated at ₹ 200 per hour and Overtime of 20 hours which was remunerated at ₹ 400 per hour. Mr. T suggested that the above time taken may be considered as standard and a scheme of Incentive be introduced to reduce overtime cost. He further indicated that Rowan scheme of incentive be used to measure performance and the improved productivity per hour would be 125 units per hour.

In this regard, address the following queries in line with the suggestions provided by Mr. T to Tropic Pvt Ltd.

1. The annual requirement of Material R to meet the target sales of 24,000 units of Product P is:
   - (a) 48,000 units
   - (b) 60,000 units
   - (c) 40,000 units
   - (d) 50,000 units
2. The ordering quantity as per the current inventory policy and the proposed Wilson's Economic order quantity of Material R are:
   - (a) Order Quatity as per the current inventory policy – 10,000 units & Economic Order Quantity – 1,000 units
   - (b) Order Quantity as per the current inventory policy – 15,000 units & Economic Order Quantity – 1,225 units
   - (c) Order Quantity as per the current inventory policy – 12,000 units & Economic Order Quantity – 1,095 units
   - (d) Order Quantity as per the current inventory policy – 12,500 units & Economic Order Quantity – 1,118 units
3. The net savings to inventory cost on migration from the current inventory policy to the Wilson's Economic Order Quantity policy would be:
   - (a) Savings from EOQ as compared to current discount policy – ₹ 26,820
   - (b) Savings from EOQ as compared to current discount policy – ₹ 20,500
   - (c) Savings from EOQ as compared to current discount policy – ₹ 33,253
   - (d) Savings from EOQ as compared to current discount policy – ₹ 25,546
4. Incentive payable under the Rowan Incentive scheme amounts to:
   - (a) ₹ 7,500
   - (b) ₹ 6,400

(c) ₹ 6,000

(d) ₹ 8,000

5. The savings in labour cost achieved by implementation of incentive scheme over the overtime payments amounts to:

(a) ₹ 9,600

(b) ₹ 5,600

(c) ₹ 8,000

(d) ₹ 3,200 **(5 x 2 = 10 Marks)**

XYZ Manufacturing Pvt. Ltd. is a prominent company in the electric appliances industry, known for producing a diverse range of high-quality products. The company has built a reputation for reliability and innovation in the manufacturing of household appliances, including fans, mixers, and heaters. XYZ Manufacturing Pvt. Ltd. is dedicated to delivering products that meet the needs of its customers while adhering to the highest standards of quality and performance.

The company operates a state-of-the-art factory that is fully equipped with advanced machinery and technology to ensure efficient and consistent production. The factory operates 25 days a month, running multiple shifts to meet the growing demand for its products. The company have spare capacity to additional orders. Each product type—fans, mixers, and heaters—undergoes a meticulous manufacturing process that includes assembly, quality testing, and packaging.

Cost Category	**Amount (₹)**
Fixed Costs (per month)	
Factory Rent	₹ 3,00,000
Depreciation	₹ 2,00,000
Administrative Expenses	₹ 1,00,000
Salaries	₹ 4,00,000
Total Fixed Costs	₹ 10,00,000
Number of units produced per month (Note: Last month there was an additional special order of 2000 units which resulted in higher production)	10,000 units
Selling price per unit	₹ 1,500

Additional Info: Raw Materials include Copper, Plastic, and Other Materials. The per unit cost of Copper is ₹ 80 more than the cost of Plastic, while the cost of Other Materials is twice that of Plastic. And the total Raw Material Cost per unit is ₹ 210 more than the combined cost of Copper & Plastic.

The Labour Hour Rate is ₹ 100 per hour. The total labour hours used in the last month were 36,000 Hours. The Utilities Cost per unit is ₹ 100, and the Packaging

Cost per unit is ₹ 50. Being a finance manager of the company, you are required to answer the following:

6. Calculate the contribution margin per unit.

   (a) ₹ 550

   (b) ₹ 600

   (c) ₹ 650

   (d) ₹ 700

7. Determine the break-even point in sales revenue.

   (a) ₹ 31,28,593

   (b) ₹ 25,85,153

   (c) ₹ 27,27,025

   (d) ₹ 27,05,983

8. If the company wants to achieve a target profit of ₹ 5,00,000, what should be the sales volume (in units)?

   (a) 2,000 units

   (b) 2,727 units

   (c) 2,750 units

   (d) 3,000 units

9. What would be the impact on the break-even point if the variable cost per unit increases by 10%?

   (a) 2,178 units

   (b) 2,198 units

   (c) 2,248 units

   (d) 2,258 units

10. Calculate the margin of safety in percentage if the company sells 4,000 units if the variable cost per unit increases by 10%

   (a) 44.85%

   (b) 42.55%

   (c) 45.05%

   (d) 45.75% **(5 x 2 = 10 Marks)**

11. A FMCG company has an annual demand of 50,000 units for its specific product whose setting up cost per batch is ₹ 10,000 and carrying cost per unit per month is ₹ 1. What is the Economic Batch Quantity?

   (a) 7,071 units

(b) 10,000 units

(c) 12,641 units

(d) 9,129 units **(2 Marks)**

12. A furniture company uses premium wood for sofa. Standard quantity of premium wood per sofa is 5 sq. ft. Standard price per sq. ft. of premium wood is ₹ 10. Actual production of sofa is 1,000. Premium wood actually used is 5,300 sq. ft. Actual purchase price of premium wood per sq. ft. is ₹ 10. What is material cost variance?

    (a) ₹ 3,000 (A)

    (b) ₹ 4,300 (A)

    (c) ₹ 7,300 (A)

    (d) ₹ 5,300 (F) **(2 Marks)**

13. One of Pintu Company's cost pools is parts administration. The budgeted overhead cost for that cost pool was ₹ 4,00,000 and the expected activity was 4,000 part types. The actual overhead cost for the cost pool was ₹ 4,20,000 at an actual activity of 5,000 part types. The activity rate for that cost pool was:

    (a) ₹ 80 per part type

    (b) ₹ 100 per part type

    (c) ₹ 105 per part type

    (d) ₹ 84 per part type **(2 Marks)**

14. A truck carrying 10 tons of goods over 200 kilometres per day for 26 days in a month. The ton kms applicable is -

    (a) 52,000

    (b) 20,000

    (c) 5200

    (d) 260 **(2 Marks)**

15. Standard hours required for doing a work is 100 hours and budgeted hours is 120 hrs while the same work is actually completed by workers in 110 hrs. You are required to calculate the activity ratio:

    (a) 109.09%

    (b) 83.33%

    (c) 90.90%

    (d) 110% **(2 Marks)**

PART-II – Descriptive Questions (70 Marks)

*Question No. **1** is compulsory.*

*Attempt any **four** questions out of the remaining **five** questions.*

1. (a) From the following data of Meta Ltd., CALCULATE Cost of production:

		Amount (₹)
(i)	Repair & maintenance paid for plant & machinery	9,80,500
(ii)	Insurance premium paid for inventories	26,000
(iii)	Insurance premium paid for plant & machinery	96,000
(iv)	Raw materials purchased	64,00,000
(v)	Opening stock of raw materials	2,88,000
(vi)	Closing stock of raw materials	4,46,000
(vii)	Wages paid	23,20,000
(viii)	Value of opening Work-in-process	4,06,000
(ix)	Value of closing Work-in-process	6,02,100
(x)	Quality control cost for the products in manufacturing process	86,000
(xi)	Research & development cost for improvement in production process	92,600
(xii)	Administrative cost for:	
	- Factory & production	9,00,000
	- Others	11,60,000
(xiii)	Amount realised by selling scrap generated during the manufacturing process	9,200
(xiv)	Packing cost necessary to preserve the goods for further processing	10,200
(xv)	Salary paid to Director (Technical)	8,90,000
(xvi)	Expenses paid for pollution control and engineering & maintenance	22,000

(5 Marks)

(b) A manufacturing company has disclosed net loss of ₹ 48,700 as per their cost accounting records for the year ended 31st March, 2024. However their financial accounting records disclosed net profit of ₹ 30,400 for the same period. A scrutiny of data of both the sets of books of accounts revealed the following informations:

		₹
(i)	Factory overheads under absorbed	30,500
(ii)	Administrative overheads over absorbed	65,000

(iii)		Depreciation charged in financial accounts	2,25,000
(iv)		Depreciation charged in cost accounts	2,70,000
(v)		Income-tax provision	52,400
(vi)		Transfer fee (credited in financial accounts)	10,200
(vii)		Obsolescence loss charged in financial accounts	20,700
(viii)		Notional rent of own premises charged in cost accounts	49,000
(ix)		Value of opening stock:	
	(a)	in cost accounts	1,38,000
	(b)	in financial accounts	1,15,000
(x)		Value of closing stock:	
	(a)	in cost accounts	1,22,000
	(b)	in financial accounts	1,12,500

PREPARE a Memorandum Reconciliation Account by taking costing loss as base. **(5 Marks)**

(c) A job can be executed either through workman A or B. A takes 32 hours to complete the job while B finishes it in 30 hours. The standard time to finish the job is 40 hours.

The hourly wage rate is same for both the workers. In addition workman A is entitled to receive bonus according to Halsey plan (50%) sharing while B is paid bonus as per Rowan plan. The works overheads are absorbed on the job at ₹ 7.50 per labour hour worked. The factory cost of the job comes to ₹ 2,200 irrespective of the workman engaged.

FIND out the hourly wage rate and cost of raw materials input. Also SHOW cost against each element of cost included in factory cost.

(4 Marks)

2. (a) PQR Company Ltd. provides the following information relating to Process-P:

(i)	Opening Work-in-progress	-	NIL
(ii)	Units Introduced	-	45,000 units @ ₹ 10 per unit
(iii)	Expenses debited to the process:		
	Direct material		₹ 65,500
	Labour		₹ 90,800
	Overhead		₹ 1,80,700
(iv)	Normal loss in the process	-	2% of Input

(v) Work-in progress - 1800 units

Degree of completion

Materials - 100%

Labour - 50%

Overhead - 40%

(vi) Finished output - 42,000 units

(vii) Degree of completion of abnormal loss:

Materials - 100%

Labour - 80%

Overhead - 60%

(viii) Units scrapped as normal loss were sold at ₹ 5 per unit.

(ix) All the units of abnormal loss were sold at ₹ 2 per unit.

You are required to PREPARE:

- Statement of equivalent production.
- Statement showing the cost of finished goods, abnormal loss and closing balance of work-in-progress.
- Process-P account and abnormal loss account. **(10 Marks)**

(b) EXPLAIN the treatment of following items in cost sheet.

(i) Credit for Recoveries

(ii) Packing Cost (primary)

(iii) Joint Products and By-Products

(iv) Quality Control Cost **(4 Marks)**

3. (a) A company manufactures one main product (MN) and two by-products AB and PQ. For the month of January 2024, following details are available:

Total Cost upto separation Point ₹ 2,12,400

	MN	AB	PQ
Cost after separation	-	₹ 35,000	₹ 24,000
No. of units produced	4,000	1,800	3,000
Selling price per unit	₹ 100	₹ 40	₹ 30
Estimated net profit as percentage to sales value	-	20%	30%
Estimated selling expenses as percentage to sales value	30%	15%	15%

There are no beginning or closing inventories.

PREPARE statement showing:

(i) Allocation of joint cost; and

(ii) Product-wise and overall profitability of the company for January 2024. **(6 Marks)**

(b) A mini-bus, having a capacity of 32 passengers, operates between two places - 'A' and 'B'. The distance between the place 'A' and place 'B' is 30 km. The bus makes 10 round trips in a day for 25 days in a month. On an average, the occupancy ratio is 70% and is expected throughout the year.

The details of other expenses are as under:

	Amount (₹)
Insurance	15,600 Per annum
Garage Rent	2,400 Per quarter
Road Tax	5,000 Per annum
Repairs	4,800 Per quarter
Salary of operating staff	7,200 Per month
Tyres and Tubes	3,600 Per quarter
Diesel: (one litre is consumed for every 5 km)	13 Per litre
Oil and Sundries	22 Per 100 km run
Depreciation	68,000 Per annum

Passenger tax @ 22% on total taking is to be levied and bus operator requires a profit of 25% on total taking.

PREPARE operating cost statement on the annual basis and find out the cost per passenger kilometer and one way fare per passenger.

(8 Marks)

4. (a) The following particulars refer to process used in the treatment of material subsequently, incorporated in a component forming part of an electrical appliance:

(i) The original cost of the machine used (Purchased in June 2023) was ₹ 10,000. Its estimated life is 10 years, the estimated scrap value at the end of its life is ₹ 1,000, and the estimated working time per year (50 weeks of 44 hours) is 2,200 hours of which machine maintenance etc., is estimated to take up 200 hours.

No other loss of working time expected. Setting up time, estimated at 100 hours, is regarded as productive time. (Holiday to be ignored).

(ii) Electricity used by the machine during production is 16 units per hour at cost of a 9 paisa per unit. No current is taken during maintenance or setting up.

(iii) The machine required a chemical solution which is replaced at the end of week at a cost of ₹ 20 each time.

(iv) The estimated cost of maintenance per year is ₹ 1,800.

(v) Two attendants control the operation of machine together with five other identical machines. Their combined weekly wages, insurance and the employer's contribution to holiday pay amount ₹ 120.

(vi) Departmental and general works overhead allocated to this machine for the current year amount to ₹ 3,000.

You are required to CALCULATE the machine hour rate of operating the machine. **(6 Marks)**

(b) Anju Limited produces a product 'Pect' which is sold in a 10 Kg. packet. The standard cost card per packet of 'Pect' are as follows:

	₹
Direct materials 10 kg @ ₹ 45 per kg	450
Direct labour 8 hours @ ₹ 50 per hour	400
Variable Overhead 8 hours @ ₹ 10 per hour	80
Fixed Overhead	200
	1,130

Budgeted output for the third quarter of a year was 10,000 Kg. Actual output is 9,000 Kg.

Actual cost for this quarter are as follows :

	₹
Direct Materials 8,900 Kg @ ₹ 46 per Kg.	4,09,400
Direct Labour 7,000 hours @ ₹ 52 per hour	3,64,000
Variable Overhead incurred	72,500
Fixed Overhead incurred	1,92,000

You are required to CALCULATE:

(i) Material Usage Variance

(ii) Material Price Variance

(iii) Material Cost Variance

(iv) Labour Efficiency Variance

(v) Labour Rate Variance

(vi) Labour Cost Variance

(vii) Variable Overhead Cost Variance

(viii) Fixed Overhead Cost Variance **(8 Marks)**

5. (a) Bicon Ltd. manufactures two products using two types of materials and one grade of labour. Shown below is an extract from the company's working papers for the next month's budget:

	Product - A	Product-B
Budgeted sales (in units)	2,400	3,600
Budgeted material consumption per unit (in kg):		
Material-X	5	3
Material-Y	4	6
Standard labour hours allowed per unit of product	3	5

Material-X and Material-Y cost ₹ 4 and ₹ 6 per kg and labours are paid ₹ 25 per hour. Overtime premium is 50% and is payable, if a worker works for more than 40 hours a week. There are 180 direct workers.

The target productivity ratio (or efficiency ratio) for the productive hours worked by the direct workers in actually manufacturing the products is 80%. In addition the non-productive down-time is budgeted at 20% of the productive hours worked.

There are four 5-days weeks in the budgeted period and it is anticipated that sales and production will occur evenly throughout the whole period.

It is anticipated that stock at the beginning of the period will be:

Product-A	400 units
Product-B	200 units
Material-X	1,000 kgs.
Material-Y	500 kgs.

The anticipated closing stocks for budget period are as below:

Product-A	4 days sales
Product-B	5 days sales
Material-X	10 days consumption
Material-Y	6 days consumption

Required:

CALCULATE the Material Purchase Budget and the Wages Budget for the direct workers, showing the quantities and values, for the next month. **(7 Marks)**

(b) Icecold a FMCG Company manufactures and sells three flavors of ice cream:

Dark chocolate, Chocolate, and Butterscotch. The batch size for the ice cream is limited to 1,000 ice cream based on the size of the fridge and ice cream molds owned by the company. Based on budgetary projections, the information listed below is available:

	Dark chocolate	**Chocolate**	**Butterscotch**
Projected sales in units	500,000	800,000	600,000
PER UNIT data:			
Selling price	₹ 80	₹ 75	₹ 60
Direct materials	₹ 20	₹ 15	₹ 14
Direct labor	₹ 4	₹ 2	₹ 2
Hours per 1000-unit batch:			
Direct labor hours	20	10	10
Fridge hours	1	1	1
Packaging hours	0.5	0.5	0.5

Total overhead costs and activity levels for the year are estimated as follows:

Activity	**Overhead costs**	**Activity levels**
Direct labor		2,400 hours
Fridge	₹ 2,10,00,000	1,900 fridge hours
Packaging	₹ 1,50,00,000	950 packaging hours
	₹ 3,60,00,000	

Required:

a. With the help of ABC system, for the Chocolate ice cream:

1. Compute the activity-cost-driver rate
2. Compute the estimated overhead costs per thousand ice cream.
3. Compute the estimated operating profit per thousand ice cream.

b. With the help of traditional system (with direct labor hours as the overhead allocation base), for the Chocolate ice cream, compute the estimated operating profit per thousand ice cream. **(7 Marks)**

6. (a) EXPLAIN the types of responsibility centres. **(5 Marks)**

(b) EXPLAIN the efficiency rating procedures of the employees. **(5 Marks)**

(c) WHAT are the essential pre-requisites for integrated accounts? **(4 Marks)**

OR

(d) WHAT are the principles of estimation of costs and benefits? **(4 Marks)**

MODEL TEST PAPER 5

INTERMEDIATE: GROUP – II

PAPER – 4: COST AND MANAGEMENT ACCOUNTING

Answers are to be given only in English except in the case of the candidates who have opted for Hindi medium. If a candidate has not opted for Hindi medium his/ her answer in Hindi will not be valued.

Working notes should form part of the answer.

Time Allowed – 3 Hours **Maximum Marks – 100**

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs) for 30 marks*
3. *Part II comprises questions which require descriptive type answers for 70 marks.*

PART I – Case Scenario based MCQs

Part I is compulsory.

Write the most appropriate answer to each of the following multiple-choice questions by choosing one of the four options given. All questions are compulsory.

Mr. Vikas, a toy importer has understood the importance of manufacturing in India. He is backed up by the new govt. policies that motivate him to manufacture in India. As per the custom department any import made for the manufacturing under "Made in India", custom duty will be refunded upto 80%. Vikas decided not to import toy from China anymore, instead import raw material from Srilanka, for the manufacturing of toys in India. Under an agreement of Govt. Of India with Srilankan Govt., any impo8rt from Srilanka will receive tax benefits.

Vikas ordered material Xendga & material Zenga from Srilanka. Details are given below:-

	Srilankan Rupees (SLR)
Material Xendga (12,000 units * 125 SLR)	15,00,000
Material Zenga (8,000 units * 225 SLR)	18,00,000
Factory cost	33,00,000
Add: Containers cost	2,00,000
Add: Freight upto loading shipment on ship (paid by exporter)	50,000
F.O.B.	35,50,000

- Ocean Freight is $ 2,000
- Insurance is $ 1,500

When shipment reached India, it was unloaded at Chennai port. Vikas requested to put the goods in custom port's warehouse. Vikas due to cash crunch was not in a position to pay custom duty and therefore did not file the bill of exchange (B.O.E.). Custom authorities charged a penalty of INR 15,000.

Finally, after a month Vikas filled B.O.E. and paid custom duty of 20% on CIF value of the shipment. IGST was also applicable @ 18% on the combined value of CIF & custom duty paid.

He spent further a sum of INR 12,500 to bring the imported goods to his factory. An inspection was done on the goods and it was found that 5% of the goods were broken. This came to management as a surprise because generally such rate of defects on imports is 8%.

Additional Information:

- Exchange rates:
  1) 1 INR = 0.25 SLR
  2) 1 USD = 75 INR
- IGST credits are available.
- Containers were refunded at INR 38,000.
- Indian and Srilankan brokers were paid commission by Vikas on factory cost. Indian broker charged 6% whereas Srilankan broker charged 12%.
- CIF (cost, insurance and Freight) includes F.O.B (Free on Board)., Insurance & Ocean freight.

You are required to answer the following 5 questions:

1. What is the total cost of shipment to be recorded by Vikas?
   (a) INR 13,17,000
   (b) INR 13,04,500
   (c) INR 13,54,500
   (d) INR 13,32,500
2. What is the absorption rate of total cost per unit of Zenga?
   (a) INR 90.28
   (b) INR 84.44
   (c) INR 93.62
   (d) INR 85.77
3. What is the absorption rate of total cost per unit of Xendga?
   (a) INR 52.01
   (b) INR 54.24
   (c) INR 58.13
   (d) INR 68.65

4. Amount of refundable taxes?
   (a) INR 4,13,600
   (b) INR 4,57,600
   (c) INR 2,20,000
   (d) INR 2,37,600
5. If loss of goods was 9% instead of 5%, what will be the amount that will be charged to statement of profit & loss?
   (a) INR 13,045
   (b) INR 19,898.4
   (c) INR 14,178.4
   (d) INR 24,045 **(5 x 2 = 10 Marks)**

Hilfy textiles Ltd. has been a major player in the textile industry, producing high-quality polyester mix cotton fabric. The production process is complex and involves multiple stages, including spinning, weaving, quality control, and packaging. The company has been facing challenges in controlling costs and maintaining profitability, mainly due to fluctuating material costs and labor inefficiencies.

To address these challenges, the company's management has decided to implement a **standard costing** system to better manage costs, set benchmarks, and identify variances. The goal is to gain better control over production costs, improve budgeting accuracy, and enhance decision-making.

Hilfy textiles Ltd. had prepared the following estimation for the month of April:

	Quantity/Time	Rate (₹)	Amount (₹)
Cotton	8,000 m	50.00	4,00,000
Polyester	6,000 m	40.00	2,40,000
Skilled labour	1,000 hours	37.50	37,500
Unskilled labour	800 hours	22.00	17,600

Normal loss was expected to be 10% of total input materials and an idle labour time of 5% of expected labour hours was also estimated.

At the end of the month the following information has been collected from the cost accounting department:

The company has produced 14,800 m finished product by using the followings:

	Quantity/Time	Rate (₹)	Amount (₹)
Cotton	9,000 m	48.00	4,32,000
Polyester	6,500 m	37.00	2,40,500
Skilled labour	1,200 hours	35.50	42,600
Unskilled labour	860 hours	23.00	19,780

On the basis of analysis of standard costing system, company's management wants to take actions like supplier negotiation, process optimisation, employee training, etc.

Being the cost manager of the company, you are required to answer the following five requirements of the management:

6. Compute Material mix variance and Material Yield Variance
   (a) ₹ 1430 (A) & 43,200 (F)
   (b) ₹ 1430 (F) & 43,200 (F)
   (c) ₹ 24,000 (A) & 37,500 (F)
   (d) ₹ 19,300 (A) & 37,500 (F)
7. Compute Material Price Variance for supplier negotiation
   (a) ₹ 18,000 (A)
   (b) ₹ 43,200 (F)
   (c) ₹ 37,500 (A)
   (d) ₹ 37,500 (F)
8. Compute Material Cost Variance
   (a) ₹ 32,500 (F)
   (b) ₹ 24,500 (A)
   (c) ₹ 79,270 (F)
   (d) ₹ 79,270 (A)
9. Compute Labour Efficiency Variance and Labour Yield Variance.
   (a) ₹ 940 (A) & 1,140 (A)
   (b) ₹ 2,424 (A) & 1,556 (A)
   (c) ₹ 2,424 (A) & 1,556 (A)
   (d) ₹ 940 (A) & 1,140 (F)
10. Compute Labour Cost Variance.
   (a) ₹ 884 (A)
   (b) ₹ 1,556 (F)
   (c) ₹ 884 (F)
   (d) ₹ 1,556 (A) **(5 x 2 = 10 Marks)**
11. A company's fixed costs are ₹ 5,00,000, the selling price per unit is ₹ 200, and the variable cost per unit is ₹100. How many units must the company sell to earn the targeted profit of ₹ 2,00,000?
   (a) 2,000 units
   (b) 5,000 units
   (c) 10,000 units

(d) 7,000 units **(2 Marks)**

12. 1200 Kg of a material were input to a process in a period. The normal loss is 8% of input

There is no opening or closing work-in-progress. Output in the period was 1100 Kg. What was the abnormal gain/loss in the period?

(a) Abnormal gain of 12 Kg

(b) Abnormal loss of 12 kg

(c) Abnormal gain of 108 Kg

(d) Abnormal loss of 4 kg **(2 Marks)**

13. ABC Manufacturing allocates its factory overhead costs based on machine hours. The total estimated overhead cost for the year is ₹ 6,00,000, and the company expects to use 30,000 machine hours. During the year, job A used 300 machine hours. What amount of overhead costs should be allocated to this job?

(a) ₹ 4,000

(b) ₹ 6,000

(c) ₹ 10,000

(d) ₹ 8,000 **(2 Marks)**

14. A factory has a capacity utilization ratio of 85% and its activity ratio is 95%. Which one of the following is the efficiency ratio?

(a) 120%

(b) 110%

(c) 112%

(d) 90% **(2 Marks)**

15. A company uses batch costing and incurs a setup cost of ₹ 20,000 for a batch of 300 units. If direct materials cost ₹ 20 per unit and direct labor costs ₹ 10 per unit, what is the total cost of the batch?

(a) ₹ 25,000

(b) ₹ 29,000

(c) ₹ 32,000

(d) ₹ 7,000 **(2 Marks)**

PART-II – Descriptive Questions (70 Marks)

*Question No. **1** is compulsory.*

*Attempt any **four** questions out of the remaining **five** questions.*

1. (a) A skilled worker is paid a guaranteed wage rate of ₹ 150.00 per hour. The standard time allowed for a job is 50 hours. He gets an effective hourly rate of wages of ₹ 180.00 under Rowan Incentive Plan due to saving in time. For the same saving in time, CALCULATE the hourly rate

of wages he will get, if he is placed under Halsey Premium Scheme (50%). **(5 Marks)**

(b) SpeedEx Logistics, established in 2010 and headquartered in Mumbai, India, operates within the transportation and logistics industry as a third-party logistics (3PL) provider. The company's fleet consists of 10 trucks, 15 vans, and 5 trailer, each serving distinct purposes. The records of Truck R-40 reveal the following information for July 2024.

Days Maintained	30
Days Operated	25
Total Hours Operated	300
Total Kilometres Covered	2,500
Total Tonnage Carried (4 tonne-load per trip, return journey empty 2 round trips per day)	

The following further information is made available:

A. Operating Costs for the month: Petrol ₹ 400, oil ₹170, Grease ₹ 90, Wages to driver ₹ 550, Wages to Worker ₹ 350.

B. Maintenance Costs for the month: Repair ₹ 170, Overhaul ₹ 60, Tyres ₹ 150, Garage charges ₹ 100.

C. Fixed Costs for the month based on the estimates for the year: Insurance ₹ 50, Licence, tax etc. ₹ 80, Interest ₹ 40, Other Overheads ₹ 190

D. Capital costs: Cost of acquisition ₹ 54,000; Residual Value at the end of 5 years life ₹ 36,000.

You are required to CALCULATE:

(i) cost per days maintained

(ii) cost per days operated

(iii) cost per hours operated

(iv) cost per kilometres covered

(v) cost per commercial tonne km **(5 Marks)**

(c) Alpha Ltd. has an Annual demand from a single customer for 60,000 Covid-19 vaccines. The customer prefers to order in the lot of 15,000 vaccines per order. The production cost of vaccine is ₹ 5,000 per vaccine. The set-up cost per production run of Covid-19 vaccines is ₹ 4,800. The carrying cost is ₹ 12 per vaccine per month.

You are required to:

(i) FIND the most Economical Production Run.

(ii) CALCULATE the extra cost that company incurs due to production of 15,000 vaccines in a batch. **(4 Marks)**

2. (a) As demand for LED light increases, more entrepreneurs are coming into its manufacturing process. eLED Pvt. Ltd. is also one of the recently formed company whose main business is related to LED lights.

The company has extended its hand into various LED products like COB (Chip On Board) LEDs, SMD (Surface Mounted Device) LEDs, RGB LEDs, Flashing LEDs, Miniature LEDs, OLEDs, Filament Bulbs, etc.

However, at the beginning stage, the company has decided to only assemble the products and enter into manufacturing stage at later years.

The details relating to the first process of mounting for the month of August are given below:

Opening Work-in-Process:	31,000 units
Material	₹ 12,40,000
Labour	₹ 2,32,500
Overheads	₹ 6,97,500
Introduction during the process:	5,89,000 units
Material	₹ 2,29,40,000
Labour	₹ 55,64,500
Overheads	₹ 1,66,93,500

The process involve some wastage as well. The management estimated a normal loss of 5% of total input including opening work-in-process which can be sold out for ₹ 20 per unit. However, the workers reported 46,500 units as scrapped in which 100% material was used along with 80% of Labour and overheads.

5,42,500 units were transferred for next process of soldering.

Some units were still in process and thus, shifted for the next month process of mounting. With 100% material used along with 80% labour and overheads, 31,000 units were shifted.

Following the average method of inventory, you are required to PREPARE:

(i) Statement of cost showing cost per equivalent unit

(ii) Statement of distribution cost

(iii) Process Account (Mounting)

(iv) Normal Loss Account and Abnormal Loss Account. **(10 Marks)**

(b) EXPLAIN the Usefulness/Suitability of ABC. **(4 Marks)**

3. (a) A company manufactures and sells a product, the price of which is controlled by the Government. Raw material required for this product is also made available at a fixed controlled price. The following figures have been called for the previous two accounting years of the company:

	Year- I	Year- II
Quantity Sold (tones)	1,26,000	1,44,000
Price per tone	₹ 185	₹ 185
		(₹ In thousands)
Sales Value	23,310	26,640
Raw Materials	11,340	12,960
Direct Labour	1,512	1,872
Factory, Administration and Selling Expenses	9,702	11,232
Profit	756	576

During the year II direct labour rates increased by 8 $^{1}/_{3}$%. Increases in factory, administration and selling expenses during the year were ₹ 8,10,000 on account of factors other than the increased quantities produced and sold. The managing director desires to know, what quantity if they had produced and sold would have given the company the same net profit per tonne in Year II as it earned during the Year I Advise him. **(7 Marks)**

(b) ABC Ltd is engaged in producing electronic equipments. It has furnished following details related to its products produced during a month:

	Units	Amount (₹)
Opening stock	10,000	5,00,00,000
Purchases	4,90,000	25,20,00,000
Closing stock	17,500	85,00,000
Works-in-progress		
Opening	20,000	1,20,00,000
Closing	10,000	60,50,000
Direct employees' wages, allowances etc.		5,50,50,000
Primary packaging cost (per unit)		140
R&D expenses & Quality control expenses		1,90,00,000
Guards' salaries		20,00,000
Directors' salaries		60,00,000
Consumable stores, depreciation on plant related to factory overhead		3,42,00,000
Product inspection (before primary packaging)		22,00,000
Rearrangement design of factory machine		75,00,000

Administrative overheads related to production		3,45,00,000
Selling expenses		3,94,50,000
Royalty paid for production		3,10,50,000
Cost of web-site (for online sale) maintenance		60,75,000
Gifts & Snacks		30,50,000
GST (credit allowed)		5,50,00,000
AMC cost of CCTV		10,00,000
Hiring of cars for the transportation of employees and guests		25,00,000
Audit and Legal Fees		29,00,000
Secondary packaging cost (per unit)		20

Distribution of the following costs:
Guard's salaries to Factory, Office and Distribution in the ratio 7: 2:1.
Hiring of cars is only for selling and distribution
AMC of CCTV to Factory, Office and Selling in the ratio 6 : 2 : 2.

The company paid EPF of 12% over above basic pay. However, Guards will not receive any incentive or EPF.

It has lucky draws every month giving the first prize of ₹ 1,00,000; 2nd prize of ₹ 50,000, 3rd prize of ₹ 20,000 and three consolation prizes of ₹ 10,000 each to customers buying the product.

It also sponsors a television programme every week at a cost of ₹ 20,00,000 per month.

The hiring of cars attracts GST under RCM @5% without credit.

There was a normal scrap of 2,000 units of direct material which realized ₹ 350 per unit. The entire finished product was sold at a profit margin of 25% on sales.

You are required to PREPARE a cost sheet **(7 Marks)**

4. Allurgy Ltd. is into metallic tools manufacturing. It has four production departments. The work performed in every department is fairly uniform, thus the manager of the company created a policy to recover the production overheads of the entire company by adopting a single blanket rate.

The relevant data for a month are given below:

Departments	**Direct Materials (₹)**	**Direct Wages (₹)**	**Factory Overheads (₹)**	**Direct Labour Hours**	**Machine Hours**
Budget:					
Operating	64,35,000	7,92,000	35,64,000	1,98,000	7,92,000

Assembly	11,73,000	24,15,000	9,66,000	6,90,000	69,000
Quality Control	5,10,000	10,50,000	4,20,000	3,00,000	30,000
Packing	9,90,000	6,93,000	12,37,500	4,95,000	-
Actual:	-	-	-	-	-
Operating	77,22,000	9,50,400	38,61,000	2,37,600	9,50,400
Assembly	9,38,400	18,63,000	5,79,600	6,21,000	75,900
Quality Control	4,08,000	8,10,000	2,52,000	2,70,000	33,000
Packing	11,88,000	8,91,000	13,36,500	5,94,000	-

Additional details relating to one of the jobs during the month are also provided below:

Job No. 157

Departments	Direct Materials (₹)	Direct Wages (₹)	Direct Labour Hours	Machine Hours
Operating	11,880	2,376	594	1,782
Assembly	4,140	2,484	828	207
Quality Control	1,800	1,080	360	90
Packing	2,970	594	396	-

During Quality Control phase of this particular Job, the company incurred certain additional expenditure of ₹ 495 on direct wages as there were certain production that was not as perfect as the saleable product. The defective units were normal in nature and after rectification have been brought to the required degree of perfection.

The company adds 25% on the factory cost to cover administration overheads and profit.

You are required to figure out the following:

(a) COMPUTE the overhead absorption rate as per the blanket rate based on the percentage of total factory overheads to total factory wages and determine the selling price of the Job No. 157. **(1 + 2 = 3 Marks)**

(b) The new manager thinks that the machinery is used to a varying degree in the different departments. Thus, it is not appropriate to follow one blanket rate for the whole company. Therefore, suggest an alternative method of absorption of the factory overheads and CALCULATE the overhead rates based on the method so suggested. **(4 Marks)**

(c) DETERMINE the selling price of Job 157 based on the overhead rates calculated in (b) above. **(3 Marks)**

(d) CALCULATE the department-wise under or over recovery of overheads based on the company's current policy and the method suggested in (b) above. **(4 Marks)**

5. (a) The financial books of a company reveal the following data for the year ended 31st March, 2024:

	(₹)
Opening Stock:	
Finished goods 545 units	48,250
Work-in-process	38,000
01.04.2023 to 31.03.2024	
Raw materials consumed	5,00,000
Direct Labour	4,20,000
Factory overheads	3,56,000
Administration overheads	2,10,000
Stores Adjustment debited in financial Account	50,000
Dividend paid	98,000
Bad Debts	16,000
Selling and Distribution Overheads	84,000
Income tax paid	34,000
Interest received	42,000
Sales 14,250 units	13,96,500
Closing Stock: Finished goods 460 units	44,500
Work-in-process	36,200

The cost records provide as under:

- Factory overheads are absorbed at 60% of direct wages.
- Administration overheads are recovered at 20% of factory cost.
- Selling and distribution overheads are charged at ₹ 6 per unit sold.
- Opening Stock of finished goods is valued at ₹ 90 per unit.
- The company values work-in-process at factory cost for both Financial and Cost Profit Reporting.

Required:

(i) Prepare statements for the year ended 31st March, 2024 show
  - the profit as per financial records
  - the profit as per costing records.

(ii) Present a statement reconciling the profit as per costing records with the profit as per Financial Records **(7 Marks)**

(b) PPP Ltd. is currently operating at 80% of its capacity producing 80,000 units. For the past two years, the production is increasing by 10% of its capacity consistently. The cost details are as follows:

	Year 3 (₹)	Year 2 (₹)	Year 1 (Current year) (₹)
Direct Materials	12,00,000	14,00,000	16,00,000
Direct Labour	6,00,000	7,00,000	8,00,000
Factory Overheads	3,20,000	3,40,000	3,60,000
Selling Overheads	3,40,000	3,80,000	4,20,000
Administrative Overheads	1,60,000	1,60,000	1,60,000
	26,20,000	29,80,000	33,40,000

The company is planning for 90% capacity level for next year.

Additional information:

Due to increase in demand of the raw material, the distributor is expected to increase the price by 10% from the next year.

At the beginning of the current year, the dispute occurred between workers and employees regarding wages which lead them to go on strike. Later on, they settled for 20% increase in wages from next year.

Following increases in overhead cost are expected for next year:

Variable Factory Overheads	5%
Fixed Factory Overheads	10%
Variable Selling Overheads	10%
Fixed Selling Overheads	15%
Administrative Overheads	15%

Profit is estimated @ 25% on total cost.

You are required to PREPARE flexible budget for the next year at 90% level of capacity.

Also ascertain profit and contribution. **(7 Marks)**

6. (a) Management of Tillu manufacturing co. is thinking of installing a costing system its company. What practical DIFFICULTIES management will expect and how management will OVERCOME the same? **(5 Marks)**

(b) Anju Ltd. is engaged in production of butter. While producing butter buttermilk is also produced. Buttermilk is identified as by-product of butter. What is the TREATMENT of buttermilk in the cost accounts of Anju Ltd. **(5 Marks)**

(c) Fixed budgets are very simple to understand and less time consuming, however, only flexible budgets are more realistic and practicable because it gives due consideration to behaviour of revenue and cost at different levels of activity. But still there are certain demerits of both the budgets. NARRATE the same. **(4 Marks)**

OR

(c) DISCUSS the objectives of time keeping & time booking. **(4 Marks)**

MODEL TEST PAPER 6

INTERMEDIATE: GROUP – II

PAPER – 4: COST AND MANAGEMENT ACCOUNTING

Answers are to be given only in English except in the case of the candidates who have opted for Hindi medium. If a candidate has not opted for Hindi medium his/ her answer in Hindi will not be valued.

Working notes should form part of the answer.

Time Allowed – 3 Hours **Maximum Marks – 100**

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs) for 30 marks*
3. *Part II comprises questions which require descriptive type answers for 70 marks.*

PART I – Case Scenario based MCQs

Part I is compulsory.

Write the most appropriate answer to each of the following multiple-choice questions by choosing one of the four options given. All questions are compulsory.

Case Scenario I

XYZ Manufacturing Ltd. is a mid-sized enterprise that has established a strong reputation in the field of precision engineering. The company specializes in producing high-quality engineering components that meet the stringent requirements of various industries including automotive, aerospace, medical devices, and industrial machinery. With a commitment to precision and excellence, XYZ Manufacturing Ltd. has positioned itself as a reliable supplier of critical components that demand the highest levels of accuracy and durability.

To maintain stringent control over its production costs and enhance cost efficiency, XYZ Manufacturing Ltd. operates under a standard costing system. This system plays a pivotal role in the company's financial and operational management. Standard costing involves setting predetermined costs for each production element, including materials, labor, and overheads. These predetermined costs, known as standard costs, serve as benchmarks against which actual production costs are measured.

Particulars	Budgeted Data	Actual Data
Units Produced	10,000 units	9,500 units
Fixed Overheads	₹ 20,00,000	₹ 19,50,000 + ₹ 1,00,000 (additional quality control cost for

		1,000 units chosen on sample basis)
Hours Worked	15,000 hours	14,250 hours
Variable Overhead Rate	₹ 50 per hour	₹ 50 per hour (first 10,000 hours) ₹ 60 per hour (additional hours)

Based on the given information, you are being required to answer the following questions (MCQs 1 to 5):

1. What is the Fixed Overhead Cost Variance for XYZ Manufacturing Ltd. in May 2024?

   (a) ₹ 50,000 (A)

   (b) ₹ 1,00,000 (A)

   (c) ₹ 1,50,000 (A)

   (d) ₹ 2,00,000 (A)

2. What is the Fixed Overhead Volume Variance for XYZ Manufacturing Ltd. in May 2024?

   (a) ₹ 50,000 (F)

   (b) ₹ 50,000 (A)

   (c) ₹ 1,00,000 (F)

   (d) ₹ 1,00,000 (A)

3. What is the Variable Overhead Efficiency Variance for XYZ Manufacturing Ltd. in May 2024?

   (a) ₹ 37,500 (A)

   (b) ₹ 42,500 (A)

   (c) ₹ 0

   (d) ₹ 25,000 (A)

4. What is the Variable Overhead Expenditure Variance for XYZ Manufacturing Ltd. in May 2024?

   (a) ₹ 40,000 (A)

   (b) ₹ 42,500 (A)

   (c) ₹ 45,000 (A)

   (d) ₹ 45,030 (A)

5. What is the Fixed Overhead Expenditure Variance for XYZ Manufacturing Ltd. in May 2024?

   (a) ₹ 50,000 (F)

   (b) ₹ 50,000 (A)

   (c) ₹ 1,00,000 (F)

   (d) ₹ 1,00,000 (A) **(5 x 2 Marks)**

Case Scenario II

A garment manufacturer has been producing and selling T-shirts exclusively for Indian market. His T-shirts are made of a specific material which is eco-friendly. It means that T-shirts are bio-degradable in soil after it becomes unsuitable for use.

This invention has been applauded throughout the country. Owner, Vikas, registered for the patent rights for his invention so that no one else could use it.

Vikas feels that this invention will also be liked in foreign markets, and thus plans to expand his business outside India. He feels that US market is the first foreign market he should tap into.

Current cost structure (each T-shirt):

Direct material	90
Direct labour	60
Special service	80
(Used in T-shirt making, 50% fixed)	
Fixed overhead	50
Administration overhead (fixed)	20
Total cost per T-shirt	300
(+) Profit margin	200
Selling price in India	500

There is no limitation of any resources in India. Vikas is able to sell 80,000 T-shirts each year. He is currently working at 80% of his total capacity.

After searching for potential customers in US, Vikas received an inquiry for 30,000 units from a wholesale distributor in California. As per the inquiry, order will be placed if price per T-shirt is reasonable and the order has to be satisfied in full.

Vikas decided to send a quote and the order was placed by the foreign client, on the same day. Vikas, without a second thought accepted the order, but did not feel the need to extend the manufacturing capacity; therefore he decided forgo a few Indian clients.

This foreign order also required special packaging. It is spent at 20% of the total prime cost per T-shirt. The production was done quickly and foreign consignment was transported to custom port via services from a carriage agency. It charged ₹ 80,000 for 1 truck, whose capacity was 500 kg, to transport whole of the consignment. Truck was 20% vacant after loading the consignment.

Bill of lading was filed and a professional fee of ₹ 25,000 for filing this was paid to a Chartered accountant. Custom port also charged ₹ 80 per kg per day to handle the material, storing it in warehouse, and for loading the goods on ship.

The shipping company, which was booked by Vikas for taking the consignment to US, got delayed due to bad weather. Stock was held at port for 5 days and on 6th day it was loaded on ship. Shipping company charged ₹ 2,800/ 10kg of goods. Insurance was charged flat at ₹ 1,11,000.

There is no custom duty on such exports.

Answer the following questions (MCQs 6 to 10):

6. Vikas had sufficient funds in his hands but he still raised a short-term working capital loan @ 6.5% p.a. for the satisfaction of this foreign order because he found a one time investment opportunity which was giving him 9.25% returns. Foreign order was accepted on 1st June and loan was taken on the same day. Repayment of the loan will be made on 1st September. Calculate net cash outflow due to this export order. Which of the following is correct?

   (a) ₹ 73,91,000

   (b) ₹ 75,47,750

   (c) ₹ 74,76,500

   (d) ₹ 71,06,000

7. What would have been the minimum price that Vikas could have quoted per T-shirt in US dollars? (exchange rate on 1st June, $1 = ₹ 83.86)

   (a) $ 4.23

   (b) $ 4.20

   (c) $ 4.17

   (d) $4.05

8. Payment from foreign client was received on 8th October when exchange rate was ₹ 86 for each US $. Calculate the profit earned from this export order if actual quoted price was $4.90 per T-shirt. Select the correct amongst following:

   (a) ₹ 40,65,500

   (b) ₹ 41,51,000

   (c) ₹ 39,94,250

   (d) ₹ 44,36,000

9. What is the net cash Inflow from this export order?

   (a) ₹ 55,36,000

   (b) ₹ 51,65,500

   (c) ₹ 52,51,000

   (d) ₹ 50,94,250

10. What is the Incremental benefit from this export order?

(a) ₹ 19,94,250

(b) ₹ 21,51,000

(c) ₹ 20,65,500

(d) ₹ 24,36,000 **(5 x 2 Marks)**

11. The rate of change in the composition of employee force over the average number of employees for the year is computed as 9% under 'separation method'. However, the same rate is computed as 15% and 30% under 'replacement method' and 'flux method' respectively.

Considering the average number of employees on roll during the year as 200, FIND OUT the number of employees -

(i) replaced, (ii) left and discharged and (iii) recruited and joined

(a) Replaced- 18 employees, left and discharged- 30 employees and recruited & joined- 42 employees

(b) Replaced- 30 employees, left and discharged- 42 employees and recruited & joined- 18 employees

(c) Replaced- 30 employees, left and discharged- 18 employees and recruited & joined- 42 employees

(d) Replaced- 42 employees, left and discharged- 18 employees and recruited & joined- 30 employees **(2 Marks)**

12. WHICH of the following item is not the cause of differences in Financial and Cost Accounts?

(a) Income tax not treated in Cost Accounts

(b) Dividends credited in Financial Accounts

(c) Losses on the sale of investments not treated in Financial Accounts

(d) Cost Accounts showing notional depreciation on the assets fully depreciated for which book value is nil **(2 Marks)**

13. Mefttal Ltd. is currently operating at 60% of its total capacity which is 1.5 times than the previous year. The total capacity of the company is 2,00,000 units.

Other information relating to the production is provided below:

(i) The total cost of production for the current year is ₹ 59,28,000, and for the previous year, it was ₹ 44,72,000.

(iii) No changes are anticipated in the cost structure for the upcoming years.

Selling price is ₹ 52 per unit and is expected to remain the same in the coming years.

You are required to CALCULATE Break-Even Point (in units).

(a) 1,20,000 units

(b) 40,000 units

(c) 80,000 units

(d) 1,00,000 units **(2 Marks)**

14. Parth Ltd. operates in insurance business. Previous Year, the company launched a new term insurance policy called 'Max Jivan' and incurred the following expenditure throughout the year:

Particulars	**Amount (₹)**
Claim management cost	52,82,000
Facilities cost	6,49,82,500
Employees cost	2,25,18,000
Cost of marketing of the policy	19,30,71,000
Policy development cost	4,86,50,000
Policy issuance cost	4,10,05,000
Policy servicing cost	13,40,65,500
Sales support expenses	4,44,80,000
Office administration cost	6,67,20,000
I.T. Cost	30,71,90,000
Postage and logistics	4,50,36,000

You are required to ASCERTAIN the cost of the policy 'Max Jivan' segregated into four main activities namely (a) Marketing and Sales support (b) Operations (c) I.T. Cost and (d) Support functions.

(a) Marketing and Sales support- ₹ 23,75,51,000, Operations - ₹ 22,90,02,500, I.T. Cost- ₹ 30,71,90,000 and Support functions- ₹ 19,92,56,500

(b) Marketing and Sales support- ₹ 28,62,01,000, Operations- ₹ 22,53,88,500, I.T. Cost- ₹ 30,71,90,000 and Support functions- ₹ 15,42,20,500

(c) Marketing and Sales support- ₹ 28,62,01,000, Operations- ₹ 18,03,52,500, I.T. Cost- ₹ 30,71,90,000 and Support functions- ₹ 19,92,56,500

(d) Marketing and Sales support- ₹ 24,17,21,000, Operations- ₹ 22,48,32,500, I.T. Cost- ₹ 30,71,90,000 and Support functions- ₹ 19,92,56,500 **(2 Marks)**

15. RN Ltd. manufactures two primary products, P^1 and P^2, through a joint process and a by-product, R^{12}, is produced spontaneously. The relationship between output quantities to the direct material input stays stable.

To allocate joint production costs to the primary products, the company utilizes the physical volume method.

During the month of March, company incurred joint production costs of ₹ 1,30,00,000. As the primary products are not freely marketable at the split-off point, they are processed further.

The net realizable value of the by-product is treated as deductions from the joint production costs before the joint costs are allocated to the primary products.

The information regarding company's production and its cost during the month of March is provided below:

Particulars	**P^1**	**P^2**	**R^{12}**
Output (kg.)	1,95,000	3,90,000	81,250
Selling price per kg.	₹ 200	₹ 120	₹ 40
Further processing costs	₹ 26,00,000	₹ 39,00,000	-

FIND OUT the amount of joint product cost to be allocated to P^2 by using the physical volume method.

(a) ₹ 65,00,000

(b) ₹ 97,50,000

(c) ₹ 39,00,000

(d) ₹ 32,50,000 **(2 Marks)**

PART-II – Descriptive Questions (70 Marks)

*Question No. **1** is compulsory.*

*Attempt any **four** questions out of the remaining **five** questions.*

1. (a) Petro Ltd. is a petroleum refining company which uses cracking process for producing gasoline, diesel and Heavy fuel oil (HFO). All three final products are extracted simultaneously at one common split-off point.

Gasoline and diesel are immediately available for sale upon separation, requiring no further processing. In contrast, heavy fuel oil (HFO) undergoes additional processing before it can be sold, as there is no market for it at the split-off point.

Throughout the year, the selling prices and total quantities sold for each item were as follows:

Product	**Quantity sold (Gallons)**	**Selling Price per gallon (₹)**
Gasoline	1,674	400
Diesel	4,743	300
Heavy fuel oil (HFO)	6,624	200

The selling prices listed above are projected to remain unchanged in the upcoming year.

The total joint manufacturing costs for the year amounted to ₹ 15,00,000, with an additional cost of ₹ 7,44,000 incurred for finishing Heavy fuel oil (HFO).

There were no opening inventories of gasoline, diesel and Heavy fuel oil (HFO). Though, at the end of the period, the following inventories of complete units were available: 1,620 gallons of gasoline, 540 gallons of diesel, and 225 gallons of Heavy fuel oil (HFO).

You are required to COMPUTE the following for gasoline, diesel and Heavy fuel oil (HFO)-

(i) joint cost allocated, and

(ii) cost of goods sold

using Net Realisable Value Method of joint cost allocation.

(5 Marks)

(b) The following information have been extracted from the cost records of a manufacturing company:

		(₹)
	Stores	
*	Opening balance	9,000
*	Purchases	48,000

*	Transfer from WIP	24,000
*	Issue to work-in-progress	48,000
*	Issue for repairs	6,000
*	Deficiency found in stock	1,800
	Work-in-Progress:	
*	Opening balance	18,000
*	Direct Wages applied	18,000
*	Overhead charged	72,000
*	Closing balance	12,000
	Finished Production :	
*	Entire production is sold at a profit of 10% on cost from work-in-progress	
*	Wages paid.	21,000
*	Overhead incurred	75,000

DRAW the Stores Leger Control A/c, Work-in-Progress Control A/c, Overheads Control A/c and Costing Profit and Loss A/c. **(5 Marks)**

(c) The management of a company wants to formulate an incentive plan for the workers with a view to increase productivity. The following particulars have been extracted from the books of company:

Piece Wage rate	₹ 10
Weekly working hours	40
Hourly wages rate	₹ 40 (guaranteed)
Standard/normal time per unit	15 minutes.

Actual output for a week:

Worker A:	176 pieces
Worker B:	140 pieces

Under Halsey scheme, worker gets a bonus equal to 50% of Wages of time saved.

CALCULATE earning of workers under Halsey's and Rowan's premium scheme. **(4 Marks)**

2. (a) Baba Ltd. belongs to an automotive industry, manufacturing hybrid bicycles. The production of bicycles passes through three departments, viz. X1, Y2, Z3. The bicycles being equipped with gears needs quality check from time to time. Thus, the company also operates two service departments, namely quality control (QC) and maintenance (M), for its bicycle.

Following information is extracted from the accounting books regarding expenses as incurred/ charged:

Particulars	(₹)
Rent and Rates	40,00,000
General Lighting	4,80,000
Indirect Wages	15,51,200
Power	12,00,000
Depreciation on Machines	80,00,000
Sundries	77,56,000

Additional information:

	Production Departments			Service Departments	
	X1	Y2	Z3	QC	M
Direct wages (₹)	24,00,000	16,00,000	24,00,000	12,00,000	1,56,000
Working hours	6,140	8,950	4,838	-	-
Value of machines (₹)	4,80,00,000	6,40,00,000	8,00,00,000	40,00,000	40,00,000
H.P. of machines	120	60	100	20	-
Light points	20	30	40	20	10
Floor space (sq. ft.)	4,000	5,000	6,000	4,000	1,000

A technical assessment unveiled the following basis for the apportionment of expenses of service departments:

	X1	Y2	Z3	QC	M
QC	20%	30%	40%	-	10%
M	40%	20%	30%	10%	-

You are required to DETERMINE the following:

(i) Overheads distributed to all the departments, viz. X1, Y2, Z3, QC and M.

(ii) Overheads total and rate per hour under all the Production Departments after redistribution of Service Department's Overhead.

(iii) Total cost of a bicycle, considering the Direct Material and labour Cost of ₹ 20,000 and ₹ 12,000 respectively, which is being processed for manufacturing in Departments X1, Y2 and Z3 for 4, 5 and 3 hours respectively. **(5 + 5 + 2 = 12 Marks)**

(b) Luxz Ltd. is into luxury pens business manufacturing 120 pens in a batch. To process a single batch of 120 pens, company needs to incur following expenditure:

Particulars	(₹)
Direct Materials	57,375
Direct wages	6,750
Batch Set-up cost	18,900

For each batch, the company absorbs the Production Overheads at a rate of 20% of direct wages and 15% of the total production cost is allocated to cover selling, distribution, and administrative overheads.

During the month of March, Luxz Ltd. received an order for 2,400 pens and the company aims to achieve a profit margin of 25% on its sales value.

You are required to DETERMINE the total sales value for 2,400 pens. **(2 Marks)**

3. (a) Following information is available from the books of YSPP Ltd. for the current year ending 31st March:

S. No.	Particulars	(₹)	(₹)
(i)	Raw materials purchased		35,00,00,000
(ii)	Freight inwards		39,22,100
(iii)	Wages paid to factory workers		1,02,20,000
(iv)	Contribution made towards employees' PF & ESIS		12,60,000
(v)	Hire charges paid for hiring specific equipment		8,40,000
(vi)	Amount paid for power & fuel		16,17,000
(vii)	Amount paid for purchase of moulds and patterns (life is equivalent to four years production)		31,36,000
(viii)	Job charges paid to job workers		28,42,000
(ix)	Lease rent paid for production assets		3,92,000
(x)	Depreciation on:		

	Factory building	2,94,000	
	Office building	1,96,000	
	Plant & Machinery	4,41,000	
	Delivery vehicles	3,01,000	12,32,000
(xi)	Salary paid to supervisors		4,41,000
(xii)	Repairs & Maintenance paid for: Plant & Machinery	1,68,000	
	Sales office building	63,000	2,31,000
(xiii)	Insurance premium paid for:		
	Plant & Machinery	1,09,200	
	Factory building	63,350	
	Stock of raw materials & WIP	1,26,000	2,98,550
(xiv)	Expenses paid for quality control check activities		68,600
(xv)	Salary paid to quality control staffs		3,36,700
(xvi)	Research & development cost paid for improvement in production process		63,700
(xvii)	Expenses paid for administration of factory work		4,15,100
(xviii)	Salary paid to functional mangers:		
	Production control	33,60,000	
	Finance & Accounts	32,13,000	
	Sales & Marketing	35,42,000	1,01,15,000
(xix)	Salary paid to General Manager		43,96,000
(xx)	Packing cost paid for:		
	Primary packing necessary to maintain quality	3,36,000	
	For re-distribution of finished goods	3,92,000	7,28,000
(xxi)	Fee paid to auditors		6,30,000
(xxii)	Fee paid to independent directors		7,70,000
(xxiii)	Value of stock as on 1st April (beginning):		
	Raw materials	63,00,000	

	Work-in-process	32,20,000	
	Finished goods	38,50,000	1,33,70,000
(xxiv)	Value of stock as on 31st March (ending):		
	Raw materials	33,60,000	
	Work-in-process	30,45,000	
	Finished goods	63,00,000	1,27,05,000

Due to delay in picking up cargo from the port, YSPP Ltd. had to pay ₹ 15,000 as demurrage in the month of March.

From the above data you are required to PREPARE Statement of cost for YSPP Ltd. for the year ended 31st March, showing (i) Prime cost, (ii) Factory cost, (iii) Cost of Production, (iv) Cost of sales.

(2 + 2 + 2 + 2 = 8 Marks)

(b) Following information is extracted from the purchase department of A Ltd.:

(i) Number of units to be purchased during the year is 10,000

(ii) Cost of placing a purchase order is ₹ 40

(iii) Purchase price per unit is ₹ 80

(iv) Insurance charges to be paid for protecting goods during transit is ₹ 20 per unit

(v) Cash discount to be received is 2%

(vi) Annual cost of storage per unit is ₹ 5

(vii) Details of lead time:

Average-	20 days
Maximum-	30 days
Minimum-	10 days
For emergency purchases-	8 days.

(viii) Rate of consumption:

Average-	30 units per day
Maximum-	40 units per day.

From the information given above, you are required to CALCULATE:

(i) Re-ordering level

(ii) Maximum level

(iii) Minimum level

(iv) Danger level. **(6 Marks)**

4. (a) Xtyle Ltd. is a leading manufacturer in the textile industry, renowned for its commitment to quality and innovation. With decades of experience, the company specializes in producing a diverse range of textile products, including high-quality towels, designed to meet the varying needs of its

customers. The company offers mainly three types of towel, viz. Hand towels, Kitchen towels and Gym towels, catering to both everyday use and specialized applications. Below are the key production data for a recent period:

Particulars	**Hand towels**	**Kitchen towels**	**Gym towels**
Production (units)	9,000	15,000	60,000
Machine hours per unit	10	18	14
Direct Labour hours per unit	4	12	8
Direct Material per unit (₹)	450	400	600

Currently, the company utilizes a traditional costing method, which assigns all production overhead costs based on the number of machine hours used. The overhead cost is calculated at a rate of ₹ 30 per machine hour. Additionally, the direct labor cost is charged at ₹ 100 per hour.

Now, the company plans to implement an Activity-Based Costing (ABC) system to enhance cost accuracy and provide a clearer understanding of the costs associated with each product.

The activity analysis is provided as under:

Particulars	**Hand towels**	**Kitchen towels**	**Gym towels**
Batch size (units)	450	1,500	3,000
Number of purchase orders per batch	3	10	8
Store delivery	45	80	125
Number of inspections per batch	5	4	3

Further, the total production overheads can be divided into several key categories. Machine setup costs account for 20% of the total, while inspection costs make up 35%. Material procurement-related costs represent 10%, and store delivery costs also constitute 10%. Finally, machine operation costs contribute 25% to the overall overheads. This breakdown provides insight into how resources are allocated across various activities within the production process.

You are required to CALCULATE the cost per unit of each product using -

(i) traditional method.

(ii) activity based costing principles. **(6 Marks)**

(b) The following information relates to Anu Limited, a AI enabled toy manufacturing company:

The selling price of a toy is ₹ 3,000, and sales are made on credit and invoiced on the last day of the month.

Variable costs of production per toy are materials (₹ 1,000), labour (₹ 800), and overhead (₹ 400)

The sales manager has forecasted the following volumes:

Month	No. of Toys
November	1,000
December	1,000
January	1,000
February	1,250
March	1,500
April	2,000
May	1,900
June	2,200
July	2,200
August	2,300

Customers are expected to pay 50% One month after the sale and 50% Two months after the sale.

The company produces the toys two months before they are sold and the creditors for materials are paid two months after production.

Variable overheads are paid in the month following production and are expected to increase by 25 % in April; 75% of wages are paid in the month of production and 25% in the following month. A wage increase of 25% will take place on 1st March.

The company needs funds for the running the business and purchase of new machine so it will sell one of its freehold properties in June for ₹ 20,00,000, and buy a new machine in June for ₹ 5,00,000. Depreciation is currently ₹ 10,000 per month, and will rise to ₹ 15,000 after the purchase of the new machine.

The company's corporation tax of ₹ 1,00,000 is due for payment in March.

The company presently has a cash balance at bank on 31 December 2023, of ₹ 50,000.

You are required to PREPARE a cash budget for the six months from January to June, 2024. **(8 Marks)**

5. (a) Hawtt Veel is a renowned brand of HV Ltd. which manufactures toy car. The manufacturing process of the toy cars at first involve designing the parts, creating the mold and then simultaneously melting the plastic. As the mold created last year is being used as it is for the current year, the first process involves only melting the plastic (Process I). The next process is about injecting the plastic into the mold and assembling the parts formed (Process II).

During the month of April, the materials for 1,20,000 toy cars were put through Process I of which melting process were completed for 90,000 toy cars only before transferring to Process II.

The costs incurred in Process I are as follows:

Direct material	₹ 22,50,000
Direct wages	₹ 27,00,000
Factory overheads	₹ 18,00,000

Degree of completion for those not transferred to Process II is as follows:

Materials	100%
Labour and overheads	50%

Out of those transferred to Process II for injecting and assembling, 84,000 units of toy car were completed and transferred to finished goods store for protective packing. The process of protective packing is done at the end of the Process II and the costs incurred are as follows:

Packing materials	₹ 6,00,000
Direct wages	₹ 5,25,000
Factory overheads	₹ 6,75,000

There was a normal loss of 600 units in Process II with no salvage value.

Some units were still in progress under Process II and thus, shifted for the next month process. The degree of completion for those not transferred to finished goods store is as follows:

Materials	100%
Labour and overheads	25%

You are required to PREPARE-

(i) Statement of Equivalent Production, Cost per unit and Process I A/c.

(ii) Statement of Equivalent Production, Cost per unit and Process II A/c. **(10 Marks)**

(b) EXPLAIN the Usefulness/Suitability of ABC. **(4 Marks)**

6. (a) Cost and Management Accounting information is used by different stakeholders. The users of the information can be broadly categorised into internal and external to the entity.

GIVE two examples of internal users and three examples of external users and EXPLAIN how they are concerned with the Cost and Management Accounting information. **(5 Marks)**

(b) EXPLAIN the Methods for ascertaining Service Cost Unit. **(5 Marks)**

(c) Despite the many benefits of Budgetary Control System, it does have its own limitations. DISCUSS those limitations. **(4 Marks)**

OR

(d) IDENTIFY the method of costing in the following cases and give one example of industry where this method is followed:

(i) Cost of each job is ascertained separately. It is suitable in all cases where work is undertaken on receiving a customer's order.

(ii) Cost of completing each stage of work is ascertained.

(iii) Each group is treated as a unit of cost and thus separately costed. Here cost per unit is determined by dividing the cost of the group by the number of units produced.

(iv) A combination of two or more methods of costing. **(4 Marks)**

MODEL TEST PAPER 7

INTERMEDIATE: GROUP – II

PAPER – 4: COST AND MANAGEMENT ACCOUNTING

Answers are to be given only in English except in the case of the candidates who have opted for Hindi medium. If a candidate has not opted for Hindi medium his/ her answer in Hindi will not be valued.

Working notes should form part of the answer.

Time Allowed – 3 Hours **Maximum Marks – 100**

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs) for 30 marks*
3. *Part II comprises questions which require descriptive type answers for 70 marks.*

PART I – Case Scenario based MCQs

Part I is compulsory.

Write the most appropriate answer to each of the following multiple-choice questions by choosing one of the four options given. All questions are compulsory.

Case Scenario I

A truck driver, named Raju, owns a truck which can carry 5 tonne of material at a time. Raju has no other truck and he has listed himself with various carriage services agencies, to offer his services. He gets his work from these agencies and they pay him as per the load and the distance. Raju has one condition that he must be paid for at least 75% of his total capacity. Raju charges freight at ₹ 10 per tonne-km.

He received a work contract, from one of these agencies, where he has to take 4 tonne from Delhi in the morning and drop it off at Chandigarh. After that he will move to Ludhiana, where he again loads 3 tonne and come back to Delhi by evening. This contract is for nearly 3 months.

Raju is excited to accept the order but it is not physically possible for Raju to complete this project alone. He decides to hire a helper cum driver who will assist him in this work contract and will also drive in turns with Raju. Thus, such a long contract will be managed comfortably. This helper will take ₹ 15,000 per month.

The contract will start from 15th June, 2024 and will run till 14th September, 2024. Throughout this time period there are only 2 days holidays, both falling in August (1 for Independence Day and 1 for Raksha Bandhan).

Some information about the Truck and its associated costs:

- Truck was purchased on 1st April, 2021 by taking a loan of ₹ 20,00,000 @ 10% p.a. from Punjab national bank for 5 years. Raju mortgaged jewellery of his wife to get this loan.
- Every year-end he has to pay ₹ 5,27,595 as instalment.
- Scrap value after 10 years is expected to be ₹ 500,000.
- Depreciation is charged on straight-line method.
- Services and maintenance charges each month is ₹ 80,000.
- Truck runs on diesel and its running average is 8kms/ litre.
- Diesel cost per litre:

June	80.30
July	80.50
August	81.25
September	80.90

Yearly interest amount of loan and yearly depreciation is charged to a work contract on the basis of days worked in a year in the contract.

Distance between these places:

(1) Delhi to Chandigarh = 250 kms

(2) Chandigarh to Ludhiana = 100 kms

(3) Ludhiana to Delhi = 150 kms

Answer the following questions (MCQs 1 to 5):

1. What would be the amount of profit Raju would have earned if he had no minimum charges limit of 75% of total capacity on absolute Tonne-km basis? (If the vehicle runs empty then he would only charge for Diesel expenses).

   A. 3,34,249

   B. 4,43,249

   C. 5,96,977

   D. 4,34,249

2. If payment was made on commercial Tonne-km basis and Raju had no minimum charges limit of 75%, how much he would have lost due to no minimum requirement?

   A. ₹ 6,37,500

   B. ₹ 5,93,750

   C. ₹ 4,92,438

   D. ₹ 3,91,126

3. What should be the minimum amount charged on basis of absolute Tonne-km if Raju wants to earn ₹ 2,70,000?

   A. ₹ 4.58

   B. ₹ 6.13

   C. ₹ 8.39

   D. ₹ 3.21

4. Choose the correct amount of depreciation and interest that should be charged to this work contract.

   A. 56,983 & 22,588

   B. 36,986 & 22,578

   C. 63,963 & 12,568

   D. 63,953 & 12,558

5. What is the profit as per current rate charged by Raju? (Use absolute Tonne-Km).

   A. 7,34,249

   B. 9,44,863

   C. 5,96,977

   D. 4,34,249 **(5 x 2 Marks)**

Case Scenario II

eSalt is the biggest producer of sodium hydroxide in India. This main product of the company has a strong reactivity with other organic compounds. It is highly versatile and is alkaline in nature. However, the basic material required for the production of this product is salt along with the electricity.

The manufacturing process involve electrolysis which produces Halogen as co-product. Modern use of Halogen is widespread. However, the common use is in disinfection like for purifying drinking water or swimming pool water. It is also an important ingredient of toothpaste. Thus, the company's management affirmed the simultaneous production of Halogen.

During the previous financial year, the company purchased the base material of ₹ 5,34,000. For the current year, company decided to increase the production by 2 times. Due to increased production, the total conversion cost hiked to 3 times. Last year, the conversion cost accounted to ₹ 8,01,000 up to the point at which two products i.e. sodium hydroxide and Halogen are separated.

The production and sales information for current year is provided as below:

	Sodium hydroxide	Halogen
Production/ Sales(in tonne)	24,030	16,020
Selling price per tonne (₹)	100	150

During the current year, the management of the company pointed the extensive use of Vinyl which can be produced by further processing Halogen. Having selling price of ₹ 250 per tonne higher than that of the Halogen, it was decided not to sell Halogen and further process it into Vinyl. The incremental processing cost took ₹ 8,01,000 producing 10,012.50 tonnes of Vinyl.

You are required to FIGURE OUT the following for managerial decision (MCQs 6 to 10):

6. For the current year, the amount of base material purchased and the conversion cost up to the point at which two products i.e. Sodium hydroxide and Halogen are separated would be:

   A. base material ₹ 10,68,000 and conversion cost ₹ 24,03,000

   B. base material ₹ 10,68,000 and conversion cost ₹ 16,02,000

   C. base material ₹ 16,02,000 and conversion cost ₹ 24,03,000

   D. base material ₹ 24,03,000 and conversion cost ₹ 16,02,000

7. Joint cost to be apportioned between Sodium hydroxide and Halogen as per the physical unit method would be:

   A. Sodium hydroxide ₹ 24,03,000 and Halogen ₹ 10,68,000

   B. Sodium hydroxide ₹ 10,68,000 and Halogen ₹ 16,02,000

   C. Sodium hydroxide ₹ 16,02,000 and Halogen ₹ 24,03,000

   D. Sodium hydroxide ₹ 24,03,000 and Halogen ₹ 16,02,000

8. Joint cost to be apportioned between Sodium hydroxide and Halogen as per the sales value at split- off point method would be:

   A. Sodium hydroxide ₹ 20,02,500 and Halogen ₹ 20,02,500

   B. Sodium hydroxide ₹ 16,02,000 and Halogen ₹ 24,03,000

   C. Sodium hydroxide ₹ 24,03,000 and Halogen ₹ 16,02,000

   D. Sodium hydroxide ₹ 10,68,000 and Halogen ₹ 20,02,500

9. Joint cost to be apportioned between Sodium hydroxide and Halogen as per the estimated net realisable value method would be:

   A. Sodium hydroxide ₹ 23,44,390 and Halogen ₹ 16,60,610

   B. Sodium hydroxide ₹ 17,16,429 and Halogen ₹ 22,88,571

   C. Sodium hydroxide ₹ 22,88,571 and Halogen ₹ 17,16,429

   D. Sodium hydroxide ₹ 16,60,610 and Halogen ₹ 23,44,390

10. Considering that the decision relating to further processing Halogen is not approved, suggest whether this would be in favour of the management by calculating incremental revenue /loss from further processing Halogen into Vinyl.

    A. Incremental loss would be ₹ 16,02,000, thus the decision of not further processing Halogen is correct.

    B. Incremental loss would be ₹ 8,01,000, thus the decision of not further processing Halogen is correct.

C. Incremental revenue would be ₹ 8,01,000, thus the decision relating to further processing Halogen needs to be approved.

D. Incremental revenue would be ₹ 16,02,000, thus the decision relating to further processing Halogen needs to be approved. **(5 x 2 Marks)**

11. Mr. Ben is paid higher wages than Mr. Akon. Though their normal wage rate is same, Mr. Ben gets higher payment as under Halsey system than that to Mr. Akon as under Rowan System.

The total time allowed to make the same product is 75 hours, however, Mr. Ben takes 60 hours while Mr. Akon takes 45 hours.

The production of the product also involve other costs that are not traced directly to the product like salary to quality assurance manager, factory rent, supplies, salary to production supervisor, electricity consumed, etc. which comes to ₹ 2,26,800 leading to factory overhead rate being ₹ 120 per man-hour actually worked.

The total factory cost for the product produced by Mr. Akon comes to ₹ 1,25,640 and by Mr. Ben comes to ₹ 1,29,600.

From the information given above, COMPUTE the normal wage rate along with the cost of material.

A. Normal wage rate- ₹ 63 per hour and cost of material- ₹ 1,20,240

B. Normal wage rate- ₹ 67.5 per hour and cost of material- ₹ 1,22,400

C. Normal wage rate- ₹ 480 per hour and cost of material- ₹ 90,000

D. Normal wage rate- ₹ 450 per hour and cost of material- ₹ 87,840

(2 Marks)

12. WHICH of the following is the correct journal entry as would appear in the cost books when there is under recovery of overheads?

A. Cost of Sales A/c………………………………… Dr. xxx

To Administrative Overhead Control A/c xxx

B. Production Overhead Control A/c…………………Dr. xxx

To Work-in-Process Ledger Control A/c xxx

C. Costing Profit & Loss A/c……………………………Dr. xxx

To Administrative Overhead Control A/c xxx

D. Work-in-Process Ledger Control A/c………………Dr. xxx

To Production Overhead Control A/c xxx

(2 Marks)

13. Due to sudden rise in demand of the product, the sales of Arrow Ltd. for current year enhanced to 3 times the average of last 4 years. The Break even point and the variable cost of the company for the current year is ₹ 1,17,00,000 and 93,60,000 respectively.

The sales data relating to past years is given below:

Year	Sales (₹)
Year 1 (latest)	62,00,000
Year 2	50,00,000
Year 3	52,00,000
Year 4	44,00,000
Year 5	66,00,000

CALCULATE the fixed cost to the company for the current year.

A. ₹ 64,35,000

B. ₹ 48,12,453

C. ₹ 65,34,340

D. ₹ 46,80,000 **(2 Marks)**

14. Due to technical and economical reasons, F8 Ltd. manufactures in batch. The latest contract requires the company to supply 9,000 bushings per month to G4 Ltd. The company has estimated that each set up for manufacturing the bushings will cost ₹ 16,002.25 and the inventory holding cost per bushing per annum will come to ₹ 60.

HOW many runs the company need to make throughout the year to complete the demand?

A. 5 runs

B. 10 runs

C. 15 runs

D. 20 runs **(2 Marks)**

15. The Budgeted fixed overhead for the month of August was ₹ 75,00,000 with the units of production estimated at 15,000. However, the actual units produced is 15,600 with no Fixed overhead cost variance.

CALCULATE the actual fixed overhead incurred.

A. ₹ 75,00,000

B. ₹ 72,11,538

C. ₹ 78,00,000

D. ₹ 79,00,000 **(2 Marks)**

PART-II – Descriptive Questions (70 Marks)

*Question No. **1** is compulsory.*

*Attempt any **four** questions out of the remaining **five** questions.*

1. (a) Shanu Ltd has calculated a predetermined overhead rate of ₹ 22 per machine hour for its Quality Check (QC) department. This rate has been calculated for the budgeted level of activity and is considered as appropriate for absorbing overheads. The following overhead expenditures at various activity levels had been estimated.

Total overheads	Number of machine hours
₹ 3,38,875	14,500
₹ 3,47,625	15,500
₹ 3,56,375	16,500

You are required to:

(i) CALCULATE the variable overhead absorption rate per machine hour.

(ii) CALCULATE the estimated total fixed overheads.

(iii) CALCULATE the budgeted level of activity in machine hours.

(iv) CALCULATE the amount of under/over absorption of overheads if the actual machine hours were 14,970 and actual overheads were ₹ 3,22,000.

(v) STATE the arguments for and against using departmental absorption rates as opposed to a single or blanket factory wide rate.

(5 Marks)

(b) Following standards have been set for manufacturing a product 'XYZ':

Direct Material:	(₹)
4 units of X @ ₹ 8 per unit	32.00
6 units of Y @ ₹ 6 per unit	36.00
30 units of Z @ ₹ 2 per unit	60.00
	128.00
Direct Labour:	
6 hrs @ ₹ 16 per hour	96.00
Total standard prime cost	224.00

The company actually manufactured and sold 12,000 units of the product 'XYZ' during the year.

Direct material costs were as follows:

50,000 units of X at ₹ 8.80 per unit

72,000 units of Y at ₹ 5.60 per unit

354,000 units of Z at ₹ 2.40 per unit

The company worked 70,000 direct labour hours during the year. For 10,000 of these hours, the company paid at ₹ 24 per hour while for the remaining, the wages were paid at standard rate.

You are required to CALCULATE the following:

(i) Material Price Variance

(ii) Material Usage Variance

(iii) Labour Rate Variance

(iv) Labour Efficiency Variance **(5 Marks)**

(c) Shivi is working by employing 10 skilled workers. It is considering the introduction of some incentive scheme – either Halsey scheme (with 50% bonus) or Rowan scheme of wage payment for increasing the labour productivity to cope with the increased demand for the product by 25%. She feels that, if the proposed incentive scheme could bring about an average 20% increase over the present earnings of the workers, it would act as sufficient incentive for them to produce more and she has accordingly given this assurance to the workers.

As a result of this assurance, the increase in productivity has been observed as revealed by the following figures for the current month:

Hourly rate of wages (guaranteed)	₹ 2.00
Average time for producing 1 piece by one worker at the previous performance (this may be taken as time allowed)	2 hours
Number of working days in the month	25
Number of working hours per day for each worker	8
Actual production during the month	1,250 units

Required:

(1) CALCULATE effective rate of earnings per hour under Halsey scheme and Rowan scheme.

(2) CALCULATE the savings of Navya in terms of direct labour cost per piece under the above schemes.

(3) ADVISE Navya about the selection of the scheme to fulfill her assurance **(4 Marks)**

2. (a) XYZ Constructions is a leading engineering and construction company providing a range of infrastructure and industrial services. Recently, they have been asked to quote for residential building construction (RBC) and industrial plant construction (IPC) projects. However, they are winning fewer RBC contracts than expected.

XYZ Constructions has a policy to price all jobs at budgeted total cost plus 50%. Overheads are currently absorbed on a labour-hour basis. The company believes that switching to activity-based costing (ABC) to absorb overheads would reduce the costs associated with RBC and make them more competitive.

You are provided with the following data:

Overhead category	**Annual Overhead (₹ Lakhs)**	**Activity driver**	**Total number of activities per year**
Supervisors	₹120	Site visits	600
Project Planners	₹ 80	Planning documents	300
Property related	₹400	Labour hours	50,000
Total	**₹600**		

For a typical **RBC**: Material cost: ₹ 5 lakhs, Labour hours: 1,200 hours, Site visits: 2 visits, Planning documents: 2 documents

For a typical **IPC**: Material cost: ₹ 12 lakhs, Labour hours: 2,500 hours, Site visits: 10 visits, Planning documents: 8 documents

Labour is paid at **₹ 100 per hour**.

Required:

(a) CALCULATE the cost and quoted price of an RBC and an IPC using labour hours to absorb the overheads.

(b) CALCULATE the cost and quoted price of an RBC and an IPC using ABC to absorb the overheads.

(c) Assuming that the cost of an RBC falls by nearly 7% and the price of an IPC rises by about 2% as a result of the change to ABC, SUGGEST possible pricing strategies for the two services offered by XYZ Constructions. Additionally, suggest two reasons other than high prices for the current poor sales of RBC. **(10 Marks)**

(b) "Calculation of variances in standard costing is not an end in itself, but a means to an end." DISCUSS. **(4 Marks)**

3. (a) The following are the details in respect of Process A and Process B of a processing factory:

	Process A (₹)	**Process B (₹)**
Materials	40,000	--
Labour	40,000	56,000
Overheads	16,000	40,000

The output of Process A is transferred to Process B at a price calculated to give a profit of 20% on the transfer price and the output of Process B is charged to finished stock at a profit of 25% on the transfer price. The finished stock department realized ₹ 4,00,000 for the finished goods received from Process B.

You are asked to SHOW process accounts and total profit, assuming that there was no opening or closing work-in-progress. **(6 Marks)**

(b) From the following data CALCULATE (i) Administration cost, (ii) Selling cost and (iii) Distribution cost:

		Amount (₹)
(i)	Rent paid for factory building	96,000
(ii)	Salary paid to office staffs	8,20,000
(iii)	Fees paid to auditors	92,000
(iv)	Salary paid to sales manager	8,00,000
(v)	Vehicle hire charges paid for directors attending general meeting	10,200
(vi)	Wages paid to workers engaged in storing goods at sales depot	7,200
(vii)	Travelling allowance paid to sales staffs	9,600
(viii)	Cost paid for secondary packing	8,200
(ix)	Electricity bill paid for sales office	1,800
(x)	Depreciation on goods delivery vehicles	13,000
(xi)	Bonus paid to sales staffs for achieving targets	96,000
(xii)	Fees paid to independent directors	1,02,000

(6 Marks)

(c) STI is majorly providing education loan in its loan department. For the month of August, salary paid to the education loan processors is ₹ 21,60,000. W.r.t. overhead cost, 30% is applicable to the processing of education loan out of the total overhead cost of loan department.

The total overhead cost for the month of August is ₹ 16,40,000 which includes payment of ₹ 11,000 w.r.t. legal advice relating to one of the education loan processing.

The education loan applications processed during this month are 500. You are required to COMPUTE the cost of processing per education loan application. **(2 Marks)**

4. (a) Following information is available from the purchase books of a company:

Cost of placing a purchase order	₹ 10,000
Number of units to be purchased during the year	12,50,000
Purchase price per unit	₹ 125
Annual cost of storage per unit	₹ 62.50

Details of lead time:

Maximum	20 days
Minimum	10 days

Average	15 days
Emergency	3 days

Rate of consumption:

Average	1,500 units per day
Maximum	2,000 units per day

From the details given above, you are required to CALCULATE:

(i) Re-ordering level

(ii) Maximum level

(iii) Minimum level

(iv) Danger level **(6 Marks)**

(b) Idle time is the time during which no production is carried-out because the worker remains idle but are paid. It can be normal or abnormal. LIST OUT some of the causes/examples of normal and abnormal idle time. **(4 Marks)**

(c) Following information is available as per the cost accounts of a company for the year ended 31st March:

Particulars	Amount (₹)
Profit	7,77,150
Factory expenses under-charged	2,35,500
Administrative expenses under-charged	1,17,750
Selling & distribution expenses under-charged	31,400
Income from interest and dividends (not adjusted in cost statement)	2,35,500

You are required to PREPARE a reconciliation statement to ascertain Profit as per Financial Accounts. **(4 Marks)**

5. (a) A Korean beverage company plans to set up a subsidiary in India to manufacture fruit juice. Based on projected annual sales of 40,000 bottles, cost analysis has provided the following estimates for the Indian subsidiary:

	Total Annual Costs (₹)	Percentage of Total Annual Cost which is Variable
Material	3,15,000	100%
Labour	1,40,000	75%
Factory Overheads	1,35,000	50%
Administrative Overheads	50,000	35%

The fruit juice produced in India will be sold through manufacturer's representatives, who will earn a commission of 10% of the sales price.

Expenses from the Korean office will not be allocated to the Indian subsidiary.

Required

(i) COMPUTE the sale price per bottle to enable the management to realise an estimated 10% profit on sale proceeds in India.

(ii) CALCULATE the break-even point in Rupee sales and also in number of bottles for the Indian subsidiary on the assumption that the sale price is ₹ 19 per bottle. **(8 Marks)**

(b) C Ltd. manufactures two products using two types of materials and one grade of labour. Shown below is an extract from the company's working papers for the next month's budget:

	Product-A	**Product-B**
Budgeted sales (in units)	2,400	3,600
Budgeted material consumption per unit (in kg):		
Material-X	5	3
Material-Y	4	6
Standard labour hours allowed per unit of product	3	5

Material-X and Material-Y cost ₹ 4 and ₹ 6 per kg and labours are paid ₹ 25 per hour. Overtime premium is 50% and is paid, if a worker works for more than 40 hours a week. There are 180 direct workers.

The target productivity ratio (or efficiency ratio) for the productive hours worked by the direct workers in actually manufacturing the products is 80%. In addition, the non-productive down-time is budgeted at 20% of the hours worked.

There are four 5-days weeks in the budgeted period and it is anticipated that sales and production will occur evenly throughout the whole period.

It is anticipated that stock at the beginning of the period will be:

Product-A	400 units
Product-B	200 units
Material-X	1,000 kg.
Material-Y	500 kg.

The anticipated closing stocks for budget period are as below:

Product-A	4 days sales
Product-B	5 days sales
Material-X	10 days consumption
Material-Y	6 days consumption

Required:

CALCULATE the Material Purchase Budget and the Wages Budget for the direct workers, showing the quantities and values, for the next month.

(6 Marks)

6. (a) As a consultant hired by a manufacturing company, HOW would you go about assessing the critical factors for designing and implementing a cost accounting system? **(5 Marks)**

   (b) As a consultant, a client has approached you to set up a budgetary control system in their organization. WHAT sequential steps would you follow to design, implement, and monitor the system? **(5 Marks)**

   (c) You are managing the inventory for a manufacturing company and notice that certain items in the store are not being utilized frequently, leading to increased holding costs. HOW would you identify slow-moving and non-moving items, and WHAT strategies would you implement to minimize such stocks effectively? **(4 Marks)**

   OR

   (d) DISCUSS in brief three main methods of allocating support departments costs to operating departments. **(4 Marks)**

MODEL TEST PAPER 8

INTERMEDIATE: GROUP – II

PAPER – 4: COST AND MANAGEMENT ACCOUNTING

Answers are to be given only in English except in the case of the candidates who have opted for Hindi medium. If a candidate has not opted for Hindi medium his/ her answer in Hindi will not be valued.

Working notes should form part of the answer.

Time Allowed – 3 Hours **Maximum Marks – 100**

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs) for 30 marks*
3. *Part II comprises questions which require descriptive type answers for 70 marks.*

PART I – Case Scenario based MCQs

Part I is compulsory.

Write the most appropriate answer to each of the following multiple-choice questions by choosing one of the four options given. All questions are compulsory.

1. The purchase committee of A Ltd. has been entrusted to review the material procurement policy of the company. The chief marketing manager has appraised the committee that the company at present produces a single product X by using two raw materials A and B in the ratio of 3:2. Material A is perishable in nature and has to be used within 10 days from Goods received note (GRN) date otherwise material becomes obsolete. Material B is durable in nature and can be used even after one year. Material A is purchased from the local market within 1 to 2 days of placing order. Material B, on the other hand, is purchased from neighbouring state and it takes 2 to 4 days to receive the material in the store.

   The purchase price of per kilogram of raw material A and B is ₹30 and ₹44 respectively exclusive of taxes. To place an order, the company has to incur an administrative cost of ₹1,200. Carrying cost for Material A and B is 15% and 5% respectively. At present material A is purchased in a lot of 15,000 kg. to avail 10% discount on market price. GST applicable for both the materials is 18% and the input tax credit is availed.

   The sales department has provided an estimate that the company could sell 30,000 kg. in January 2024 and also projected the same trend for the entire year.

   The ratio of input and output is 5:3. Company works for 25 days in a month and production is carried out evenly.

   The following queries/ calculations to be kept ready for purchase committees' reference:

(i) For the month of January 2024, what would be the quantity of the materials to be requisitioned for both material A and B:

(a) 9,000 kg & 6,000 kg respectively

(b) 18,000 kg & 12,000 kg respectively

(c) 27,000 kg & 18,000 kg respectively

(d) 30,000 kg & 20,000 kg respectively.

(ii) The economic order quantity (EOQ) for both the material A & B:

(a) 13,856 kg & 16,181 kg respectively

(b) 16,197 kg & 17,327 kg respectively

(c) 16,181 kg & 17,165 kg respectively

(d) 13,197 kg & 17,165 kg respectively

(iii) What would the maximum stock level for material A:

(a) 18,200 kg.

(b) 12,000 kg.

(c) 16,000 kg.

(d) 16,200 kg.

(iv) Calculate saving/ loss in purchase of Material A if the purchase order quantity is equal to EOQ.

(a) Profit of ₹ 3,21,201.

(b) Loss of ₹ 3,21,201.

(c) Profit of ₹ 2,52,500.

(d) Loss of ₹ 2,52,500.

(v) What would the minimum stock level for material A:

(a) 1,800 kg.

(b) 1,200 kg.

(c) 600 kg.

(d) 2,400 kg. **(5 x 2 = 10 Marks)**

2. During half year ending inter departmental review meeting of P Ltd., cost variance report was discussed and the performance of the departments were assessed. The following figures were presented.

For a period of first six months of the financial year, following information were extracted from the books:

Actual production overheads	₹ 34,08,000
The above amount is inclusive of the following payments made:	
Paid as per court's order	₹ 4,50,000

Expenses of previous year booked in current year	₹ 1,00,000
Paid to workers for strike period under an award	₹ 4,20,000
Obsolete stores written off	₹ 36,000

Production and sales data for the six months are as under:

Production:	
Finished goods	1,10,000 units
Works-in-progress	
(50% complete in every respect)	80,000 units
Sale:	
Finished goods	90,000 units

Machine worked during the period was 3,000 hours.

At the of preparation of revenue budget, it was estimated that a total of ₹50,40,000 would be required for budgeted machine hours of 6,000 as production overheads for the entire year.

During the meeting, a data analytic report revealed that 40% of the over/under-absorption was due to defective production policies and the balance was attributable to increase in costs.

You were also present at the meeting; the chairperson of the meeting has asked you to be ready with the followings for the performance appraisal of the departmental heads:

(i) How much was the budgeted machine hour rate used to recover overhead?

(a) ₹ 760

(b) ₹ 820

(c) ₹ 780

(d) ₹ 840

(ii) How much amount of production overhead has been recovered (absorbed) upto the end of half year end?

(a) ₹ 25,20,000

(b) ₹ 34,08,000

(c) ₹ 24,00,000

(d) ₹ 24,60,000

(iii) What is the amount of overhead under/ over absorbed?

(a) 1,18,000 over-absorbed

(b) 1,18,000 under- absorbed

(c) 18,000 over-absorbed

(d) 18,000 under-absorbed

(iv) What is the supplementary rate for apportionment of over absorbed overheads over WIP, Finished goods and Cost of sales?

(a) ₹ 0.315 per unit

(b) ₹ 0.472 per unit

(c) ₹ 0.787 per unit

(d) ₹ 1 per unit

(v) What is the amount of over absorbed overhead apportioned to Work in Progress?

(a) ₹ 9,440

(b) ₹ 42,480

(c) ₹ 18,880

(d) ₹ 70,800 **(5 x 2 = 10 Marks)**

3. The following details are given to you:

Raw materials consumed	2,40,000
Factory overheads	3/4 of direct wages
Quality control cost and research and development cost	20% of factory cost
Cost of production	7,50,000

The amount of direct wages will be:

(a) 2,50,000

(b) 2,20,000

(c) 2,00,000

(d) 3,00,000 **(2 Marks)**

4. A hotel having 200 rooms of which 80% are normally occupied in summer 60% in Autumn and 25% in winter. Period of summer, autumn and winter be taken as 4 months each and normal days in a month be assumed to be 30. The total occupied room days will be

(a) 39,200 Room days

(b) 39,600 Room days

(c) 39,000 Room days

(d) 38,000 Room days **(2 Marks)**

5. The following figures are extracted from the books of a company:

Budgeted overheads ₹20,000 (Fixed ₹12,000, Variable ₹8,000)

Budgeted output 2,500 units

Actual Overheads ₹21,800 (Fixed ₹11,800, Variable ₹10,000)

Actual output 3,000

Variable Overheads and fixed overheads cost variance will be:

(a) 400 (A) and 2600 (F)

(b) 400 (A) and 200 (F)

(c) 2,000 (A) and 200 (F)

(d) 2,000 (F) and 200 (A) **(2 Marks)**

6. In a particular process 28,000 units are introduced during a period. 5% of input is normal loss. Closing work in progress 60% complete is 2,600 units. 24,000 completed units are transferred to next process. Equivalent production for the period is:

   (a) 25,040 units

   (b) 28,000 units

   (c) 25,560 units

   (d) 24,000 units **(2 Marks)**

7. If final sales are ₹ 50,000 and separable costs are ₹ 35,000, then net realizable value will be

   (a) 15,000

   (b) 85,000

   (c) 35,000

   (d) 50,000 **(2 Marks)**

PART-II – Descriptive Questions (70 Marks)

*Question No. **1** is compulsory.*

*Attempt any **four** questions out of the remaining **five** questions.*

1. (a) Interio Ltd. manufactures quality furniture to customers' order. It has three production departments A, B and C which have overhead absorption rates (per direct labour hour) of ₹12.86, ₹12.40 and ₹14.03 respectively.

   Two pieces of furniture are to be manufactured for customer. Direct costs are as follows:

	Job -XYZ	Job- MNO
Direct material (₹)	15,400	10,800
Direct labour		
Dept.-A @ ₹ 76/ hour	20 hours	16 hours
Dept.-B @ ₹ 70/ hour	12 hours	10 hours
Dept.-C @ ₹ 68/ hour	10 hours	14 hours

   The firm quotes prices to customers that reflect a required profit of 25% on selling price. CALCULATE the total cost and selling price of each job.

   (5 Marks)

(b) From the following data CALCULATE (i) Administration cost, (ii) Selling cost and (iii) Distribution cost:

		Amount (₹)
(i)	Rent paid for factory building	96,000
(ii)	Salary paid to office staffs	8,20,000
(iii)	Fees paid to auditors	92,000
(iv)	Salary paid to sales manager	8,00,000
(v)	Vehicle hire charges paid for directors attending general meeting	10,200
(vi)	Wages paid to workers engaged in storing goods at sales depot	7,200
(vii)	Travelling allowance paid to sales staffs	9,600
(viii)	Cost paid for secondary packing	8,200
(ix)	Electricity bill paid for sales office	1,800
(x)	Depreciation on goods delivery vehicles	13,000
(xi)	Bonus paid to sales staffs for achieving targets	96,000
(xii)	Fees paid to independent directors	1,02,000

(5 Marks)

(c) CALCULATE the labour turnover rate by applying:

(i) Separation method

(ii) Replacement method

(iii) Flux method

Number of workers on payroll

At the beginning of the month 1,900

At the end of the month 2,250

During the month 29 workers left, 85 workers were discharged and 480 workers were recruited. Of these 90 workers were recruited in the vacancies of those separated, while the rest were engaged due to expansion. **(4 Marks)**

2. (a) Aviation Ltd. manufactures a range of products and the data below refer to one product which goes through one process only. The company operates a thirteen four-weekly reporting system for process and product costs and the data given below relate to period 2011.

There was no opening work-in-progress stock.

50,000 units of materials input at ₹ 2.94 per unit entered the process.

Further direct materials added	1,38,300
Direct wages incurred	65,550
Production overhead	74,700
Normal loss is 3% of input.	

Closing work-in-progress was 8,000 units but these were incomplete, having reached the following percentages of completion for each of the elements of cost listed.

	%
Direct materials added	75
Direct wages	50
Production overhead	25

2700 units were scrapped after a quality control check when the units were at the following degrees of completion.

	%
Direct materials added	66.67% or 66.⅔%
Direct wages	33.⅓ or 33.33%
Production overhead	16⅔% or 16.67%

Units scrapped, regardless of the degree of completion, are sold for ₹ 1 each and it is company policy to credit the process account with the scrap value of normal loss units.

You are required to PREPARE the Period 2023 accounts for the: (i) process account; and (ii) abnormal gain or loss. **(8 Marks)**

(b) The following standards have been set to manufacture a product:

Direct materials:	₹
2 units of P at ₹ 4 per unit	8.00
3 units of Q at ₹ 3 per unit	9.00
15 units of R at ₹ 1 per unit	15.00
	32.00
Direct labour 3 hours @ ₹ 8 per hour	24.00
Total standard prime cost	56.00

The company manufactured and sold 6,000 units of the product during the year.

Direct material costs were as follows:

12,500 units of P at ₹ 4.40 per unit

18,000 units of Q at ₹ 2.80 per unit

88,500 units of R at ₹ 1.20 per unit

The company worked 17,500 direct labour hours during the year. For 2,500 of theses hours the company paid at ₹ 12 per hour while for the remaining the wages were paid at the standard rate.

CALCULATE material price, usage variances, labour rate, and efficiency variances. **(6 Marks)**

3. (a) Tetra Automobiles assembles and sells motor vehicles. It uses an actual costing system, in which unit cost are calculated on a monthly basis. Data relating to May and June 2011 are

	May	June
	Units	*Units*
Beginning Inventory	0	35
Production	240	260
Sales	205	260
Variable-cost:	₹	₹
Manufacturing Costs per Unit Produced	40,000	40,000
Distribution cost per unit sold	4,000	4,000
Fixed-cost:		
Manufacturing Costs	32,00,000	32,00,000
Marketing Costs	6,00,000	6,00,000
The selling price per motor vehicle is	59,000	59,000

Required

(i) PRESENT income statement for Tetra Automobiles in May and June under:

(a) Marginal Costing

(b) Absorption Costing

(ii) EXPLAIN the differences between (a) and (b) **(6 + 2 Marks)**

(b) EXPLAIN the difference in Profit under Marginal and Absorption costing in different circumstances. **(4 Marks)**

(c) LIST the Financial expenses which are not included in cost. **(2 Marks)**

4. (a) As on 31st March,2023 the following balances existed in a firm's Cost Ledger :

	Dr.	*Cr.*
	₹	₹
Stores Ledger Control A/c	3,00,000	
Work-in-Progress Control A/c	1,20,000	
Finished Stock Ledger Control A/c	2,50,000	
Manufacturing Overhead Control A/c		10,000
Cost Ledger Control A/c		6,60,000
	6,70,000	6,70,000

During the next three months the following items arose:

	₹
Finished product (at cost)	2,10,000
Manufacturing overhead incurred	90,000
Raw materials purchased	1,23,000
Factory Wages	50,000
Indirect Labour	21,000
Cost of Sales	1,85,000
Material issued to production	1,27,000
Sales returned at Cost	5,000
Material returned to suppliers	3,000
Manufacturing overhead charged to production	77,000

You are required to PASS Journal Entries. **(5 Marks)**

(b) BABYSOFT is a global brand created by Bio-organic Ltd. The company manufactures three range of beauty soaps i.e. BABYSOFT- Gold, BABYSOFT- Pearl, and BABYSOFT- Diamond. The budgeted costs and production for the month of December, 2023 are as follows:

	BABYSOFT- Gold		**BABYSOFT- Pearl**		**BABYSOFT- Diamond**	
Production of soaps (Units)	**4,000**		**3,000**		**2,000**	
Resources per Unit:	**Quantity**	**Rate**	**Quantity**	**Rate**	**Quantity**	**Rate**
- Essential Oils	60 ml	₹ 200 / 100 ml	55 ml	₹ 300 / 100 ml	65 ml	₹ 300 / 100 ml
- Cocoa Butter	20 g	₹ 200 / 100 g	20 g	₹ 200 / 100 g	20 g	₹ 200 / 100 g
- Filtered Water	30 ml	₹ 15 / 100 ml	30 ml	₹ 15 / 100 ml	30 ml	₹ 15 / 100 ml
- Chemicals	10 g	₹ 30 / 100 g	12 g	₹ 50 / 100 g	15 g	₹ 60 / 100 g
- Direct Labour	30 minutes	₹ 10 / hour	40 minutes	₹ 10 / hour	60 minutes	₹ 10 / hour

Bio-organic Ltd. followed an Absorption Costing System and absorbed its production overheads, to its products using direct labour hour rate, which were budgeted at ₹ 1,98,000.

Now, Bio-organic Ltd. is considering to adopt an Activity Based Costing system. For this, additional information regarding budgeted overheads and their cost drivers is provided below:

Particulars	(₹)	Cost drivers
Forklifting cost	58,000	Weight of material lifted

Supervising cost	60,000	Direct labour hours
Utilities	80,000	Number of Machine operations

The number of machine operators per unit of production are 5, 5, and 6 for BABYSOFT- Gold, BABYSOFT- Pearl, and BABYSOFT- Diamond respectively.

(Consider (i) Mass of 1 litre of Essential Oils and Filtered Water equivalent to .8 kg and 1 kg respectively (ii) Mass of output product is equivalent to the mass of input materials taken together.)

You are requested to:

(i) PREPARE a statement showing the unit costs and total costs of each product using the absorption costing method.

(ii) PREPARE a statement showing the product costs of each product using the ABC approach **(9 Marks)**

5. (a) A department of ABC Ltd. attains sales of ₹9,60,000 at 80% of its normal capacity. Its expenses are given below:

	₹	*Selling Costs :*	
Office salaries	1,10,000	Salaries	6% of sales
General expenses	2% of sales	Travelling expenses	5% of sales
Depreciation	6,200	Sales office	2% of sales
Rent and rates	9,750	General expenses	1% of sales
Distribution costs:			
Wages	2% of sales		
Rent	1% of sales		
Other expenses	6% of sales		

DRAW up Flexible Administration, Selling and Distribution Costs Budget, operating at 90 per cent, 100 per cent and 110 per cent of normal capacity. **(8 Marks)**

(b) Akruti Health Center consists of 20 beds. Health centre remains open for 300 days in a year. For the year ended 31st March 2023, the health centre was occupied at full capacity for 200 days and at 80% of the capacity for the remaining days.

Below are the details of the expenditure:

Rent for the premises	₹ 15,000/- per month
Repair & Maintenance	₹ 10,000/-
Food supplied to patients	₹ 72/- per patient per day
Laundry charges	₹ 30/- per patient per day
Medicines	₹ 60/- per patient per day
Administrative expenses	₹ 72,000/-

Salary to two supervisor s	₹ 2000 p.m. for each.
Salary to four nurses	₹ 1,500 p.m. for each
Salary to two ward boys	₹ 1,200 p.m. for each

Expert doctors were called from the outside to visit the patients. Expert doctors were paid ₹ 250 for each patient visited by them.

From the above information CALCULATE fee that Health centre should have been charged to per patient per day to earn a profit of 75% on fees charged. **(6 Marks)**

6. (a) DISTINGUISH between fixed and flexible budget. **(5 Marks)**

(b) WRITE short notes on Scope of Cost Reduction **(5 Marks)**

(c) DISTINGUISH between Job costing and Batch costing. **(4 Marks)**

OR

(d) WHAT do you mean by time and motion study? WHY is it so important to management? **(4 Marks)**

MODEL TEST PAPER 1

INTERMEDIATE GROUP – II

PAPER – 5: AUDITING AND ETHICS

Time Allowed – 3 Hours **Maximum Marks – 100**

PART I - Case Scenario based MCQs (30 Marks)

Write the most appropriate answer to each of the following multiple-choice questions by choosing one of the four options given. All MCQs are compulsory and carries 2 Marks each.

Case Scenario 1

Dhanush, a CA student undergoing articles, is part of an engagement team conducting audit of Test Enterprises Private Limited. The company is engaged in business of conducting aptitude and language tests every fortnight at centres spread all over major cities of country for Indian students desirous of applying to foreign universities. It also sells books containing model test papers for the benefit of students.

The company has substantial number of computers at each centre to enable seamless experience for students appearing for standardized aptitude and language tests. The company has acquired new identifiable software involving substantial expenditure for conducting tests during the year which is expected to drive company's revenues in coming years. At the time of taking a test, a CD containing software is run in each system for enabling students to take tests. Cost of CD without software is nominal.

The revenue of the company during the year 2023-24 was ₹ 50 crores (₹45 crores from fees charged from students and ₹5 crores from sale of books). Besides, company has also received ₹ 10 lacs as interest on certain investments during the year. The company has a history of profitable operations.

During the course of audit, it is noticed by Dhanush that computers form significant chunk of PPE items in financial statements of company. The company has taken useful life of computers consisting of desktops for 3 years. However, depreciation charged on computers in financial statements of the company is higher than depreciation allowable under Income tax law. It results in lower accounting income as per books of accounts of company as compared with taxable income under Income tax law.

During the course of audit, he notices that cost of CDs along with software cost is treated as an intangible asset by company. It is also part of his responsibility to verify PPE register in accordance with audit programme. On perusing details in PPE register, he finds that some computers have moved from one centre to another centre to meet business requirements. Further, many computers were disposed or scrapped in earlier years. However, proper details in relation to movement and disposal/scrapping have not been entered in PPE register. When these items were physically verified by the management during the year, it has resulted in material discrepancies. The management has properly dealt with such discrepancies in books of accounts.

Based on above, answer the following questions:

1. Considering description provided in case scenario regarding accounting income as per books of accounts and taxable income under Income tax law, choose appropriate responsibility of Dhanush:

   (a) To verify deferred tax liability likely created in financial statements in accordance with AS 22

   (b) To verify deferred tax asset likely created in financial statements in accordance with AS 22

   (c) To verify deferred tax asset likely created in financial statements in accordance with AS 29

   (d) To verify deferred tax liability likely created in financial statements in accordance with AS 29

2. Keeping in view description provided in case scenario, which of following statements is likely to be correct regarding accounting treatment of cost of CDs and software acquired by company to run tests?

   (a) The company's accounting treatment of treating cost of CDs with software costs as intangible assets is not proper. It should have treated such costs as revenue expenditure.

   (b) The company's accounting treatment of treating cost of CDs with software costs as intangible assets is proper.

   (c) The company's accounting treatment of treating cost of CDs with software costs as intangible assets is not proper. It should have treated cost of CDs as PPE item and software cost as intangible asset.

   (d) The company's accounting treatment of treating cost of CDs with software costs as intangible assets is not proper. It should have treated cost of CDs as PPE item and software cost as revenue expenditure.

3. As regards discrepancies noticed in computer systems on physical verification by management as described in case scenario, which of following statements is most appropriate?

   (a) The management has properly dealt with such discrepancies. However, Dhanush should bring it to light of engagement partner as it may result in modification of auditor's opinion.

   (b) The management has properly dealt with such discrepancies. However, Dhanush should bring it to light of engagement partner as it entails specific reporting requirement for auditor under the Companies Act, 2013.

   (c) The management has properly dealt with such discrepancies. Therefore, Dhanush should not do anything further.

   (d) The management has properly dealt with such discrepancies. However, Dhanush should bring it to light of engagement partner as it is in nature of misstatement which needs to be communicated and documented by auditor.

4. Which of following statements meets requirements of law in respect of revenue from operations of the company?

   (a) Revenue from operations of ₹ 50 crores should be shown in Statement of Profit and loss.

   (b) Revenue from operations of ₹ 50.10 crores should be shown in Statement of Profit and loss. However, revenue from sale of books, fees charged from students and interest on investments should be disclosed separately in notes.

   (c) Revenue from operations of ₹ 50.10 crores should be shown in Statement of Profit and loss.

   (d) Revenue from operations of ₹ 50 crores should be shown in Statement of Profit and loss. However, revenue from sale of books and fees charged from students should be disclosed separately in notes.

5. The company has taken useful life of desktops to be 3 years. Such a requirement is _______________

   (a) prescribed under Schedule III to the Companies Act, 2013. However, a company can choose useful life different from what is prescribed under Schedule III.

   (b) is not prescribed under the Companies Act, 2013. It depends upon manufacturing specifications of desktops.

   (c) prescribed under Schedule II to the Companies Act, 2013. However, a company can choose useful life different from what is prescribed under Schedule II.

   (d) is not prescribed under the Companies Act, 2013. It needs to be arrived at mandatorily by a management expert.

Case Scenario 2

CDL Limited, a company dealing in FMCG goods, is having 50 branches in India. SKC & Associates **(referred to as company's auditor**) are appointed as statutory auditors of the company for year 2023-24. Further, company has also appointed Mr. D as branch auditor for 5 of its branches.

Since Mr. D is conducting audit of only 5 branches of company, he has not arrived at materiality level in respect of auditee branches. On the same lines, identification and assessment of risk of material misstatement has not been performed. He is of the view that determination of materiality and identifying & assessing risks of material misstatement is done for financial statements of company as a whole. He has mainly performed substantive audit procedures in respect of financial statements of auditee branches like verification of PPE items, inventories, trade receivables, cash, bank balances and trade payables at auditee branches and maintained documentation of the same.

During the course of audit at two branches dealing in same kind of goods, Mr. D has performed analytical procedures pertaining to inventories. He has arrived at and compared inventory turnover ratio (Cost of goods sold/Average inventory) over a period of years of two branches. The results of analytical procedures are summarized in Table I below:

Table 1

Particulars	**Branch**	**Year 2021-22**	**Year 2022-23**	**Year 2023-24**
Inventory turnover ratio	I	15	14	12
Inventory turnover ratio	II	4	6	10

The company's auditor has also decided to use work of Mr. D with respect to financial information of 5 branches included in financial information of the company. During the course of audit, company's auditor has advised Mr. D by way of email certain significant accounting, auditing and reporting requirements and has asked him to provide representation as to compliance with them. Irritated and surprised, Mr. D is of the view that such an email is beyond the rights of the company's auditor.

Based on above, answer the following questions:

6. As regards audit of a branch of CDL Limited as referred to in case scenario is concerned, which of following statements is most appropriate?

   (a) The accounts of a branch shall be audited either by the company's auditor or by any other person qualified for appointment as an auditor of the company and appointed as such under section 139 of the Companies Act, 2013. In case branch accounts are audited by a person other than company's auditor, branch audit report is sent by branch auditor to company's auditor.

   (b) The accounts of a branch shall only be audited by any other person qualified for appointment as an auditor of the company and appointed as such under section 139 of the Companies Act, 2013 except company's auditor. In such a case, branch audit report is sent by branch auditor to members of company.

   (c) The accounts of a branch shall only be audited by any other person qualified for appointment as an auditor of the company and appointed as such under section 139 of the Companies Act, 2013 except company's auditor. In such a case, branch audit report is sent by branch auditor to company's auditor.

   (d) The accounts of a branch shall be audited either by the company's auditor or by any other person qualified for appointment as an auditor of the company and appointed as such under section 139 of the Companies Act, 2013. In case branch accounts are audited by a person other than company's auditor, branch audit report is sent by branch auditor to members of company.

7. After reading methodology for carrying out branch audits by Mr. D, which of following statements is likely to be most appropriate?

   (a) Separate determination of materiality and identifying & assessing risk of material misstatement is not required in respect of each of the branches. He is required to perform only substantive procedures as described in the case scenario in respect of auditee branches and maintain documentation of the same.

(b) Separate determination of materiality and identifying & assessing risk of material misstatement is required in respect of each of branches. However, documentation for these matters regarding branches is not required. He is required to perform substantive procedures as described in case scenario in respect of auditee branches and also maintain documentation of the same.

(c) Separate determination of materiality and identifying & assessing risk of material misstatement is required along with documentation thereof in respect of each of branches. He is required to perform substantive procedures as described in case scenario in respect of auditee branches and also maintain documentation of the same.

(d) Identifying & assessing risk of material misstatement is required along with documentation in respect of each of branches. However, materiality is required to be arrived at for financial statements of company as a whole. He is required to perform substantive procedures as described in case scenario in respect of auditee branches and also maintain documentation of the same.

8. Choose the correct statement regarding results of analytical procedures performed by Mr. D summarized in Table 1 in case scenario.

(a) During year 2023-24, inventories of Branch I have moved faster in comparison to Branch II.

(b) During year 2023-24, inventories of Branch II have moved faster in comparison to Branch I.

(c) Comparison of inventory turnover ratio of Branch II over a period of years may indicate that branch's sales have likely been weak with higher inventory holdings in year 2023-24 as compared to previous years.

(d) Comparison of inventory turnover ratio of Branch I over a period of years may indicate that branch's sales have likely been strong with lower inventory holdings in year 2023-24 as compared to previous years.

9. Considering contents of email sent by company's auditor to Mr. D, which of following statements is likely to be in accordance with Standards on Auditing?

(a) Company's auditor can advise Mr. D regarding certain significant accounting, auditing and reporting requirements and ask him to provide representation as to compliance with them.

(b) Company's auditor can advise Mr. D certain significant accounting, auditing and reporting requirements. However, asking him to provide representation as to compliance with them is breach of Mr. D's independence.

(c) Company's auditor cannot advise Mr. D certain significant accounting, auditing and reporting requirements. It is breach of Mr. D's independence.

(d) Company’s auditor can advise Mr. D regarding certain significant accounting, auditing and reporting requirements only when Mr. D makes such a request.

Case Scenario 3

CA B is conducting statutory audit of branch of a nationalized bank. Saurabh, a CA student, is also part of engagement team conducting statutory branch audit. The field of bank branch audit is new to him and he is following instructions as required by engagement partner.

The engagement partner has asked him to prepare a summary of non-funded credit facilities outstanding as on balance sheet date. The following information is appearing in branch’s CBS data/records as on 31st March, 2023:

Serial number	**Particulars in CBS (Core Banking solution)/records**	**Amount in ₹ crores**
1.	Agricultural term loans	15.00
2.	Staff housing loans	3.50
3.	Staff vehicle loans	0.20
4.	Housing loans-General public	10.00
5.	Letters of credit issued	2.50
6.	Education loans	1.50
7.	Guarantees issued (Fully secured by 100% margin)	1.00
8.	Bills purchased and discounted	2.00
9.	Bills for collection	0.10

On going through listing of housing loans to general public, CA B notices that branch has sanctioned many housing loans of small ticket size ranging between ₹10.00 to ₹ 20 lakhs. Therefore, he has assessed risk of material misstatements to be high. As a consequence, he has designed procedures to perform tests of controls as well as substantive tests.

Saurabh has been further asked to go through SMA (Special Mention Accounts) jotting as on 30th November, 2022. Such reports are available from system on monthly frequency. Being new to such type of assignment, he is unable to understand relevance of above audit procedure mandated by engagement partner.

Based on above, answer the following questions:

10. Considering table given in the case scenario, which of the following combinations is appropriate example of non- funded credit facilities provided by branch to its customers?

    (a) Bills purchased and discounted; bills for collection

    (b) Bills for collection; staff housing loans; letters of credit issued

    (c) Bills purchased and discounted; letters of credit issued; guarantees issued (fully secured by 100% margin)

(d) Letters of credit issued, guarantees issued (fully secured by 100% margin)

11. CA B's decision to perform both tests of controls as well as substantive tests was taken after he had assessed risk of material misstatement in financial statements to be high due to large number of small ticket size loans. Which Standard on Auditing deals with auditor's responsibility to design such tests?

(a) SA 500

(b) SA 330

(c) SA 300

(d) SA 315

12. Saurabh is unable to understand relevance of going through SMA jotting as on 30th November, 2022. Which of following statements is most appropriate in this context?

(a) It would necessarily help auditor in identifying accounts with significant lending exposure.

(b) It would help auditor in identifying accounts which may involve downgrading from Sub-standard asset category to doubtful category.

(c) It would help auditor in identifying accounts where substantial recoveries have been received during the year.

(d) It would help auditor in identifying accounts which may involve downgrading from standard category to non-performing asset.

MCQs

13. *"We, the people"* is an NGO working for rights of citizens. Due to nature of its activities, its volunteers take part in agitations which acquire political overtones. It also gets money from trusts based in overseas countries.

The government has tightened regulatory mechanism for NGOs receiving foreign funding. The finance and accounts department in NGO is headed by an experienced person, a former volunteer and activist himself. However, he has no professional or legal educational background. CA N is appointed as auditor of above NGO for the first time.

Choose the most appropriate option regarding audit risk inferred by you from above.

(a) Audit risk in the above situation is low.

(b) The situation does not provide quantitative data. Therefore, it is not possible to make a precise measurement of audit risk.

(c) Audit risk in the above situation is high.

(d) The situation does not provide information affecting all components of audit risk. Therefore, inference cannot be made properly.

14. CA J is in process of planning audit for a large company engaged in business of dealing and manufacturing of pharmaceutical products. Central Drugs

Standard Control Organisation (CDSCO), National regulatory Authority under Ministry of Health & Family Welfare is responsible for approval of drugs, conduct of clinical trials and laying down Standards for drugs and control over quality of imported drugs. Auditor is also considering whether to make use of audit evidence obtained in previous audit of the same company. Besides, he is also considering volume of transactions to determine whether it is efficient to rely on internal controls. As part of planning activities, he is also considering extent of substantive audit procedures to be performed. Consider following factors stated from 1 to 5:

1. Reporting requirements required by CDSCO, if any
2. Need for specialized knowledge of pharma industry
3. Expected use of audit evidence obtained in previous audit
4. Volume of transactions to consider reliance on internal control
5. Nature and extent of substantive audit procedures

Choose the most appropriate factor/combination of factors which could be relevant to CA J in establishing audit strategy: -

(a) 1, 3, 4 and 5

(b) 1 only

(c) 1, 2, 3 and 4

(d) 2 only

15. CA Tarini is in process of formulating audit plan for conducting audit of a company engaged in business of dealing in commodity futures. Which of following is not likely to be an appropriate audit procedure to be included in audit plan for the abovesaid company?

(a) Verification of turnover of company

(b) Verification of cost of raw material consumed

(c) Examination of company's accounting policy for revenue recognition

(d) Verification of contract notes with brokers

PART II - Descriptive Questions

*Question No. **1** is compulsory.*

*Attempt any **four** questions from the Rest.*

1. (a) DOX Limited, a service provider company engaged in providing courier services pan-India as well as internationally, has appointed an internal auditor, Mr. G, in accordance with requirements of the Companies Act, 2013 during financial year 2023-24. The company's annual turnover during year 2022-23 and 2023-24 has been about ₹ 300 crores during each of above years. Business of the company has been profitable. Mr. G heads internal audit department of the company assessing governance activities, assisting in improving risk management activities and reviewing controls. Discuss reporting responsibility of statutory

auditor of the company under the Companies Act, 2013 specifically in relation to internal audit and related matters for the year 2023-24.

(4 Marks)

(b) Up and High Private Limited has started its export business during the year 2023-24. The company was catering to domestic market only in past years. CA H, statutory auditor of the company, is of the view that the company has understated its revenue by ₹ 50.00 lacs in the year 2023-24 by not complying with requirements of AS 9 relating to revenue recognition.

(i) Discuss responsibilities of statutory auditor to communicate with management in the above situation in accordance with SA 450. Also explain the usefulness of such communication.

(ii) If management refuses to correct misstatement as communicated by the statutory auditor, how should he proceed? **(4 Marks)**

(c) Prudent Enterprises Private Limited has incurred and fully spent for the first time Corporate Social Responsibility (CSR) expenditure amounting to ₹ 14.50 lacs in pursuance to provisions of section 135 of the Companies Act, 2013. The expenditure was spent for women empowerment programmes through an implementing agency (not a related party). As per law provisions, it was required to spend ₹ 14.00 lacs during the year. Discuss how such information is required to be disclosed in accordance with requirements of Schedule III to the Companies Act, 2013 in financial statements of the company. **(3 Marks)**

(d) CA Tripad (engagement partner) based at New Delhi is external auditor of Lap of Nature, a firm, since last three years. The firm is engaged in business of providing tourism services including holiday packages to its club members. It has also provided auditor including his team members free holiday for a week every year in one of its premium resorts in Ooty in the State of Tamil Nadu. The company has also booked free air travel for engagement team members during all these years. Discuss why Chartered Accountant is not acting ethically. How are familiarity threats created in above situation? **(3 Marks)**

2. (a) Mention any four financial events or conditions that, individually or collectively, may cast significant doubt on the entity's ability to continue as going concern. **(4 Marks)**

(b) Adequate planning benefits the audit of financial statements in several ways. Explain. **(4 Marks)**

(c) The auditor carries out his work by obtaining audit evidence through performance of audit procedures. However, there are practical and legal limitations on ability of auditor to obtain audit evidence. Give one example each for such practical and legal limitations. **(3 Marks)**

(d) Goods and Services Tax Network (GSTN) is a not for profit, limited by shares, company. Its 50% shareholding is with Union Government and

50% with different State Governments. The company provides IT infrastructure and services to various stakeholders including governments and tax payers. The company is in operation since past few years and subsequent auditor needs to be appointed during financial year 2023-24. Who appoints statutory auditor of such a company described above in accordance with provisions of the Companies Act, 2013? Can any directions be issued to statutory auditors of above company? **(3 Marks)**

3. (a) Suniti, a CA student, is part of an engagement team conducting audit of a company TIM Private Limited. According to audit programme, she is responsible for verifying purchases and PPE items appearing in books of accounts from records/bills of company. Besides, she has also been entrusted responsibility to obtain written representation from management regarding carrying out of physical verification of inventories during the year. During course of her work, she finds that:

   (i) One purchase bill amounting to ₹ 5.00 lacs pertaining to TIM Industries has been entered in books of TIM Private Limited.

   (ii) The management has refused to provide a written representation relating to physical verification of inventories during the year. She has brought it to knowledge of engagement partner who has decided to use lack of such a representation as audit evidence.

   Discuss whether each of above constitutes audit evidence. State reasoning for your answer. **(4 Marks)**

   (b) CA B is statutory auditor of Boom Payments Bank for year 2023-24. During the year, banking regulator has imposed restrictions on Bank from accepting new deposits due to non-compliance in conducting KYC in large number of accounts and violation of rules aimed at preventing money laundering. There is material uncertainty regarding probable outcome of such restrictions on ability of Bank to continue as going concern. However, for year 2023-24, auditor has concluded that use of going concern basis of accounting is appropriate. The financial statements of Bank do not make adequate disclosure of material uncertainty due to above events in financial statements. What are implications for auditor's report for year 2023-24 in view of above?

   (4 Marks)

   (c) Auditor shall develop an audit plan that includes description of audit procedures. Specify requirements in this regard. **(3 Marks)**

   (d) What is meant by audit documentation? What are objectives of an independent auditor in accordance with SA 230? **(3 Marks)**

4. (a) You are part of engagement team conducting audit of an entity engaged in manufacturing business. State few audit procedures you would undertake to perform to verify that recorded sales in financial statements

represent goods actually sold during the period and recorded sales are not overstated. **(4 Marks)**

(b) While performing statutory audit of Contra Industries Private Limited, a company engaged in manufacturing and assembling of LED lights, CA Varun has decided to attend physical inventory count process of the company on 30th and 31st March, 2024. The inventories are lying at three different locations - two such locations A and B are in one city and third location C is in another city. Further, company also sends inventories to some service providers for quality control and testing as such facilities are not available with the company.

CA Varun is well-versed with this type of industry and has prepared a list of following matters which could be relevant to him in planning attendance at physical inventory count process for discharging his responsibilities in accordance with SAs: -

- Nature of inventories i.e. LED light components, parts, circuits, panels, body, WIP and finished packed LED lights
- Materiality of inventories at different locations A, B and C
- Stage of completion of work-in-progress
- Maintenance of perpetual inventory system by company
- Materiality of inventories lying with service providers
- Timing of physical inventory counting i.e. year end

There are two important matters which do not find place in above list. Without considering these crucial matters, it would be difficult for the auditor to properly plan his attendance at inventory count process in accordance with relevant SA. Discuss such matters. **(4 Marks)**

(c) The auditor should decide whether relevant information is properly disclosed in the financial statements. Explain with reference to scope of audit. **(3 Marks)**

(d) SQC 1 dwells upon engagement quality control review (EQCR) as part of system of quality control in a firm. Why is such a review required? For which type of engagements EQCR is mandatory?

What should be approach of firm for engagements for which EQCR is not mandatory? **(3 Marks)**

5. (a) WTE Private Limited is engaged in business of manufacturing a product liable to GST @ 5%. The input raw materials for manufacturing this product are liable to GST @ 12% and 18%. As a result, at the end of financial year, ITC on inputs amounting to ₹ 60 lacs is accumulated in Electronic Credit ledger and refundable to company under provisions of GST law. How would above amount of ₹ 60 lacs be reflected and classified in balance sheet of company? State few audit procedures to be performed by you for verification of abovesaid balance. **(4 Marks)**

(b) The objective of an auditor in accordance with SA 315 is to identify and assess risks of material misstatement at financial statement level and assertion level. Which specific activities an auditor is required to perform for the purpose of identifying and assessing risks of material misstatement? **(4 Marks)**

(c) You have been appointed as an auditor of ABC Hotel, a three star hotel, for Financial Year 2022-23. As an auditor what are the special points that need to be considered in verifying the Inventories in the nature of food and beverages? **(3 Marks)**

(d) Professional Behaviour is one of the fundamental principles governing professional ethics. Explain its meaning. Also, give example of a situation where a Chartered Accountant fails to follow this principle.

(3 Marks)

6. (a) CA Z is appointed as statutory auditor of BETA Private Limited for the year 2023-24. There exists an internal audit function in the company headed by its Chief Internal Auditor, CA K. Valuation of trade receivables of company is assessed as area of higher risk by statutory auditor. He wants to take direct assistance of Chief Internal Auditor in respect of above matter. Discuss along with reasons whether it would be proper for statutory auditor to: -

(i) assign checking of accuracy of aging of trade receivables to Chief Internal Auditor?

(ii) assign evaluation of adequacy of provision based on aging of trade receivables to Chief Internal Auditor? **(4 Marks)**

(b) The audit of Government expenditure is one of the major components of Government audit. Briefly explain the basic standards set in relation to audit of Government expenditure. **(4 Marks)**

OR

Cinescreen Multiplex Ltd. is operating cinemas in different locations in Mumbai and has appointed you as an internal auditor. What are the areas that need to be verified in relation to receipts from sale of Tickets? **(4 Marks)**

(c) Given below is a table containing Column A and Column B. Column A contains description of certain controls in an automated environment. Complete Column B by stating appropriate type of control.

Column A (Description of control in an automated environment)	Column B (Type of control)
Reasonableness checks	?
Controls over Data centre and network operations	?

Controls over application system acquisition, development and maintenance	?
Program change controls	?

(3 Marks)

(d) An engagement partner takes overall responsibility for maintaining audit quality in an audit engagement in accordance with SA 220. What are his objectives in taking and emphasizing such responsibility? **(3 Marks)**

MODEL TEST PAPER 2

INTERMEDIATE GROUP – II

PAPER – 5: AUDITING AND ETHICS

Time Allowed – 3 Hours **Maximum Marks – 100**

PART I - Case Scenario based MCQs (30 Marks)

Write the most appropriate answer to each of the following multiple-choice questions by choosing one of the four options given. All MCQs are compulsory and carries 2 Marks each.

Case Scenario 1

Pluto Limited is engaged in manufacturing and distribution of ergonomic furniture. Such kind of customisable range home office furniture has gained lot of importance in past few years. The company was able to perform well over the years and the same is reflected in their financials.

During year 2023-24, audit firm of S.J. and Associates was reappointed as their auditor. The engagement team consisted of CA Sneha (partner) and five articled assistants. One of the assistants was new to this engagement. Considering huge volume of transactions, the partner asked him to go through files of last year and auditor's report to gain an understanding of issues which arose in last year i.e. 2022-23.

While going through summary page of file of last year, he noticed that below points were under discussion with the partner before audit finalisation:

Point 1: For employee benefit expenses, following points were verified by the team:

- The employee benefit expenses shown in the books were actually incurred during the relevant period.
- The expenses in respect of all personnel were accounted for.
- The expense recognised during year 2022-23 related to this year only.

Point 2: It was noted that dividend to equity shareholders for the year 2022-23, was declared on 15.04.2023. As the dividend related to the year 2022-23, the same was recognised as liability in the same year.

Point 3: Debtors constitute one of the major components of company's financials. As part of audit procedures, verification was made whether company had made allowance for those debtors which were doubtful. In this regard, list of debtors under litigation was also obtained and scrutinized.

Point 4: Asset additions during the year amounted to ₹ 50 lakhs. The payment in respect of these assets were made through bank account of the company. However, on scrutiny, it was found that some of invoices were not in the name of the company but in name of one of directors.

Point 5: The company was maintaining few bank accounts including one foreign currency account. There was included in previous year file a paper converting foreign currency amount held in a bank account to Indian Rupees at closing exchange rate.

Based on above, answer the following questions:

1. In point 1 relating to Employee benefits, which among the following assertions are discussed respectively (in same order as described in point 1)?

   (i) Valuation

   (ii) Occurrence

   (iii) Cut-off

   (iv) Completeness

   Choose the correct combination from below: -

   (a) (i),(ii) and (iv)

   (b) (ii), (iv) and (iii)

   (c) (ii), (iii) and (iv)

   (d) (i),(ii) and (iii)

2. Do you think the amount of dividend recognised as liability in the year 2022-23 as given in point 2 appropriate?

   (a) Yes. As the amount of dividend related to year 2022-23, it should be recognised in the same year irrespective of the year of declaration.

   (b) No. The amount should be recognised equally between two financial years.

   (c) No. The amount should not be recognised as liability in year 2022-23. But it needed to be disclosed in the notes to accounts of that year.

   (d) No. The amount should not be recognised as liability. Further, no disclosure was needed in the financials of that year.

3. In relation to matter described in para 3 pertaining to debtors, which of the following assertions was verified by auditors?

   (a) Valuation

   (b) Rights and obligations

   (c) Existence

   (d) Completeness

4. Read Point 4 and choose which assertion is not proved in this case.

   (a) Existence

   (b) Rights and obligation

   (c) Completeness

   (d) Measurement/Valuation

5. Choose the correct statement from below pertaining to matter described in Point 5.

   (a) The company was required to restate said amount in accordance with requirements of AS 1. By verifying it, auditor had verified existence assertion.

(b) The company was required to restate said amount in accordance with requirements of AS 11. By verifying it, auditor had verified completeness assertion.

(c) There was no responsibility of company to restate said amount. It was auditor's responsibility to restate said amount in accordance with requirements of AS 11. No assertion was, therefore, verified by auditor.

(d) The company was required to restate said amount in accordance with requirements of AS 11. By verifying it, auditor had verified valuation assertion.

Case Scenario 2

Watch IT India Private Limited is a company engaged in business of manufacturing smart watches. The company had a slow start in the beginning as company's products were gaining traction with customers. However, momentum has picked up during the year. The company wants to appoint M/s Tripati & Associates, a CA firm as their auditor for year 2023-24 by replacing their existing auditors M/s Sreepath and Co. M/s Tripati & Associates are willing to accept the engagement. They communicated with previous auditors before accepting the engagement. However, M/s Sreepath and Co. have failed to respond.

CA Kishan, partner of M/s Tripati & Associates explained to his team members about importance of Engagement letter. He also arranged a team discussion on matters relating to acceptance of terms of engagement.

First point of consideration was concerning preconditions for an audit. Mr. Arun, a team member could recollect few of them. Those included determining whether financial reporting framework used in the preparation of financial statement is acceptable, management providing auditor with access to all relevant information and additional information upon auditor's request. It was further elaborated by Arun that management has to provide unrestricted access to employees within entity as may be required by auditor for obtaining audit evidence. Team members were asked to list factors that may necessitate revision of Engagement letter in case of recurring audits. Mr. Kumar, another team member replied that revision may be required in cases involving significant change in ownership, recent changes in senior management, change in financial reporting framework adopted in preparation of financial Statements, modest change in nature or size of the entity's business, change in legal and regulatory requirements etc.

Mr. Ram, one of the team members raised a doubt. He enquired regarding recourse available to incoming auditor in case management makes it clear before acceptance of engagement by auditor regarding its inability in providing support to him in respect of certain procedures expected to be performed during course of audit. In this respect, specific question was raised relating to sending of confirmation requests to material trade payables reflecting in financial statements of a company. Trade payables pertain to material input and input services acquired and utilised by company during the year. Lack of support by management in such a case would, in effect, signify management's refusal to allow auditor to send confirmation requests at the outset before engagement is accepted by auditor.

Based on above, answer the following questions:

6. As regards doubt of Mr. Ram described in last para of case scenario, which of the following statements is likely to be in accordance with Standards on Auditing?

   (a) The auditor needs to inquire into management's reasons for the refusal and perform alternative audit procedures to obtain relevant and reliable audit evidence.

   (b) The auditor needs to evaluate implications of management's refusal on auditor's assessment of risk of material misstatement and perform alternative audit procedures to obtain relevant and reliable audit evidence.

   (c) The auditor should not accept such an engagement.

   (d) The auditor needs to evaluate implications of management's refusal on risk of fraud and perform alternative audit procedures to obtain relevant and reliable audit evidence.

7. When CA Kishan, the partner, asked about preconditions for an audit, Mr. Arun could recollect only few of them. Read the passage and find out which among the following points were missed.

   (i) Obtaining management responsibility on specific legal aspects governing the organisation.

   (ii) Obtaining management responsibility on Standards on Auditing applicable to the organisation.

   (iii) Obtaining management responsibility for the preparation of financial statements as per applicable financial reporting framework.

   (iv) Obtaining management responsibility on necessary Internal controls to enable preparation of financial statements which are free from material misstatement whether due to error or fraud.

   Choose the correct answer from below options.

   (a) (i), (ii) and (iii)

   (b) (ii), (iii) and (iv)

   (c) (iii) and (iv)

   (d) (i) and (iv)

8. From what Mr. Kumar replied about the factors requiring a revision of Engagement letter one point was incorrect. Read the passage and find that incorrect factor.

   (a) A significant change in ownership

   (b) A recent change in management

   (c) A change in financial reporting framework adopted in preparation of Financial Statements

   (d) A modest change in nature or size of the entity's business

9. M/s Sreepath & Co. have failed to respond to incoming auditors. In this regard, choose the most appropriate option: -

(a) It was unethical on part of outgoing auditors for failing to respond to communication made by incoming auditors. It is violation of principle of objectivity governing professional ethics.

(b) It was ethical on part of outgoing auditors for failing to respond to communication made by incoming auditors. It does not involve violation of any of fundamental principles governing professional ethics.

(c) It was unethical on part of outgoing auditors for failing to respond to communication made by incoming auditors. It is violation of principle of Professional competence and due care governing professional ethics.

(d) It was unethical on part of outgoing auditors for failing to respond to communication made by incoming auditors. It is violation of principle of professional behaviour governing professional ethics.

Case Scenario 3

In accordance with requirements of Standards on Auditing, CA Tina (a freshly qualified professional) wants to obtain sufficient appropriate audit evidence in an audit engagement pertaining to financial statements of a partnership firm for year 2022-23. The firm is trading in FMCG goods. Appointed in May, 2023, she needs evidence to obtain information for arriving at her judgment. Clearly remembering fundamentals that an auditor has to obtain sufficient appropriate audit evidence to draw reasonable conclusions on financial statements, she proceeded in accordance with audit plan prepared by her.

During the year 2022-23, firm was maintaining a current account with a branch of a public sector bank. Her audit plan had included procedure of confirming balance of current account directly from bank. As at 28th March, 2023, the firm had an urgent need to pay its utility bill amounting to ₹1.00 lacs. However, due to insufficiency of funds, it had requested branch manager to get cheque drawn on utility company cleared. Therefore, balance in current account of firm in books of bank branch stood at ₹0.92 lacs (Debit). The firm had also issued cheques in evening of 31st March,2023 in anticipation of funds on next working day i.e.3rd April, 2023. It had also certain cheques dated 27th March, 2023 from its debtors lying with it which were deposited in afternoon of 31st March,2023 in bank branch at request of debtors.

Her plan also included performance of certain procedures pertaining to verification of inventories. Inventories of FMCG goods were material to financial statements. Her assistant, Tisha, had her own notion about understanding of sufficient appropriate audit evidence. She further feels that when audit evidence is obtained from available records of an entity, it is known as internal evidence like purchase bills of FMCG goods, debit notes issued by firm on debtors for GST short charged earlier during the year and credit notes issued by firm during the year on debtors to account for extra price charged in accordance with provisions of GST law. She is also of the view that audit evidence obtained by auditor is final and conclusive.

Based upon above, answer the following questions: -

10. As regards matter of balance in current account and related issues is concerned, which of following statements is likely to be most appropriate?

(a) Amount of ₹ 0.92 lac is required to be classified under cash & bank balances in financial statements of firm. Procedure of confirming balance directly from the bank alone is likely to constitute sufficient appropriate audit evidence.

(b) Amount of ₹ 0.92 lac is required to be classified under cash & bank balances in financial statements of firm. Procedure of confirming balance directly from the bank alone is not likely to constitute sufficient appropriate audit evidence.

(c) Amount of ₹ 0.92 lac is required to be classified under current liabilities in financial statements of firm. Procedure of confirming balance directly from the bank alone is likely to constitute sufficient appropriate audit evidence.

(d) Amount of ₹ 0.92 lac is required to be classified under current liabilities in financial statements of firm. Procedure of confirming balance directly from the bank alone is not likely to constitute sufficient appropriate audit evidence.

11. Considering matter of verification of inventories, which of following statements is based on facts described in the situation and also in essence of Standards on Auditing?

(a) She should verify subsequent sale invoices of inventory items lying in stocks as at year end. Besides, she should also review stock records of year 2022-23 and subsequent period. Such evidence may constitute sufficient appropriate audit evidence.

(b) She should verify subsequent sale invoices of inventory items lying in stocks as at year end. Besides, she should also review stock records of year 2022-23 and subsequent period. She should attend physical inventory count at year end in above situation. Such evidence may constitute sufficient appropriate audit evidence.

(c) She should verify purchase invoices of inventory items lying in stocks as at year end. Stock records are not required to be verified. Such evidence is likely to constitute sufficient appropriate audit evidence.

(d) She should verify purchase invoices of inventory items lying in stocks as at year end. She should attend physical inventory count at year end in above situation Such evidence may constitute sufficient appropriate audit evidence.

12. Identify correct statement on the basis of description provided in case scenario: -

(a) Purchase bills of FMCG goods, debit notes issued by firm on debtors for GST short charged earlier during the year and credit notes issued by firm during the year on debtors to account for extra price charged in accordance with provisions of GST law are all examples of internal evidence. Audit evidence obtained by auditor is final and conclusive.

(b) Purchase bills of FMCG goods, debit notes issued by firm on debtors for GST short charged earlier during the year and credit notes issued by firm during the year on debtors to account for extra price charged in accordance with provisions of GST law are all examples of internal evidence. Audit evidence obtained by auditor is persuasive.

(c) Only debit notes issued by firm on debtors for GST short charged earlier during the year and credit notes issued by firm during the year on debtors to account for extra price charged in accordance with provisions of GST law are examples of internal evidence. Audit evidence obtained by auditor is persuasive.

(d) Only debit notes issued by firm on debtors for GST short charged earlier during the year is an example of internal evidence. Audit evidence obtained by auditor is persuasive.

MCQs

13. CA D, during the course of audit of a company engaged in export business, notices that credit facilities taken by company during the year from a bank for ₹10 crores have almost been fully utilized during the year. On going through sanction letter provided by bank to company, it is observed that rate of interest stipulated in sanction letter is 8% p.a. Financial statements of company show bank interest amounting to ₹60.00 lacs. Which type of substantive analytical procedure is being used by CA D?

    (a) Trend analysis

    (b) Ratio analysis

    (c) Reasonableness tests

    (d) Structural modelling

14. An auditor of a company has found that accountant of a company has entered bogus purchase bills for ₹50 lacs in its books of accounts. Which of following is most appropriate regarding auditor's duty as far as reporting is concerned under the Companies Act, 2013?

    (a) Report the matter to jurisdictional ROC

    (b) Report the matter to Secretary, MCA

    (c) Report the matter to Board of Directors of company

    (d) Report the matter to jurisdictional ROC as well as GST authority

15. During course of audit of a company, it is noticed by auditor that Profit before tax of company is Rs. 5 lakhs. Depreciation on building reflected in Schedule of PPE forming part of financial statements has been computed for Rs.10 lacs. The correct depreciation, according to him, should be Rs.25 lacs. The above description as a whole is an example of ______?

    (a) Misstatement

    (b) Assertion

    (c) Sampling method

    (d) Audit risk

PART II - Descriptive Questions

Question No. 1 is compulsory.

Attempt any four questions from the Rest.

1. (a) Sanjeev, an articled clerk in an audit firm, is part of an engagement team conducting audit of a company for year 2023-24. It is a small company having a turnover of about ₹25 crores. During the course of audit, he notices that senior team member has taken following approach for selecting items for testing reflected in financial statements to obtain audit evidence: -

- He has selected to test items debited under the head "Machinery repair & maintenance" as expenditure relating to it during year 23-24 has increased considerably as compared to last year.
- Out of purchases, he has selected to test purchases from related parties amounting to ₹ 5 crores.
- He has also selected to test all individual items of expenditure exceeding ₹5 lakhs.
- Besides, he has also selected amount of ₹0.50 lakhs debited under head "legal expenses" to know purpose of payment made to external legal counsel.

Sanjeev understands that senior team member is using "audit sampling" for selecting items for testing. Do you agree with him? Which risk is involved in above approach? Discuss with reasons. **(4 Marks)**

(b) Following is the extract from Schedule no. 10 of Advances as appearing in financial statements of branch of a nationalized bank for year ending 31st March, 2024.

Schedule 10 - Advances

S. No.	Particulars	Amount (In ₹ Crores) rounded off
1.	Bills Purchased and Discounted	50.00
2.	Cash credits, overdrafts and loans repayable on demand	150.00
3.	Term Loans	75.00
	Total	**275.00**

In carrying out audit of above advances as part of statutory audit of branch, a statutory auditor would obtain evidence about certain matters. State those matters. **(4 Marks)**

(c) CA J is working as internal auditor in JKL Limited, a non-listed company. The responsibilities of internal auditor include reviewing financial information and performing detailed tests on transactions and balances.

He is also responsible for compliance with laws, regulations and external requirements.

During the year 2022-23, services of an employee of company were terminated. The said employee had filed a suit against the company in respect of certain compensation dues amounting to ₹ 10 lakhs which were not paid to him. Based upon advice of legal counsel, the company had made a provision of ₹ 10 lacs in financial statements for year 2022-23. However, somewhere in June 2023, there is an out of court settlement between company and employee for ₹ 6 lakhs. The statutory audit of company is under progress and audit report has not yet been finalized. How internal auditor should have proceeded in situation?

(3 Marks)

(d) KST Limited is engaged in manufacturing business. It appoints CA T to provide it an assurance report on its financial statements prepared on the basis of historical financial information. The characteristic of such an engagement is that it involves gathering of sufficient appropriate evidence on basis of which limited conclusions can be drawn up by practitioner. Identify type of engagement. Which are two other features of such an engagement? **(3 Marks)**

2. (a) Written representation about management's responsibilities involves confirmation of fulfilment of management's responsibilities in the preparation of the financial statements providing the relevant information and also informing about completeness of transactions. Explain.

(4 Marks)

(b) Planning includes consideration of the timing of certain activities and audit procedures that need to be completed prior to the performance of further audit procedures. For example, planning includes the need to consider, prior to the auditor's identification and assessment of the risks of material misstatement, certain matters. Discuss those matters.

(4 Marks)

(c) In an initial audit engagement, in the case of inventories, the current period's audit procedures on the closing inventory balance provide little audit evidence regarding inventory on hand at the beginning of the period. Therefore, in such a case, additional audit procedures become necessary so that auditor may obtain sufficient appropriate audit evidence. Discuss those additional audit procedures. **(3 Marks)**

(d) Internal Control Questionnaire is a comprehensive series of questions concerning internal control. A company is engaged in business of manufacturing of chemicals. It has two plant locations in city "A" and one plant location in city "B" involving huge value of assets. Building at three locations is owned by the company. The company earns handsome profits and does not want to suffer losses due to business interruptions. It has a dedicated department for looking after insurance matters. As an auditor, prepare an internal control questionnaire concerning this department for obtaining staff responses. **(3 Marks)**

3. (a) Tisa Industries Private Limited has prepared its financial statements for year 2023-24. The financial statements and notes to accounts show following information and disclosure in respect of trade receivables of the company: -

S. No.	Particulars	Amount (in ₹ lacs)
1.	Trade Receivables	240.00

Trade receivables ageing schedule.

Outstandings for following periods from due date of payment

(in ₹ lacs)

Particulars	Less than 1 year	1-2 years	2-3 years	More than 3 years	Total
MSME	150.00	30.00	10.00	XXX	190.00
Others	40.00	XXX	XXX	XXX	40.00
Disputed dues-MSME	XXX	XXX	XXX	XXX	XXX
Disputed dues-others	10.00	XXX	XXX	XXX	10.00

You are part of engagement team conducting audit of the company. Point out discrepancies including omissions in above disclosure. (Do not prepare another table). **(4 Marks)**

(b) Being statutory auditor of JAL Limited, a company engaged in manufacturing of chemicals, CA Gopika has understood that company is expected to have material work-in-progress as on 31st March, 2024. State few audit procedures to verify existence and valuation assertions for work-in-progress. **(4 Marks)**

(c) The ascertaining of reporting objectives of engagement helps the auditor to plan timing of different audit procedures and also nature of communications. Give three instances to explain. **(3 Marks)**

(d) One of the factors affecting the form, content and extent of audit documentation relates to size and complexity of the entity. State six other factors in this respect. **(3 Marks)**

4. (a) It is important to carry out the Tests of Controls for checking effectiveness of internal control over sales as a part of the debtors' audit procedure. In above context, state the points which need to be considered in respect of trade receivables. **(4 Marks)**

(b) M/s S R & Associates are the Statutory Auditors of Vanee Textile and Garments Ltd., a company engaged in the business of manufacturing of various textile products. The auditor has completed the audit and is in the process of forming an opinion on the financial statements for the F.Y. 2023-2024. CA S, the engagement partner, wants to conclude whether the financial statements as a whole are free from material misstatements, whether due to fraud or error. Guide him about the factors he should consider to reach that conclusion. **(4 Marks)**

(c) Nature of financial reporting itself is one of causes of inherent limitations of audit of financial statements. Explain. **(3 Marks)**

(d) Discuss the objective of the auditor as per Standard on Auditing (SA) 705 "Modifications to The Opinion in The Independent Auditor's Report".

(3 Marks)

5. (a) Column A describes description of certain terms used in banking industry. Complete Column B by suggesting term appropriate to description given.

Column A	Column B
Audit of borrower client of bank carried out at bank's request to verify borrower's current assets	?
Limit up to which an entity can withdraw from sanctioned working capital limit	?
Statutory right of a creditor to adjust debit balance in debtor's account against any credit balance lying in another account of debtor	?
Creation of security in a bank branch by mere delivery of title deeds by a prospective borrower of funds	?

(4 Marks)

(b) Obtaining an understanding of the entity and its environment, including the entity's internal control, is a continuous, dynamic process of gathering, updating and analysing information throughout the audit. The understanding establishes a frame of reference within which the auditor plans the audit and exercises professional judgment throughout the audit. State few areas in which such an understanding is helpful to auditor. **(4 Marks)**

(c) You are auditor of a college running different courses operating in your city. During audit of a year, it is noticed that fees concessions to students have been provided in substantial number of cases. Discuss, how, you as an auditor, would proceed to verify the same and also explain two other points to verify fees from students. **(3 Marks)**

(d) The auditor shall agree the terms of the audit engagement with management or those charged with governance, as appropriate. The agreed terms of the audit engagement shall be recorded in an audit *engagement letter* or other suitable form of written agreement. Who gives engagement letter to whom and what is included in such a letter?

(3 Marks)

6. (a) Auditor of Sunshine Ltd. is of the view that due to greater management intervention to specify accounting treatment, the risk of material misstatement is greater for non-routine transactions. Is view of the auditor correct? Specify the other matters due to which the risk of material misstatement is greater for significant non-routine transactions.

(4 Marks)

(b) On reviewing internal control over accounting for sales as part of statutory audit of A Ltd, auditor finds certain deficiencies in segregation of duties, authorization of sales orders, preparation of invoices, preparation and authorization of debit/credit notes etc. and non-following of standard procedures as stipulated by the management. The auditor finds these lapses to be significant deficiencies in internal control over sales.

He points it out to the management in a one-liner as under: -

"Instructions on internal control related to sales are not properly followed by the staff."

Is above communication by the auditor proper? **(4 Marks)**

OR

Audit against propriety seeks to ensure that expenditure conforms to certain principles which have for long been recognised as standards of financial propriety. Explain those principles. **(4 Marks)**

(c) The auditor needs to direct efforts of engagement team towards matters that in his professional judgment are significant. Preliminary identification of material classes of transactions, account balances and disclosures help auditor in establishing overall audit strategy. More energies need to be devoted to significant matters to obtain desired outcomes. Give three examples to explain the above situation.

(3 Marks)

(d) CA. Ravi Patnaik is conducting audit of a company for which reporting requirements under CARO, 2020 are applicable. He finds that cash credit facilities amounting to ₹ 4 crores were released to the company by branch of a bank for meeting its working capital requirements. He finds that out of above funds, ₹ 1 crore have been used by company for installing effluent treatment plant to meet State pollution control Board requirements.

Is there any reporting obligation upon him under CARO,2020?

(3 Marks)

MODEL TEST PAPER 3

INTERMEDIATE GROUP – II

PAPER – 5: AUDITING AND ETHICS

Time Allowed – 3 Hours **Maximum Marks – 100**

PART I - Case Scenario based MCQs (30 Marks)

Write the most appropriate answer to each of the following multiple-choice questions by choosing one of the four options given. All MCQs are compulsory and carries 2 Marks each.

Case Scenario 1

GHB Ltd., a listed company, having its registered office at New Delhi, is in the business of blending, processing, packing and selling various brands of Tea. BPP & Co. LLP, Chartered Accountants, are appointed as the statutory auditors of the company for the financial year 2023-24, CA B is the engagement partner for the assignment.

The company has a centralised warehouse near the border of Himachal Pradesh. CA B's attendance, on 31 March, 2024, at the physical inventory counting in aspect of the said warehouse became impracticable on account of natural calamity in that area. It also became impossible for CA B to perform alternative audit procedures to obtain sufficient appropriate audit evidence regarding the existence and condition of the inventory.

The company had spent huge amount on employee benefits. Hence, CA B instructed his assistants to test the controls that the company had set around the employee benefit expenses. After being satisfied with the controls maintained by the company, he instructed his team to bifurcate the employee benefit expenses into salaries and wages, contribution to PF, expenses on ESOP/ ESPP and staff welfare expenses.

The engagement partner CA B, while evaluating, validating and reporting on the design and efficiency of internal financial controls at GHB Ltd., also impressed upon the directors, independent directors and the audit committee the way in which the Companies Act, 2013 has placed a greater emphasis on the effective implementation and reporting on the internal controls of a company.

Due to time constraints, CA B is under pressure to issue a clean report in the limited time frame. He has insufficient time to properly perform or complete the relevant duties and issue appropriate audit report.

The Board of Directors want CA B to certify the debtors to be sent to the bank without checking. CA B agrees, as most of the professional income of BPP & 4 Co. LLP comes from GHB Ltd. They have undue dependence on the fees from GHB Ltd. hence; they are concerned about losing the engagement.

Based on the above facts, answer the following Q. Nos. 1 to 5.

1. Since it became impracticable for CA B, on 31 March, 2024, to attend physical inventory counting at the warehouse and also became impossible to perform

alternative audit procedures to obtain sufficient appropriate audit evidence regarding the existence and conditions of inventory, CA B shall:

(a) Take Management Representation regarding the existence and valuation of inventory and mention in Emphasis of Matter paragraph.

(b) Rely on GHB Ltd.'s perpetual inventory records as audit evidence and express unmodified opinion.

(c) Omit altogether the audit procedure of physical inventory counting from the audit programme because of impracticability.

(d) Modify the opinion in the auditor's report in accordance with SA 705 as a result of the scope limitation.

2. Which assertion concerning the bifurcation of employee expenses into various heads is being verified by CA B?

(a) Occurrence

(b) Measurement

(c) Completeness

(d) Disclosures

3. With reference to reporting on the internal financial controls system under the Companies Act, 2013, which of the following does not fall within the nature of responsibility of GHB Ltd?

(a) In accordance with the terms of reference specified in writing by the Board, act of every audit committee to include evaluation of internal financial controls and risk management systems.

(b) Directors' responsibility statement to state that the Directors had laid down internal financial controls to be followed by the company and that such internal financial controls are adequate and were operating effectively.

(c) Board of Directors have to appoint an expert to state that the internal financial controls of the company are commensurate with the size and nature of its business.

(d) In terms of code for Independent Directors, independent directors to get themselves satisfied that financial controls and systems of risk management are robust and defensible.

4. Due to tight deadlines, CA B has insufficient time to properly perform or complete the relevant duties and he has to sign off clean audit report. Which fundamental principle governing professional ethics is disregarded by him ?

(a) Professional competence and due care

(b) Professional behaviour

(c) Integrity

(d) Objectivity

5. Undue dependence on the fees from GHB Ltd. creates which threat of independence for the auditors?
   (a) Intimidation threat
   (b) Familiarity threat
   (c) Self-interest threat
   (d) Advocacy threat

Case Scenario 2

M/s KRISH & Company is a firm of Chartered Accountants based in Punjab, CA K, CA R. CA I, and CA SH are the partners of the firm. The firm is engaged in various audit assignments. The engagement partners, who were handling their respective assignments for the financial year 2023-24, dealt with the following issues raised during the course of their respective audits.

M/s KRISH & Co. is appointed as the joint auditor along with M/s. PK. and Associates and M/s. RS and Associates for the audit of a large manufacturing company for the financial year 2023-24. CA K is in charge of this audit. They have divided their audit areas and have also identified the common audit areas, which will be applicable to all the joint auditors. While forming the opinion, CA K had a different opinion whereas, the other two audit firms shared the same opinion. Both of them contended that as they were forming a majority, M/s KRISH & Co. will have to agree with their opinion.

CA R is conducting the statutory audit of PAWAN Ltd. He observed that, during the year, the company has issued shares at premium and has transferred the amount received as premium to securities premium account. He wants to ensure that PAWAN Ltd. has utilised the amount available in the securities premium amount for the purposes permitted under the Companies Act, 2013.

Registrar of Co-operative Societies has appointed M/s KRISH & Co. as the statutory auditor of NAND Co-operative Society for the financial year 2023-24. CA I is looking after the audit of the said registered society. During the year, in terms of Section 34 of the Cooperative Societies Act, with the sanction of the Registrar, Society has contributed for charitable purposes as defined in section 2 of the Charitable Endowments Act, 1890. CA I is ensuring whether requirements, as regards contribution made, have been complied with.

All the engagement partners and the audit team of M/s KRISH & Co. have deliberations and discussions every week through google meet to review the progress of their respective assignments. During last such meet, CA SH, the managing partner, briefed to the team about the form, content, and extent of audit documentation in terms of SA 230, while citing examples of records to be excluded as well as to be included as a part of audit documentation.

Based on the above facts, answer the following Q. Nos. 6 to 9.

6. In case of difference of opinion between the joint auditors, what course of action can M/s. KRISH & Co. take while issuing the audit report?
   (a) They will have to agree with the opinion formed by the majority of auditors.

(b) They will have to agree with the opinion formed by the majority auditors, but they can mention their view in the Emphasis of Matter Paragraph.

(c) They can add a separate audit opinion paragraph in the common audit report.

(d) They can issue a separate audit report and the audit reports issued by the joint auditors shall make a reference to each other's audit report.

7. The securities premium account of PAWAN Ltd. cannot be applied for which of the following purposes ?

   (a) In writing off the debit balance in the Profit & Loss account.

   (b) In writing off the expenses of, or the commission paid or discount allowed on any issue of equity shares of the company.

   (c) For the purchase of its own shares or other securities under section 68.

   (d) In paying up unissued equity shares of the company to be issued to the members of the company as fully paid bonus shares.

8. CA I, who is in charge of audit of NAND Co-operative Society, wants to ensure that the society has contributed for charitable purposes within the limits prescribed. How much is the society allowed to contribute for charitable purposes ?

   (a) contribute an amount not exceeding 10% of the net profits remaining after the compulsory transfer to the reserve fund.

   (b) contribute an amount at the appropriate rate as per class of the society.

   (c) contribute an amount not exceeding 20% of the net profits remaining after the compulsory transfer to the reserve fund.

   (d) contribute annually at prescribed percentage of the profits as approved by the General body of the society.

9. Which of the following need not be included by the audit team as a part of audit documentation during handling of their respective assignments?

   (a) Significant and specific contracts and agreements.

   (b) Draft audit engagement letter.

   (c) Summaries of significant matters.

   (d) Checklists.

Case Scenario 3

Mega Power Ltd. is a manufacturer of solar lanterns, which are used in remote villages where there is no reliable supply of electricity. However, due to power projects undertaken by the government, the demand for their solar lanterns has significantly declined over the past few years.

The company was in need of ₹2 crores for working capital and other expenses but was not able to fund this amount Consequently, their suppliers were paid much later than usual and hence some of them withdrew the credit terms, meaning the company had to pay cash on delivery. This created a severe cash crunch and the auditor feels that other than the cash crunch, there are several other financial indicators that cast a significant doubt on the company's ability to continue as a going concern.

The management of the company, however, assures the auditor that this is temporary and the situation will change soon as they are planning to diversify their business. They are ready to provide written representation for the same. The auditor feels that a material uncertainty still exists. The auditor wants the management to make adequate disclosure about this in the financial statements. The auditor wants to include a separate section about this in his audit report. He is also contemplating about the kind of audit report that should be issued.

The auditor has concerns about ethical values and diligence of management. He is concerned about the reliability of the representations made by the management and the audit evidence in general. The auditor is of the opinion that the written representations from management are not reliable.

Based on the above facts, answer the following Q. Nos. 10 to 12.

10. Financial events or conditions that may cast significant doubt on the entity's ability to continue as a going concern does not include
    (a) Inability to comply with the terms of loan agreements.
    (b) Inability to pay creditors on due dates.
    (c) Shortage of important supplies.
    (d) Substantial operating losses.

11. Which kind of audit report will the auditor issue, if the use of going concern basis of accounting is appropriate, but a material uncertainty exists and adequate disclosure of the material uncertainty is made in the financial statements by the management?
    (a) Adverse opinion
    (b) Disclaimer of opinion
    (c) Unmodified opinion
    (d) Qualified opinion

12. If the auditor is of the opinion that the written representations are not reliable, what kind of audit opinion should be issued by him?
    (a) Disclaimer of opinion
    (b) Adverse opinion
    (c) Unmodified opinion and mention the facts in Other Matters Paragraph
    (d) Unmodified opinion and mention the facts in Emphasis of Matter Paragraph

MCQs

13. M/s DEF & Associates have been appointed as the statutory auditor of JKL Ltd. for the first time for the financial year 2024-25. The engagement partner, CA D, is briefing his engagement team about the need of Engagement Standards and Quality Control Standards in the areas of financial statement audits and in other types of assurance services. Out of the following which one point is not correct about why standards are needed?

    (a) Standards equip professional accountants with professional knowledge& Skill.

    (b) Standards ensure audit quality.

    (c) Standards promote uniformity as audit of financial statements is carried out following these Standards.

    (d) Standards ensure carrying out of audit against established benchmarks at par with local practices.

14. RDB & Co. have been appointed as statutory auditors of INA Group of Hotels. This is the first time the firm is auditing an industry in food & beverage. The engagement partner, CA R, and other key members of the engagement team have undertaken the activity of development of an audit plan of INA Hotels after thorough understanding the Hotel's business and its environment. As per SA 300, description of which of the following matters is not a part of developing an audit plan?

    (a) The nature, timing and extent of planned risk assessment procedure.

    (b) The nature, timing and extent of planned further audit procedures at assertion level.

    (c) The nature, timing and extent of resources necessary to perform the engagement.

    (d) Other planned audit procedures that are required to be carried out so that the engagement complies with SAs.

15. The Board of Directors of a company wanted the auditor to certify Export sales during the year for submitting to the authorities. The auditor also signed the Confirmation letters to be sent to various debtors and creditors for confirming their balances as on 31.03.2024.

    UDIN is required to be generated by the auditor for:

    (a) Export sales during the year certificate only.

    (b) Confirmation letters only.

    (c) Both Export sales during the year certificate and Confirmation letters.

    (d) No UDIN is required to be generated.

PART II - Descriptive Questions

*Question No. **1** is compulsory.*

*Attempt any **four** questions from the Rest.*

1. (a) CA Rashmi is the auditor of ABC Ltd. for the financial year ending 31/03/2024. The audit report for the year was signed by her on 19/04/2024.

On 25/4/2024, the company received a communication from the Central Government that an incentive amount of ₹ 5 crores pertaining to financial year 2023-24 was approved. It was paid to the company before the end of April 2024. The financial statements of the company were not yet issued to the shareholders.

The Board of Directors wished to include the incentive amount in the financial statements and requested the auditor to issue a fresh audit report for the year ended 31/03/2024.

Analyze the issue involved and give an overview of the auditor's responsibility in such a situation. **(4 Marks)**

(b) Auditors cannot normally examine all the information available to them as it would be impracticable to do so and using audit sampling will produce valid conclusions. Samples should be selected in such a manner that it is representative of the population from which the sample is being selected.

Which sample selection method is used in the following two cases? Identify and explain them briefly.

(i) Auditor divided the trade receivables in three groups: balances above
₹ 20 lakhs, balances between ₹ 10 lakhs to ₹ 20 lakhs and balances below ₹ 10 lakhs. He selected different percentages of items from each group.

(ii) Auditor uses the sample of 50 consecutive cheques to test whether the cheques are signed by authorized signatories, rather than picking 50 single cheques throughout the year. **(4 Marks)**

(c) PD & Co., Chartered Accountants, were appointed as the statutory auditors of MR Limited for the financial year 2023-24. MR Limited included the following clause in the appointment letter to the auditors: "The Auditor shall be responsible for detecting the frauds that may happen in the company during the financial year 2023-24."

The auditor objected to inclusion of such a clause in the appointment letter. Discuss in the light of scope of audit. **(3 Marks)**

(d) M/s. PQ Limited has a turnover of ₹ 807 crores during the financial year 2023-24. It has outstanding dues towards Goods and Services Tax (GST) of ₹ 10 lakhs since June 2023. When enquired by the auditor, the company's management informed him that they have filed an objection letter for the said demand with the GST Authorities, however, no response is received from the GST Department. State the reporting responsibility of the auditor under paragraph 3, clause (vii) of the Companies Auditor's Report Order, 2020 [CARO, 2020]. **(3 Marks)**

2. (a) CA B, was the auditor of Star Limited. He wanted to ensure that the company had correctly reconciled its bank accounts and also wanted to understand whether and how far the internal control system was operating in the company. What kind of test of control was CA B performing? What are the other procedures that can be applied while undertaking test of controls? **(4 Marks)**

(b) Alfa Limited has availed bank overdraft facility from a nationalized bank. The company received balance confirmation certificate for bank overdraft balance as on 31.03.2024 from the bank.

Particulars	**Amount (₹)**
Bank overdraft balance as per Bank Certificate	25,66,200/-
Bank overdraft balance as per Ledger	26,45,300/-

How will you vouch/verify borrowings from Bank taken by Alfa Limited?

(4 Marks)

(c) Schedule III of the Companies Act, 2013 prescribes disclosure of certain ratios as a part of Additional Regulatory Information. Mention any 3 ratios that should be disclosed along with the Rules relating to disclosure of these ratios. **(3 Marks)**

(d) The engagement partner, of a firm of auditors, is explaining to his audit team, undergoing practical training, the inter relationship between audit strategy and audit plan. Discuss the points which the engagement partner will explain to his team in this regard. **(3 Marks)**

3. (a) CA Amit is the auditor of LMN Ltd. While conducting the audit, he wanted to analyze the different components of internal control of the company. Identify and explain which component of internal control he is trying to understand in the following two cases: -

(i) Whether controls in LMN Ltd. are operating as intended and they are modified as appropriate for change in conditions.

(ii) Whether there exists proper segregation of duties in the company and the person responsible for recording a transaction is different from the person authorizing it. **(4 Marks)**

(b) M/s. PK & Company, Chartered Accountants, are the statutory auditors of JC Limited. CA Tarun, partner of M/s. PK & Company, was entrusted to supervise and verify the inventory items as on 31.03.2024. During the process of verification, a large chunk of draft inventory sheets were accumulated and then a final inventory sheet was prepared. The audit assistant has kept all these drafts and the final inventory sheet in the audit file. Is the approach of the audit assistant correct? Which papers/ documents may not be included in the audit documentation? **(4 Marks)**

(c) K Ltd. is availing cash credit limit of ₹ 25 crores from LMN Bank Ltd. The drawing power of the company range between ₹ 22 crores and ₹ 25 crores during the year 2023-24. The limit availed by the company remained less than ₹ 20 crores during all the days of the financial year 2023-24. The company has not deposited any amount in the cash credit account and there are no other credits to this account during the last two quarters. How will this account be classified in the books of LMN Bank Ltd. as on 31-03-2024? Explain. **(3 Marks)**

(d) You are the statutory auditor of NP Ltd. Looking at the huge size of similar transactions, you directed your team members to use statistical sampling. One of the team members, Mr. Q, wants to select samples based upon his personal experience & knowledge as he is not aware of statistical sampling. You are required to explain to Mr. Q why the use of statistical sampling method is more scientific and appropriate.

(3 Marks)

4. (a) EFG Ltd. has appointed M/s. MN & Co., Chartered Accountants, as the statutory auditors for the year 2024-25. CA N, the engagement partner, completed his risk assessment procedure. However, he is concerned about the management of human resources to be employed to conduct the audit. For this purpose, he wants to establish an overall audit strategy for setting the scope, timing and direction of the audit. Describe how the process of establishment of overall audit strategy will assist him in managing deployment of his human resources for various audit areas.

(4 Marks)

(b) JB Limited has invested huge sums of money on establishment of new Property, Plant and Equipment during the year under audit. They have incurred an amount of ₹ 5,70,000/- on dismantling of an old plant, which had become obsolete, so that a new plant can be set up at the existing location. The Auditor is in the process of verifying the cost incurred towards addition to Property, Plant and Equipment. What should be the accounting treatment of the amount spent on dismantling of old plant in the financial statements? Which elements of cost should be considered for valuing Property, Plant and Equipment? **(4 Marks)**

(c) CA Ayush has recently qualified and has joined a CA Firm. On going through various audit reports, he observed that different phrases were used to express an unmodified opinion on the financial statements. On enquiring with a senior, he got to know that all those phrases can be regarded as being equivalent. Which phrases are appropriate and which phrases are inappropriate while drafting an unmodified opinion?

(3 Marks)

(d) You have been appointed as an auditor of Co-operative society. During the course of audit, you have noticed some serious irregularities in the working of the society. Enumerate those special matters for reporting to the Registrar. **(3 Marks)**

5. (a) M/s. PP & Co, a firm of Chartered Accountants, has been auditing the

books of accounts of KALI Ltd. for the past 3 years. The company has recently made some major changes in its business policies. While planning to start the audit for the 4th year i.e. for financial year 2024-25, the audit manager of the firm, as per the routine practice, handed over the previous years' audit programme as it is to the audit team with the instructions to adhere unfailingly to the said audit programme. Evaluate the decision of the audit manager with reference to the use of audit programme. **(4 Marks)**

(b) The management of D. Ltd. have engaged an actuary-expert to ascertain actuarial valuation of gratuity for provision to be made in the accounts. As an auditor of D. Ltd., you plan to use the report of the said expert as audit evidence for ascertaining appropriate valuation of provisions. As an auditor, what will you do to evaluate the competence, capabilities, objectivity and an understanding of the work of the actuary-expert who has carried out actuarial valuation of gratuity? **(4 Marks)**

(c) Z and Associates are the auditors of Realton Ltd., an export oriented unit, which specializes in manufacturing oil extraction plants. Since many complex processes are involved, they are digitizing their operations. They are restructuring their business models which are driven by technology. Since most of the operations of the company are automated, Z and Associates are planning to do Digital Audit. Explain the use of digital technology in the conduct of an audit. **(3 Marks)**

(d) Mr. J is an articled clerk with a big Chartered Accountants' firm. He is a part of the engagement team which is conducting the audit of a company for the first time. They are assigned with the work of preparing the draft audit engagement letter. Mr. J is not sure how to go about with this work. Explain what is Audit Engagement Letter and what are its contents?

(3 Marks)

6. (a) You are the auditor of Plus Bank Limited. The bank has made following provisions for the year ended on 31.03.2024:

Particulars	**Amount (₹ in crores)**
Provision for Bad Debts	66
Provision for Sub-standard Assets	78
Provision for Expenses	24
Provision for Income Tax	55

You are in the process of verifying the provisions and contingencies of the bank. What audit approach and procedures will you adopt to verify the above? **(4 Marks)**

OR

(a) CA Vasu was appointed as the statutory auditor of M/s. Pizza Limited for the financial year 2023-24. While reviewing the internal controls, he observed that the company has entered into many transactions with firms in which the directors are interested. The company's specified procedure was by-passed in such transactions. CA Vasu considered it as a significant deficiency in internal control over related party transactions. He communicated this deficiency to Those Charged With Governance (TCWG) as under, "Controls over significant transactions with related parties are weak." In view of the above, please explain:

(i) What is meant by deficiency in internal control?

(ii) As per SA 265, whether the significant deficiency communicated by CA Vasu to TCWG is appropriate? Explain. **(4 Marks)**

(b) CA P is a professional accountant in service. In terms of employment and professional relationships with employer he has to be alert to the possibility of inadvertent disclosure of any information outside the employing organization. However, in view of disclosure required by law, CAP had to divulge the information and documents as evidence in course of legal proceedings. Whether CA P has violated any fundamental principle governing professional ethics in this case? Explain. **(4 Marks)**

(c) During the audit of accounts for the year ended 31.03.2024, the auditor of FD Limited wanted confirmation from a Trade Receivable, which was outstanding for more than six months, amounting to ₹ 4,25,000/-. The auditor sent a Confirmation letter to the party requesting them to respond directly to him, whether or not they agree with the amount outstanding from them.

That trade receivable confirmed to the auditor of FD Limited, that they were required to pay an amount of ₹ 4,20,000 to FD Limited as per their books of accounts.

State and explain the type of Confirmation Request sent by the auditor and the course of action that he should take on the confirmation received from the trade receivable. **(3 Marks)**

(d) P Financial Services Ltd. (PFSL) is a leasing & hire purchase company. You, as an auditor of PFSL, are in the process of examining finance lease agreements executed by them for equipment given on lease. Which points shall be noted by you while examining a particular finance lease agreement entered into by PFSL in respect of a leasing transaction? **(3 Marks)**

MODEL TEST PAPER 4

INTERMEDIATE GROUP – II

PAPER – 5: AUDITING AND ETHICS

Time Allowed – 3 Hours **Maximum Marks – 100**

PART I - Case Scenario based MCQs (30 Marks)

Write the most appropriate answer to each of the following multiple-choice questions by choosing one of the four options given. All MCQs are compulsory and carries 2 Marks each.

Case Scenario 1

M/s Vishwacharya and Associates, a CA firm based in Orissa, is appointed as an auditor of CBF Bank for the financial year 2023-24. During the course of audit, it came to notice that CBF Bank has sanctioned an overdraft facility of ₹ 75 lakh to Times Ltd. However, as per the stock statement furnished for the last quarter, the drawing power was calculated to be ₹ 50 lakh. It was observed that few advances were guaranteed by the:

(i) Central Government as part of 'Make in India' initiative. However, the guarantee was not invoked, and the advances were overdue by 75 days. These advances were classified as standard assets and were regarded as NPA for income recognition purpose.

(ii) State Government as part of power generation initiative. However, the guarantee was not invoked, and the advances were overdue by 80 days. These advances were also classified as standard assets and were regarded as NPA for income recognition purpose.

Additionally, XYZ Ltd., is a borrower availing cash credit facility of ₹ 110 Lakh against security of paid stocks and debtors up to 90 days. Margin stipulated was 25% of stock as and 40% for debtors. Bank has calculated drawing power based on following information provided by XYZ Ltd.

Particulars	Amount (₹)
Value of Stocks (as on 31.12.2023)	130 Lakh
Value of Debtors (as on 31.12.2023)	75 Lakh
Value of stocks (Fully damaged and included in (i) above)	7 Lakh
Value of Debtors (exceeding 90 days included in (ii) above)	10 Lakh
Value of creditors for goods	60 Lakh

Also, the outstanding balance in one of the Loan accounts was ₹ 25 Lakh and the realisable value of the security as assessed by the bank / approved valuers was ₹ 2.25 Lakh. Bank identified the same as erosion in the value of security. It was classified as doubtful category and provision was made for the doubtful assets. A discussion also took place among the team members regarding issuance of the audit reports after completion of the bank audit and annexure to the same such as Long Form Audit Report, Report on compliance with SLR Requirements, Report on

Treasury Operations – as per RBI guidelines, Report on compliance as per Ghosh committee recommendations and Report on adverse credit - lending ratio in the rural areas, etc.

Based on the above facts, answer the following: -

1. With respect to the overdraft facility sanctioned to Times Ltd., the account would be termed as out of order if:

   (i) The outstanding balance remains continuously in excess of ₹ 75 Lakh.

   (ii) The outstanding balance remains continuously in excess of ₹ 50 Lakh.

   (iii) The outstanding balance in the account is less than ₹ 75 Lakh but there are no credits or payments deposited into the account continuously for 90 days as on balance sheet date

   (iv) The outstanding balance is less than ₹ 50 Lakh.

   Choose the correct option from below:

   (a) (i), (ii) and (iii)

   (b) (i), (iii) and (iv)

   (c) (ii),(iii) and (iv)

   (d) (iii) and (iv)

2. Which of the treatment by the bank on the provisioning and income recognition is correct in case of bank guarantee given by the Central Government and State Government?

   (a) Both (i) and (ii) are correct

   (b) Only (ii) is correct

   (c) Only (i) is correct

   (d) Both (i) and (ii) are incorrect.

3. In the given case drawing power of the borrower XYZ Limited should be:

   (a) ₹ 86.25 Lakh

   (b) ₹ 76.35 Lakh

   (c) ₹ 96.25 Lakh

   (d) ₹ 85.45 Lakh

4. The Bank has identified an erosion in the value of security and made provision for doubtful assets. Whether the treatment by bank for the doubtful asset is correct?

   (a) Yes. The security should be classified under doubtful category. It may be either written off or fully provided by the bank.

   (b) No. The existence of such security should be ignored, and the asset should straight away be classified as loss asset. It may be either written off or fully provided by the bank.

(c) Yes. The security should be classified under doubtful category and provisioning should be made as applicable for doubtful assets.

(d) No. The existence of the security should be ignored, and the asset should straight away be classified as loss asset. Provisioning should be made for doubtful assets.

5. The Statutory Central Auditors of a bank must furnish, in addition to the main audit report, various other audit reports. From the options, choose the audit reports that M/s Vishwacharya and Associates shall furnish.

(i) Long Form Audit Report

(ii) Report on compliance with SLR Requirements

(iii) Report on Treasury Operations – as per RBI guidelines

(iv) Report on compliance as per Ghosh committee recommendations

(v) Report on adverse credit - lending ratio in the rural areas.

Choose the correct answer:

(a) (i), (ii),(iii),(iv) and(v)

(b) Only (i),(ii),(iii) and (iv)

(c) Only (i),(ii) and (iii)

(d) Only (i),(ii) and (v)

Case Scenario 2

Priority Limited is a large company engaged in manufacturing of terry towels making steady profits on a year-to-year basis. PMR & Associates, statutory auditors of the company since last two years, are in process of establishing audit strategy for conducting statutory audit under Companies Act, 2013 for year 2023-24.

The company has 5 branches which are audited by independent auditors appointed under Companies Act, 2013. It also has a wholly owned subsidiary company which is audited by another audit firm under name of JKL & Associates. The engagement team has noticed that company has maintained several bank accounts and there is substantial movement in fixed deposits during the year leading to risk of misstatement in cash and cash equivalents. The engagement team has planned procedures regarding the same.

(i) At planning stage, engagement partner is also trying to set materiality for financial statements as a whole. The following information extracted from financial statements is given as under: -

Particulars	**(Amount in ₹ crores)**
Revenue	100
Total Assets	40
Profit before Tax	8
Total Liabilities (excluding Equity)	30

(ii) While designing a sample for verifying revenues of company as part of tests of details, engagement partner has determined "tolerable misstatement" for ₹ 5.00 Lakh in order to address the risk that aggregate of individual immaterial misstatements may cause the financial statements to be materially misstated and provide a margin for possible undetected misstatements. One of the newly joined engagement team members has little conceptual understanding of "tolerable misstatement" determined by engagement partner. He also has no idea of the effect of change in tolerable misstatement on sample size.

(iii) During course of audit, while performing tests of details, engagement team has come across certain misstatements in selected sample pertaining to verification of revenues. The team has projected misstatements to population of revenues. The team wants to comply with the Standards on Auditing strictly.

Based on the above facts, answer the following: -

6. The auditors of company are in process of establishing audit strategy. Which of the following is not a relevant factor in establishing overall audit strategy in the given case scenario?
   (a) Consideration of 5 branches which are audited by independent auditors
   (b) Consideration of wholly owned subsidiary company audited by another audit firm
   (c) Expected time of holding AGM in accordance with provisions of Companies Act, 2013
   (d) Nature, timing and extent of planned procedures for cash and cash equivalents

7. For Priority limited, which benchmark would the engagement partner most likely to use for setting materiality for the financial statements as a whole?
   (a) A percentage of Revenue
   (b) A percentage of Total assets
   (c) A percentage of Profit before tax
   (d) A percentage of Total liabilities (excluding equity)

8. In the given case scenario, assume that the engagement partner has decided to increase tolerable misstatement to ₹ 10.00 Lakh while designing sample described. Select the correct statement.
   (a) It would lead to decrease in sample size.
   (b) It would lead to an increase in sample size.
   (c) It would have no effect on sample size.
   (d) It is not possible to draw inference on sample size due to increase in tolerable misstatement.

9. While performing procedures on designed sample, the engagement team identified certain misstatements in selected sample and projected these to the entire population of revenues. According to the requirements of the Standards on Auditing, which statement is correct in this regard?

(a) Anomalous misstatement is auditor's best estimate of misstatement in population.

(b) The projected misstatement plus anomalous misstatement, if any, is best estimate of misstatement in population.

(c) When projected misstatement exceeds tolerable misstatement, sample provides a reasonable basis for conclusion about tested population.

(d) When projected misstatement plus anomalous statement, if any, exceeds tolerable misstatement, sample provides a reasonable basis for conclusion about tested population.

Case Scenario 3

Bandhu Charitable Trust is considering appointment of MNO & Associates, Chartered Accountants, as independent auditors of its financial statements. The Trust is engaged in providing affordable healthcare services. It is in interest of both auditor and client to issue an engagement letter so that the possibility of misunderstanding is reduced to a great extent. It is, therefore, important that each party should be clear about nature of engagement. It should exactly specify the scope of work. Such an "engagement letter" is exchanged between Trust management and auditors.

While performing audit procedures, it is noticed by auditors that bills of two vehicles are not in name of Trust but in name of trustees. However, payment of these vehicles was made from bank account of Trust. The said vehicles are used for activities of Trust.

It is also noticed that a sum of ₹ 50.00 Lakh is reflected in Trust's financial statements in name of Gamma Instrument and Equipment in schedule of creditors. The said amount is outstanding since two years. The auditors sent confirmation request to the said supplier and seek management's co-operation in this regard. However, management of the Trust informs the auditor regarding certain dispute going on with the supplier of equipment due to some quality issues. It is further informed that dispute is near settlement and it would not be proper to send confirmation request as it can affect negotiation process.

Based on the above facts, answer the following: -

10. As regards exchange of engagement letter between Trust management and auditors is concerned, which of following statements is likely to be true?

(a) Engagement letter is sent by MNO & Associates to Bandhu Charitable Trust. It includes reference to the expected form and content of report to be issued by them and a statement that there may be circumstances in which such report may differ from its expected form and content.

(b) Engagement letter is sent by Bandhu Charitable Trust to MNO & Associates. It includes reference to the expected form and content of report to be issued by auditors. However, it does not include a statement that such report may differ from its expected form and content.

(c) Engagement letter is sent by MNO & Associates to Bandhu Charitable Trust. It includes reference to expected form and content of report to be issued by them. However, it does not include a statement that such a report may differ from its expected form and content.

(d) Engagement letter is sent by MNO & Associates to Bandhu Charitable Trust. It does not include reference to the expected form and content of report to be issued by them.

11. Considering the issues related to vehicles as described in the case study, identify the most appropriate statement.

(a) Auditors have identified misstatement concerning "Existence" assertion made by Trust management.

(b) Auditors have identified misstatement concerning "Rights and Obligations" assertion made by Trust management.

(c) Auditors have identified misstatement concerning "Accuracy" assertion made by Trust management.

(d) Auditors have identified misstatement concerning "Completeness" assertion made by Trust management.

12. What course of action should the auditor take regarding the amount payable to the equipment supplier when management has communicated that sending a confirmation request could negatively impact the negotiation process?

(a) The auditor should issue adverse opinion in auditor's report.

(b) The auditor should seek audit evidence as to the validity and reasonableness of the reasons for refusal and perform alternative audit procedures.

(c) The auditor should withdraw from engagement as Trust management's refusal is a limitation on scope of independent audit.

(d) The auditor should disclaim opinion in auditor's report.

MCQs

13. CA Prince, after developing the audit strategy for Vedika Limited, develops an audit plan but finds a need to revise the materiality levels set earlier and therefore, a deviation from the already set audit strategy is felt necessary. In this case, he should

(a) Drop the audit and withdraw from the engagement.

(b) Devise a new audit plan and then, change the strategy as per the Revised Plan.

(c) First Modify the audit strategy and thereafter, prepare the audit plan according to the modified strategy.

(d) Continue with the Audit Plan without considering the Audit Strategy.

14. Jasmine was of the view that audited financial statements are not a guarantee against probable wrong doings in the financial matters of companies. What kind of assurance does audit of financial statements provide?

(a) It provides reasonable assurance meaning a low level of assurance.

(b) It provides reasonable assurance meaning a high level of assurance.

(c) It provides reasonable assurance meaning an absolute level of assurance.

(d) It provides reasonable assurance meaning a moderate level of assurance.

15. CA Raman instructed his article Raju to verify whether employee benefit expense of Prep Limited has been fairly allocated between the operating expense incurred in production activities and general expense. Which of the following assertions is being addressed by this instruction?

(a) Completeness

(b) Presentation and Disclosure

(c) Measurement

(d) Occurrence

PART II - Descriptive Questions

*Question No. **1** is compulsory.*

*Attempt any **four** questions from the Rest.*

1. (a) Subodh has recently joined an audit firm as an articled clerk. He was in process of assembling audit working papers in audit file of Cop Limited, as per the instructions of his senior. While assembling, he noticed following working paper in audit file: -

Timing of Audit Activities

Activitiy	Expected Timing
Audit Planning	July 1, 2023 - July 5, 2023
Review by EQCR	July 6, 2023 - July 7, 2023
Audit Field Work	July 10, 2023 - August 20, 2023
Review by Manager	August 21, 2023
Review by Engagement Partner	August 22, 2023 - August 25, 2023
Review by EQCR	August 26, 2023 - August 27, 2023
Response on Audit Memo	August 28, 2023
Review by Partners – internally post response on audit memo	August 29, 2023
Review by EQCR	August 30, 2023
Finalization of Audit Report and Financial Statements	September 01, 2023 - September 02, 2023
Issuance of Audit Report and Financial Statements	September 03, 2023

The above working paper lists certain factors which are considered by the auditor while establishing audit strategy. Explain how these considerations highlighted in above working paper could have helped the auditor? **(5 Marks)**

(b) CA Tina, while inspecting financial statements of a company, notices that gross profit ratio of company has increased from 14% in year 2022-23 to 24% in year 2023-24. Considering the above, she has assessed the risk of material misstatement to be high with respect to assertions relating to revenue and various direct expenses. CA Tina wants to know few possible reasons which could have led to abnormal jump in gross profit ratio.

During the discussion among engagement team members, her junior Ms. Tisha, expressed her view that detection risk in this engagement should be kept at high level.

(i) List out a few possible reasons which could have led to abnormal jump in gross profit ratio.

(ii) Do you agree with viewpoint of Tisha? Provide reasons for your answer. **(5 Marks)**

(c) Expert Industries Limited is engaged in petrochemical business. Due to nature of its business, the company has hired PQR Associates, a reputed firm of chartered engineers, to determine the quantity and valuation of inventories for preparation of financial statements. The auditor of Expert Industries Limited want to use the same as audit evidence. Before using the work of PQR Associates, management's expert, what aspects should be taken care by auditor? **(4 Marks)**

2. (a) Stay fit Private Limited is a start-up that has been in business for about two years. It runs an application which provides valuable information pertaining to nutrition and helps its clients to access customized healthy food. The company's revenues are expected to grow in the coming period. Although company has reflected net losses in its financial statements for the last two years, it has managed to meet its financial commitments. The financial statements for last two years were prepared on going concern basis of accounting. The management of company wants to follow the same basis of accounting for the current year. Is the view of management appropriate? How does the "going concern" affect the preparation of financial statements? **(5 Marks)**

(b) PQR & Associates and MNO & Co., both firms of Chartered Accountants, have been appointed as joint auditors of Gama and Beta Limited. Before the commencement of the audit, the joint auditors should discuss and develop a joint audit plan. In developing the joint audit plan, the joint auditors should identify division of audit areas and common audit areas. Explain stating the other relevant considerations in this regard with reference to the Standards on Auditing. **(5 Marks)**

(c) The management of Cool Drinks Limited suspects that some employees of the company may be involved in making fraudulent payments to dummy workers at its various plants in the country. Therefore, they are considering appointment of a firm of auditors to conduct audit involving detailed examination of accounts. However, one senior person among Board members, Mr. P, objects to use of word "audit" in proposed assignment. Comment. Also, discuss how audit is different from investigation. **(4 Marks)**

3. (a) Mr. Chetan is appointed as an auditor of Spot Limited, a small company. Mr. Chetan is aware that CARO 2020 is not applicable to small company. List out the classes of companies that are specifically exempt from the applicability of CARO 2020. **(5 Marks)**

(b) Zed Limited is engaged in the manufacturing and export of shoes. The statutory auditor of the company wants to reasonably ensure that only the inventories recorded in the financial statements are exclusively owned by the company and do not include any inventories that belong to third parties but includes inventories owned by the company but lying with third party. Advise the auditor on the audit procedures to be performed to achieve this assurance. **(5 Marks)**

(c) SQC 1 requires assumption of leadership responsibilities for quality within firm. Are such leadership responsibilities required for audit engagements only? Who assumes such leadership responsibilities within firm? How it is important for audit quality? **(4 Marks)**

4. (a) CA X is contemplating the use of negative confirmation requests as the sole substantive audit procedure to verify certain accounts payable balances reflected in financial statements of a company. Which conditions need to be met to use negative confirmation requests as stated above? Additionally, CA X is of the view that negative confirmations provide same level of persuasive audit evidence as in case of positive confirmations. Do you agree with his viewpoint? Provide reasons for your answer. **(5 Marks)**

(b) CA H has been offered audit of financial statements of a society engaged in promoting social causes, such as setting up of drug de-addiction centres for misguided youth and rehabilitating such young people by helping them find avenues of gainful employment. However, CA H failed to send audit engagement letter to the society's governing body and proceeded to conduct the audit. In the absence of this letter, the governing body is of the view that purpose of such an audit is to provide absolute assurance against probable errors and frauds in the financial statements. Does it constitute violation of fundamental principles governing professional ethics? State reasons for the same. **(5 Marks)**

(c) While verifying cash and cash equivalents of a company, CA D engagement partner, is very particular that Bank reconciliation statement (BRS) prepared by the management in respect of bank account maintained by the company is proper to rule out misstatements in cash and cash equivalents reflected in the financial statements of the company. The company does not use net banking and prefers to issue cheques to its creditors and receives substantial payments locally through account payee cheques. Which aspects need to be taken care of and verified by CA D in respect of BRS? **(4 Marks)**

5. (a) CA Sumit has been appointed as statutory auditor of Core Limited. List out some matters that he may consider in determining whether a deficiency or combination of deficiencies in internal control constitutes a "significant deficiency". **(5 Marks)**

(b) While conducting the audit of Zeena Limited, CA E is trying to obtain understanding of different components of internal controls of the company. Such an understanding is necessary and is required to be documented in accordance with Standards on Auditing. In this context, how he shall obtain understanding of the risk assessment process of the company and how is this understanding important for the auditor?

(5 Marks)

(c) Section 72(1) of the Multi-State Co-operative Societies Act, 2002 states that only a person who is a Chartered Accountant within the meaning of the Chartered Accountants Act, 1949 can be appointed as an auditor of a multi-state co-operative society. Who, according to Section 72(2), is disqualified from being appointed as auditors of a multi-state co-operative society? **(4 Marks)**

6. (a) National Bank has advanced cash credit facility of ₹ 25 Lakh to Sun Industries. Following is the extract of account of Sun Industries reflecting in CBS of Bank from December 1, 2023 to March 31, 2024: -

Date	**Particulars**	**Dr.**	**Cr.**	**Balance (Dr.)**
01/12/2023	To Transfer	45,000		24,75,000
31/12/2023	By Clearing		1,00,000	23,75,000
31/12/2023	To Interest	25,000		24,00,000
31/01/2024	To Interest	24,700		24,24,700
29/02/2024	To Interest	24,800		24,49,500
31/03/2024	To Inspection charges	1,000		24,50,500
31/03/2024	To Interest	24,900		24,75,400

Drawing power during the above period was consistent at ₹ 25 Lakh. The account was classified as "Standard asset" as on 31.12.2023 in books of Bank. The security charged with the bank remains intact throughout this period.

Comment on "asset classification" of above account as on 31st March 2024 in books of Bank in accordance with RBI norms. **(5 Marks)**

(b) While performing audit of financial statements of a listed company, statutory auditor needs to maintain an attitude of professional skepticism for related party information. State examples of the records or the documents that may provide information about related party relationships and transactions. **(5 Marks)**

(c) Sanjana is of the view that there exist some disadvantages in the use of audit programmes but most of these can be removed by following some concrete steps. Do you agree with her perspective? Comment. **(4 Marks)**

OR

BOTS is a manufacturing entity having material Property, Plant and Equipment (PPE) items in its financial statements. The auditor of the entity wants to verify that PPE items have been valued appropriately as per generally accepted accounting policies and practices. Comment on significance of such verification. Suggest a few audit procedures in this regard. **(4 Marks)**

MODEL TEST PAPER 5

INTERMEDIATE GROUP – II

PAPER – 5: AUDITING AND ETHICS

Time Allowed – 3 Hours **Maximum Marks – 100**

PART I - Case Scenario based MCQs (30 Marks)

Write the most appropriate answer to each of the following multiple-choice questions by choosing one of the four options given. All MCQs are compulsory and carries 2 Marks each.

Case Scenario 1

DLP & Associates, a firm of Chartered Accountants, are in midst of conducting audit of Twist and Spin Limited. The company is in business since last 15 years and have appointed DPL & Associates as their auditor for the first time for a term of 5 years beginning from financial year 2023-24. While identifying and assessing the risk of material misstatement at assertion level, the engagement team had assessed risk of material misstatement for revenues and trade receivables to be high.

The team is considering to send negative confirmation requests as sole substantive procedure to some business entities representing trade receivables appearing in the financial statements of the company. The company had made sales to these business entities in January, 2024. Such business entities are few and have quite large balances as on 31st March, 2024. However, team members are not on the same page regarding sending negative confirmation requests.

Besides considering sending of confirmation requests, engagement team has planned certain audit procedures pertaining to trade receivables. These procedures include: -

1. Verification of invoices issued during last 7 days of financial year 2023-24 to verify that goods have been despatched by the company.
2. Selection of a few invoices from ageing report of the month March 2024 for verification of correctness of the billed amounts, to correct customers and on correct dates.
3. Preparation of schedule of movement of bad debts.
4. Review of the process of providing discounts to ensure that it is in accordance with company policy.

Another junior team member, S, observed that "Share Options Outstanding Account" reflected in the financial statements of the company. He started searching classification requirements of Schedule III of Companies Act, 2013 in this regard.

The engagement team wants to ensure that only the inventories held by company have been recorded in the financial statements and do not include any inventories belonging to third parties. They are keen to verify completeness assertion for inventories. The team has planned following audit procedures in this respect: -

1. Comparison of inventory turnover ratio of current period with previous years;
2. Vertical analysis of current period with previous years;
3. Comparison of budgetary expectations vis-à-vis actuals;
4. Performing purchase and sales cut-off tests

During the course of audit, R, a team member concluded that company has followed a particular accounting policy for revenue recognition during year 2023-24 which is in accordance with Accounting Standards and applicable financial reporting framework, but it was not consistently applied in preceding period having an impact upon opening balances of trade receivables of current year 2023-24. R is confused regarding the possible implications on auditor's report on this issue.

Based upon above, answer the following questions: -

1. The engagement team members are not able to take decision on sending negative confirmation requests to some entities described in case scenario. Which of the following statements is in accordance with Standards on Auditing?
   (a) It would be appropriate for engagement team to send negative confirmation requests to these business entities.
   (b) It would be inappropriate for engagement team to send negative confirmation requests to these business entities.
   (c) Sending negative confirmation requests depends upon auditor's professional judgment and Standards on Auditing do not spell out any confirmation requirements in this respect.
   (d) Business entities are more likely to respond in case of disagreement. Therefore, sending negative confirmation requests always provides better qualitative audit evidence as compared to other confirmation modes.
2. Which of the planned audit procedure(s) pertaining to trade receivables described in case scenario is/are not related to verification of "Completeness assertion"?
   (a) 2 only
   (b) 2 and 3
   (c) 3 only
   (d) 1 and 3
3. Guide team member S by selecting the correct option with respect to "Share Options Outstanding Account":
   (a) It is required to be classified under head "Current liabilities".

(b) It is required to be classified under Shareholder funds under "Share Capital". Further, it is to be classified separately under "Paid up Share Capital".

(c) It is required to be classified under Shareholder funds under "Reserves & Surplus". Further, it is to be classified separately as such under "Reserves & Surplus".

(d) It is required to be classified under Shareholder funds under "Reserves & Surplus". However, it is shown as part of Capital Reserve. No Separate disclosure is mandated under Schedule III of Companies Act, 2013.

4. Which of the planned audit procedures in relation to the inventories described in the case scenario is/are not in nature of analytical procedure(s)?

(a) 2 and 3

(b) 3 only

(c) 2 and 4

(d) 4 only

Case Scenario 2

CA J is nearing completion of audit of Cheap Cost Private Limited, a manufacturing company for the year 2023-24. The draft financial statements of the company show a profit before tax of ₹ 5 crores. Materiality for financial statements as a whole has been determined @ 5% of Profit before Tax. At the end of June 2024, he is considering following issues flagged during the course of audit which remain uncorrected: -

- A fire took place in one of the premises of the company on 1st May, 2024 resulting in damages to all the inventories lying there amounting to ₹ 1 crores. The inventories of affected premises are insured with Quick Bima Limited for ₹ 50 lakhs and company has also lodged a claim with it which is still to be settled.
- The company has debited ₹ 10 lakhs under "Machinery Account" whereas expenditure relates to normal wear and tear of high-speed automated machinery. The amount has been wrongly capitalised under "Machinery account". (Ignore depreciation effect)
- The company has not properly accounted for necessary elements of cost in arriving at work in progress. Further, estimates regarding various stages of production have not been made properly. All such factors have resulted in overstatement of work in progress inventories by ₹ 20 lakhs.

No other issues except as stated above merit attention. Besides, written representation letter has also been obtained on matters concerning management's responsibilities regarding fulfilment of responsibilities for preparation of financial statements and providing access to all information to CA J. However, written representation provided to CA J begins in the below stated manner:

"This representation letter is provided in connection with your audit of the financial statements of Cheap Cost Private Limited for the year ended March 31, 2024, for the purpose of expressing an opinion as to whether the financial statements give a true and fair view in accordance with the applicable accounting standards in India.

We confirm that (to the best of our knowledge and belief, having made such inquiries as we considered necessary for the purpose of appropriately informing ourselves) ………………"

Based upon above, answer the following questions: -

5. Which of following statements is most appropriate as regards to fire incident?

   (a) The auditor should ask management to adjust financial statements for period under audit and book a loss of ₹ 50 lakhs in its Statement of Profit and Loss.

   (b) The auditor should ask management to adjust financial statements for period under audit and book a loss of ₹ 1 crores in its Statement of Profit and Loss.

   (c) The auditor should ask management to disclose it in notes to accounts.

   (d) The auditor has no responsibility regarding described fire incident.

6. Identify the correct option regarding materiality of uncorrected misstatements relating to wrong capitalisation under "Machinery Account" and overstatement of inventories of work in progress.

   (a) The uncorrected misstatements are not material in context of audit of financial statements as a whole as these are below materiality level determined by auditor.

   (b) The uncorrected misstatements are material in context of audit of financial statements as a whole and their effect on opinion should be considered by auditor.

   (c) The uncorrected misstatements are not material in context of audit of financial statements as a whole as these are in nature of management's judgment.

   (d) The uncorrected misstatements are material in context of audit of financial statements as a whole and auditor should correct these.

7. The auditor has performed certain audit procedures described in case scenario relating to inventories of work in progress. Such procedures are related to verification of _______ assertion.

   (a) Completeness

   (b) Valuation

   (c) Existence

   (d) Rights and obligations

8. Which of the following statements is correct in respect to manner of providing written representations by management?

   (a) The extract of written representations provided in case scenario is proper.

(b) The use of words “having made such enquiries” is not permitted.

(c) The use of words “to the best of our knowledge and belief” is not permitted.

(d) The use of both kind of words “having made such enquiries” and “to the best of our knowledge and belief” is not permitted.

Case Scenario 3

MPM & Associates, a firm of Chartered Accountants, have received offer letter from PST Bank for carrying out statutory audit of their Chandigarh branch for the financial year 2023-24. The offer letter, inter alia, requests audit firm to give an undertaking in writing that firm is not disqualified under Section 141(3)(d)(ii) of Companies Act, 2013. Such provision relates to disqualification of a person as auditor of a company if he, his relative or partner is indebted to the company subject to certain prescribed conditions. Before accepting the said audit, the firm checks out whether it complies with law requirements. However, there is a difference of opinion among firm personnel whether such an undertaking can be given in case of banks.

The offer letter also contains following declaration to be signed by the auditors in case they choose to accept the appointment: -

“We declare that we will not communicate or allow to be communicated to any person, not legally entitled thereto, any information relating to the affairs of PST Bank or to the affairs of the person having any dealing with the Bank, nor will we allow any such person to inspect or have access to any books or documents belonging to or in possession of the Bank relating to the business of any person having any dealing with the Bank.”

The audit firm has also received a document kit provided by Statutory Central Auditors of Bank. It relates to scope of audit, areas of special consideration while performing audit and requires audit firm to confirm certain matters like adherence to RBI Master Circulars for income recognition, asset classification & provisioning and adequacy of checking of books of accounts based on sample etc. to them by way of a letter.

The document kit received also requires MPM & Associates to consider adverse comments made by stock auditors of borrowers enjoying cash credit facilities in their reports for purpose of reporting. It also contains specific instructions to check foreign letter of credits (FLCs) issued during the year in compliance with sanction terms of the respective borrowers and to verify income recognized in respect of FLCs.

9. Which of the following statements is likely to be most appropriate regarding required undertaking in accordance with the Companies Act, 2013?

   (a) The referred provision mainly addresses self-interest threats to independence of auditors. The audit firm can give such an undertaking after verifying if it complies with such requirements.

   (b) The referred provision mainly addresses self-review threats to independence of auditors. The audit firm can give such an undertaking after verifying if it complies with such requirements.

(c) The referred provision mainly addresses self-interest threats to independence of auditors. However, the audit firm can't give such an undertaking as such provisions are applicable to companies and not to banks.

(d) The referred provision mainly addresses self-review threats to independence of auditors. However, the audit firm can't give such an undertaking as such provisions are applicable to companies and not to banks.

10. The declaration relating to non-communication of information related to affairs of Bank is related to adherence to which fundamental principle governing professional ethics?

    (a) Objectivity

    (b) Confidentiality

    (c) Independence

    (d) Professional Competence and due care

11. MPM & Associates are required to report on adverse comments made by stock auditors of borrowers of branch enjoying cash credit facilities. Which of the following statements is most appropriate in this regard?

    (a) Stock auditors make comments in their reports on valuation of security and calculation of drawing power.

    (b) Stock auditors make comments in their reports on valuation of security only. However, no comments are made on calculation of drawing power.

    (c) Stock auditors make comments in their reports on valuation of security, documentation made by bank in respect of sanctioned credit facilities, leakage of revenue and calculation of drawing power only.

    (d) Stock auditors make comments in their reports on calculation of drawing power only.

12. Keeping in view matter of foreign letters of credits (FLCs) described in case scenario, consider following statements: -

    1. Foreign letter of credit issued by branch is a non-funded loan.

    2. Branch earns interest on issuance of foreign letter of credit which is credited in interest earned account of profit and loss account of branch.

    3. The bank which receives foreign letter of credit is known as beneficiary bank.

    Which of following statement(s) is/are true?

    (a) Only statement 1 is correct.

    (b) Only statements 1 and 3 are correct.

    (c) Only statements 1 and 2 are correct.

    (d) Only statements 2 and 3 are correct.

MCQs

13. CA Y has started planning for audit of a listed company. In this respect, he is considering all the matters relating to acceptance of client, assessment of compliance with ethical requirements including independence, consideration regarding the use of analytical procedures to be performed as risk assessment procedures and to have common understanding regarding terms of engagement with management. Which of the following does not fall under the preliminary engagement activities of planning process?

    (a) Considering all matters relating to acceptance of client.

    (b) Assessing ethical requirements including independence.

    (c) Using analytical procedures to be performed as risk assessment procedures.

    (d) Establishing common understanding regarding terms of engagement.

14. A practicing Chartered Accountant is appointed by a company to perform certain agreed-upon procedures relating to its trade payables. Such agreed upon procedures include verifying listing with books of accounts, sending confirmation letters and reporting factual discrepancies to company management. Which of statements is correct in this context?

    (a) The practicing CA shall perform work in accordance with Standards on Related Services and SA 220.

    (b) The practicing CA shall perform work in accordance with Standards on Related Services and SQC 1.

    (c) The practicing CA shall perform work in accordance with Standards on Auditing including SA 220.

    (d) The practicing CA shall perform work in accordance with Standards on Assurance Engagements and SQC 1.

15. The audit of government expenditure is one of the major components of government audit. In this regard, what is meant by "Audit against rules and orders"?

    (a) That the expenditure is incurred with due regard to broad and general principles of financial propriety.

    (b) That there is sanction, either special or general, accorded by competent authority authorising the expenditure.

    (c) That there is a provision of funds out of which expenditure can be incurred and the same has been authorised by competent authority.

    (d) That the expenditure incurred conforms to the relevant provisions of the statutory enactment and in accordance with the financial rules and regulations framed by the competent authority.

PART II - Descriptive Questions

*Question No. **1** is compulsory.*

*Attempt any **four** questions from the Rest.*

1. (a) CDE Private Limited, a manufacturing company, had made investment in shares of some blue-chip companies. Additionally, it had temporarily deposited some of its extra funds in fixed deposits with a scheduled bank. Dividend from shares amounting to ₹ 1.80 lakhs (net of TDS, TDS = ₹ 0.20 lakhs) and bank interest of ₹ 2.70 lakhs (net of TDS, TDS = ₹ 0.30 lakhs) were credited in bank account of the company. During the year 2023-24, it has also sold some shares resulting in net gain of ₹ 5 lakhs. The company has shown above incomes under head "Other income" for consolidated amount of ₹ 9.50 lakhs in the statement of Profit and Loss. No other information is furnished in the financial statements put up for audit. As the auditor of the company, discuss whether the above situation constitutes "misstatement" in the financial statements of the company. Also state, few examples of misstatements. **(5 Marks)**

(b) During the audit of a company, CA Z is using a software to select samples pertaining to sales records of the company. While performing this process, a window opens in software prompting the user to enter certain information. CA Z is in the process of entering information in this regard as given under: -

Selection Interval	?
Number of records to select	100
Starting record number to select	1
Ending record number to select	1000
File name	Sales

Going through the above fields, which method of sampling is likely being used in the software? Discuss. Which foremost consideration should be kept in mind by auditor for selecting samples in such a manner?

Additionally, partner of CA Z suggested him to select the first 200 sales invoices from the sales book of the last month. Which method of sampling is being suggested by partner of CA Z? **(5 Marks)**

(c) Truthful Products Private Limited is engaged in trading stationery items. During the year 2023-24, there was a huge fire in one storage location of the company resulting in loss of inventories of ₹ 5 crores. As a result, the operations of the company were badly affected for about two months. Unfortunately, the insurance claim of the company was rejected due to certain defects in the policy issued and loss was booked by company in the year 2023-24 itself. There was no change in nature of business of company in relation to the last year. The draft financial statements of the company reflect following information:

(Figures in ₹ crores)

Particulars	FY 2022-23	FY 2023-24
Revenue from Operations	80	100
Net profit before tax	6	10

CA D who has been the statutory auditor for past three years, has decided to rely upon the same tests of details as performed in previous years. In the given situation what is lacking on part of the auditor? Discuss. **(4 Marks)**

2. (a) "Assurance engagement" means an engagement in which a practitioner expresses a conclusion designed to enhance the degree of confidence of the intended users other than the responsible party about the outcome of the evaluation or measurement of a subject matter against criteria. In this context, give three examples of assurance engagements highlighting difference in nature of assurance provided by such engagements. **(5 Marks)**

(b) Pure Services Limited is into the litigation relating to some legal action initiated by the industry regulator. The matter has reached jurisdictional High Court. Keeping in view uncertainty related to future outcome of matter, statutory auditor of the company has decided to include Emphasis of Matter (EOM) Paragraph in auditor's report.

(i) Briefly discuss the considerations to be taken care of by the statutory auditor when EOM paragraph is included in auditor's report.

(ii) State any two examples of circumstances where the auditor may consider it necessary to include an EOM paragraph. **(5 Marks)**

(c) CA Y, statutory auditor of a company, is in process of determining materiality for financial statements while planning audit. Since materiality is a matter of professional judgment and is affected by auditor's perception of financial information needs of users of financial statements, he is reasonably making certain assumptions about users of financial statements. Which reasonable matters are likely to be assumed by him in respect of users? **(4 Marks)**

3. (a) During the course of statutory branch audit of a nationalized bank, CA Amrish is performing audit procedures in relation to the advances. He has verified the selected sample of borrower accounts representing advances and found nothing unusual. In a banking environment, there exist documentary evidence containing observations/comments on advances which can be useful to the statutory branch auditor in performing an effective audit. List out few such documentary evidence which can be made use of by CA Amrish. **(5 Marks)**

(b) While auditing the financial statements of Bro Traders LLP, CA L is carefully going through LLP agreement. Briefly discuss the key points CA L should pay attention in the LLP agreement and the reporting responsibilities of CA L concerning the financial statements of Bro Traders LLP? **(5 Marks)**

(c) CA N, statutory auditor of Rock Limited, is in the process of final assembly of audit file. Under what circumstances, a statutory auditor can make changes to audit documentation during final assembly process of audit file? Give a few examples of such changes. **(4 Marks)**

4. (a) CA J is appointed as statutory auditor of Sigma and Beta Limited for the year 2023-24. During the audit he observed trade receivables amounting to ₹ 50 crores are reflected in the financial statements of the company. He wants to obtain sufficient appropriate evidence to conclude that trade receivables have been valued appropriately. Suggest few audit procedures in this regard. **(5 Marks)**

(b) While planning the audit of Me Limited, CA M has planned nature, timing and extent of risk assessment procedures to identify and assess risks of material misstatements. How risk should be assessed by the auditor CA M? It is also well known that assessment of risks is a matter of professional judgment.

Which specific matters are not included in audit risk? Additionally, CA K, one of the team members of CA M, is of the view that Materiality and Audit Risk are only considered at planning stage of an audit. Comment.

(5 Marks)

(c) CA D is planning an audit of a listed company. List specific documentation requirements in accordance with SA 300 in relation to planning such an audit. How such planning documentation is useful?

(4 Marks)

5. (a) Section 143(1) of Companies Act, 2013 states that every auditor of a company shall have access to books of accounts and vouchers of company and shall be entitled to require from officers of company such information and explanation as considered necessary and shall inquire into certain matters. State those matters to be inquired. **(5 Marks)**

(b) M/s Veer and Associates is appointed as auditor of KMP limited. During the audit, auditor wants to verify that trade payables and liability balances that were supposed to be recorded have been recognized in the financial statements. Which assertion auditor wants to ensure and what audit procedures should be followed by him in this regard?

(5 Marks)

(c) CA M, auditor of a company, has planned to use substantive analytical procedures during course of audit. In this regard, he has decided to use such procedures in following areas: -

(i) For testing relationship between sales and cost of sales

(ii) For testing rights over certain assets forming part of account balances

Comment upon his approach along with reasons. **(4 Marks)**

6. (a) Mr. Vaayu is appointed as the auditor of PRISM Limited for the year 2023-24. He wants to ensure that the PPE has been valued appropriately and as per generally accepted accounting policies and practices and also that PRISM Limited has valid legal ownership rights over the PPE claimed to be held by the company and recorded in the financial statements. Explain how the auditor will verify the same. **(5 Marks)**

(b) M/s TP & Co., a firm of Chartered Accountants, has been conducting audit of KSR Ltd. since last 4 years. KSR Ltd. has diversified their business into newer areas during the last year. The senior member of the audit team handed over the standard audit programme of earlier years to the audit assistants and instructed them to follow the same. The assistants are conducting the audit accordingly. Whether the attitude of the audit assistants is justified? Guide them. **(5 Marks)**

(c) As per SA 560, when after the date of the auditor's report but before the date the financial statements are issued, a fact becomes known to the auditor that had it been known to the auditor at the date of the auditor's report, it may have caused the auditor to amend the auditor's report. In this context, what is meant by "Date the financial statements are issued"? Can it be later than the date of providing auditor's report to the entity? **(4 Marks)**

OR

CA N, statutory auditor of QST Limited, appointed for a term of 5 years has completed audit for the first financial year ending on 31st March 2024. In compliance with requirements of professional standards, an audit file has been assembled. After about a period of six months from date of issue of audit report, he gets a call from CFO of the company to share complete audit file so that financial reporting of company can be improved upon in coming periods. Is it mandatory for statutory auditors to share audit files with client? What are the requirements for making audit documentation available to clients? **(4 Marks)**

MODEL TEST PAPER 6

INTERMEDIATE GROUP – II

PAPER – 5: AUDITING AND ETHICS

Time Allowed – 3 Hours **Maximum Marks – 100**

PART I - Case Scenario based MCQs (30 Marks)

Write the most appropriate answer to each of the following multiple-choice questions by choosing one of the four options given. All MCQs are compulsory and carries 2 Marks each.

Case Scenario 1

While auditing ANJ Industries Private Limited, CA J has decided that it would be appropriate to examine 100% of the items comprising turnover of ₹ 30 crores as reflected in its financial statements. In this regard, he has designed tests of details for transactions forming part of company's turnover. The sales function is automated in the company's information system involving repetitive nature of calculations. Further, in respect of designing of tests of controls pertaining to turnover, he is in a fix.

While verifying turnover of the company, CA J ensures that all the sales are correctly recorded in the books of accounts based on the invoices and discounts have been properly adjusted. Similarly, in respect of verification of employee benefit expenses reflected in the financial statements, he ensured that TDS related adjustments are correctly reconciled and accounted for.

Ankush is an article assistant who has recently joined CA J for practical training. He is also part of the team assisting seniors. Although he has read about assertions, there remain several doubts about assertions in his mind. He noted down the following points about assertions as per his understanding: -

(i) Assertions are the representations made by the auditors.

(ii) Assertions are generally explicit and not implied.

(iii) Verification of the assertions helps the auditor in finding out whether financial statements are in accordance with applicable financial reporting framework or not.

In normal course of business, the company also holds a part of goods as a consignee. While verifying assertions relating to inventories, he ensures that inventory held by the company as consignee of goods on behalf of third parties is excluded from inventories.

Based on the above facts, answer the following: -

1. Considering approach of CA J in respect of tests of details and tests of controls pertaining to sales, which of the following statement is most appropriate?
   (a) The approach for both designing tests of details and tests of controls is proper.
   (b) The approach for designing tests of details is proper. However, it is an unlikely approach for tests of controls.
   (c) The approach for designing tests of controls is proper. However, it is an unlikely approach for tests of details.
   (d) The approach for designing tests of details as well as tests of controls is not proper.
2. Which assertions are being verified by CA J for correctness of recording of sales on the basis of invoices (including adjustment of discounts) and TDS adjustments for employee benefit expenses respectively?
   (a) Measurement, Measurement.
   (b) Completeness, Measurement.
   (c) Existence, Measurement.
   (d) Measurement, Completeness.
3. Considering the view of Ankush, which of the following(s) is/are false?
   (a) 1 and 2.
   (b) 1,2 and 3.
   (c) 1 only.
   (d) 2 only.
4. As regards the matter of holding of certain inventories as consignee of goods, which type of assertion(s) is/are being verified by the auditor?
   (a) Cut-off and Valuation.
   (b) Completeness and Rights & Obligations.
   (c) Completeness only.
   (d) Rights & Obligations only.

Case Scenario 2

Revanth, Manohar and Piyush are planning to set up a new business for trading of electronic goods. They have heard in business circles that many entrepreneurs are setting up their organisations as Limited Liability Partnerships (LLPs). However, they lack knowledge about such legal structures. So, they decided to approach CA S for understanding the difference between a partnership firm, an LLP and a private company.

They also want to gain the knowledge of legal provisions regarding number of partners and the paperwork involved in forming an LLP. Further, they also have doubts regarding maintenance of books of accounts and the audit requirement for such organisations. Revanth, being cost conscious, specifically asks CA S regarding requirement of audit of LLPs. During the discussion, he shares that they are expecting a turnover of ₹ 5 crores in the first year of their business and funds amounting to ₹ 50 lakhs would be brought by partners as their contribution.

Manohar is concerned about the rules regarding the maintenance of accounts in software with an audit trail feature. He has a vague understanding, gained through social media, that such rules have recently come into effect. Moreover, he believes that these features are useful only for auditors. To address his concerns, CA S attempts to explain these matters to him.

After resolving their doubts, they decided to constitute an LLP named Blitz Products LLP with the professional assistance of CA S, who helped them in completing the necessary paper formalities. After constituting an LLP, they acquired dealerships of few reputed companies and received a good response from market due to prominent location of their showroom and are confident of achieving their turnover expectation within the first year of business.

They plan to get their accounts audited after closure of the financial year 2023-24 from CA S. The finance and accounts function of business is being headed by Piyush and he plans to contact him somewhere around August 2024 for getting audit of financial statements conducted, filing income tax return and making necessary regulatory compliances on behalf of LLP.

Based on the above facts, answer the following: -

5. Which of the following is correct regarding the difference in types of organisational structures and connected matters?

   (a) LLP gives the benefit of flexibility of limited liability of a partnership and good governance of a company. A Minimum of two individuals are required to form an LLP and at least 2 partners are required to take DIN. The regulatory authority in the case of LLPs is Registrar of firms of the respective state where the LLP is located.

   (b) LLP gives the benefit of limited liability of a company and flexibility of partnership. A minimum of two individuals are required to form an LLP and at least 2 partners are required to take DPIN. The regulatory authority in the case of LLPs is Registrar of Companies (ROC).

   (c) LLP gives the benefits of limited liability of a company and flexibility of partnership. A minimum of two individuals are required to form an LLP and at least 2 partners are required to take DIN. The regulatory authority in the case of LLPs is Registrar of Companies (ROC).

   (d) LLP gives the benefits of limited liability of a company and flexibility of partnership. A minimum of three individuals are required to form an LLP and at least 2 partners are required to take DPIN. The regulatory authority in the case of LLPs is Registrar of Companies (ROC).

6. Which advice would have been provided by CA S to Revanth regarding audit of financial statements of LLP considering description provided in case scenario?
   (a) There is no provision for compulsory audit of LLPs under the LLP Act, 2008 and relevant Rules. However, partners may choose to get accounts audited due to advantages associated with an audit.
   (b) Every LLP is compulsorily required to get its accounts audited under the LLP Act, 2008 and relevant Rules.
   (c) There exist provisions under the LLP Act, 2008 and relevant Rules for audit of LLPs based upon twin criteria of turnover and contribution thresholds. However, the proposed business doesn't meet thresholds and would not be required to get its accounts audited.
   (d) There exist provisions under the LLP Act, 2008 and relevant Rules for audit of LLPs based upon twin criteria of turnover and contribution thresholds. The proposed business meets thresholds and would be required to get its accounts audited.
7. Which of the following statement is correct regarding Manohar's point of view?
   (a) Audit trails are useful only for auditors. However, maintenance of accounts in software having feature of audit trail is not compulsory for LLPs.
   (b) Audit trails are useful for businesses as well as auditors. However, maintenance of accounts in software having feature of audit trail is not compulsory for LLPs.
   (c) Audit trails are useful for businesses as well as auditors. Maintenance of accounts in a software having feature of audit trail is compulsory for LLPs.
   (d) Audit trails are useful for businesses as well as auditors. Maintenance of accounts in a software having feature of audit trail is compulsory for LLPs having certain turnover thresholds.
8. Which of the following statement is correct regarding Piyush's plan?
   (a) Auditor is required to be appointed at least 30 days prior to March 31st, 2024. Therefore, Piyush's plan to approach CA S is not in accordance with the relevant rules and regulations.
   (b) Auditor is required to be appointed at least 60 days prior to March 31st, 2024. Therefore, Piyush's plan to approach CA S is not in accordance with the relevant rules and regulations.
   (c) Auditor is required to be appointed at any time before March 31st, 2024. Therefore, Piyush's plan to approach CA S is not in accordance with the relevant rules and regulations.
   (d) Piyush's plan is proper and there are no specific provisions for appointment of auditor of an LLP in accordance with relevant rules and regulations.

9. Considering Piyush's plan to contact CA S in August 2024 for making necessary regulatory compliances could lead to___________

   (a) Default by LLP in filing its annual return.

   (b) Default by LLP in filing its Statement of account and solvency.

   (c) Default by LLP in filing its annual return as well as statement of account and solvency.

   (d) No default by LLP in making necessary compliances.

Case Scenario 3

Vama & Associates were appointed as auditors for Royal Constructions Ltd. for the financial year 2023-2024. During the audit, the auditors observed a significant amount of work-in-progress inventory. Instead of attending the physical inventory count, they relied on alternative procedures. These included reviewing production reports, reconciling them with recorded inventory levels, and analysing variance trends to assess the accuracy of the work-in-progress balance.

The auditor also noticed that the company has obsolete inventory of ₹1,75,000, which had an estimated realisable value of ₹ 50,000, and the company has valued it at cost in its financial statements.

During the review of Property Plan and Equipment (PPE), the audit team noted that the company included ₹ 1,05,000 for employee benefits related to the acquisition of PPE and ₹ 1,25,000 for testing the functionality of the equipment, offset by ₹ 35,000 received from the sale of samples produced during testing.

Vama & Associates derive a significant portion of their income from Royal Constructions Ltd., amounting to ₹ 10,00,000, which represents 65% of their total annual revenue. Despite finding financial discrepancies of ₹ 3,00,000 in the company's accounts, the partners decided to overlook these issues to maintain their lucrative relationship with the client.

Based on the above facts, answer the following: -

10. Royal Constructions Ltd. should value the obsolete inventory at:

    (a) ₹ 50,000.

    (b) ₹ 1,25,000 .

    (c) ₹ 1,75,000.

    (d) It should be written off completely.

11. What amount should be included in the cost of PPE in the financial statements of Royal Constructions Ltd.?

    (a) ₹ 1,95,000.

    (b) ₹ 2,30,000.

    (c) ₹ 2,65,000.

    (d) ₹ 1,05,000.

12. What potential threat to the independence of Vama & Associates arises from receiving fees of ₹ 10,00,000 from Royal Constructions Ltd.?

    (a) Self-interest threat.

    (b) Self-review threat.

    (c) Intimidation threat.

    (d) Familiarity threat.

MCQs

13. M/s RJ & Associates, Chartered Accountants, has been auditing the books of GP Resorts Private Limited for the past two years. GP Resorts Private Limited has experienced a significant increase in visitors due to a successful marketing campaign. This increase in number of visitors has prompted the Resort to introduce new services, such as event hosting, which contribute to higher revenue. Whether M/s RJ & Associates should issue a revised audit engagement letter to the GP Resorts Private Limited?

    (a) No, since M/s RJ & Associates has been auditing the GP Resorts Private Limited for the past two years, new audit engagement letter is not required.

    (b) Yes, the auditor is required to issue a new audit engagement letter for each period.

    (c) Yes, a new engagement letter is required due to significant changes in the nature and size in the business of the GP Resorts Private Limited.

    (d) No, M/s RJ & Associates is not required to provide a new engagement letter, as GP Resorts Private Limited will send new engagement letter to M/s RJ & Associates.

14. TAD & Associates, a sole proprietor firm of Agamya, is offered appointment as auditor of a company engaged in manufacturing of automobile components for the first time. She is checking the facts about the integrity of promoters of the company and key managerial persons. Matters such as the competence of staff to perform the engagement are also considered by her. The appointment is subsequently accepted by her. What is CA Agamya trying to do by checking such facts?

    (a) CA Agamya is establishing an audit strategy.

    (b) CA Agamya is conducting preliminary engagement activities.

    (c) CA Agamya is designing audit plan.

    (d) CA Agamya is checking her compliance of ethical requirements.

15. A practicing Chartered Accountant has been engaged by a company to perform certain procedures relating to its trade payables. Such agreed upon procedures includes verification of purchases from related parties, sending confirmation letters and reporting factual discrepancies to the management of the company. Which of the following statement is correct in this context?

(a) The practicing CA shall perform work in accordance with Standards on Related Services and Standards on Auditing.

(b) The practicing CA shall perform work in accordance with Standards on Related Services and SQC 1.

(c) The practicing CA shall perform work in accordance with Standards on Auditing only.

(d) The practicing CA shall perform work in accordance with Standards on Assurance Engagements and SQC 1.

PART II - Descriptive Questions

*Question No. **1** is compulsory.*

*Attempt any **four** questions from the Rest.*

1. (a) During the audit of a company, CA Jack obtained written representations from management regarding all known instances of non-compliance with laws and regulations that should be considered in the preparation of the financial statements. However, during the audit, he observed that the information provided in this regard was incomplete, and the audit evidence indicating such non-compliance contradicted the written representations, casting doubt on their reliability.

How should CA Jack proceed in this situation? **(5 Marks)**

(b) CA Shubham, the auditor of Sigma Limited, is performing tests of controls and tests of details using audit sampling. During these procedures, he observed deviations in compliance with management's prescribed procedures for sales transactions of small values of a product at one location during tests of controls. Additionally, misstatements were identified in the sample related to these small-value sales transactions during tests of details. How should he proceed to analyse the nature and cause of the deviations and misstatements observed in the sample results? **(5 Marks)**

(c) CA Srishti, while auditing KSM Private Limited for the first time, utilised software to analyse financial data, comparing amounts recorded in the financial statements for the current audit year with the preceding two years. Her objective was to evaluate the risk of material misstatement.

Identify the type of audit procedure performed by CA Srishti in the given case, discuss its relevance, and explain whether an auditor's opinion can solely rely on such procedures. **(4 Marks)**

2. (a) CA Paras has accepted audit of financial statements of an entity. According to the Standards on Auditing, the auditor is required to send an audit engagement letter to the entity. What are the key areas that should be included in the audit engagement letter? Under what circumstances is the auditor not required to record the terms of engagement in such a written agreement? **(5 Marks)**

(b) "When the auditor modifies the audit opinion, the auditor shall use the heading "Qualified Opinion," "Adverse Opinion," or "Disclaimer of Opinion," as appropriate, for the Opinion section." Briefly explain when the auditor should express:

(i) Qualified Opinion.

(ii) Adverse Opinion and

(iii) Disclaimer of Opinion. **(5 Marks)**

(c) Rajul Ltd. engaged an external practitioner CA Rajul to provide assurance on its prospective financial information for the upcoming year, which includes projections for a new product line. The company projected a 15% increase in revenue, estimating total sales of ₹ 75 crore, driven by the expected launch of this new product. Mention the applicable Engagement and Quality Control Standard and the level of assurance that will be provided in the given situation. Also explain how Prospective Financial Information is different from Historical Financial Information. **(4 Marks)**

3. (a) Mahavir and Associates is appointed as the statutory auditor of KBC Bank for the financial year 2023-2024. During the audit, Ms. Chandana, an article trainee, noticed that Sidharth Industries had an outstanding loan of ₹ 50,00,000 as on March 31, 2024. On March 29, 2024, the company made a payment of ₹ 10,00,000, reducing the outstanding loan balance to ₹ 40,00,000. However, on April 4, 2024, Sidharth Industries initiated a reversal transaction of ₹ 8,00,000, increasing the outstanding loan balance back to ₹ 48,00,000. The payment and subsequent reversal occurred within a short period, with the final outstanding balance remaining ₹ 48,00,000 after the reversal.

Considering this scenario, what should be the response of Mahavir and Associates to this matter, particularly regarding the classification of the borrower's account and the potential risk of it slipping into the NPA category? **(5 Marks)**

(b) You are appointed as an auditor of "The Prestigious Township Club". As the auditor of "The Prestigious Township Club" for the financial year 2023-24, what are the key points you would consider while auditing the income and expenditure items of the club? **(5 Marks)**

(c) During the audit of a limited company as a statutory auditor you discovered that a fraud amounting to ₹ 5 lakh has been committed by the company. What are the reporting requirements regarding fraud under the Companies Auditor's Report Order, 2020? **(4 Marks)**

4. (a) CA Karan wants to test the "completeness" assertion relating to intangible assets reflected in the financial statements of Data Solutions Private Limited. State audit procedures to be performed by CA Karan in this regard. **(5 Marks)**

   (b) SA 330 states that auditor shall design and perform tests of controls to obtain sufficient appropriate audit evidence as to operating effectiveness of relevant controls. Briefly discuss when such tests are to be designed and performed in accordance with SA 330?

   If an auditor intends to place greater reliance on effectiveness of a control, state its likely effect on audit evidence to be obtained as a result of such tests of controls. Why a higher level of assurance may be sought by an auditor about the operating effectiveness of controls? **(5 Marks)**

   (c) Lotus Ltd., a rapidly growing manufacturing company, appointed Ridhi & Co., as statutory auditor. The engagement team of Ridhi & Co. identified key areas requiring scrutiny, such as revenue recognition, inventory valuation, and related party transactions. Based on his professional judgment, CA Ravi, the engagement partner, directed the engagement team to focus on these critical areas, emphasising the need for detailed testing to ensure accuracy and compliance. Give some examples of the factors need to be considered by CA Ravi for establishing the audit strategy. **(4 Marks)**

5. (a) M/s KSJS & Associates are the statutory auditors of Moon Ltd. for the financial year 2023-24. During an audit briefing, CA Sanket, the engagement partner, explained that the auditor must assemble the audit documentation in an audit file and complete the administrative process of finalising the audit file on a timely basis after the date of the auditor's report. He also highlighted the requirements of SQC 1 regarding establishment of policies and procedures for the retention of engagement documentation in a firm. Explain the requirements related to the timely assembly and retention of audit files in accordance with relevant Engagement and Quality Control Standards. **(5 Marks)**

   (b) The reliability of audit evidence depends on its source, nature, and the circumstances under which it is obtained, including the controls over its preparation and maintenance. Although exceptions may exist, few generalisations can be made about reliability of audit evidence. Considering above discuss such generalisations that can be made about the reliability of audit evidence. **(5 Marks)**

   (c) Kyte Private Limited acquired an immovable property of substantial value during the financial year 2023-24, which is recorded in the financial statements as an addition in the Schedule of PPE. The auditor also observed that this immovable property has been mortgaged to a bank for availing credit facilities. How should the auditor verify the rights and obligations assertion for this property to ensure the entity's legal ownership and identify any charges against it? **(4 Marks)**

6. (a) KR & Associates, an auditor of FDP Ltd., observed that the company has implemented various internal controls addressing financial reporting, operational efficiency, and compliances during their preliminary evaluation. CA Karan suggests that all controls should be assessed to mitigate the risk of material misstatement in the financial statements, while CA Rajat is of the view that only those controls deemed relevant to the audit should be assessed based on professional judgment.

Comment, whether the auditor should assess all the internal controls or limit the assessment to only those considered relevant by the auditor during the audit. Also, discuss the factors influencing the auditor's judgment on the relevance of controls. **(5 Marks)**

(b) Audit programme is a list of examination and verification steps to be applied and set out in such a way that the inter-relationship of one step to another is clearly shown and designed, keeping in view the assertions apparent in the statements of account produced for audit or based on an appraisal of the accounting records of the client. For example, while auditing a company's inventory, the program may include steps to verify physical stock counts, ownership rights, and valuation. What are the advantages of an audit programme? **(5 Marks)**

(c) As the statutory auditor of Ginni Ltd., you need to verify if the company has valid legal ownership rights over the inventories recorded in the balance sheet as on March 31, 2024. What audit procedures should you perform to verify the company's ownership of the inventories, including items stored at third-party locations? **(4 Marks)**

OR

During the audit of a company, CA Atul noticed that company is facing significant skilled labour shortages resulting in hampering operations of the company. The company's manufacturing is dependent upon skilled labour coming from villages in certain districts of Eastern UP. However, due to job opportunities available near villages now, many are not interested in leaving their native villages.

The company failed to keep its commitments due to such situation, consequently lost orders and faced decrease in its revenues. The fixed costs of the company remain at a high level. As a result, the company is facing a liquidity crunch and is not able to pay its creditors on time. The bankers of the company are also not willing to help the company to tide over liquidity crisis. The auditor has doubts over going concern status of the company. How should management of the company try to address auditor's concerns? What audit procedures may be performed by auditors in such a situation? **(4 Marks)**

MODEL TEST PAPER 7

INTERMEDIATE GROUP – II

PAPER – 5: AUDITING AND ETHICS

Time Allowed – 3 Hours **Maximum Marks – 100**

PART I - Case Scenario based MCQs (30 Marks)

Write the most appropriate answer to each of the following multiple-choice questions by choosing one of the four options given. All MCQs are compulsory and carries 2 Marks each.

Case Scenario 1

Oval Services Ltd. appointed Rupa & Associates as the auditors for the financial year 2023-2024. The auditors believe that an audit program is crucial in providing clear and comprehensive instructions for the tasks to be carried out, offering a total perspective of the work involved. This is particularly important for large audits, and as such, they prepared an initial audit program based on the company's organisational structure and effective internal controls. During the audit, CA Nitin, Engagement Partner identified issues with the company's debt management practices, prompting the inclusion of a more detailed review of the loan agreements. However, in his opinion the planned review of petty cash was unnecessary due to the company's policy of limiting cash transactions. Thus, review procedure was removed from the audit programme.

To verify the balances of trade payables, the auditor decided to send external confirmation requests to the creditors of the company. These requests were made to verify the balances as on 20th March 2024, a date chosen deliberately to ensure the accuracy and completeness of the liabilities, free from any influence or prior knowledge of management. This approach was taken to maintain the integrity of the confirmation process. However, it was noted that M/s. Keshav Traders and M/s. Amrit Distributors did not respond to the confirmation requests.

Furthermore, the auditor noted that in the financial year 2023-2024, the company's Property, Plant, and Equipment (PPE) was revalued, resulting in an increase of 5% in the net carrying value of its machinery from ₹10 lakh to ₹10.5 lakh.

Also, due to the significant compliance burden, company is considering to convert into a Limited Liability Partnership (LLP). Management views the LLP structure as a hybrid business model that combines the advantages of both companies and partnerships. Additionally, they believe this conversion would relieve them of mandatory audit requirements.

Based on the above facts, answer the following: -

1. Whether audit team is correct in excluding the planned review of petty cash from the audit programme?

   (a) No. Because an audit programme should always include a petty cash review, regardless of company policy.

   (b) Yes. Because the company's internal controls and policy of limiting cash transactions reduce the need for a petty cash review in the audit programme.

   (c) No. Because the audit programme must cover all the areas of financial transactions, including petty cash, to ensure comprehensive auditing.

   (d) Yes. Because the audit programme should only focus on areas with high financial risk, and petty cash is not a high-risk area.

2. Whether the decision of auditor to send the confirmation request to the creditors of the company as on 20th March 2024 justified?

   (a) Yes, decision of the auditor is correct as the auditor is allowed to choose any date reasonably close to the balance sheet date for confirmation, and the selected date helps to ensure the accuracy of the liabilities without consultation from the management.

   (b) No, decision of the auditor is not correct as the auditor should have sent the confirmation requests for the balance sheet date as this would accurately reflect the liabilities as on that date.

   (c) Yes, decision of the auditor is correct as the auditor is allowed to choose any date which is reasonably close to the balance sheet date for confirmation, and the selected date should be decided in consultation with the management.

   (d) No, decision of the auditor is not correct as confirmation should be asked within a week of the date of audit report.

3. Which of the following is not an appropriate procedure to verify the balances for M/s. Keshav Traders and M/s. Amrit Distributers?

   (a) Breaking down the balance into individual transactions and making sure they actually happened.

   (b) Checking payments made after the year-end to vendors who didn't respond to confirmation requests.

   (c) Comparing the balance to the original invoices from the vendors.

   (d) Request a written representation from management confirming that all payables are accurately recorded and complete.

4. In the given case, is there any requirement for separate disclosure of the PPE revaluation?

   (a) Yes, separate disclosure is required due to the 5% increase in carrying value.

   (b) No, separate disclosure is not required as the change in carrying value is less than 10%.

   (c) Yes, separate disclosure is required regardless of the percentage change.

   (d) No, separate disclosure is not required unless the revaluation results in a material change in the carrying value.

5. What is your perspective on the management's view regarding the audit requirements for an LLP?

   (a) An LLP is always required to conduct an audit, regardless of its turnover or capital contribution.

   (b) An LLP is always required to conduct an audit if either the turnover exceeds ₹ 40 lakhs or the capital contribution exceeds ₹ 25 lakhs.

   (c) An LLP is always required to conduct an audit if either the turnover exceeds ₹ 25 lakhs or the capital contribution exceeds ₹ 40 lakhs.

   (d) An LLP is always required to conduct an audit if the capital contribution exceeds ₹ 25 lakhs and the turnover exceeds ₹ 40 lakhs.

Case Scenario 2

Shreyansh, a Chartered Accountancy student, is part of an engagement team conducting audit of the Coimbatore branch of XYZ Bank under the guidance of CA Dilip, the Engagement Partner. Shreyansh has been assigned the task of verifying provisions made for the branch's non-performing assets (NPAs) and classification of certain loans as on March 31, 2024, of which details are as under:

Non-Performing Assets (NPAs):

Name of Account	**NPA classification**	**Outstanding amount as on March 31^{st}, 2024 (In ` lakhs)**	**Amount of provision made (In ` lakhs)**	**Security Available**
AB Industries	Doubtful (D1)	10.00	5.00	Fully secured
Mars Traders	Substandard asset	50.00	7.50	Fully secured
RS Enterprises	Doubtful (D2)	30.00	30.00	Fully secured

NPS & Sons	Loss	1.00	1.00	Only personal guarantee of proprietor (Net worth ₹ 50 lakhs)

Housing Loan and Car Loan

A borrower Mr. Shyam has availed following two loans from the branch:

- Housing Loan: EMIs are overdue for 120 days as on March 31, 2024.
- Car Loan: EMIs are overdue for 60 days as on March 31, 2024.

Agricultural Advances

The branch has provided a loan of ₹20 lakhs under the Kisan Credit Card (KCC) scheme to a farmer for the cultivation of paddy, which has a harvest period of 3–4 months. There has been no transaction in the account for the last 90 days. The branch has classified the loan as a Standard Asset.

CA Dilip has clarified that the NPA classification has been verified and is in accordance with RBI guidelines. He instructed Shreyansh to focus on evaluating the adequacy of the provisions, considering RBI Guidelines mandate specific percentages for provisioning based on the NPA classification and the nature of the security.

Based on the above facts, answer the following: -

6. Is the provision made for AB Industries (Doubtful—D1) appropriate?
   (a) Yes, as it exceeds the required 25% provisioning for secured assets.
   (b) No, as it should be 40% of the outstanding amount.
   (c) No, as the required provision is ₹ 2.50 lakhs (25% of ₹ 10.00 lakhs).
   (d) Yes, as provisions for Doubtful assets can exceed the minimum requirement.
7. Considering the Housing Loan and Car Loan availed by the borrower Shyam, which of the following statements is appropriate?
   (a) Both Housing Loan and Car Loan should be classified as “Non-Performing Assets” in accordance with RBI norms on asset classification.
   (b) Housing Loan should be classified as “Non-Performing Asset” in accordance with RBI norms. However, Car Loan should be classified as Standard Asset.

(c) Car Loan should be classified as “Non-Performing Asset.” However, Housing Loan should be classified as Standard Asset.

(d) Both Housing Loan and Car Loan should be classified as Standard Assets.

8. What is the minimum provision required for RS Enterprises (Doubtful—D2), considering the account is fully secured?

(a) ₹30.00 lakhs

(b) ₹12.00 lakhs

(c) ₹15.00 lakhs

(d) ₹25.00 lakhs

9. As regards the description of the agricultural advance under Kisan Credit Card, which of the following statements is most appropriate?

(a) The branch has erred in making classification as per RBI norms. It is a “Sub-standard” asset.

(b) The classification made by the branch is proper. However, since there are no transactions in the account for 90 days, it is an SMA (Special Mention Account).

(c) The classification made by the branch is proper.

(d) The branch has erred in making classification as per RBI norms. It is a “Doubtful” asset.

Case Scenario 3

M/s MCP Associates are having 3 partners namely CA Mahavir, CA Chandana and CA Prabha. CA Mahavir is about to conclude audit of a company. During the audit, he noticed that there is a shortage of important raw material supplies being imported from China due to prevailing geopolitical situation. The company has shared with him its plan to deal with the situation. He is satisfied with assessment of the company for dealing with the matter. The issue is disclosed in financial statements and considering management’s assessment, it is felt that use of going concern assumption by company in preparation of financial statements is appropriate. He also verifies that all subsequent events have been accounted for and requests written representations from management, although the representations include qualifying language. Significant findings were communicated both orally and in writing to those charged with governance, with relevant communications documented.

CA Chandana is conducting an audit of a manufacturing company dealing in towels and bedspreads. The company’s inventory is spread across its own locations and third-party premises. As part of audit procedures, she is performing many audit procedures required by different Standards on Auditing. She attends the physical inventory count, sends confirmation requests for trade receivables, and assesses controls. She relies on sampling extensively while auditing transactions, balances, and controls.

CA Prabha is auditing a firm's financial statements and performs detailed procedures to verify assertions. The firm is engaged in export of goods to Europe. The sales invoices raised in Euros are converted into Indian rupees as per applicable norms. She checks classification of expenses, ensures trade payables are genuine, compares current and past wages, examines title deeds for land, and check the accuracy of calculation of the conversion of foreign currency into Indian rupees for export invoices.

Based on the above facts, answer the following: -

10. Which of the following best describes CA Mahavir's responsibility for subsequent events as per SA 560?

    (a) He has no obligation to perform audit procedures for events occurring between date of financial statements and date of auditor's report.

    (b) He should perform necessary audit procedures to know about events occurring between the date of financial statements and date of auditor's report.

    (c) He has no obligation to perform audit procedures after signing of auditor's report, even if he comes to know of an event, which if known to him earlier would have caused him to amend the audit report.

    (d) He has to only rely upon written representation of management regarding subsequent events. He has no other means to know about such events.

11. Which is the most appropriate action CA Chandana should take for verifying inventories held at third-party premises?

    (a) Request confirmation of the inventory's quantity and condition from third parties or inspect the inventory at their premises.

    (b) Inspect all inventories at third-party premises without requesting confirmation.

    (c) Rely on management's written representation regarding inventories at third-party locations.

    (d) Confirm the inventory's value along with its quantity and condition from third parties.

12. Which audit procedure CA Prabha performed to verify whether conversion of foreign currency into Indian rupees is proper or not?

    (a) Inspection

    (b) Recalculation

    (c) Observation

    (d) Reperformance

MCQs

13. CA Kamal, a partner at KPS & Co., is conducting an audit of Ridhi Ltd., a manufacturing company. During the audit it was found that KPS & Co. generates 72% of its total revenue from Ridhi Ltd., raising concerns about the firm's financial dependence on this single client. Identify the kind of threat to independence that may be involved in this case.

    (a) Familiarity threat

    (b) Self-interest threat

    (c) Self-review threat

    (d) Advocacy threat

14. The auditor is evaluating the most appropriate method to assess the internal control system of the company. The selected method should be widely recognised for gathering information about the existence, operation, and efficiency of internal controls, while also minimizing the risk of oversight of important review procedures. Furthermore, the method should facilitate easier interim reviews of controls. Which method would be most appropriate for evaluating internal control based on the description provided above?

    (a) Internal Control Questionnaire

    (b) Flow Chart

    (c) Check List

    (d) Narrative Record

15. Gori told her friends that she had read a news report about how a company had misled its auditors by producing some fabricated documents. Which of the following statements seems to be appropriate in this regard?

    (a) Auditor has to conduct audit by exercising professional skill. But he is not an expert in discovering genuineness of documents. Hence, management consisting of dishonest persons may have led him to rely upon fabricated documents deliberately.

(b) It was wrong on the part of auditor to rely upon fabricated documents. He must have discovered it as the same falls within the scope of his duties.

(c) Management cannot mislead auditor due to high level of knowledge and expertise possessed by him. The above is an outlier case-one of the rare, odd cases.

(d) Although it was wrong on the part of auditor to rely upon fabricated documents, he cannot do anything in the matter. He has to report on the basis of documents provided to him. He has no duty in this regard.

PART II - Descriptive Questions

*Question No. **1** is compulsory.*

*Attempt any **four** questions from the Rest.*

1. (a) ABC Pvt. Ltd., a manufacturing company, is facing significant financial difficulties due to downfall in market and increase in cost of production. CA Ram, the auditor of ABC Pvt. Ltd. has identified the following conditions:

- The company has defaulted on a major loan repayment.
- Current liabilities exceed current assets by 50%.
- Sales revenue has declined by 30% compared to the previous year.

Management has not yet performed an assessment of the company's ability to continue as a going concern, but they provided assurance for implementing corrective measures, including cost-cutting initiatives and discussions with creditors for restructuring the loan.

Which additional audit procedures need to be performed by CA Ram in accordance with SA 570 when such events or conditions are identified?

(5 Marks)

(b) CA Rishi is appointed as an auditor of AIR Ltd. for the financial year ending on March 31, 2024. During the audit, he observed that the company's books of accounts reflect a significant number of trade payables and receivables as on the balance sheet date. To verify the accuracy of the trade receivables, CA Rishi decided to send confirmation requests to some of trade receivables. However, the management refused to permit him to send these confirmation requests to the selected parties. How should the auditor proceed in the given situation?

(5 Marks)

(c) CA Tanuj, the auditor of Kiran Ltd., completed the audit work and issued the auditor's report on 18th August 2024 for the financial year ended on 31st March 2024. During the final assembly of the audit file, he discarded some supporting schedules as same were outdated and corrected cross-referencing errors of working papers. No new audit conclusions were drawn, and the final audit file was assembled on 10th October 2024.

On the basis of Standards on Auditing regarding audit documentation, comment on the action taken by CA Tanuj. **(4 Marks)**

2. (a) Deepa Ltd., initially requested an audit engagement for the financial year 2023-2024. However, midway through the audit process, the management claims that they are unable to provide complete supporting documentation for a significant portion of their receivables. As a result, the management asks the auditor to change the audit engagement to a review engagement, arguing that it would prevent the issuance of a qualified opinion.

The auditor is now facing challenge in determining whether this change is justified or not. Comment in accordance with relevant SA. **(5 Marks)**

(b) CARO, 2020 shall apply to every company including foreign company. However, it specifically exempts certain class of companies. State which class of companies are specifically exempt from the applicability of CARO, 2020? **(5 Marks)**

(c) RST Ltd., a mid-sized trading company, recently faced challenges in securing a bank loan due to doubts about the reliability of its financial statements. The management realised the importance of having audited accounts to build confidence among lenders and other stakeholders. Elucidate the benefits and need of an audit. **(4 Marks)**

3. (a) During the audit of Smile Bank, CA Sweety focused on understanding the risk management process of the bank. She reviewed how management developed controls and used performance indicators to monitor key business and financial risks. CA Sweety also assessed whether the risk management system effectively identified and mitigated risks in required areas. How should CA Sweety evaluate the adequacy of the bank's risk management controls? **(5 Marks)**

(b) Aman Cooperative Society appointed FAB & Associates as an auditor for the financial year 2023-2024. During the audit, the auditors noted the following details:

Number of shares	1000 shares @ ₹ 10/- each
Net Profit before compulsory transfer to reserve fund	₹ 10,000/-
Net Profit after compulsory transfer to reserve fund	₹ 8000/-

(I) Mr. Dhairya, a member of society, holds 200 shares amounting to ₹ 2000 from the previous year.

(II) Upon verifying the society's borrowings, the auditors found that Cooperative Society had accepted a loan from Mr. Shivam, a non-member. The auditors did not find any restrictions regarding this in the society's bye laws.

Comment on the above transactions of the society with reference to the Co-operative Societies Act, 1912. **(5 Marks)**

(c) "In establishing the overall audit strategy, the auditor shall, among other considerations, ascertain the nature, timing and extent of resources necessary to perform the engagement". Explain those considerations in detail. **(4 Marks)**

4. (a) During the audit of HST Ltd., CA Mukund, the auditor, observed a significant volume of unsold electronic parts as inventory that had remained stagnant for more than two years. He noted that the company was facing difficulty selling these items due to the changes in the market. Additionally, some parts were damaged, and others were discontinued models. CA Mukund also ensured that the inventory was accurately valued to ensure proper financial reporting. You are required to outline the detailed audit procedures that are generally undertaken when auditing such inventories which at the time of observance of physical counting were noted as being damaged or obsolete. **(5 Marks)**

(b) The engagement partner, of a firm of auditors, is explaining to his audit team, undergoing practical training, the inter relationship between audit strategy and audit plan. Discuss the points which the engagement partner will explain to his team in this regard. **(5 Marks)**

(c) Calen Retail Ltd. is preparing its annual financial statements, and the auditors are tasked with determining materiality. The company has used revenue as the benchmark, as it is a key indicator of performance. However, Calen Retail has recently opened new stores and closed underperforming ones, which could significantly affect both revenue and profitability. As per given case, what factors should the auditors consider when selecting the most appropriate benchmark for materiality? **(4 Marks)**

5. (a) M/s AR & Associates have been appointed as statutory auditors of Future Limited, a company engaged in the business of manufacturing of hardware products. They are analyzing the monthly trends for other expenses like rent, power and fuel, repairs, etc. and are also verifying attributes of such types of expenses. List down the attributes for verifying such expenses. **(5 Marks)**

(b) CA Kavita, auditor of Healthify Ltd., while assessing potential risks of material misstatement related to litigations at Healthify Ltd., identified a possible legal claim that could affect the financial statements. She sent a general inquiry letter to the company's external legal counsel, Mohit &

Co., seeking clarification. However, Mohit & Co. informed her that their professional rules prohibited them from responding to these general inquiries. Guide CA Kavita that what other option is available to obtain the necessary information for the audit? **(5 Marks)**

(c) Familiarity threats are self-evident, and occur when auditors form relationships with the client where they end up being too sympathetic to the client's interests. Explain. **(4 Marks)**

6. (a) When more persuasive audit evidence is needed regarding the effectiveness of a control, it may be appropriate to increase the extent of testing of the control as well as the degree of reliance on controls. Discuss the matters the auditor may consider in determining the extent of test of controls **(5 Marks)**

(b) ASD Limited's business has grown from one state of India to various countries of the world. Since the business has increased manifold, the management decided to appoint joint auditors for conducting the statutory audit of the company. They appointed three CA firms for it. For which audit work the joint auditors will be jointly & severally responsible?

(5 Marks)

(c) The management of PQ Ltd. changed during the period under audit. Mr. Govind, an auditor, at the time of receiving written representation on the management responsibilities from the management, was in a dilemma related to the date of and period(s) covered by the written representation. Further, new management was of the view that they can give written representation from the date they took over and not for the prior period when old management were managing affairs of the company. Guide the auditor and the management in this respect. **(4 Marks)**

OR

Knowledge of the Client's business play an important role in developing an overall audit. In fact, without adequate knowledge of the client's business, a proper audit is not possible. As per SA 315, "Identifying and Assessing the Risk of Material Misstatement through Understanding the Entity and its Environment", the auditor shall obtain an understanding of the relevant industry, regulatory and other external factors including the applicable financial reporting framework. Substantiate with the help of examples. **(4 Marks)**

MODEL TEST PAPER 8

INTERMEDIATE GROUP – II

PAPER – 5: AUDITING AND ETHICS

Time Allowed – 3 Hours **Maximum Marks – 100**

PART I - Case Scenario based MCQs (30 Marks)

Write the most appropriate answer to each of the following multiple-choice questions by choosing one of the four options given. All MCQs are compulsory and carries 2 Marks each.

Case Scenario 1

Renu & Associates have been appointed as the auditors for Kailash Ltd., a manufacturing industry, for the financial year 2023-24. During the audit, one of the Engagement Partner CA. Renu noticed a significant increase in raw material consumption in comparison to previous years, despite a decrease in production volumes. This raised concerns, instigating a detailed review of the vendors supplying these raw materials. Upon inquiry, the management explained that the company had transitioned to a new vendor offering premium materials to improve product quality.

Additionally, CA Renu observed that several credit notes were issued after the end of the accounting period.

During the verification of immovable properties, she discovered that Kailash Ltd. had pledged one of its commercial properties as security for a bank loan. However, the company did not possess the original title deeds for that property.

Further, CA. Renu conducted a stock audit of a borrower availing a cash credit facility of ₹100 lacs from a bank branch. The cash credit facility was secured against paid stocks and debtors up to 90 days, with a margin of 25% for stocks and 40% for debtors. She observed that the computed drawing power of ₹82.50 lacs was incorrect, based on the following information as on 31.12.2023:

Value of stocks	₹ 125 lacs
Value of stocks (fully damaged) included in above	5 lacs
Value of debtors	50 lacs
Value of debtors exceeding 90 days included in above	10 lacs
Value of creditors for goods	50 lacs

CA. Renu also served as the statutory auditor for a multiplex cinema. During the audit, Madhu, an articled trainee, identified discrepancies between ticket sales and recorded revenue. She also noted that certain complimentary tickets were not properly accounted for.

Based on above case give answer to the following questions: -

1. What audit procedure should auditor perform to check ownership of commercial property discussed in the scenario?

   (a) The auditor should request management to obtain confirmation from the bank for holding original title deeds of pledged immovable property are held as security.

   (b) The auditor can obtain a list of immovable properties from management at Kailash Ltd, along with management's representation regarding the ownership of these properties.

   (c) If the auditor is unable to verify the original title deeds of the pledged property, they may need to qualify the audit report accordingly.

   (d) The auditor can assume ownership of immovable properties without obtaining a written representation from management, as long as there is a general understanding of the assets.

2. Which assertion is the auditor evaluating while verifying the existence of vendors and the actual receipt of goods or raw materials by the company?

   (a) Occurrence

   (b) Completeness

   (c) Measurement

   (d) Existence

3. What could be the possible reasons for issuing credit notes after the end of the accounting period as mentioned in the above case?

   (a) Fictitious sales by the sales team to meet targets and cancel out those sales later with a credit note.

   (b) Ensuring necessary corrections are reflected in the financial records for accuracy.

   (c) When issues arise that lead to customer dissatisfaction, credit notes may be issued to resolve these disputes amicably.

   (d) Such adjustments may be made based on negotiations or changes in market conditions that occurred post-period.

4. What procedure should the auditor perform to reconcile discrepancies in ticket sales?

   (a) Compare issued ticket stubs with recorded online sales data.

   (b) Rely on management's estimates for ticket sales.

   (c) Ignore complimentary ticket records.

   (d) Verify only cash sales, not online transactions.

5. In the given case, CA. Renu found that the drawing power calculated was incorrect. What should be the correct drawing power?

   (a) ₹ 75.00 lakhs

   (b) ₹ 76.50 lakhs

(c) ₹ 78.00 lakhs

(d) ₹ 74.50 lakhs **(5 MCQs x 2 Marks each = 10 Marks)**

Case Scenario 2

CA Neel has accepted offer of appointment of auditor of an entity. As business carried on by the entity is new to him, he wants to gain an understanding about the entity and its environment including its internal control. In this regard, he has performed procedures to obtain audit evidence about design and implementation of relevant controls. He has performed various procedures like inquiry, inspection and observation in this regard.

He wants reasonable assurance that accounting system is adequate and that all accounting information which should be recorded has, in fact, been recorded.

Further, during the course of audit, he has noticed as under: -

- As required by the management, bank reconciliation is required to be performed monthly. However, the same is not carried out as stipulated due to time constraints faced by accountant.
- The entity has a system of procuring its raw material supplies on the basis of valid purchase orders issued by the entity. However, purchase orders are not numbered in a sequence properly.
- Wage sheets are not verified by a responsible official as required by management.
- Staff of the entity is responsible for bringing cash from centers in nearby areas to entity's premises from where it is deposited into entity's bank account. However, concerned officer has not renewed insurance for cash in transit.

Based on above, answer the following questions: -

6 The auditor has performed procedures to obtain audit evidence about design and implementation of controls. Which of the following procedures is more reliable to obtain audit evidence relating to application of a control?

(a) Observing application of control

(b) Inspecting documentation pertaining to control

(c) Inquiry about application of control

(d) Studying design of control

7 Examination and evaluation of internal control is indispensable for CA Neel. It provides him necessary comfort relating to completeness of accounting information. However, review of internal controls of the entity will not enable him to know__________________

(a) whether errors or frauds are likely to be located in ordinary course of operations of business

(b) whether an effective internal audit department is operating

(c) whether his opinion needs modification

(d) whether any administrative control has bearing on his work

8. As regards weaknesses identified by the auditor in control system, which of the following represent(s) significant deficiencies in internal control?

   (a) Not performing bank reconciliation timely and not verifying wage sheets by responsible official only

   (b) Not performing bank reconciliation timely and lack of proper sequence in purchase orders only

   (c) Not performing bank reconciliation timely, lack of proper sequence in purchase orders, not verifying wage sheets by responsible official and lack of insurance for cash in transit

   (d) Lack of insurance for cash in transit only

9. Which of the following is most appropriate regarding auditor's responsibility in accordance with SA 265?

   (a) To communicate significant deficiencies in internal control to management

   (b) To communicate significant deficiencies in internal control along with explanation of their potential effects to management

   (c) To communicate significant deficiencies in internal control along with explanation of their potential effects, to provide sufficient information to understand context of communication to management and express opinion on effectiveness of internal control

   (d) To communicate significant deficiencies in internal control along with explanation of their potential effects and to provide sufficient information to understand context of communication to management.

(4 MCQs x 2 Marks each = 10 Marks)

Case Scenario 3

Hill Ltd., a company engaged in the business of trekking essentials, appointed CA Gagan as the Statutory Auditor for the year. Due to the large volume of transactions of the company, the audit engagement team of CA Gagan realized that it would not be feasible to audit each transaction separately during the financial year under audit. Therefore, Engagement Partner decided to apply following audit sampling techniques:

- Random number tables were used for selection of sample for power, telephone, and fuel charges.
- No structured method of sampling was used for office stationery.
- Transactions exceeding ₹ 8,000 were selected for travel expenses.
- The first 200 sales invoices from the sales book for the month of July were selected for sales.

Mr. Kush, one of the team members, compared the salary expenses incurred by the company during the current year with those of the previous five years. He noticed a significant percentage increase in the expenses. This unusual increase raised doubts in his mind. He decided to compare such an increase in salary expenses with the increase in the number of employees.

The company is having warehouse at 2 locations. CA Gagan is planning to attend the physical inventory count process. The inventory includes finished products such as trekking jackets, bags, shoes etc., and raw materials like leather, cloth, chemicals, etc. Some of the inventory is also held by a third party.

Based on above, answer the following questions: -

10. Which of the sampling techniques were used for the following transactions:

    (i) Power, telephone and fuel charges;

    (ii) Office Stationery;

    (iii) Travel expenses; and

    (iv) Sales.

    (Answer in the given order)

    (a) Random sampling, Systematic sampling, Monetary unit sampling, Block sampling.

    (b) Systematic sampling, Random sampling, Block sampling, Haphazard sampling.

    (c) Random sampling, Haphazard sampling, Monetary unit sampling and Block sampling.

    (d) Random sampling, Haphazard sampling, Monetary unit sampling and Systematic sampling.

11. Which audit procedure was Mr. Kush intended to perform by comparing salary expenses?

    (a) Test of details.

    (b) Test of balances.

    (c) Test of control.

    (d) Substantive analytical procedure.

12. Which of the following is not part of CA Gagan's responsibility with respect to the inventories held by the third parties?

    (a) CA Gagan should request confirmation from the third party regarding the quantity and condition of the inventory held by them.

    (b) CA Gagan should perform an independent valuation of the inventory based solely on the company's internal records.

    (c) CA Gagan should request the third party to allow him to physically inspect the inventories held by them.

    (d) CA Gagan should review the terms of the agreement between the company and the third party to understand the responsibilities related to inventory management. **(3 MCQs x 2 Marks each = 6 Marks)**

MCQs

13. Which of the following is not included in an audit programme normally?

    (a) Extent of checking

(b) Date of checking

(c) Nature or type of procedure

(d) Planning of risk assessment procedures **(2 Marks)**

14. Which of the following is TRUE about Engagement Standards?

(a) Engagement standards ensure proper rights to practitioners in course of performance of their duties.

(b) Engagement standards ensure preparation and presentation of financial statements in a standardized manner.

(c) Engagement standards ensure uniformity by practitioners in course of performance of their duties.

(d) Engagement standards ensure savings in resources of clients.

(2 Marks)

15. CA Jai is conducting an audit for ABC Ltd., a large client. He is informed by the client's CFO that if they report certain deficiencies, the auditor's firm may not be considered for future engagements. Which type of threat does this scenario represent?

(a) Familiarity Threat

(b) Intimidation Threat

(c) Self-interest Threat

(d) Advocacy Threat **(2 Marks)**

PART II - Descriptive Questions

Question No. 1 is compulsory.

Attempt any four questions from the Rest.

1. (a) APR & Associates, a Chartered Accountant firm, are appointed as the auditors of Time Ltd. and Bakes Ltd. The volume and nature of business of both the companies are entirely different. CA R is the engagement partner for Bakes Ltd. CA P is the engagement partner for Time Ltd. CA R formulates an Audit Programme for conducting the audit of Bakes Ltd. He suggests CA P to use the same audit programme for Time Ltd. But CA P is of the opinion that this audit programme will not be useful for the audit of Time Ltd.

In light of the above, mention the matters that should generally be considered while preparing an Audit Programme. Is CA P correct in emphasizing for a different Audit Programme for Time Ltd.? **(4 Marks)**

(b) ABC & Co. are in the business of manufacturing toys. The stock taking process has been done by the company as on 31.3.2024. The company has used FIFO method for valuation of its inventories. The cost of inventory as on 31.3.24 is ₹ 25,25,000/- and the net realizable value of the inventory on the same date is ₹ 25,24,000/-.

The cost of inventory includes the following:

(1) Material purchase cost - ₹ 25,05,000/-

(2) Allocated transport cost - ₹ 18,000/-

(3) Abnormal wastage - ₹ 2,000/-

The management seeks your advice in arriving at the value of inventory to be shown in the financial statements of the company. What should be the value of inventory in accordance with AS-2? **(4 Marks)**

(c) Mr. Z, at the time of appointment as an independent director in EF Ltd. a listed company, came to know that the Companies Act, 2013 has placed a greater emphasis on the effective implementation and reporting on internal controls for a listed Company. He wants to know the responsibilities as casted under Companies Act, 2013 with regards to Internal Financial Control for (1) Directors (2) Independent directors and (3) Audit committee as per section 134(5)(e), 149(8) & 177(4) (vii) respectively of the Companies Act, 2013. **(3 Marks)**

(d) CA B, an auditor, after the completion of busy audit season, was occupied in assembling of final audit files of one of his client. First of all, he started preparing various documents of that client and then kept those documents in various folders. He was preparing documents as well as audit file in paper form because he believed that it is mandatory. He could complete documentation as well as assembling of final audit file of that client after three months from the date of audit report. Generally, he retains audit file of the clients for 4 years from the date of audit report. Check the validity of the action of CA B. **(3 Marks)**

2. (a) CA Q is the engagement partner for the audit of a Departmental store. As a part of the risk assessment procedure, he wants to make inquiries of the management and others within the entity. What kind of information can the auditor get by inquiring from the following?

(i) Internal audit personnel

(ii) In-house legal counsel

(iii) Marketing or sales personnel

(iv) Information systems personnel **(4 Marks)**

(b) CA Z, the auditor of MNO Ltd., during the course of audit, assesses a risk of material misstatements regarding the litigations and claims involving the company. CA Z is not convinced with the management's explanations regarding the status of the litigations or claims. It is considered unlikely that the entity's external legal counsel will respond appropriately to a letter of general enquiry. The auditor sent a letter of specific enquiry requesting the entity's external legal counsel to communicate directly with the auditor. List out the inclusions in the letter of specific enquiry.

In certain circumstances the auditor may judge it necessary to meet with entity's external legal counsel to discuss the likely outcome of the litigations or claims. What will be auditor's reporting responsibility if the management refuses to give permission to the auditor to communicate or meet with the external legal counsel? **(4 Marks)**

(c) JK Ltd. was having a 'Pager' manufacturing plant and looking at the demand it was of the view that the company will grow continuously in future. But, with the introduction of mobile phones in the market, the plant was shut down completely. The shareholders of the company were of the view that auditor failed to perform their duty and have not informed to them about the company's inability to continue its business, otherwise they might not have suffered the loss. List down the factors giving rise to the inherent limitations due to which auditor cannot provide a guarantee that the financial statements are free from material misstatement due to fraud or error. **(3 Marks)**

(d) B Ltd. is a company manufacturing bed-sheets and pillow covers. They have appointed M/s C & Co., Chartered Accountants, as their auditors. The auditor is establishing audit strategy with his team members. As the work progressed, they came to know that the company has diversified its business and now they are also planning to manufacture wooden furniture. The auditor, in his professional judgement, considers this to be a significant factor in directing the engagement team’s efforts. Give examples of factors that, in auditor’s professional judgement, are significant in directing the engagement team’s efforts. **(3 Marks)**

3. (a) CA E is auditor of LM Ltd. Before commencing with current year's audit, he initiated planning for the audit. Planning includes the need to consider certain matters, prior to the identification and assessment of the risk of material misstatements. Enumerate such matters. **(4 Marks)**

(b) The management of PQ Ltd. changed during the period under audit. Mr. G an auditor, at the time of receiving written representation on the management responsibilities from the management, was in a dilemma related to the date of and period(s) covered by the written representation. Further, new management was of the view that they can give written representation from the date they took over and not for the prior period when old management were managing affairs of the company. Guide the auditor & the management in this respect. **(4 Marks)**

(c) You are appointed as the auditor of a company manufacturing paints. The company has a robust system of internal control. Most of the controls in the company are automated and they are working effectively. However, in certain situations, manual elements in internal controls are more suitable. What are the circumstances where manual elements in internal controls may be more suitable? **(3 Marks)**

(d) M/s PSR & Associates are the auditors of The Saturn Hotel, a chain of five-star hotels. Since the nature of their business is prone to frauds, the company has appointed internal auditors at various locations. The company has also devised a system of effective and efficient internal controls. The auditors, M/s PSR & Associates, want to use the work of the internal auditors. In order to ensure effectiveness, what kind of coordination should be there between the external auditor and the internal audit function? **(3 Marks)**

4. (a) M/s KLM & Co. Chartered Accountants, a partnership firm, while designing tests of controls and tests of details in MN Ltd. has to determine the items for testing that can be effective in meeting the purpose of the audit procedure. For this, they decided to select specific items from a population. State the factors that can be considered by the audit firm for selecting specific items from a population and also state the specific items that can be included for such testing. **(4 Marks)**

(b) Mr. L is a principal auditor of OP Ltd. There are several divisions of OP Ltd. that are audited by other auditors. State the procedures Mr. L should ordinarily perform to obtain sufficient and appropriate audit evidence that the work of other auditors is adequate for the principal auditor's purpose in the context of this assignment. **(4 Marks)**

(c) LD Ltd. has given below loans to the following borrowers during the financial year 2023-24. Mr. B an auditor wants your guidance regarding additional regulatory information required to be provided under the Companies Act, 2013:

Borrowers	**Maximum Loan granted during the year 2023-2024 (₹ in Lakh)**	**Outstanding Loan as at 31/03/2024 (₹ in Lakh)**
X (Promoter)	20	15
Y (Director)	30	25
Z (KMP)	10	05
A (Related Party)	20	10
Others	80	65
Total	160	120

(3 Marks)

(d) Communicating Key Audit Matter is not a substitute for disclosure in the Financial Statements rather Communicating key audit matters in the auditor's report is in the context of the Auditor having formed an opinion on the financial statements as a whole. Analyse. **(3 Marks)**

5. (a) PQ & Co. want to diversify its business and for that purpose they want to raise money by issuing shares to the general public. The face value of the shares is ₹ 100 but the directors of the company propose to issue the shares at a discounted rate of ₹ 95/- so as to receive more response. The statutory auditor, however, objects to the same as it is not allowed as per the Companies Act, 2013. State the provisions of Section 53 of the Companies Act, 2013 with reference to shares issued at a discount and the consequences where the company fails to comply with the provisions of this section. **(4 Marks)**

(b) HR & Associates are the auditors of a large manufacturing company. The company has recently invested huge amount in Property, Plant and Equipment (PPE) for its new unit. They have added many incidental expenses to the cost of PPE. The junior audit team members are not sure about which costs should be excluded from the cost of PPE. Give examples of costs that should not form part of costs of PPE. **(4 Marks)**

(c) A professional accountant is expected to comply with the fundamental principles of professional ethics at all times. Explain which fundamental principle governing professional ethics is violated in the following situations?

(1) A chartered accountant in practice accepted the appointment as an auditor of a firm in which his sister was a partner.

(2) A chartered accountant in practice was approached by his friend to seek some insider information about a company, which was a client of the chartered accountant. He could not refuse his friend's request.

(3) A chartered accountant in practice failed to inform his client about the change in laws applicable to his client. **(3 Marks)**

(d) You have been appointed as the statutory auditor of a limited company. The company is registered as a Nidhi company. What are the reporting requirements of a Nidhi company under the Companies Auditor's Report Order, 2020? **(3 Marks)**

6. (a) CA M is the engagement partner of the firm M/s Y2Z LLP and he is auditing the financial statements of a listed entity ABC Ltd. The audit firm has determined that an engagement quality control review is required for this assignment. Discuss the responsibilities of CA M as an engagement partner for engagement quality control review as per SA-220. **(4 Marks)**

OR

(a) Sanskar Foundation is a Non-Governmental Organisation (NGO) for orphan children. They have received voluntary contribution of ₹ 50 lacs from the promoters, specifying that ₹ 20 lacs are towards the Corpus contribution and ₹ 30 lacs are towards Revolving fund. Explain the terms "Corpus contribution" and "Revolving fund". **(4 Marks)**

(b) MNB bank advanced certain loans guaranteed by government. State the prudential norms for asset classification and income recognition of such loans. **(4 Marks)**

(c) Mr. D an auditor, while auditing ACE Ltd., identified certain misstatements in relation to particular class of transactions and account balances. He had communicated same to those charged with governance and also taken written representation for the same. State the audit documentation required by the auditor regarding misstatements identified during the audit. **(3 Marks)**

(d) JK Ltd. has opened a new manufacturing unit and for that they want plant & machinery. Since the capital outflow will be huge, they are considering of taking it on lease. They have approached several parties and have shortlisted one of them who is ready to give the plant on lease for 11 years, which is approximately the estimated economic life of the asset. As per the agreement, JK Ltd. will bear the insurance and maintenance expenses of the asset. Which kind of lease agreement have JK Ltd. entered into and what is the ownership status, the accounting treatment and the tax benefits of the same? **(3 Marks)**

MODEL TEST PAPER 1

INTERMEDIATE: GROUP – II

PAPER – 6A : FINANCIAL MANAGEMENT & STRATEGIC MANAGEMENT

PAPER 6A: FINANCIAL MANAGEMENT

Time Allowed – 3 Hours (Total time for 6A and 6B) Maximum Marks – 50

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*
4. *Working note should form part of the answer. Wherever necessary, suitable assumptions may be made by the candidates and disclosed by way of note. However, in answers to Questions in Division A, working notes are not required.*

PART I – Case Scenario based MCQs (15 Marks)

Write the most appropriate answer to each of the following multiple choice questions by choosing one of the four options given. All questions are compulsory.

1. NV Industries Ltd. is a manufacturing industry which manages its accounts receivables internally by its sales and credit department. It supplies small articles to different industries. The total sales ledger of the company stands at ₹ 200 lakhs of which 80% is credit sales. The company has a credit policy of 2/40, net 120. Past experience of the company has been that on average out of the total, 50% of customers avail of discount and the balance of the receivables are collected on average in 120 days. The finance controller estimated, bad debt losses are around 1% of credit sales.

   With escalating cost associated with the in-house management of the debtors coupled with the need to unburden the management with the task so as to focus on sales promotion, the CFO is examining the possibility of outsourcing its factoring service for managing its receivables. Currently, the firm spends about ₹ 2,40,000 per annum to administer its credit sales. These are avoidable as a factoring firm is prepared to buy the firm's receivables. The main elements of the proposal are : (i) It will charge 2% commission (ii) It will pay advance against receivables to the firm at an interest rate of 18% after withholding 10% as reserve.

   Also, company has option to take long term loan at 15% interest or may take bank finance for working capital at 14% interest.

   You were also present at the meeting; being a financial consultant, the CFO has asked you to be ready with the following questions:

   Consider year as 360 days.

   I. What is average level of receivables of the company?

      a. ₹ 53,33,333

b. ₹ 35,55,556

c. ₹ 44,44,444

d. ₹ 71,11,111

II. How much advance factor will pay against receivables?

a. ₹ 31,28,889

b. ₹ 39,11,111

c. ₹ 30,03,733

d. ₹ 46,93,333

III. What is the annual cost of factoring to the company?

a. ₹ 8,83,200

b. ₹ 4,26,667

c. ₹ 5,51,823

d. ₹ 4,00,000

IV. What is the net cost to the company on taking factoring service?

a. ₹ 4,00,000

b. ₹ 4,26,667

c. ₹ 3,50,000

d. ₹ 4,83,200

V. What is the effective cost of factoring on advance received?

a. 16.09%

b. 13.31%

c. 12.78%

d. 15.89% **(5 x 2 = 10 Marks)**

2. Ramu Ltd. wants to implement a project for which ₹ 25 lakhs is required. Following financing options are at hand:

Option 1:

Equity Shares	25,000 @ ₹ 100

Option 2:

Equity Shares	10,000 @ ₹ 100
12% Preference Shares	5,000@ ₹ 100
10% Debentures	10,000@ ₹ 100

What is the indifference point & EPS at that level of EBIT assuming corporate tax to be 35%.

(a) ₹ 2,94,872; ₹ 11.80

(b) ₹ 3,20,513; ₹ 8.33

(c) ₹ 2,94,872; ₹ 7.67

(d) ₹ 3,20513; ₹ 12.82 **(2 Marks)**

3. "If EBIT increases by 6%, net profit increases by 6.9%. If sales increase by 6%, net profit will increase by 24%.

   Financial leverage must be -…………"

   (a) 1.19

   (b) 1.13

   (c) 1.12

   (d) 1.15 **(2 Marks)**

4. What is the maximum period for which company can accept Public Deposits?

   (a) 1 year

   (b) 6 months

   (c) 3 years

   (d) 5 years **(1 Marks)**

PART II – Descriptive Questions (35 Marks)

*Question No. **1** is compulsory.*

*Attempt any **two** questions out of the remaining **three** questions.*

1. (a) The following figures have been extracted from the annual report of Xee Ltd.:

Net Profit	₹ 54 lakhs
Outstanding 12% preference shares	₹ 200 lakhs
No. of equity shares	2 lakhs
Return on Investment	22%
Cost of capital i.e. (K_e)	15%

COMPUTE the approximate dividend pay-out ratio so as to keep the share price at ₹ 120 by using Walter’s model?

(Decimal may be taken up to 2 units) **(5 Marks)**

(b) Capital structure (in market-value terms) of AN Ltd is given below:

Company	Debt	Equity
AN Ltd.	50%	50%

The borrowing rate for the company is 10% in a no-tax world and capital markets are assumed to be perfect.

Required:

(i) If Mr. R, owns 8% of the equity shares of AN Ltd., DETERMINE his return if the Company has net operating income of ₹ 10,00,000 and the overall capitalization rate of the company (K_o) is 20%.

(ii) CALCULATE the implied required rate of return on equity of AN Ltd.

(5 Marks)

(c) ANVY Ltd. has furnished the following ratios and information for the year end 31st March, 2023:

Equity share capital	₹ 2,00,000
The relevant ratios of the company are as follows:	
Current debt to total debt	0.50
Total debt to Equity share capital	0.60
Fixed assets to Equity share capital	0.70
Total assets turnover	2.5 Times
Inventory turnover	10 Times

You are required to PREPARE the Balance Sheet of ANVY Ltd. as on 31st March, 2023. **(5 Marks)**

2. (a) NC Ltd. Is considering purchasing a new machine to increase its production facility. At present, it uses an old machine which can process 5,000 units of TVs per week. NC could replace it with new machine, which is product specific and can produce 15,000 units per week. New machine cost ₹ 100 crores and requires the working capital of ₹ 3 crores, which will be released at the end of 5th year. The new machine is expected to have a salvage value of ₹ 20 crores.

The company expects demand for TVs to be 10,000 units per week. Each TV sells for ₹ 30,000 and has Profit Volume Ratio (PV) of 0.10. The company works for the 56 weeks in the year. Additional fixed costs (excluding depreciation) are estimated to increase by ₹ 10 crores. The company is subject to a 40% tax rate and its after-tax cost of capital is 20%. The relevant rate of depreciation is 25 % for both taxation and accounts. The company uses the WDV method of depreciation. The existing machine will have no scrap value.

You are required to:

ADVISE whether the company should replace the old machine.

(Decimal may be taken up to 2 units) **(8 Marks)**

(b) WRITE a short note on "Cut-off Rate". **(2 Marks)**

3. (a) Ram Ltd evaluates all its capital projects using discounting rate of 16%. Its capital structure consists of equity share capital, retained earnings, bank term loan and debentures redeemable at par. Rate of interest on bank term loan is 1.4 times that of debenture. Remaining tenure of debenture and bank loan is 4 years and 6 years respectively. Book value of equity share capital, retained earnings and bank loan is ₹ 20,00,000, ₹ 30,00,000 and ₹ 20,00,000 respectively. Debentures which are having book value of ₹ 30,00,000 are currently trading at ₹ 98 per debenture. The ongoing PE multiple for the shares of the company stands at 4.

You are required to:

(i) CALCULATE the rate of interest on bank loan and

(ii) CALCULATE the rate of interest on debentures

Tax rate applicable is 30%. **(8 Marks)**

(b) DISCUSS the dividend-price approach to estimate cost of equity capital.

(2 Marks)

4. (a) EXPLAIN the limitations of profit maximization objective of Financial Management. **(4 Marks)**

(b) WHAT are the methods of venture capital financing? **(4 Marks)**

(c) WHAT is 'Optimum Capital Structure'? **(2 Marks)**

OR

EXPLAIN the concept of Financial Leverage as 'Trading on Equity'.

(2 Marks)

MODEL TEST PAPER 2

INTERMEDIATE GROUP – II

PAPER – 6A : FINANCIAL MANAGEMENT & STRATEGIC MANAGEMENT

PAPER 6A: FINANCIAL MANAGEMENT

Time Allowed – 3 Hours (Total time for 6A and 6B) Maximum Marks – 50

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*
4. *Working note should form part of the answer. Wherever necessary, suitable assumptions may be made by the candidates and disclosed by way of note. However, in answers to Questions in Division A, working notes are not required.*

PART I – Case Scenario based MCQs (15 Marks)

Write the most appropriate answer to each of the following multiple choice questions by choosing one of the four options given. All questions are compulsory.

1. Tiago Ltd is an all-equity company engaged in manufacturing of batteries for electric vehicles. There has been a surge in demand for their products due to rising oil prices. The company was established 5 years ago with an initial capital of ₹ 10,00,000 and since then it has raised funds by IPO taking the total paid up capital to ₹ 1 crore comprising of fully paid-up equity shares of face value ₹ 10 each. The company currently has undistributed reserves of ₹ 60,00,000. The company has been following constant dividend payout policy of 40% of earnings. The retained earnings by company are going to provide a return on equity of 20%. The current EPS is estimated as Rs 20 and prevailing PE ratio on the share of company is 15x. The company wants to expand its capital base by raising additional funds by way of debt, preference and equity mix. The company requires an additional fund of ₹ 1,20,00,000. The target ratio of owned to borrowed funds is 4:1 post the fund-raising activity. Capital gearing is to be kept at 0.4x.

   The existing debt markets are under pressure due to ongoing RBI action on NPAs of the commercial bank. Due to challenges in raising the debt funds, the company will have to offer ₹ 100 face value debentures at an attractive yield of 9.5% and a coupon rate of 8% to the investors. Issue expenses will amount to 4% of the proceeds.

   The preference shares will have a face value of ₹ 1000 each offering a dividend rate of 10%. The preference shares will be issued at a premium of 5% and redeemed at a premium of 10% after 10 years at the same time at which debentures will be redeemed.

   The CFO of the company is evaluating a new battery technology to invest the above raised money. The technology is expected to have a life of 7 years. It will generate a after tax marginal operating cash flow of ₹ 25,00,000 p.a. Assume marginal tax rate to be 27%.

1. Which of the following is best estimate of cost of equity for Tiago Ltd?
   (a) 12.99%
   (b) 11.99%
   (c) 13.99%
   (d) 14.99%
2. Which of the following is the most accurate measure of issue price of debentures?
   (a) 100
   (b) 96
   (c) 90.58
   (d) 95.88
3. Which of the following is the best estimate of cost of debentures to be issued by the company? (Using approximation method)
   (a) 7.64%
   (b) 6.74%
   (c) 4.64%
   (d) 5.78%
4. Calculate the cost of preference shares using approximation method
   (a) 10.23%
   (b) 9.77%
   (c) 12.12%
   (d) 12.22%
5. Which of the following best represents the overall cost of marginal capital to be raised?
   (a) 10.52%
   (b) 17.16%
   (c) 16.17%
   (d) 16.71% **(5 x 2 = 10 Marks)**

2. Ranu & Co. has issued 10% debenture of face value 100 for ₹ 10 lakh. The debenture is expected to be sold at 5% discount. It will also involve floatation costs of ₹ 10 per debenture. The debentures are redeemable at a premium of 10% after 10 years. Calculate the cost of debenture if the tax rate is 30%.
   (a) 9.74%
   (b) 9.56%

(c) 8.25%

(d) 10.12% **(2 Marks)**

3. Given Data: Sales is ₹ 10,00,000, Break even sales is ₹ 6,00,000.

   What is the Degree of operating leverage?

   (a) 3

   (b) 2

   (c) 2.5

   (d) 2.2 **(2 Marks)**

4. A project requires an initial investment of ₹ 20,000 and it would give annual cash inflow of ₹ 4,000. The useful life of the project is estimated to be 10 years. What is payback reciprocal/Approximated IRR?

   (a) 20%

   (b) 15%

   (c) 25%

   (d) 12% **(1 Mark)**

PART II – Descriptive Questions (35 Marks)

*Question No. **1** is compulsory.*

*Attempt any **two** questions out of the remaining **three** questions.*

1. (a) The below information for Lever Ltd is provided on annual basis:

	₹
Sales at 3 months credit	48,00,000
Materials consumed (suppliers extend 2 months credit)	12,00,000
Wages paid (one month lag in payment)	9,60,000
Cash manufacturing expenses (paid on month in arrear)	12,00,000
Administrative expense (one month lag in payment)	3,60,000
Sales promotion expense (paid monthly in advance)	1,20,000

The Company sells its products at a gross profit of 20%.

The Company keeps two months stock of raw materials and two months stock of finished goods.

Depreciation is considered as a part of cost of production.

Cash balance is retained at ₹ 1,00,000,

Assuming a 15% margin, COMPUTE the working capital requirements of the Company on cash cost basis. Ignore work-in progress.

(5 Marks)

(b) SOC Ltd has 10 lakh equity shares outstanding at the beginning of the accounting year 2024. The existing market price per share is Rs 600. Expected dividend is Rs 40 per share. The rate of capitalization appropriate to the risk class to which the company belongs is 20%.

(i) CALCULATE the market price per share by the end of the year when expected dividends are: (a) declared, and (b) not declared, based on the Miller – Modigliani approach.

(ii) CALCULATE the number of shares to be issued by the company at the end of the accounting year on the assumption that the net income for the year is Rs 15 crore; investment budget is Rs 20 crores, when (a) Dividends are declared, and (b) Dividends are not declared.

(iii) PROVE that the market value of the shares at the end of the accounting year will remain unchanged irrespective of whether (a) Dividends are declared, or (ii) Dividends are not declared.

(5 Marks)

(c) An existing profitable company, RMC World Ltd. is considering a new project for manufacture of home automation gadget involving a capital expenditure of ₹ 1000 Lakhs and working capital of ₹ 150 Lakhs. The capacity of the plants for an annual production of 3 lakh units and capacity utilization during 5 year life of the project is expected to be as indicated below:

Year	1	2	3	4	5
Capacity Utilization (%)	50	65	80	100	100

The average price per unit of product is expected to be ₹600 netting a contribution of 60 percent. The annual fixed costs, excluding depreciation, are estimated to be ₹500 Lakhs per annum from the third year onwards. For the first and second year, it would be ₹ 200 lakhs and ₹ 350 lakhs respectively.

Scrap value of the capital asset at the end of 5th year is ₹ 200 Lakhs. Depreciation on capital asset is provided on written down value basis @ 40% p.a. for income tax purpose. The rate of income tax may be taken at 30%. The cost of capital is 12%. At end of the third year an additional investment of ₹ 200 lakhs would be required for working capital. There is no capital gain tax applicable.

COMPUTE the NPV of the project. RMC World Ltd. is about to make a presentation to Secure Venture Capital Firm. Secure Venture Capital Firms will invest in any project if the net addition to shareholder wealth from the project is above ₹ 100 lakhs. **(5 Marks)**

2. (a) From the following PREPARE Income statement of company P and Q.

	P	Q
No. of Equity Shares	1,00,000	70,000
Financial leverage	3 : 1	4 : 1
Operating Leverage	2 : 1	3 : 1
Variable cost to sales	67%	50%
Interest	₹ 5,50,000	₹ 6,00,000
Income tax rate	30%	30%

Also CALCULATE EPS of the company. **(4 Marks)**

(b) The GT Limited is willing to expand its business for which it requires an additional finance of ₹ 50,00,000. At present, the capital structure of the company is as under:

- 7,00,000 Equity shares of ₹ 10 each
- 10% Debentures ₹ 63,00,000
- 12% Term loan ₹ 54,00,000
- Retained earnings ₹ 1,30,00,000

At present, the company's EBIT is ₹ 54,00,000. However, the company, after expansion, expects ROI 2% greater than the present ROI, Income Tax Rate is 30%.

Following two options, for getting additional finance, are available-

(a) To raise funds as term loan @ 12%

(b) To raise funds by issuing 1,00,000 equity shares at ₹ 20 per share and balance by issuing 11% debentures at par.

Required:

(i) FIND out the market price of shares, if the P/E ratio is 10.

(ii) RECOMMEND the suitable option of raising funds with reason.

(6 Marks)

3. (a) EOC Ltd is a listed company and has presented the below abridged financial statements below.

Statement of Profit and Loss	**₹**	**₹**
Sales		1,25,00,000
Cost of goods sold		(76,40,000)
Gross Profit		48,60,000
Less: Operating Expenses		
Administrative Expenses	13,20,000	
Selling and Distribution Expenses	15,90,000	(29,10,000)

Operating Profit		19,50,000
Add: Non Operating Income		3,28,000
Less: Non Operating Expenses		(1,27,000)
Profit before Interest and taxes		21,51,000
Less: Interest		(4,39,000)
Profit before tax		17,12,000
Less: Taxes		(4,28,000)
Profit after Tax		12,84,000

Balance Sheet

Sources of Funds	**₹**	**₹**
Owned Funds		
Equity Share Capital	30,00,000	
Reserves and Surplus	18,00,000	48,00,000
Borrowed Funds		
Secured Loan	10,00,000	
Unsecured Loan	4,30,000	14,30,000
Total Funds Raised		**62,30,000**
Application of Funds		
Non-Current Assets		
Building	7,50,000	
Machinery	2,30,000	
Furniture	7,60,000	
Intangible Assets	50,000	17,90,000
Current Assets		
Inventory	38,60,000	
Receivables	39,97,000	
ST investments	3,00,000	
Cash and Bank	2,30,000	83,87,000
Less: Current Liabilities		
Creditors	25,67,000	
ST loans	13,80,000	(39,47,000)
Total Funds Employed		**62,30,000**

The company has set certain standards for the upcoming year financial status.

All the ratios are based on closing figures in financial statements.

Equity SC to Reserves=	1	
Net Profit Ratio=	15%	
Gross Profit Ratio=	50%	
Long Term Debt to Equity=	0.5	
Debtor Turnover=	100	Days
Creditor Turnover (based on COGS)=	100	Days
Inventory=	70%	of Opening inventory

Cash Balance is assumed to remain same for next year

You are required to -

(1) CALCULATE inventory turnover ratio in days for current year

(2) CALCULATE receivables turnover ratio in days for current year

(3) CALCULATE the projected receivables, inventory, payables and long term debt **(8 Marks)**

(b) NAME the various financial instruments dealt with in the International market. **(2 Marks)**

4. (a) WRITE short notes on Inter relationship between investment, financing and dividend decisions. **(4 Marks)**

(b) DISCUSS the liquidity vs. profitability issue in management of working capital. **(4 Marks)**

(c) EXPLAIN the concept of discounted payback period. **(2 Marks)**

OR

(c) EXPLAIN the concept of Indian depository receipts. **(2 Marks)**

MODEL TEST PAPER 3

INTERMEDIATE GROUP – II

PAPER – 6A : FINANCIAL MANAGEMENT & STRATEGIC MANAGEMENT

PAPER 6A: FINANCIAL MANAGEMENT

Time Allowed – 3 Hours (Total time for 6A and 6B)   Maximum Marks – 50

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*
4. *Working note should form part of the answer. Wherever necessary, suitable assumptions may be made by the candidates and disclosed by way of note. However, in answers to Questions in Division A, working notes are not required.*

PART I – Case Scenario based MCQs (15 Marks)

Write the most appropriate answer to each of the following multiple choice questions by choosing one of the four options given. All questions are compulsory.

1. Twigato Ltd is an all equity financed company in the food delivery business and is considering an expansion into quick grocery delivery business segment. It is the market leader in the current food delivery business with a valuation of ₹ 5750 crores. From the discussion in the recent fund-raising meeting with the venture capitalists, it has been noted that the quick delivery business is expected to be run for 6 years, after which it will be sold to another entity for a target valuation of 2 times of the investment made in the business segment. The new segment will be funded by debt, preference and equity shares in the ratio of 3:2:5. The quick grocery delivery would require ₹ 30 crores of investment to start with and subsequently it will require additional infusion of ₹ 20 crores in start of year 2 and ₹ 25 crores of fund infusion in start of year 4. The operating financials of the business is expected to be on following lines for the 1st year of operation.

   No of quick orders = 10000 per day

   No of overnight orders = 2000 per day

   Ticket sizes quick orders: 5000 orders below ₹ 500, 3000 orders between ₹ 500 and ₹ 1000 and 2000 orders above ₹ 1000 with average ticket size being ₹ 700 per order.

   Delivery charges are applicable for orders below ₹ 500, which is flat ₹ 40 per order.

   The company would charge 5% of invoice value from the seller of the quick delivery products and 7% in case of overnight delivery.

   Overnight deliveries would be available to only subscription-based customers and subscription charges are ₹ 5000 p.a. Each overnight order is expected to be having an average ticket size of ₹ 750 per order. Each subscription-based customer is expected to place order every alternate day on an average.

The quantity of orders is expected to be growing at a rate of 20%, 15%,10%, 5% for 1st 4 years of operations. Beyond this it is expected to be remaining constant. The proportion of orders is expected to remain unchanged.

To attract the prospective customers, it is likely to spend heavily on advertising in initial years. The advertising and promotional activities would cost ₹ ₹ 7 crores, ₹ 8 crores and ₹ 10 crores in year 1,2 and 3 respectively.

Remuneration to delivery partners will be ₹ 15000 p.m. fixed plus ₹ 20 per delivery. Each delivery partner can deliver an average of 30 orders per day. An additional provision of 50% of extra delivery partners to be made to consider the unexpected spike in orders on special occasions and holidays. The IT infrastructure and customer care expenses would amount to ₹ 8 crores each year.

Income Tax allows 20% p.a. depreciation on straight line basis for any fresh investments. Applicable tax rate can be taken as 25%. The after-tax cost of debt, preference share, and equity share would amount to 10%, 11% and 15% respectively.

Assume 365 days in a year.

1. Which of the following is the best estimate of discounting rate for the project?

   (a) 12.00%

   (b) 11.55%

   (c) 12.70%

   (d) 13.75%

2 Which of the following is the best measure of delivery partners required in year 1?

   (a) 600

   (b) 720

   (c) 828

   (d) 911

3. Which of the following is the best measure of total revenue in year 3?

   (a) 30 crores

   (b) 25.78 crores

   (c) 33.66 crores

   (d) 25.91crores

4. Which of the following years best represents the years of loss?

   (a) Year 1 only

   (b) Year 1 and 2 only

(c) Year 1,2 and 3 only

(d) Year 1,2,3 and 4 only

5. Which of the following in the best measure of NPV of the project?

(a) 39.35 crores

(b) -25.63 crores

(c) 23.76 cores

(d) -35.67 crores **(5 x 2 = 10 Marks)**

2. If EBIT increases by 6%, taxable income increases by 6.9%. If sales increase by 6%, taxable income will increase by 24%.

Financial leverage must be -………….

(a) 1.19

(b) 1.13

(c) 1.12

(d) 1.15 **(2 Marks)**

3. The earning per share of the company is ₹10. It has an internal rate of return of 15%& capitalisation rate of the same risk class is 12.5%if the walters model is used, what should be the price of a share of optimum payout.

(a) 92

(b) 94

(c) 96

(d) 98 **(2 Marks)**

4. Packing credit by an exporter is required to be liquidated within

(a) 12 months

(b) 3 months

(c) 90 days

(d) 180 days **(1 Mark)**

PART II – Descriptive Questions (35 Marks)

*Question No. **1** is compulsory.*

*Attempt any **two** questions out of the remaining **three** questions.*

1. (a) As a financial analyst of a large electronics company, you are required to DETERMINE the weighted average cost of capital of the company using (a) book value weights and (b) market value weights. The following information is available for your perusal.

The Company's present book value capital structure is:

Debentures (₹ 100 per debenture)	₹ 8,00,000
Preference shares (₹ 100 per share)	2,00,000
Equity shares (₹ 10 per share)	10,00,000
	20,00,000

All these securities are traded in the capital markets. Recent prices are:

Debentures, ₹ 110 per debenture, Preference shares, ₹ 120 per share, and Equity shares, ₹ 22 per share

Anticipated external financing opportunities are:

(i) ₹ 100 per debenture redeemable at par; 10 year maturity, 11 per cent coupon rate, 4 per cent flotation costs, sale price, ₹ 100

(ii) ₹ 100 preference share redeemable at par; 10 year maturity, 12 per cent dividend rate, 5 per cent flotation costs, sale price, ₹ 100.

(iii) Equity shares: ₹ 2 per share flotation costs, sale price = ₹ 22.

In addition, the dividend expected on the equity share at the end of the year is ₹ 2 per share, the anticipated growth rate in dividends is 7 per cent and the firm has the practice of paying all its earnings in the form of dividends. The corporate tax rate is 35 per cent. **(5 Marks)**

(b) A Company had the following Balance Sheet as on March 31, 2023:

Liabilities and Equity	₹ (in crores)	Assets	₹ (in crores)
Equity Share Capital (Ten crore shares of ₹ 10 each)	100	Fixed Assets (Net)	250
		Current Assets	150
Reserves and Surplus	20		
15% Debentures	200		
Current Liabilities	80		
	400		400

The additional information given is as under:

Fixed Costs per annum (excluding interest)	₹ 80 crores
Variable operating costs ratio	65%
Total Assets turnover ratio	2.5
Income-tax rate	40%

Required:

CALCULATE the following and comment:

(i) Earnings per share

(ii) Operating Leverage

(iii) Financial Leverage

(iv) Combined Leverage. **(5 Marks)**

(c) From the following information, PREPARE a summarised Balance Sheet as at 31st March, 2023:

Working Capital	₹ 2,40,000
Bank overdraft	₹ 40,000
Fixed Assets to Proprietary ratio	0.75
Reserves and Surplus	₹ 1,60,000
Current ratio	2.5
Liquid ratio	1.5

(5 Marks)

2. (a) Akash Limited provides you the following information:

	₹
Profit (EBIT)	2,80,000
Less Int. on Debt@10%	40,000
EBT	2,40,000
Less Income Tax@50%	1,20,000
	1,20,000
No. of Equity Shares (₹ 10 each)	30,000
Earning per share (EPS)	4
Price /EPS (PE) Ratio	10

The company has reserves and surplus of Rs, 7,00,000 and needs ₹ 4,00,000 further for expansion. There is no change in Return on Capital Employed. You are informed that a debt (debt/ debt +equity) ratio higher than 40% will push the P/E ratio down to 8 and raise the interest rate on additional borrowings (debentures) to 12%. You are required to ASCERTAIN the probable price of the share.

(i) If the additional funds are raised as debt; and

(ii) If the amount is raised by issuing equity shares at ruling market price. **(6 Marks)**

(b) A firm had been paid dividend at ₹ 2 per share last year. The estimated growth of the dividends from the company is estimated to be 5% p.a. DETERMINE the estimated market price of the equity share if the estimated growth rate of dividends (i) rises to 8%, and (ii) falls to 3%. Also COMPUTE the present market price of the share, given that the required rate of return of the equity investors is 15.5%. **(4 Marks)**

3. A company is considering its working capital investment and financial policies for the next year. Estimated fixed assets and current liabilities for the next year are ₹ 2.60 crores and ₹ 2.34 crores respectively. Estimated Sales and EBIT depend on current assets investment, particularly inventories and book-

debts. The financial controller of the company is examining the following alternative Working Capital Policies:

(₹ Crores)

Working Capital Policy	Investment in Current Assets	Estimated Sales	EBIT
Conservative	4.50	12.30	1.23
Moderate	3.90	11.50	1.15
Aggressive	2.60	10.00	1.00

After evaluating the working capital policy, the Financial Controller has advised the adoption of the moderate working capital policy. The company is now examining the use of long-term and short-term borrowings for financing its assets. The company will use ₹ 2.50 crores of the equity funds. The corporate tax rate is 35%. The company is considering the following debt alternatives.

(₹ Crores)

Financing Policy	Short-term Debt	Long-term Debt
Conservative	0.54	1.12
Moderate	1.00	0.66
Aggressive	1.50	0.16
Interest rate-Average	12%	16%

You are required to CALCULATE the following:

(1) Working Capital Investment for each policy:

(a) Net Working Capital position

(b) Rate of Return

(c) Current ratio

(2) Financing for each policy:

(a) Net Working Capital position.

(b) Rate of Return on Shareholders' equity.

(c) Current ratio. **(10 Marks)**

4. (a) The profit maximization is not an operationally feasible criterion." COMMENT on it. **(4 Marks)**

(b) "Financing a business through borrowing is cheaper than using equity." Briefly EXPLAIN**.** **(4 Marks)**

(c) WHAT is meant by weighted average cost of capital? **(2 Marks)**

OR

(c) EXPLAIN in brief the assumptions of Modigliani-Miller theory. **(2 Marks)**

MODEL TEST PAPER 4

INTERMEDIATE: GROUP – II

PAPER – 6A : FINANCIAL MANAGEMENT & STRATEGIC MANAGEMENT

PAPER 6A: FINANCIAL MANAGEMENT

Time Allowed – 3 Hours (Total time for 6A and 6B) Maximum Marks – 50

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*
4. *Working note should form part of the answer. Wherever necessary, suitable assumptions may be made by the candidates and disclosed by way of note. However, in answers to Questions in Division A, working notes are not required.*

PART I – Case Scenario based MCQs (15 Marks)

Write the most appropriate answer to each of the following multiple choice questions by choosing one of the four options given. All questions are compulsory.

Kaivalyabodhi Limited **(KbL)** has completed 35 years of operations in India. It has many subsidiary & associate companies in more than 100 countries. KbL's business s include home and personal care, foods and beverages, and industrial, agricultural and other products. It is one of the largest producers of soaps and detergents in India. The company has grown organically as well as through acquisitions. Over the years, the company has built a diverse portfolio of powerful brands, some being household names.

It is planning to acquire one of its competitors named Prestige Limited, which would enhance the growth of 'KbL'. The consideration amount will be 1.5X of its average Market Capitalization. Prestige limited has 1,30,000 outstanding equity shares and its shares were traded at an average market price of ₹ 45 as on the valuation date. The consideration amount will be paid equally in 5 years where the first installment is to be paid immediately. Prestige Limited has Ko of 15%

KbL will raise the funds required through debt and equity in the ratio of 30:70. The company requires the cost of capital estimates for evaluating its acquisitions, investment decisions and the performance of its businesses.

KbL's share price has grown from ₹ 150 to ₹ 301 in the last 5 years and it will continue to grow at the same rate. KbL pays dividends regularly. The company has recently paid a dividend of ₹ 8. For the calculation of equity, an average of 52 weeks high market price in the last 5 years is to be considered, which is as follows:

Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
MPS 185	MPS 210	MPS 252	MPS 325	MPS 280

Ke calculated as per growth model holds a weight of 0.6.

The company also wishes to calculate the equity's expectation using CAPM which holds a weight of 0.4. The risk-free rate is assumed as the yield on long-term government bonds that the company regards as about 8%. KbL regards the market-risk premium to be equal to 11 per cent. Its estimation on the Beta is 0.78.

KbL will issue debentures with FV of ₹ 10,500 which is to be amortised equally over the life of 7 years. The company considers the effective rate of interest applicable to an 'AAA' rated company with a markup of 200 basis points as its coupon rate. It thinks that considering the trends over the years, 'AAA' rate is 7.5%.

Ignore taxation. Based on the above details, answer the question 1 to 5:

1. Calculate the cost of equity under both the methods
   - (a) 11%, 16%
   - (b) 18.65%, 10.34%
   - (c) 18.65%, 16.58%
   - (d) 16.5%, 9%
2. Calculate the overall cost of equity
   - (a) 17.82%
   - (b) 17.63%
   - (c) 15.37%
   - (d) 35.25%
3. Calculate the cost of debt, if the intrinsic value of debenture today is close to ₹ 9,740
   - (a) 15%
   - (b) 12%
   - (c) 9.5%
   - (d) 7.5%
4. Calculate the WACC & the amount of purchase consideration
   - (a) 18%, ₹ 90,00,000
   - (b) 15.21%, ₹ 87,75,000
   - (c) 16.07%, ₹ 87,75,000
   - (d) 15.94%, ₹ 58,50,000

5. Present Value of Purchase consideration is close to ₹

(a) 58,83,032

(b) 67,65,487

(c) 57,35,680

(d) 66,58,997 **(5 x 2 = 10 Marks)**

6. X ltd has actual Sales of ₹ 20 lakhs and its Break-even sales are at ₹ 15 lakhs. The degree of total risk involved in the company is 6.5. Calculate the % impact on EPS, if EBIT is affected by 12%.

(a) 40%

(b) 78%

(c) 312%

(d) 19.5% **(2 Marks)**

7. Assuming Ke = 11%, Kd = 8% and Ko = 10%, Debt Equity ratio of the company

(a) 2:3

(b) 3:2

(c) 1:2

(d) 2:1 **(2 Marks)**

8. Given:

Earnings available to the equity shareholders ₹ 30 Lakhs,

Cost of equity is 15%,

Debt outstanding ₹ 150 Lakhs

Value of the firm will be –

(a) ₹ 200 Lakhs

(b) ₹ 250 Lakhs

(c) ₹ 350 Lakhs

(d) ₹ 300 Lakhs **(1 Mark)**

PART II – Descriptive Questions (35 Marks)

*Question No. **1** is compulsory.*

*Attempt any **two** questions out of the remaining **three** questions.*

1. (a) You are required to CALCULATE the Total Current Assets of Ananya Limited from the given information:

Stock Turnover	= 5 times
Sales (All credit)	= ₹ 7,20,000
Gross Profit Ratio	= 25%
Current Liabilities	= 2,40,000
Liquidity Ratio	= 1.25

Stock at the end is ₹ 30,000 more than stock in the beginning.

(5 Marks)

(b) Gitarth Limited has a current debt equity ratio of 3:7. The company is presently considering several alternative investment proposals costing less than ₹ 25 lakhs. The company will always raise the funds required without disturbing its current capital structure ratio.

The cost of raising debt and equity are as follows-

Cost of Project	**Kd**	**Ke**
Upto 5 lakhs	10%	12%
Above 5 lakhs & upto 10 lakhs	12%	13.5%
Above 10 lakhs & upto 20 lakhs	13%	15%
Above 20 lakhs	14%	16%

Corporate tax rate is 30%, CALCULATE:

i) Cut off rate for two Projects I & Project II whose fund requirements are 15 lakhs & ₹ 26 lakhs respectively.

ii) If a project is expected to give an after-tax return of 13%, determine under what conditions it would be acceptable. **(5 Marks)**

(c) From the following details of X Ltd, PREPARE the Income Statement for the year ended 31st December:

Financial Leverage	2
Interest	₹ 2,000
Operating Leverage	3
Variable Cost as a Percentage of Sales	75%
Income Tax Rate	30%

(5 Marks)

2. (a) The financial statements of Gurunath Ltd is furnished below –

Balance Sheet as at 31st March

Particulars as at 31st March		Note	₹
I	**EQUITY AND LIABILITIES:**		
(1)	Shareholders' Funds:		10,00,000
(2)	Non–Current Liabilities: 10% Debt		6,00,000
(3)	Current Liabilities		1,56,000
	Total		17,56,000
II	**ASSETS**		
(1)	Non–Current Assets		16,56,000
(2)	Current Assets – Trade Receivables		1,00,000
	Total		17,56,000

Additional Information:

1. The existing credit terms are 1/10, net 45 days and average collection period is 30 days. The current bad debts loss is 1.5%. In order to accelerate the collection process further as also to increase sales, the company is contemplating liberalization of its existing credit terms to 2/10, net 45 days.
2. It is expected that sales are likely to increase by 1/3 of existing sales, bad debts increase to 2% of sales and average collection period to decline to 20 days.
3. Credit period allowed by the supplier is 60 days. Generally, operating expenses are paid 2 months in arrears. Total Variable expenses of the company constitute Purchases of stock in trade and operating expenses only.
4. Opportunity cost of investment in receivables is 15%. 50% and 80% of customers in terms of sales revenue are expected to avail cash discount under existing and liberalization scheme respectively. The tax rate is 30%.
5. The Company considers only the relevant or variable costs for calculating the opportunity costs on the funds blocked in receivables. Assume 360 days in a year and 30 days in a month.

Should the company change its credit terms? **(6 Marks)**

(b) The following information is given for QB Ltd.

Earnings per share	₹ 180
Dividend per share	₹ 45
Cost of capital	17%
Internal Rate of Return on investment	20%

CALCULATE the market price per share using -

(a) Gordon's formula

(b) Walter's formula **(4 Marks)**

3. (a) Parmarth Limited is a manufacturer of computers. Owing to recent developments in Artificial Intelligence (AI), it is planning to introduce AI in its computer process. This would result into an estimated annual savings as follows:

(i) Savings of ₹ 3,50,000 in production delays caused by inventory problem.

(ii) Savings in Salaries of 5 employees with an annual pay of ₹ 4,20,000 per annum

(iii) Reduction in Lost sales of ₹ 1,75,000

(iv) Gain due to timely billing is ₹ 3,25,000

The project would result in annual maintenance and operating costs as follows, which are to be paid in advance (at the beginning)

YEAR	1	2	3	4	5
COST	1,80,000	2,00,000	1,20,000	1,10,000	1,30,000

Furthermore, the new system would need 2 AI specialists' professional drawing salaries of ₹ 6,50,000 per annum per person. The purchase price of the new system for installing AI into computers would involve an outlay of ₹ 21,50,000 and installation cost of ₹ 1,50,000.

75% of the total value for depreciation would be paid in the year of purchase and the balance would be paid at the end of the 1st year. The new system will be sold for ₹ 1,90,000. This is the only asset in the block for Income tax purpose.

The life of the system would be 5 years with the hurdle rate of 12%. Depreciation will be charged at 40% on WDV basis, corporate tax rate is 25% and capital gains tax rate is at 20%.

CALCULATE NPV and advise the management on the acceptability of the proposal. Also calculate ARR & PI. **(8 Marks)**

(b) DISCUSS the parameters of Lintner's Model. **(2 Marks)**

4. (a) DISCUSS the Costs of Availing Trade Credit **(4 Marks)**

(b) Briefly EXPLAIN the following –

i. Fully Hedged Bonds

ii. Medium Term Notes

iii. Floating Rate Notes

iv. Euro Commercial Papers **(4 Marks)**

(c) WHAT is the range of DOL? **(2 Marks)**

OR

DISCUSS the role of a chief financial officer. **(2 Marks)**

MODEL TEST PAPER 5

INTERMEDIATE GROUP – II

PAPER – 6A : FINANCIAL MANAGEMENT & STRATEGIC MANAGEMENT

PAPER 6A: FINANCIAL MANAGEMENT

Time Allowed – 3 Hours (Total time for 6A and 6B) Maximum Marks – 50

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*
4. *Working note should form part of the answer. Wherever necessary, suitable assumptions may be made by the candidates and disclosed by way of note. However, in answers to Questions in Division A, working notes are not required.*

PART I – Case Scenario based MCQs (15 Marks)

Write the most appropriate answer to each of the following multiple choice questions by choosing one of the four options given. All questions are compulsory.

Mathangi Ltd. is a News broadcasting channel having its broadcasting Centre in Chennai. There are total 200 employees in the organisation including top management. As a part of employee benefit expenses, the company serves tea to its employees, which is outsourced from a third-party. The company offers tea three times a day to each of its employees. The third-party charges ₹ 10 for each cup of tea. The company works for 200 days in a year.

Looking at the substantial amount of expenditure on tea, the finance department has proposed to the management an installation of a master tea vending machine from Nirmal Ltd which will cost ₹ 5,00,000 with a useful life of five years. Upon purchasing the machine, the company will have to incur annual maintenance which will require a payment of ₹ 25,000 every year. The machine would require electricity consumption of 500 units p.m. and current incremental cost of electricity for the company is ₹ 24 per unit. Apart from these running costs, the company will have to incur ₹ 8,00,000 for consumables like milk, tea powder, paper cup, sugar etc. The company is in the 25% tax bracket. Straight line method of depreciation is allowed for the purpose of taxation.

Nirmal Ltd sells 100 master tea vending machines. Variable cost is ₹ 4,50,000 per machine and fixed operating cost is ₹ 25,00,000. Capital Structure of Mathangi Ltd and Nirmal Ltd consists of the following –

Particulars	Mathangi Ltd.	Nirmal Ltd.
Equity Share Capital (Face value ₹ 10 each)	40,00,000	40,00,000
Reserves & Surplus	25,00,000	50,00,000
12% Preference Share Capital	12,00,000	Nil
15% Debentures	20,00,000	40,00,000

Risk free rate of return = 5%, Market return = 10%, Beta of the Mathangi Ltd. = 1.9

You are required to answer the following five questions based on the above details:

1. If sales of Nirmal Ltd are up by 10%, impact on its EBIT is
   (a) 30%
   (b) 60%
   (c) 5%
   (d) 20%
2. Combined leverage of Nirmal Ltd is
   (a) 1.63
   (b) 2.63
   (c) 1.315
   (d) 2
3. Discount rate that can be applied for making investment decisions of Mathangi Ltd is
   (a) 12%
   (b) 13.52%
   (c) 15%
   (d) 20%
4. Incremental cash flow after tax per annum attributable to Mathangi Ltd due to investment in the machine is
   (a) ₹ 2,39,438
   (b) ₹ 1,98,250
   (c) ₹ 98,250
   (d) ₹ 1,31,000
5. Net present value of investment in the machine by Mathangi Ltd is
   (a) ₹ 6,88,522
   (b) ₹ 1,88,522
   (c) ₹ 9,91,250
   (d) ₹ 4,91,250 **(5 x 2 = 10 Marks)**

6. Total Assets & Current liabilities of the Vitrag Limited are 50 lakhs & 10 lakhs respectively. ROCE is 15%, measure of business operating risk is at 3.5 & P/V ratio is 70%. Calculate Sales.

   (a) 21 lakhs

   (b) 30 lakhs

   (c) 37.50 lakhs

   (d) 40 lakhs **(2 Marks)**

7. A company has issued bonds with a face value of ₹ 100,000 at an annual coupon rate of 8%. The bonds are currently trading at 95% of their face value. What is the approximate cost of debt for the company before taxes.

   (a) 9.00%

   (b) 7.65%

   (c) 8.00%

   (d) 8.42% **(2 Marks)**

8. A company is considering changing its capital structure by increasing its debt ratio from 40% to 55%. What is the likely impact on the company's cost of equity, assuming all other factors remain constant?

   (a) Cost of equity will be unaffected by debt ratio

   (b) Cost of equity will remain unchanged

   (c) Cost of equity will decrease

   (d) Cost of equity will increase **(1 Mark)**

PART II – Descriptive Questions (35 Marks)

*Question No. **1** is compulsory.*

*Attempt any **two** questions out of the remaining **three** questions.*

1. (a) X Ltd is willing to raise funds for its New Project which requires an investment of ₹ 84 Lakhs. The Company has two options:

   Option I: To issue Equity Shares (₹ 10 each) only

   Option II: To avail Term Loan at an interest rate of 12%. But in this case, as insisted by the Financing Agencies, the Company will have to maintain a Debt–Equity proportion of 2:1.

   The Corporate Tax Rate is 30%. FIND out the point of indifference for the project. **(5 Marks)**

   (b) Mr. Anand is thinking of buying a Share at ₹ 500 whose Face Value per share is ₹ 100. He is expecting a bonus at the ratio 1 : 5 at the end of the fourth year. Annual expected dividend is 20% and the same rate is expected to be maintained on the expanded capital base. He intends to sell the Shares at the end of seventh year at an expected price of ₹ 900 each. Incidental Expenses for purchase and sale of Shares are estimated to be 5% of the Market Price. Assuming a Discount rate of 12% per annum, COMPUTE the Net Present Value from the acquisition of the shares. **(5 Marks)**

(c) Paarath Limited had recently repurchased 20,000 equity shares at a premium of 10% to its prevailing market price. The book value per share (after repurchasing) is ₹ 193.20.

Other Details of the company are as follows:

Earnings of the company (before buyback) = ₹ 18,00,000

Current MPS is ₹ 270 with a P/E Ratio of 18.

CALCULATE the Book Value per share of the company before the re-purchase. **(5 Marks)**

2. (a) Sukrut Limited has annual credit sales of ₹ 75,00,000/-. Actual credit terms are 30 days, but its management of receivables has been poor, and the average collection period is about 60 days. Bad debt is 1 per cent of total sales.

A factor has offered to take over the task of debt administration and credit checking, at an annual fee of 1.5 per cent of credit sales.

Sukrut Limited estimates that it would save ₹ 45,000 per year in administration costs as a result. Due to the efficiency of the factor, the average collection period would come back to the original credit offered of 30 days and bad debts would come to 0.5% on recourse basis.

The factor would pay net advance of 80 percent to the company at an annual interest rate of 12 per cent after withholding a reserve of 10%. Sukrut Limited is currently financing its receivables from an overdraft costing 10 per cent per year and will continue to finance the balance fund needed (which is not financed by factor) through the overdraft facility

If occurrence of credit sales is throughout the year, COMPUTE whether the factor's services should be accepted or rejected. Assume 360 days in a year. **(7 Marks)**

(b) Determining the amount to be invested in current assets as working capital is a crucial policy decision for any entity. What FACTORS should a company consider when deciding the level of investment in working capital? **(3 Marks)**

3. (a) Calculate the WACC using the following data by using Market Value weights:

Particulars	**₹**
Equity Shares (₹ 10 per equity share)	15,00,000
Reserves & Surplus	5,00,000
Preference Shares (₹ 100 per preference share)	7,50,000
Debentures (₹ 100 per debenture)	5,50,000

The market prices of these securities are:

Debentures - ₹ 105 per debenture,

Preference shares - ₹115 per preference share

Equity shares - ₹ 27 per equity share

Additional information:

(1) ` 100 FV per debenture redeemable at premium of 10%, 10% coupon rate, 4% floatation costs, 10-year maturity.

(2) ` 100 FV per preference share redeemable at par, 12% coupon rate, 2% floatation cost and 10-year maturity.

(3) Equity shares have ₹ 4.5 floatation cost and market price of 27 per share.

The last dividend paid by the company was ` 2 which is expected to grow at an annual growth rate of 9%. The firm has the practice of paying all earnings as a dividend.

The corporate tax rate is 25%. To calculate the overall cost of debt & preference shares, take the average of their respective costs using YTM & approximation method. **(6 Marks)**

(b) EPL Ltd. has furnished the following information relating to the year ended 31st March 2023 and 31st March, 2024:

	31st March, 2023	**31st March, 2024**
Share Capital	50,00,000	50,00,000
Reserve and Surplus	20,00,000	25,00,000
Long term loan	30,00,000	30,00,000

- Net profit ratio: 8%
- Gross profit ratio: 20%
- Long-term loan has been used to finance 40% of the fixed assets.
- Stock turnover with respect to cost of goods sold is 4.
- Debtors represent 90 days sales.
- The company holds cash equivalent to 1½ months cost of goods sold.
- Ignore taxation and assume 360 days in a year.

You are required to PREPARE Balance Sheet as on 31st March 2024 in following format:

Liabilities	**(₹)**	**Assets**	**(₹)**
Share Capital	-	Fixed Assets	-
Reserve and Surplus	-	Sundry Debtors	-
Long-term loan	-	Closing Stock	-
Sundry Creditors	-	Cash in hand	-

(4 Marks)

4. (a) The agency problem is one of the key concepts in corporate governance and financial management. On the light of this statement, EXPLAIN agency problem, consequences of agency problem and how to overcome the issue. **(4 Marks)**

(b) Operating leases and financial leases are traditionally the most important types of leases in financial management. However, in recent years, other types of leases have also gained significance due to their unique benefits and applications. IDENTIFY AND EXPLAIN at least four other types of leases that have become increasingly important in modern business practices. **(4 Marks)**

(c) EXPLAIN the Relationship between EBIT-EPS-MPS **(2 Marks)**

OR

(c) EXPLAIN Financial Leverage as a 'Double edged Sword' **(2 Marks)**

MODEL TEST PAPER 6

INTERMEDIATE GROUP – II

PAPER – 6A : FINANCIAL MANAGEMENT & STRATEGIC MANAGEMENT

PAPER 6A: FINANCIAL MANAGEMENT

Time Allowed – 3 Hours (Total time for 6A and 6B) Maximum Marks – 50

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*
4. *Working note should form part of the answer. Wherever necessary, suitable assumptions may be made by the candidates and disclosed by way of note. However, in answers to Questions in Division A, working notes are not required.*

PART I – Case Scenario based MCQs (15 Marks)

Write the most appropriate answer to each of the following multiple choice questions by choosing one of the four options given. All questions are compulsory.

Case Scenario I:

Small bus Company is into manufacturing mini buses. Since its establishment it has seen a phenomenal growth in both its market share and profitability. The financial statements (Statement of P&L and Balance Sheet) are shown below. The company enjoys the confidence of its shareholders who have been rewarded with growing dividends year after year. Last year too, the company had announced 20 per cent dividend, which was the highest in the automobile sector. The company has never defaulted on its loan payments and enjoys a favourable face with its lenders, which include financial institutions, commercial banks and other private debenture holders. The competition in the bus industry has increased in the past few years and the company foresees further intensification of competition with the entry of several foreign bus manufacturers; many of whom are market leaders in their respective countries. The mini bus segment especially, will witness entry of foreign majors in the near future, with latest technology being offered to the Indian customer. Small bus company's management realises the need for large scale investment in upgradation of technology and improvement of manufacturing facilities to beat competition.

While on one hand, the competition in the industry has been intensifying, on the other hand, there has been a slowdown in the Indian economy, which has not only reduced the demand for buses, but also led to adoption of price cutting strategies by various bus manufacturers.

The Company needs ₹ 3,12,50,000 for the investment in technology and improvement of manufacturing facilities. Company has three options for the funds:

I The Company may issue 31,25,000 equity shares at ₹ 10 per share.

II The Company may issue 15,62,500 equity shares at ₹ 10 per share and 1,56,250 debentures of ₹ 100 denomination bearing an 9% rate of interest.

III The Company may issue 15,62,500 equity shares at ₹ 10 per share and 1,56,250 preference shares at ₹ 100 per share bearing an 10% rate of dividend.

The company's earnings before interest and taxes after investment is ₹ 37,50,000. Income tax rate applicable to the company is 40%.

Based on the above facts, the management of the company asked you to answer the following questions (MCQs 1 to 5):

1. What is the EPS under financial plan I?

   (a) ₹ 0.50

   (b) ₹ 0.62

   (c) ₹ 0.72

   (d) ₹ 0.44

2. What is the EPS under financial plan II?

   (a) ₹ 0.70

   (b) ₹ 0.90

   (c) ₹ 0.42

   (d) ₹ 1.10

3. What is the EPS under financial plan III?

   (a) ₹ 0.44

   (b) ₹ 0.70

   (c) ₹ 0.85

   (d) ₹ 1.20

4. What is the EBIT-EPS indifference points by formulae between Financing Plan I and Plan II?

   (a) ₹ 28,12,500.00

   (b) ₹ 29,00,000.00

   (c) ₹ 32,50,666.66

   (d) ₹ 45,15,253.56

5. What is the EBIT-EPS indifference points by formulae between Financing Plan I and Plan III?

   (a) ₹ 36,36,666.66

   (b) ₹ 45,25,000.00

   (c) ₹ 28,56,256.25

   (d) ₹ 52,08,333.33 **(5 x 2 = 10 Marks)**

6. A company has a degree of operating leverage is 2 and degree of financial leverage is 3. If the sales of the company increase by 5% during the next quarter, the Earning Per Share (EPS) will increase by?

   (a) 20%

   (b) 30%

   (c) 50%

   (d) 60% **(2 Marks)**

7. Following are the data on a capital project being evaluated by the management of Aman Ltd.

Particulars	Project A
Annual cost saving	₹ 1,80,000
Useful life	5 years
Internal rate of return	10%
Salvage value	0
PVAF (15,4 years)	3.79

   Based upon the information, the payback period of the project will be

   (a) 2.652

   (b) 2.850

   (c) 3.790

   (d) 3.855 **(2 Marks)**

8. Under Modigliani and Miller's Dividend Irrelevance Theory, a company has ₹1,00,000 to distribute. If it chooses to retain the earnings instead of paying dividends, what happens to shareholder wealth?

   (a) Increases due to reinvestment opportunities.

   (b) Decreases due to lower immediate returns.

   (c) Remains unchanged because value depends on earnings and investment policy.

   (d) Depends on the dividend payout ratio **(1 Mark)**

PART II – Descriptive Questions (35 Marks)

*Question No. **1** is compulsory.*

*Attempt any **two** questions out of the remaining **three** questions.*

1. (a) ABC Industries is a mid-sized company manufacturing consumer goods. Last quarter, the company reported sales of ₹ 2,00,000. The production process involves significant variable costs, which account for 50% of the sales value. Additionally, the company incurs ₹ 40,000 as fixed operating costs for rent, utilities, and management expenses. ABC Industries has also borrowed funds, leading to ₹ 10,000 as annual interest on long-term debt.

The company is currently planning to launch a new marketing campaign aimed at boosting sales by 10%. As a financial analyst at ABC Industries, you are required to:

1. CALCULATE the combined leverage.
2. ILLUSTRATE the impact of the 10% sales increase using the combined leverage. **(5 Marks)**

(b) P Ltd. has the following capital structure at book-value as on 31st March, 2024:

Particulars	(₹)
Equity share capital (1,00,000 shares)	10,00,000
12% Preference shares	15,00,000
10% Debentures	15,00,000
	40,00,000

Additional Information:

1. The equity shares of P Ltd. are currently traded at ₹ 100 per share.
2. The company expects to pay a dividend of ₹ 5 per equity share next year, with dividends projected to grow perpetually at a rate of 5% p.a.
3. The corporate tax rate is 35%.

Requirements:

1. CALCULATE the Weighted Average Cost of Capital (WACC) based on the current capital structure.
2. RECALCULATE the WACC if the company raises an additional ₹ 5 lakhs of debt by issuing 12% debentures. This change will result in:
   - An increase in the expected equity dividend to ₹ 7 per share while the growth rate remains constant at 5%.
   - A decrease in the market price of equity shares to ₹90 per share **(5 Marks)**

(c) Vyom Limited, an IT conglomerate, is planning to take over Aryayash Limited, a startup company incorporated 2 years ago but holding a lot of prospects. To determine the buyout consideration, Vyom Limited has approached you as a Finance controller to estimate the fair value of the startup company today based on future earnings estimates. Following details of the startup company are as below -

Expected Sales in the coming year are ₹ 25 lakhs with P/V ratio of 40%. The sales are expected to grow at a rate of 20% for the next 2 years, to 40% for another 2 years, 25% in the 6^{th} year and thereafter cash flows will grow at a steady rate of 10%. Fixed cost for the upcoming year is expected to be 12 lakhs for the first two years, ₹ 10 lakhs thereafter. Loss in any year can be set-off only against the profits of the immediate next year.

Corporate taxes applicable are 25% & 20% to Vyom Limited & Aryayash Limited respectively. Vyom Limited's desired rate of return is 15% & Cost of Capital of Aryayash Limited is 17%.

As a finance controller, CALCULATE the Fair value of Aryayash Limited.

(5 Marks)

2. (a) From the following information pertaining to M/s Anya Co. Ltd., PREPARE its trading, Profit & Loss Account for the year ended on 31 March, 2024 and a summarized Balance Sheet as at that date:

	Amt in ₹
Current Ratio	2.5
Quick Ratio	1.3
Proprietary Ratio (Fixed Assets/ Proprietary Fund)	0.6
Gross Profit to Sale Ratio	10%
Debtors Velocity	40 days
Sales	730,000
Working Capital	120,000
Bank Overdraft	15,000
Share Capital	2,50,000

Closing Stock is 10% more than opening Stock.

Net Profit is 10% of Proprietary Funds. **(6 Marks)**

(b) Paras TMT Ltd. is a TMT manufacturing company with a face value of ₹ 10 per share.

The following information is given about the company:

- The company is expected to grow @ 10% p.a. for next four years then 5% for an indefinite period.
- Rate of return expected by the shareholders on their share investments is 15%.

- Company paid ₹ 4 as dividend per share for the current Financial Year.

FIND out the intrinsic value per share **(4 Marks)**

3. Zomo Ltd. currently has a turnover of ₹ 120 lakhs, 75% of which is on credit. The variable cost ratio is 80%, and the credit terms offered are 2/10, net 30. On the current sales volume, the bad debts are 1%, and the company spends ₹ 1,20,000 annually on administering its credit sales, including staff salaries for credit checking and collection. These costs are avoidable.

In addition:

- 60% of customers avail of the 2% cash discount, and the remaining customers take 60 days on average to pay after the date of sale.
- The book debts are financed by a mix of bank borrowings and owned funds in a 1:1 ratio, with annual costs of 15% and 14%, respectively.

However, Zomo Ltd. is also considering dynamic discounting for its cash customers, which might incentivize more customers to pay earlier by increasing the discount rate. This could lead to a potential reduction in bad debts to 0.8% but may also increase the cost of the discount offered to 2.5%.

A factoring firm has proposed a deal with the following terms: (i) Factor reserve: 12% (ii) Guaranteed payment: 25 days (iii) Interest charges: 15% (iv) Commission: 4% of receivables.

In addition, the company also has the option to extend the credit period for its remaining customers (who do not avail of the discount) to 75 days, which might increase sales by 10% but could result in an increase in bad debts to 1.5%.

Given:

1. The cost of funds is expected to rise to 16% next year.
2. Zomo Ltd. plans to introduce late payment penalties (for customers who take more than 60 days) at 5% of outstanding receivables after 60 days.

Assume a 360-day year.

Required:

- SHOULD Zomo Ltd. opt for dynamic discounting or the factoring firm's offer?
- ANALYZE the impact of extending the credit period on the company's finances.

COMPARE all options and RECOMMEND whether to continue with in-house management, dynamic discounting, or accept the factoring firm's offer.

(10 Marks)

4. (a) A company is evaluating two options for financing its current assets: using short-term loans or long-term loans. HOW should the company balance risk and return in making this decision, and WHAT factors should it consider to ensure optimal financing? **(4 Marks)**

(b) You are a financial consultant for a company that has a very high capital base but low earnings per share (EPS). EXPLAIN over-capitalization. What are the causes and consequences of over-capitalization?"

(4 Marks)

(c) "XYZ Corp. has adopted a strategy to maximize short-term profits by increasing product prices significantly. ANALYZE why this might not be a feasible operational criterion for sustainable growth." **(2 Marks)**

OR

(c) DEFINE Modified Internal Rate of Return method. **(2 Marks)**

MODEL TEST PAPER 7

INTERMEDIATE GROUP – II

PAPER – 6A : FINANCIAL MANAGEMENT & STRATEGIC MANAGEMENT

PAPER 6A: FINANCIAL MANAGEMENT

Time Allowed – 3 Hours (Total time for 6A and 6B) Maximum Marks – 50

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*
4. *Working note should form part of the answer. Wherever necessary, suitable assumptions may be made by the candidates and disclosed by way of note. However, in answers to Questions in Division A, working notes are not required.*

PART I – Case Scenario based MCQs (15 Marks)

Write the most appropriate answer to each of the following multiple choice questions by choosing one of the four options given. All questions are compulsory.

Case Scenario I:

MNP Ltd. is a multinational company having its operations spread mostly in India and neighbouring countries of India. The promotors of the company believed that capital structure of a company must be kept flexible and balanced, where proper mix should always be maintained between debt and equity. Such mix of debt and equity should be reviewed from time to time keeping in mind the changing situation of India and the global scenario.

The capital structure of MNP Ltd. is as under:

9% Debentures	Rs. 2,75,000
11% Preference shares	Rs. 2,25,000
Equity shares (face value: Rs. 10 per share)	Rs. 5,00,000
Total capital of the company	Rs. 10,00,000

The following are some of the additional information provided by MNP Ltd. relating to the above mentioned capital structure.

(i) Rs. 100 per debenture redeemable at par has 2% floatation cost and 10 years of maturity. The market price per debenture is Rs. 105.

(ii) Rs. 100 per preference share redeemable at par has 3% floatation cost and 10 years of maturity. The market price per preference share is Rs. 106.

(iii) Equity share has Rs. 4 floatation cost and market price per share of Rs. 24. The next year expected dividend is Rs. 2 per share with an annual growth of 5%. The firm has a practice of paying all earnings in the form of dividends.

(iv) Corporate Income-tax rate is 35%.

Since the company is a multinational company market value weights are preferred over book value weights when calculating the Weighted Average Cost of Capital (WACC) for several reasons. The company believes that market values reflect the current market perception of a company's financial health and future prospects. This is more relevant for calculating the cost of capital today, as investors base their decisions on current market conditions. Book values, based on historical accounting principles, may not accurately represent the true economic value of the company's capital components. Market values capture the actual cost that a company would incur if it were to raise new capital in the current market. Book values might not reflect the true cost of debt due to factors like changes in interest rates or creditworthiness. Similarly, book value of equity might not reflect the current investor expectations for future dividends and growth. Market values are readily available through stock prices and market interest rates. Obtaining accurate book values, especially for intangible assets, can be a complex and time-consuming process.

On the basis of this information provided above you are required to answer the following MCQs (1 to 5):

1. Calculate the cost of equity and choose the correct answer from the following?

   (a) 14%

   (b) 15%

   (c) 16%

   (d) 17%

2. Calculate the cost of debt and choose the correct answer from the following?

   (a) 6.11%

   (b) 5.48%

   (c) 9%

   (d) 10.55%

3. Calculate the cost of preference shares and choose the correct answer from the following?

   (a) 10.57 %

   (b) 5.11%

   (c) 9%

   (d) 10%

4. Calculate the WACC using market value weights and choose the correct answer from the following?

   (a) 12.80 %

(b) 5.11%

(c) 9%

(d) 10.55%

5. What will be the current market price of MNP Ltd.'s equity shares if Ke = 10%, expected dividend is Rs. 2 per share and annual growth rate is 5% from the following options:

(a) 40 per share

(b) 20 per share

(c) 30 per share

(d) 45 per share **(5 x 2 = 10 Marks)**

6. EBIT = 4,00,000

EBT = 3,00,000

Sales = 16,00,000

Which of the following is / are correct?

1. DFL is 1.33
2. Interest coverage ratio is 3
3. Operating profit margin is 25%

Select the correct answer using the code given below:

(a) 1, 2 and 3

(b) 1 and 2 only

(c) 1 and 3 only

(d) 3 only **(2 Marks)**

7. If velocity of stock is 3 months, annual sales amount to Rs.6 lakh at 20% gross profit margin and opening stock is Rs.90,000; what is the closing stock value?

(a) Rs. 90,000

(b) Rs. 70,000

(c) Rs. 1,50,000

(d) Rs. 1,00,000 **(2 Marks)**

8. Margin of safety is affected if:

1. P/V ratio changes
2. Fixed cost changes
3. Volume of sales changes

(a) 1 only

(b) 1 and 2 only

(c) 2 and 3 only

(d) 1, 2 and 3 **(1 Mark)**

PART II – Descriptive Questions (35 Marks)

*Question No. **1** is compulsory.*

*Attempt any **two** questions out of the remaining **three** questions.*

1. (a) The financial statement and operating results of Alpha Limited revealed the following position as on 31st March, 2023:

— Equity share capital (Rs. 10 fully paid share)	Rs. 20,00,000
— Working capital	Rs. 6,00,000
— Bank overdraft	Rs. 1,00,000
— Current ratio	2.5 : 1
— Liquidity ratio	1.5 : 1
— Proprietary ratio (Net fixed assets/Proprietary fund)	.75 : 1
— Cost of sales	Rs. 14,40,000
— Debtors velocity	2 months
— Stock turnover based on cost of sales	4 times
— Gross profit ratio	20% of sales
— Net profit ratio	15% of sales

Closing stock was 25% higher than the opening stock. There were also free reserves brought forward from earlier years. Current assets include stock, debtors and cash only. The current liabilities expect bank overdraft treated as creditors.

Expenses include depreciation of Rs. 90,000.

The following information was collected from the records for the year ended 31^{st} March, 2024:

— Total sales for the year were 20% higher as compared to previous year.

— Balances as on 31^{st} March, 2024 were : Stock Rs. 5,20,000, Creditors Rs. 4,15,000, Debtors Rs. 4,95,000 and Cash balance Rs. 3,10,000.

— Percentage of Gross profit on turnover has gone up from 20% to 25% and ratio of net profit to sales from 15% to 16%.

— A portion of Fixed assets was very old (book values Rs. 1,80,000) disposed for Rs. 90,000. (No depreciations to be provided on this item).

— Long-term investments were purchased for Rs. 2,96,600.

— Bank overdraft fully discharged.

— Percentage of depreciation to Fixed assets to be provided at the rate in the previous year.

PREPARE Balance Sheet as on 31st March, 2023 and 31st March, 2024.

(5 Marks)

(b) Theta Limited is expecting an annual earning of Rs. 3 Lakhs before paying any interest and taxes. The company has Rs. 10 lakhs of 10% debentures in its capital structure. The capitalisation rate is 12.5%. You are required to calculate the value of Theta Limited as per the NI approach. Also, COMPUTE the overall cost of capital. **(5 Marks)**

(c) The following data relates to Beta Limited:

	Rs.
Sales	2,00,000
Less: Variable Expenses (30%)	60,000
Contribution	1,40,000
Fixed operating expenses	1,00,000
EBIT	40,000
Less: Interest	5,000
EBT	35,000

(i) CALCULATE by what percentage will EBT increase if sales increases by 6 percent.

(ii) CALCULATE by what percentage will EBIT increase if there is 10 per cent increase in sales?

(iii) CALCULATE by what percentage EBT increase if EBIT increases by 6 per cent? **(5 Marks)**

2. (a) ABC Ltd., a newly formed company has applied to the Private Bank for the first time for financing it's Working Capital Requirements. The following information is available about the projections for the current year: Estimated Level of Activity Completed Units of Production 31,200.

Raw Material Cost	Rs 40 per unit
Direct Wages Cost	Rs 25 per Unit
Overhead	Rs 40 per Unit (Incl Rs 10 of Depreciation)
Selling Price	Rs 150 per unit
GP Ratio (Cash Cost)	30%
Net Profit Ratio	25% (On Total cost)
Raw Material in Stock	Avg of 30 days consumption
Work in Progress Stock at 30% of FG Produced Units	**Valued at Prime Cost Material – 90% into process

	Relevant Conversion Cost – 60% completed
Finished Goods Stock	2,500 units
Credit Allowed by the supplier	30 Days
Credit Allowed to Purchasers	45 Days
Direct Wages [Lag in payment]	15 Days
Expected Cash Balance	1,25,000

Safety margin is to be kept at 15% of the net working capital required inclusive of the margin amount. Assume that production is carried on evenly throughout the year (360 days) and wages and overheads accrue similarly. All sales are on the credit basis. You are required to CALCULATE the Net Working Capital Requirement. **(6 Marks)**

(b) Return on Equity (ROE) is Satva Limited is 15% and the capitalization rate applicable to the company is at 20%. Satva Limited's Book Value per share (BVPS) is Rs 125. Calculate the intrinsic value of the share today using Gordon's model and Walter's model if the company's policy is to retain 65% of the earning**.** **(4 Marks)**

3. Hemsparsh Private Limited is globally recognized consultancy firm having its presence in various countries across the globe and is currently headquartered at Ahmedabad, India.

It plans to commence a new branch in the Australia owing to the untapped opportunities available there in the outsourcing business. The company hired a professional for the preparation of the Project report and the fee paid was Rs 2,00,000. The company also incurred Rs 5,00,000 in the form R&D costs. As per the project report, the Company will require an initial fund outlay of Rs 25 crores for buying property & setting up the other infrastructure. It will also require working capital amounting to Rs 5 crore. The company is planning to operate for a very long period of time, however for the sake of simplicity, calculations shall end at the end of the 10th year. The Earnings before tax but after deducting Interest Exp (EBT) estimated would be as follows –

YEAR	**EBT (Amount in Rs)**
1	2,00,00,000
2	2,50,00,000
3	4,00,00,000
4	4,75,00,000
5	6,00,00,000
6	6,40,00,000
7	6,15,00,000
8	5,25,00,000
9	3,80,00,000
10	2,90,00,000

The above amounts also include an allocated common cost of Rs 12,50,000. Company will distribute 10% dividends every year on post-tax earnings. Company intends to borrow funds of 3 crores at a post-tax Interest rate of 6.5% in India. As per the tax treaty between India & Australia (Tax Agreement between two nations), first 3 years are tax free and from 4th year 75% of corporate taxes are to be paid in the country where it is headquartered and balance in the other nation. Total Corporate tax rate applicable to the company is 30%. However, tax on capital gains is to be paid at 15%, only in the headquarters. Salvage value for depreciation purpose is estimated at Rs. 90,00,000. The assets would be disposed of in the market at Rs. 3,50,00,000 at the end. Hemsparsh Private Limited desires a premium of 3% to the current MCLR of 12% (Marginal Cost of Funds based Lending Rate). Assume no other assets in the block.

CALCULATE NPV for the project and advise only from Indian law perspective.

If the company wishes to recoup its investment within 3.5 years, STATE any two measures that the company shall take. **(10 Marks)**

4. (a) EXPLAIN the difference between factoring and forfaiting **(4 Marks)**

   (b) DESCRIBE some of the tasks that demonstrate the importance of good financial management **(4 Marks)**

   (c) EXPLAIN the concept of Drop – Lock Bond (DL Bonds) **(2 Marks)**

OR

   (c) MENTION any one advantage of stock dividend – to the company as well as to the investor **(2 Marks)**

MODEL TEST PAPER 8

INTERMEDIATE GROUP – II

PAPER – 6A : FINANCIAL MANAGEMENT & STRATEGIC MANAGEMENT

PAPER 6A: FINANCIAL MANAGEMENT

Time Allowed – 3 Hours (Total time for 6A and 6B) Maximum Marks – 50

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*
4. *Working note should form part of the answer. Wherever necessary, suitable assumptions may be made by the candidates and disclosed by way of note. However, in answers to Questions in Division A, working notes are not required.*

PART I – Case Scenario based MCQs (15 Marks)

Write the most appropriate answer to each of the following multiple choice questions by choosing one of the four options given. All questions are compulsory.

1. KGF Chemicals Ltd., a prominent player in the chemical industry, faces the challenge of determining its growth trajectory and dividend policy to maximize shareholder value. With expectations of significant growth in the near term and stabilization in the long run, the company must strategically manage its resources to align with investor expectations.

   KGF Chemicals Ltd. is a leading manufacturer and supplier of specialty chemicals catering to diverse industries such as pharmaceuticals, agriculture, and manufacturing. Established with a commitment to innovation and quality, the company has garnered a strong market presence over the years.

   The company is projected to experience robust growth at a rate of 14% per annum for the next four years. Subsequently, the growth rate is expected to stabilize at the national economy's rate of 7% indefinitely. This forecast reflects both the company's expansion plans and the broader economic landscape.

   KGF Chemicals Ltd. paid a dividend of ₹ 2 per share last year (Do = 2). The management faces the crucial decision of balancing dividend payouts with reinvestment opportunities to sustain growth and meet shareholders' expectations. The dividend policy must strike a delicate balance between rewarding shareholders and retaining earnings for future investments.

   The required rate of return on equity shares is 12%, indicating investors' expected return given the company's risk profile and market conditions. Management must carefully assess investment opportunities to ensure they meet or exceed this threshold, thereby generating value for shareholders over the long term.

   In navigating the dynamic landscape of the chemical industry, KGF Chemicals Ltd. must adopt a proactive approach to managing growth and dividend policy.

By aligning strategic decisions with investor expectations and market dynamics, the company can position itself for sustainable success while maximizing shareholder value. Continual evaluation and adaptation will be essential to capitalize on growth opportunities and maintain competitiveness in the evolving marketplace.

You are required to answer the following on the basis of above information:

1. What is the expected dividend at the end of 4th Year?

   (A) ₹ 2.1097

   (B) ₹ 2.1483

   (C) ₹ 2.9631

   (D) ₹ 3.3779

2. What is the present value of Expected Dividends to be received in next four years?

   (A) ₹ 11.2202

   (B) ₹ 8.3655

   (C) ₹ 9.8423

   (D) ₹ 6.2176

3. Determine the Market Price of shares at the end of 4th Year?

   (A) ₹ 72.28

   (B) ₹ 67.55

   (C) ₹ 50.67

   (D) ₹ 77.34

4. Determine the Present Value of Market Price of shares at the end of 4th Year?

   (A) ₹ 49.18

   (B) ₹ 32.22

   (C) ₹ 45.79

   (D) ₹ 42.96

5. Calculate today's market price of the share.

   (A) ₹ 59.03

   (B) ₹ 54.33

   (C) ₹ 57.01

   (D) ₹ 57.54 **(5 x 2 = 10 Marks)**

2. A company has a cost of equity of 10% and a interest rate of 6%. The company's debt-to-equity ratio is 1.5, and the corporate tax rate is 40%. What is the company's weighted average cost of capital?

   (A) 7.20%

(B) 6.16%

(C) 7.60%

(D) 8.40% **(2 Marks)**

3. Output (units) = 3,00,000 Fixed cost = ₹ 3,50,000 Unit variable cost = ₹ 1.00 Interest expenses = ₹ 25,000
Unit selling price = ₹ 3.00 Applicable tax rate is 35% Calculate Financial Leverage.

(A) 1.11

(B) 2.40

(C) 2.67

(D) 1.07 **(2 Marks)**

4. External Commercial Borrowings can be accessed through _______

(A) only automatic route

(B) only approval route

(C) both automatic and approval route

(D) neither automatic nor approval route **(1 Mark)**

PART II – Descriptive Questions (35 Marks)

Question No. **1** is compulsory.

Attempt any **two** questions out of the remaining **three** questions.

1. (a) Alpha Limited issued 40,000 12% redeemable preference share of ₹ 100 each at a premium of ₹ 5 each, redeemable after 10 years at a premium of ₹ 10 each. The floatation cost of each share is ₹ 2. You are required to CALCULATE cost of preference share capital ignoring dividend tax.

(5 Marks)

(b) Cello Limited is considering buying a new machine which would have a useful economic life of five years, a cost of ₹ 1,25,000 and a scrap value of ₹ 30,000, with 80 per cent of the cost being payable at the start of the project and 20 per cent at the end of the first year. The machine would produce 50,000 units per annum of a new product with an estimated selling price of ₹ 3 per unit. Direct costs would be ₹ 1.75 per unit and annual fixed costs, including depreciation calculated on a straight- line basis, would be ₹ 40,000 per annum.

In the first year and the second year, special sales promotion expenditure, not included in the above costs, would be incurred, amounting to ₹ 10,000 and ₹ 15,000 respectively.

CALCULATE NPV of the project for investment appraisal, assuming that the company's cost of capital is 10 percent. **(5 Marks)**

(c) A firm's details are as under:

Sales (@100 per unit)	₹ 24,00,000
Variable Cost	50%
Fixed Cost	₹ 10,00,000

It has borrowed ₹ 10,00,000 @ 10% p.a. and its equity share capital is ₹ 10,00,000 (₹ 100 each).

Consider tax @ 50 %.

CALCULATE:

(a) Operating Leverage

(b) Financial Leverage

(c) Combined Leverage

(d) Return on Investment

(e) If the sales increases by ₹ 6,00,000; what will the new EBIT?

(5 Marks)

2. Following information is forecasted by the Puja Limited for the year ending 31st March, 2023:

	Balance as at 1st April, 2022 (₹)	**Balance as at 31st March, 2023 (₹)**
Raw Material	45,000	65,356
Work-in-progress	35,000	51,300
Finished goods	60,181	70,175
Debtors	1,12,123	1,35,000
Creditors	50,079	70,469
Annual purchases of raw material (all credit)		4,00,000
Annual cost of production		7,50,000
Annual cost of goods sold		9,15,000
Annual operating cost		9,50,000
Annual sales (all credit)		11,00,000

You may take one year as equal to 365 days.

You are required to CALCULATE:

(i) Net operating cycle period.

(ii) Number of operating cycles in the year.

(iii) Amount of working capital requirement using operating cycles.

(10 Marks)

3. (a) Shahji Steel Limited requires ₹ 25,00,000 for a new plant. This plant is expected to yield earnings before interest and taxes of ₹ 5,00,000. While deciding about the financial plan, the company considers the objective of maximizing earnings per share. It has three alternatives to finance the project - by raising debt of ₹ 2,50,000 or ₹ 10,00,000 or ₹ 15,00,000 and the balance, in each case, by issuing equity shares. The company's share is currently selling at ₹ 150 but is expected to decline to ₹ 125 in case the funds are borrowed in excess of ₹ 10,00,000. The funds can be borrowed at the rate of 10 percent upto ₹ 2,50,000, at 15 percent over ₹ 2,50,000 and upto ₹ 10,00,000 and at 20 percent over ₹ 10,00,000. The tax rate applicable to the company is 50 percent. ANALYSE which form of financing should the company choose? **(6 Marks)**

(b) Following information are available for Navya Ltd. along with various ratios relevant to the particular industry it belongs to. APPRAISE your comments on strength and weakness of Navya Ltd. comparing its ratios with the given industry norms.

Navya Ltd.

Balance Sheet as at 31.3.2023

Liabilities	**(₹)**	**Assets**	**(₹)**
Equity Share Capital	48,00,000	Fixed Assets	24,20,000
10% Debentures	9,20,000	Cash	8,80,000
Sundry Creditors	6,60,000	Sundry debtors	11,00,000
Bills Payable	8,80,000	Stock	33,00,000
Other current Liabilities	4,40,000		-
Total	77,00,000	Total	77,00,000

Statement of Profitability

For the year ending 31.3.2023

Particulars	**(₹)**	**(₹)**
Sales		1,10,00,000
Less: Cost of goods sold:		
Material	41,80,000	
Wages	26,40,000	
Factory Overhead	12,98,000	81,18,000
Gross Profit		28,82,000
Less: Selling and Distribution Cost	11,00,000	
Administrative Cost	12,28,000	23,28,000
Earnings before Interest and Taxes		5,54,000
Less: Interest Charges		92,000
Earning before Tax		4,62,000
Less: Taxes @ 50%		2,31,000
Net Profit (PAT)		2,31,000

Industry Norms

Ratios	Norm
Current Ratio	2.5
Receivables Turnover Ratio	8.0
Inventory Turnover Ratio (based on Sales)	9.0
Total Assets Turnover Ratio	2.0
Net Profit Ratio	3.5%
Return on Total Assets (on EBIT)	7.0%
Return on Net worth (Based on Net profit)	10.5%
Total Debt/Total Assets	60.0%

(4 Marks)

4. (a) WRITE short notes on the following:

Inter relationship between investment, financing and dividend decisions.

(4 Marks)

(b) DISCUSS the risk-return considerations in financing of current assets.

(4 Marks)

(c) WHAT is 'Optimum Capital Structure'? **(2 Marks)**

OR

(c) DISCUSS the dividend-price approach to estimate cost of equity capital.

(2 Marks)

MODEL TEST PAPER 1

PAPER 6B: STRATEGIC MANAGEMENT

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises case scenario based multiple choice questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*

PART I – Case scenario based MCQs (15 Marks)

Question 1.(A) (Compulsory)

1. (A) In the fiercely competitive automotive industry, Zing, a promising newcomer, set out on a strategic journey with ambitions of making a substantial impact. Recognizing the significance of a robust distribution network early on, Zing forged partnerships with established dealerships, offering them attractive margins. This strategic move significantly enhanced Zing's reach, with a presence in 80% of the nation's dealerships by 2022, expanding its coverage significantly.

To differentiate themselves from competitors, Zing adopted two key strategies. Firstly, they prioritized product design, investing heavily in aesthetics and incorporating innovative features and environmentally friendly technologies. This focus on design led to their vehicles receiving excellent reviews and achieving an impressive 15% year-on-year growth in sales.

Secondly, Zing implemented switching costs to discourage customers from switching to other brands. Their vehicles featured branded software, making it both expensive and cumbersome for customers to transition to alternative brands. This strategic move effectively protected Zing's market share.

Zing's overarching goal was to position itself as a premium automotive brand, blending luxury with sustainability. However, their execution fell down as they challenged with maintaining consistent quality and service levels, resulting in mixed customer reviews.

Despite their best efforts, Zing's differentiation strategy fell short due to issues with inconsistent quality and service. Negative word-of-mouth and declining customer satisfaction scores tarnished their brand image, leading to stagnating sales. This failure to deliver on their brand promise proved to be a significant setback.

As Zing's reputation suffered from execution failures, securing additional funds for international expansion became challenging. Consequently, they made the difficult decision to postpone their global ambitions for the next five years, focusing instead on stabilizing their finances and rebuilding their brand image.

In summary, Zing's strategic journey illustrates the importance of not only crafting a compelling differentiation strategy but also executing it flawlessly. In the competitive automotive landscape, maintaining consistent quality and service is paramount to sustaining brand loyalty and achieving long-term success.

Based on the above Case Scenario, answer the Multiple Choice Questions.

(i) What key strategic approach did Zing use to expand its market presence in the automotive industry?

(a) Product innovation and design

(b) Cost leadership strategy

(c) Entering new international markets

(d) Vertical integration **(2 Marks)**

(ii) How did Zing protect its market share from potential competitors?

(a) Price-cutting strategy

(b) Branded software and switching costs

(c) Aggressive marketing campaigns

(d) International expansion **(2 Marks)**

(iii) Why did Zing's differentiation strategy fall short in the market?

(a) Intense price competition

(b) Poor marketing strategy

(c) Inconsistent quality and service

(d) Lack of international expansion **(2 Marks)**

(iv) Forging partnerships with established dealerships to enhance its distribution network falls under which level of strategy?

(a) Corporate level strategy

(b) Business level strategy

(c) Functional level strategy

(d) Competitive level strategy **(2 Marks)**

(v) How did Zing initially expand its market presence across the nation?

(a) Aggressive marketing campaigns

(b) Developing low-cost vehicles

(c) Partnering with established dealerships

(d) Launching a luxury brand **(2 Marks)**

(B) Compulsory Application Based Independent MCQs

(i) TechMex Inc., a leading technology company, offers a diverse portfolio of products ranging from established cash cows to promising question marks. As part of its strategic planning process, the company aims to assess its product portfolio's performance and allocate resources effectively. In which quadrant of the BCG Matrix would TechMex's new innovative product, recently launched in a rapidly growing market, likely fall into?

(a) Cash Cow

(b) Dog

(c) Question Mark

(d) Star **(2 Marks)**

(ii) BlueSky Enterprises, a multinational corporation specializing in renewable energy solutions, is undergoing a strategic transformation to enhance its competitive position in the market. As part of this initiative, the company is reevaluating its organizational structure, processes, and culture. Which aspect of the McKinsey 7S Model is most relevant for BlueSky Enterprises during this strategic transformation?

(a) Strategy

(b) Structure

(c) Systems

(d) Skills **(2 Marks)**

(iii) The threat of substitutes is high when:

(a) There are few substitute products available

(b) Switching costs are low

(c) Suppliers have high bargaining power

(d) There is strong brand loyalty **(1 Mark)**

PART II – Descriptive Questions (35 Marks)

*Question No. **1** is compulsory.*

*Attempt any **two** questions out of the remaining **three** questions.*

1. (a) Swati is the marketing manager at a software company. She is responsible for developing and implementing marketing strategies for the company’s products. Swati leads a team of marketing professionals and works closely with the product development and sales teams to ensure that the company's products are effectively promoted in the market. She also analyzes market trends and customer feedback to refine the marketing strategies. Which level is she working at, discuss the roles and responsibilities of this level in organization? **(5 Marks)**

(b) ABC Corp, a multinational consumer electronics company, is planning to expand its operations into a new country. The company's senior management is evaluating the potential risks and opportunities of entering this new market. As part of their analysis, they decide to use the PESTLE framework to assess the external factors that could impact their decision. How can the PESTLE framework help ABC Corp assess the external factors affecting its decision to expand into a new country? **(5 Marks)**

(c) Imagine you are a consultant advising a small manufacturing company embarking on a digital transformation journey. The company's leadership is concerned about managing the change effectively. Using the best practices for managing change in small and medium-sized businesses, outline a strategy to help the company navigate this transformation successfully. **(5 Marks)**

2. (a) Imagine you are a strategic consultant advising a retail company that is facing increasing competition from online retailers. The company is considering several strategic options to improve its market position. Using the concept that strategy is partly proactive and partly reactive, explain how the company can develop a strategic approach to address this challenge. **(5 Marks)**

(b) You are a strategic manager for a tech company launching a new smartphone model. The company wants to target tech-savvy consumers who value innovation and cutting-edge technology. Using the concept of customer behavior, develop a marketing strategy to promote the new smartphone. **(5 Marks)**

3. (a) A beverage company is launching a new line of energy drinks targeted at health-conscious consumers. The strategic manager wants to study the market position of rival companies in the energy drink segment. Which tool can be used for this analysis, and what is the procedure to implement it effectively? **(5 Marks)**

(b) The CEO of a textile mill believes that his company, currently operating at a loss, can be turned around. Develop an action plan outlining steps the CEO can take to achieve this turnaround. **(5 Marks)**

4. (a) Why Strategic Performance Measures are essential for organizations?

(5 Marks)

(b) How can Mendelow's Matrix be used to analyze and manage the stakeholders effectively?

OR

Distinguish between Concentric Diversification and Conglomerate Diversification. **(5 Marks)**

MODEL TEST PAPER 2

PAPER 6B: STRATEGIC MANAGEMENT

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises case scenario based multiple choice questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*

PART I – Case scenario based MCQs (15 Marks)

Question 1.(A) (Compulsory)

1. (A) Café Delight, a thriving restaurant chain known for its unique blend of Australian and Indian culinary experiences, embarked on a remarkable journey from its humble beginnings as a small café in Australia to becoming a renowned player in the Indian restaurant industry. This case study digs into the strategic decisions and market dynamics that fueled Café Delight's growth, highlighting its transition from a single café in Powai, Mumbai, to a flourishing chain with a presence in five cities and over 25 stores. It explores how Café Delight effectively leveraged social media and adapted its pricing strategy to compete with global brands while maintaining a healthy profit margin.

In 2005, Café Delight was founded in Melbourne, Australia, by a passionate entrepreneur with a vision to bring the flavors of Australia and India together. The first café established in Powai, Mumbai, received accolades for its unique menu, blending Australian coffee culture with Indian culinary traditions. Over the course of five years, Café Delight expanded to three stores in Mumbai, driven by exceptional mouth publicity, customer loyalty, and consistent quality.

As the social media landscape evolved, Café Delight recognized the power of online platforms in reaching a wider audience. By effectively utilizing social media and online marketing, Café Delight expanded its presence to five cities across India and established over 25 stores. Customer engagement through social media platforms enabled the brand to create a strong and vibrant community, driving organic growth.

Café Delight's customer-centric approach involved continuously evolving its menu to cater to the changing tastes and dietary preferences of its patrons. By understanding the evolving needs of its customers, Café Delight could offer personalized menu items, seasonal specials, and dietary alternatives. This approach created a sense of loyalty and engagement among customers, strengthening the brand's appeal. Not just customers but High-power, low-interest stakeholders, including regulatory authorities, were addressed with careful compliance and adherence to industry standards. Low-power, high-interest stakeholders, like potential customers and local communities, were engaged through targeted marketing campaigns and community involvement initiatives. This meticulous stakeholder analysis allowed Café Delight to build and maintain strong relationships with each group, effectively managing their influence and impact on the brand.

With its expanding presence and increasing popularity, Café Delight underwent a shift in its pricing strategy. It transitioned from a pocket-friendly pricing model to a skimming strategy, capitalizing on its unique blend of Australian and Indian flavors to position itself as a premium restaurant. Café Delight faced stiff competition from global brands entering the Indian market but maintained a profit margin of approximately 30% through menu engineering and targeted pricing.

In one of its kind, using strategic tools enabled Café Delight to identify and act on opportunities while mitigating threats, contributing to its long-term success in the highly competitive restaurant industry.

Based on the above Case Scenario, answer the Multiple-Choice Questions.

(i) Café Delight effectively leveraged social media and adapted its pricing strategy as it stepped into which phase of business life cycle of operations?

(a) Introduction Stage

(b) Growth Stage

(c) Maturity Stage

(d) Decline Stage **(2 Marks)**

(ii) What stakeholder group did Café Delight engage through targeted marketing campaigns and community involvement initiatives?

(a) High-power, high-interest stakeholders

(b) Low-power, low-interest stakeholders

(c) Low-power, high-interest stakeholders

(d) High-power, low-interest stakeholders **(2 Marks)**

(iii) What best describes Café Delight's initial expansion strategy when it expanded from one café to three in Mumbai?

(a) Aggressive price reduction

(b) Leveraging customer loyalty and word-of-mouth publicity

(c) Extensive online marketing

(d) Embracing global branding strategies **(2 Marks)**

(iv) At which level of strategic management does Café Delight's transition from a pocket-friendly pricing model to a skimming strategy fit?

(a) Corporate level

(b) Business level

(c) Functional level

(d) Operational level **(2 Marks)**

(v) What type of strategy did Café Delight use to differentiate itself from competitors in the Indian restaurant industry?

(a) Cost leadership strategy

(b) Focused differentiation strategy

(c) Cost focus strategy

(d) Hybrid strategy **(2 Marks)**

(B) Compulsory Application Based Independent MCQs

(i) Shamita joined GlobalX Consulting firm as an Analyst in financial fraud mitigation. In her very first assignment she faced an integrity dilemma where her subordinates had missed calling out a potential financial risk which could impact the overall fraud rating of the organisation. She quickly reached out to her seniors who appreciated her diligence and immediately reported the same to senior management. In this scenario which element, soft or hard, is acting in favor of GlobalX?

(a) Strategy

(b) Systems

(c) Shared Value

(d) Staff **(2 Marks)**

(ii) Chocopo, an ice cream company run by Shri Shyam Kumar since 1985, now had its management change to his two daughters, who came in and wanted to experiment with a lot of flavors. They introduced 21 new flavors in a span of 6 months while not losing out of 2 legendary flavors of their dad i.e. Stick Kulfi and Mango Bar. After year 1 of operations, 9 out of the 21 flavors had to be stopped, while 10 flavors were still kept, extending the experimentation. The early sense from market was that they would have to be stopped too, but the sisters decided to extend their timelines. What category as per BCG Matrix would the 10 flavors fall into?

(a) Cash Cow

(b) Dog

(c) Question Mark

(d) Star **(2 Marks)**

(iii) A company negotiating the best prices and quality from its suppliers to add to customer's delight is an example of?

(a) Value Creation by improving primary activity

(b) Value Creation by improving support activity

(c) Competitive Advantage Creation

(d) Stakeholder Management **(1 Mark)**

PART II – Descriptive Questions (35 Marks)

Question No. ***1*** *is compulsory.*

Attempt any ***two*** *questions out of the remaining* ***three*** *questions.*

1. (a) ABC retail chain regularly monitors consumer trends and supply chain flexibility. The retail chain tracks consumer trends to adjust its offerings, ensuring they meet customer needs. Simultaneously, it maintains a flexible supply chain to respond swiftly to demand fluctuations. This strategy enables ABC retail chain to anticipate market shifts and adapt to them effectively, ensuring its competitiveness and customer satisfaction. Which type of strategy is the retail chain employing?

(5 Marks)

(b) A Mumbai-based conglomerate, PQR Ltd., has announced a major restructuring of its business operations. The company has decided to split its business into four separate units: Manufacturing, Retail, Services, and Technology. Each unit will operate as a separate business, with delegated responsibility for day-to-day operations and strategy to the respective unit managers. Identify the organization structure that PQR Ltd. has planned to implement. Discuss any four attributes and the benefits the firm may derive by using this organization structure. **(5 Marks)**

(c) *GreenThrift Inc.,* a sustainable clothing retailer, is experiencing a surge in popularity due to the growing awareness of environmental issues among consumers. The company specializes in selling second-hand clothing and upcycled garments, offering an eco-friendly alternative to traditional fast fashion.

A major concern for GreenThrift Inc. is the emergence of new sustainable fashion brands in the market. These brands focus on using organic and recycled materials, as well as ethical manufacturing practices, which align with the values of environmentally conscious consumers.

Identify and explain that competition from new sustainable fashion brands falls under which category of Porter's Five Forces Model for Competitive Analysis? **(5 Marks)**

2. (a) "Each organization must build its competitive advantage keeping in mind the business warfare. This can be done by following the process of strategic management." Considering this statement, explain major benefits of strategic management. **(5 Marks)**

(b) *Reshuffle Corp* is a company that manufactures and sells office furniture. They offer a range of products, from desks and chairs to cabinets and shelves. Recently, the company has been facing increased competition from online retailers offering similar products at lower prices.

Analyzing the characteristics of products in the furniture industry, discuss how *Reshuffle Corp* can differentiate its products to maintain a competitive edge in the market. **(5 Marks)**

3. (a) *EasyLife Corporation,* a leading manufacturer of consumer electronics, is considering launching a new line of smart home devices. As a strategic manager, conduct a SWOT analysis for *EasyLife Corporation* to assess the feasibility and potential success of this new venture. Consider both internal and external factors that could impact the success of the new product line. **(5 Marks)**

(b) Explain the concept of forward and backward linkages between strategy formulation and implementation in strategic management, using relevant examples. How do these linkages impact the overall strategic decision-making process of an organization? **(5 Marks)**

4. (a) Define Strategic Performance Measures (SPM). Explain various types of strategic performance measures. **(5 Marks)**

(b) *StarTech Solutions*, an aerospace technology firm, operates in a highly competitive industry. Despite the fierce competition in the aerospace sector, *StarTech* has carved out a niche for itself by focusing on serving unique, high-end clients. Unlike its competitors, *StarTech* has chosen not to diversify its target market and instead specializes in providing cutting-edge solutions to this niche market.

Identify and explain the strategy adopted by *StarTech Solutions*. Discuss the advantages and disadvantages of this strategy.

OR

Strategic alliances are formed if they provide an advantage to all the parties in the alliance. Do you agree? Explain in brief the advantages of a strategic alliance. **(5 Marks)**

MODEL TEST PAPER 3

PAPER 6B: STRATEGIC MANAGEMENT

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises case scenario based multiple choice questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*

PART I – Case scenario based MCQs (15 Marks)

Question 1.(A) (Compulsory)

1. (A) Dr. Mikesh Gupta, Agriculture Management Guru at a leading management school in Patna, has been driving the business of E-Bandhu with seven of his students since 2017. This business has two core objectives: first, sustainable farming awareness and second, seasonal availability of agricultural inputs. It is a technology driven business wherein they have a one stop shop for all agricultural products available to farmers at competitive prices. Business is quite challenging, given the fact that farmers in the region are not well aware of the use of technology.

In the summer of 2019, the team decided to redefine their business strategy to succeed in the agricultural sector. They formulated a new definition and made strategic decisions to leverage their core competencies.

Firstly, they shifted their target market from directly serving farmers to onboarding wholesalers and retailers into the system and selling products to them. This strategic move was based on the understanding that wholesalers and retailers could influence technology adoption among farmers.

Secondly, they outsourced logistics to MaalGaadi, a rural supply chain management company. This decision helped E-Bandhu reduce asset procurement costs and corresponding debt, thus strengthening their position in the market.

Thirdly, they introduced a new service-based product, ChaaraVidya, in their application. ChaaraVidya aims to educate farmers about the latest sustainable farming practices being implemented around the world. This addition could potentially be a game-changer for E-Bandhu in the agro startup circle, further enhancing their core competency in promoting sustainable farming practices and technology adoption.

The team is enthusiastic about the strategic changes brought in by Dr. Mikesh and anticipates a more sustainable future for their idea.

Based on the above case scenario, answer the multiple-choice questions.

(i) Switching from direct selling to marketing through wholesalers and retailers was a strategic decision taken by the management. Such decisions help an organization to be more of which of the following?

(a) Authoritative

(b) Futuristic

(c) Proactive

(d) Regularised **(2 Marks)**

(ii) ChaaraVidya was brought into the market to increase farmer awareness of soil quality and the latest sustainable farm practices from around the world? What kind of growth strategy will it fall under?

(a) Market penetration

(b) Market development

(c) Product development

(d) Diversification of business **(2 Marks)**

(iii) One of the most strategically advantageous decisions for E-Bandhu was to get into a contract with MaalGaadi. Which of the following could not be an advantage for E-Bandhu from this alliance?

(a) Cost savings

(b) Reduced delivery time

(c) Improved customer satisfaction

(d) Increased inventory of products **(2 Marks)**

(iv) How does E-Bandhu utilize Michael Porter's Five Forces model in its strategic decision-making process?

(a) By focusing on industry rivalry and competitive pricing

(b) By analyzing the bargaining power of suppliers and buyers

(c) By assessing the threat of new entrants and substitutes

(d) All of the above **(2 Marks)**

(v) What are the core objectives of E-Bandhu, as mentioned in the case study?

(a) Sustainable farming awareness and seasonal availability of agricultural inputs

(b) Technology-driven solutions and competitive pricing

(c) Onboarding wholesalers and retailers into the system

(d) All of the above **(2 Marks)**

(B) Compulsory Application Based Independent MCQs

(i) Swabhaav, a social media marketing firm introduced an AI based management tool that has the capabilities of managing teams across functions all while being creative. What is the most likely organisational structure post this implementation?

(a) Divisional Structure

(b) Matrix Structure

(c) Hourglass Structure

(d) Network Structure **(2 Marks)**

(ii) A tea farm owners plan to open tea cafes in tourist spots and to sell their own premium tea to build a brand. Which of the following can this be termed as?

(a) Backward Integration

(b) Forward Integration

(c) Diversification

(d) Horizontal Integration **(2 Marks)**

(iii) The process of creating, maintaining, and enhancing strong, value-laden relationships with customers and other stakeholder is:

(a) Social marketing

(b) Augmented marketing

(c) Direct marketing

(d) Relationship marketing **(1 Mark)**

PART II – Descriptive Questions (35 Marks)

*Question No. **1** is compulsory.*

*Attempt any **two** questions out of the remaining **three** questions.*

1. (a) In his pursuit to expand the family business to Dubai, Dharam Veer Singh, the successor of the renowned architect Late Shri Lala Ram Pal Singh, faced a dilemma. Despite receiving positive feedback from various potential investors, a common trend emerged where the emphasis was primarily on swift construction, neglecting the importance of structural longevity. Dharam finds himself at a crossroads. What strategic approach could assist him in formulating a robust and coherent business roadmap that aligns with his vision for sustainable growth?

(5 Marks)

(b) Ravi and Arjun are two friends who are partners in their business of manufacturing premium coffee. Ravi believes in making profits through selling higher volumes of products, hence he advocates for charging lower prices to customers. Arjun, however, believes that higher prices should be charged to create an image of exclusivity and proposes that the product undergo some changes to justify this pricing.

Analyze the nature of the generic strategy used by Ravi and Arjun.

(5 Marks)

(c) Due to the reoccurrence of various variants of the coronavirus, XYZ Corporation is facing an unstable environment and has begun unbundling and disintegrating its activities. It has also started relying on outside vendors to perform these activities. Identify the organizational structure XYZ Corporation is shifting to. Under what circumstances does this structure become useful? **(5 Marks)**

2. (a) There are four specific criteria of sustainable competitive advantage that firms can use to determine those capabilities that are known as core competencies. Explain. **(5 Marks)**

(b) XYZ Electronics has discovered that its products have reached their maturity stage, and the company is experiencing overcapacity. Consequently, it focuses on maintaining the operational efficiency of its manufacturing facilities. Identify the strategy implemented by XYZ Electronics and provide the reasons for this strategy. **(5 Marks)**

3. (a) Yummy Foods and Tasty Foods are successfully competing in the business of ready to eat snacks in Patna. Yummy has been pioneer in introducing innovative products. These products will give them good sale. However, Tasty Foods will introduce similar products in reaction to the products introduced by the Yummy Foods taking away the advantage gained by the former.

Discuss the strategic approach of two companies. Which is superior?

(5 Marks)

(b) Why is change management crucial during digital transformation, and what are some key strategies for navigating change effectively?

(5 Marks)

4. (a) Write a short note on the Product Life Cycle (PLC) and its significance in portfolio diagnosis. **(5 Marks)**

(b) Distinguish between Micro Environment and Macro Environment.

OR

Distinguish between Operational Control and Management Control.

(5 Marks)

MODEL TEST PAPER 4
PAPER 6B: STRATEGIC MANAGEMENT

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises case scenario based multiple choice questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*

PART I – Case scenario based MCQs (15 Marks)

Question 1. (A) (Compulsory)

1. (A) Kriti Pvt. Ltd. has been importing French gourmet cheeses under the brand name of 'Fromage' since 2017. The company was amongst the first in India to introduce innovative unbreakable cheese packaging. Their affiliate, a French company owning Fromage, had entered into a progressive deal, wherein products would be sourced to India via their logistics, and all marketing expenditures would be covered by them. However, customer management and nationwide distribution would be taken care of by Kriti Pvt. Ltd. This required an English-speaking skilled workforce, which has been a constant challenge for the company in India.

The owners of Kriti Pvt. Ltd. have been regular attendees at industry-relevant conclaves, both national and international. Leaders of the company are passionate readers of business magazines. Following that, it was observed that the recent sentiment of the country towards 'Vocal for Local' could disrupt their French brand's marketability. An extraordinary meeting was set up, and the steps ahead were planned.

The outcome of the meeting was to partner with local producers of traditional Indian cheeses in phase one of the change strategy. For this, seven state governments were approached. The team was successful in taking contracts from all the government departments of these seven states and could position themselves fairly in the market. To fund this new investment, they have planned to slowly sell off their French business assets as well as the brand, to probable buyers.

This timely shift is proving to be a game-changer for the company, and the leadership is quite happy with better than before earnings and a much greater response from the customers. They find it easier to operate with domestic producers and vendors, and a sense of patriotism is instilled in the consumers' minds.

Based on the above Case Scenario, answer the Multiple-Choice Questions.

(i) Which of the following actions taken by Kriti Pvt. Ltd. is an example of a proactive strategy?

(a) Selling off their French business assets.

(b) Responding to the 'Vocal for Local' sentiment by partnering with local cheese producers.

(c) Managing customer relations and nationwide distribution.

(d) Covering all marketing expenditures for 'Fromage' in India.

(2 Marks)

(ii) Which of the following types of strategic control did the owners and leadership of Kriti Pvt. Ltd. deploy that eventually turned out to be one of the most effective strategic decisions for the company?

(a) Premise control

(b) Special alert control

(c) Implementation control

(d) Strategic surveillance **(2 Marks)**

(iii) 'Vocal for Local' is a market sentiment that changed customers' preferences for the majority of products across all industries. Based on that, Kriti Pvt. Ltd. gauged the competition it might face in the coming months and agreed to change its own product. Which of the following forces, as per Michael Porter's five forces of competitive analysis, is most relevant in this case?

(a) Threat of new entrants

(b) Nature of rivalry in the industry

(c) Threat of substitutes

(d) Bargaining power of the buyer **(2 Marks)**

(iv) Which of the following aspects of value chain analysis was the most challenging for Kriti Pvt. Ltd. at the time of selling the Fromage brand?

(a) Manufacturing

(b) Outsourcing

(c) Customer service

(d) Procurement **(2 Marks)**

(v) To strategically revamp their business, partnerships were done with Indian local producers from seven states, and to fund it, the existing arm of the business was to be sold off. Which of the following strategies has Kriti Pvt. Ltd. opted for?

(a) Turnaround strategy

(b) Divestment strategy

(c) Liquidation strategy

(d) Intensification strategy **(2 Marks)**

(B) **Compulsory Application Based Independent MCQs**

(i) TechWave, a software development firm, aims to gain a competitive edge in the rapidly evolving tech industry. To achieve this, they focus on building their strength in artificial intelligence (AI) and machine learning (ML). TechWave invests heavily in R&D, hires top talent with specialized skills, and forms partnerships with leading AI research institutions. They also provide continuous training for their employees to keep them updated with the latest advancements. By developing these, TechWave can create innovative AI-driven solutions that differentiate them from competitors and attract a growing number of clients seeking cutting-edge technology. What strategy is TechWave using to gain a competitive edge in the tech industry?

(a) Market segmentation

(b) Diversification

(c) Core competency building

(d) Cost leadership **(2 Marks)**

(ii) StreamlineCo is examining its internal capabilities to ensure that employees possess advanced knowledge of emerging technologies crucial for the company's future success. This involves investing in specialized training programs and updating job roles to match the latest industry standards. Which aspect of StreamlineCo is being enhanced through specialized training and updated job roles?

(a) Structure

(b) Systems

(c) Skills

(d) Style **(2 Marks)**

(iii) XYZ Corporation has launched AlphaTech to enter the consumer electronics industry with a focus on offering high-performance devices and innovative features at competitive prices. Which competitive strategy is AlphaTech employing?

(a) Differentiation strategy

(b) Cost leadership strategy

(c) Best-cost provider strategy

(d) Focus strategy **(1 Mark)**

PART II – Descriptive Questions (35 Marks)

*Question No. **1** is compulsory.*

*Attempt any **two** questions out of the remaining **three** questions.*

1. (a) Mr. Arun has been hired as the CEO by ABC Ltd, a pharmaceutical company that has diversified into affordable wellness supplements. The company intends to launch the HealthPlus brand of supplements. ABC wishes to enhance the well-being of people with its products that are beneficial for health and are produced in an environmentally sustainable manner using natural ingredients. Draft a vision and mission statement that may be formulated by Arun. **(5 Marks)**

   (b) GreenGardens, a small but growing organic farm, is assessing its business environment to strategically plan for future growth. The farm boasts high-quality, pesticide-free crops, but faces challenges with its limited distribution channels. As the demand for organic products continues to rise, GreenGardens recognizes the potential to broaden its market reach. However, unpredictable weather conditions and competition from larger farms present significant obstacles. To effectively navigate these challenges and opportunities, GreenGardens needs to conduct a comprehensive evaluation. Identify the type of analysis GreenGardens should conduct to strategically plan for its future growth and outline the grid. **(5 Marks)**

   (c) FreshDelight, renowned for its organic fruit juices, aims to expand its market presence by identifying emerging markets in countries where organic products are gaining popularity. To achieve this, FreshDelight launches targeted marketing campaigns and partners with local distributors to introduce its juices to these new regions. This strategy involves adapting product packaging and marketing messages to align with local preferences and regulations. By entering these new markets, FreshDelight hopes to increase its customer base and drive sales growth. What strategy is FreshDelight using to expand its market presence? **(5 Marks)**

2. (a) The CEO of a textile mill is convinced that his loss-making company can be turned around. Suggest an action plan for a turnaround to the CEO.

   (5 Marks)

   (b) Write a short note on Matrix Structure. **(5 Marks)**

3. (a) "Understanding the competitive landscape is important to build upon a competitive advantage". Explain. **(5 Marks)**

(b) XYZ Corporation operates in a diverse range of industries, including fashion, lifestyle products, furniture, real estate, and electrical goods. The company is seeking to hire a suitable Chief Executive Officer. As the HR consultant for XYZ Corporation, you have been tasked with outlining the activities involved in the role of the Chief Executive Officer. Identify the strategic level associated with this role and list the activities it encompasses. **(5 Marks)**

4. (a) Buyers can exert considerable pressure on business. Do you agree? Discuss. **(5 Marks)**

(b) Major core competencies are identified in three areas - competitor differentiation, customer value and application to other markets. Discuss.

OR

What factors should organizations consider when choosing strategic performance measures, and why are these factors important?

(5 Marks)

MODEL TEST PAPER 5

PAPER 6B: STRATEGIC MANAGEMENT

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises case scenario based multiple choice questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*

PART I – Case scenario based MCQs (15 Marks)

Question 1. (Compulsory)

1. (A) Sneha Rao, founder and CEO of DEF Technologies, is renowned for her technological insight and visionary leadership style. She cultivates a culture of collaboration, continuous learning, and innovative problem-solving, encouraging her employees to think outside the box and embrace new challenges. Her exceptional ability to foresee technological trends and navigate complex market dynamics has propelled DEF Technologies to impressive growth over the past decade.

Sneha started DEF Technologies in 2010 as a small software development firm. With a vision to transform DEF Technologies into a leading tech company, she initially focused on developing custom software solutions for local businesses. However, intense competition and limited market demand led to financial difficulties. Undeterred, Sneha pivoted the business towards developing cloud-based solutions, leveraging the growing trend of digital transformation. This strategic shift, along with aggressive marketing, helped DEF Technologies capture a significant market share and become a leader in cloud services, setting new industry standards.

In 2015, Sneha's brother, Raj, joined the company, and together they crafted an ambitious expansion strategy. DEF Technologies entered the global market, partnering with international tech firms to launch a new line of AI-driven cybersecurity solutions. This venture was highly successful, establishing DEF Technologies as a global brand and a key player in the cybersecurity industry.

Raj then led the company’s diversification into the healthcare sector with a new brand, MedTech Solutions. Recognizing the potential for technology to revolutionize healthcare, Sneha and Raj focused on developing affordable telemedicine platforms and AI-driven diagnostic tools. Their approach disrupted the market, providing high-quality healthcare solutions at lower costs and gaining widespread trust from healthcare providers and patients alike. MedTech Solutions experienced rapid growth, especially during the COVID-19 pandemic, as demand for remote healthcare services surged.

At the beginning of 2023, DEF Technologies launched another new business, GreenTech Innovations, to address environmental challenges through technology. DEF Technologies continues to explore new opportunities and ventures to stay at the forefront of the tech industry.

Based on the above Case Scenario, answer the Multiple-Choice Questions.

(i) Sneha Rao's vision to transform DEF Technologies into a leading tech company illustrates which type of strategic intent?

(a) Goal

(b) Mission

(c) Vision

(d) Objective **(2 Marks)**

(ii) Sneha's leadership style, which promotes collaboration, continuous learning, and innovative problem-solving, can best be described as:

(a) Transactional leadership

(b) Transformational leadership

(c) Autocratic leadership

(d) Laissez-faire leadership **(2 Marks)**

(iii) When DEF Technologies expanded into the global market with AI-driven cybersecurity solutions, which of Porter's Five Forces was most likely mitigated by forming partnerships with international tech firms?

(a) Threat of Substitute Products or Services

(b) Bargaining Power of Suppliers

(c) Threat of New Entrants

(d) Intense Rivalry Among Existing Competitors **(2 Marks)**

(iv) By entering the global market and launching AI-driven cybersecurity solutions, DEF Technologies pursued which expansion strategy from Ansoff's Product-Market Growth Matrix?

(a) Diversification

(b) Market Penetration

(c) Product Development

(d) Market Development **(2 Marks)**

(v) MedTech Solutions' focus on developing affordable telemedicine platforms and AI-driven diagnostic tools reflects which of the following competitive strategies?

(a) Differentiation strategy

(b) Cost leadership strategy

(c) Best-cost provider strategy

(d) Focus Strategy **(2 Marks)**

(B) Compulsory Application Based Independent MCQs

(i) A traditional desi ghee company modernized its production and introduced pro-biotic desi ghee, facing initial market doubts. Aggressive marketing campaigns highlighted its benefits, gaining acceptance. During which stage of the product life cycle did the desi ghee company face doubts but gained acceptance through aggressive marketing campaigns?

(a) Introduction stage

(b) Growth stage

(c) Maturity stage

(d) Decline stage **(2 Marks)**

(ii) ValueMart is a discount retail chain that targets budget-conscious consumers by offering a wide range of products at the lowest possible prices. The company achieves this by sourcing goods in bulk, negotiating lower prices with suppliers, and maintaining lean operations. ValueMart's goal is to dominate the market by attracting price-sensitive customers from competitors. Which of Michael Porter's Generic Strategies is ValueMart primarily employing?

(a) Differentiation

(b) Focused Cost Leadership

(c) Cost Leadership

(d) Focused Differentiation **(2 Marks)**

(iii) A women's clothing brand recognized new opportunities and researched emerging trends and consumer preferences. They introduced a new clothing line, received positive feedback from initial trials, and grew through strategic partnerships and targeted advertising. What strategic choice best describes this approach?

(a) Product Development

(b) Market Development

(c) Market Penetration

(d) Diversification **(1 Mark)**

PART II – Descriptive Questions (35 Marks)

*Question No. **1** is compulsory.*

*Attempt any **two** questions out of the remaining **three** questions.*

1. (a) *TechNova,* a leading software development firm known for its cutting-edge operating systems, is developing a groundbreaking new platform. *ElectroWave,* an emerging player in the electronics and hardware industry, specializes in manufacturing advanced devices. *TechNova* and *ElectroWave* have decided to join forces to design innovative laptops

and smartphones, aiming to tap into new markets and broaden their business horizons. What kind of external growth strategy is being considered by *TechNova* and *ElectroWave*? **(5 Marks)**

(b) Vikram Patel owns a chain of ten bookstores across the Mumbai region. Three of these stores were launched in the past two years. He has always believed in strategic management and enjoyed robust sales of books, magazines, and educational materials until about five years ago. However, with the increasing preference for online shopping, the sales at his physical stores have declined by approximately sixty percent over the last five years. Analyze Vikram Patel's current position in light of the limitations of strategic management. **(5 Marks)**

(c) Orion Tech Solutions Pvt. Ltd. is renowned for its ability to launch groundbreaking software products. Despite the relaxed and casual work environment at Orion, there is a strong commitment to meeting deadlines. Employees at Orion believe in the "work hard, play hard" ethic. The company has shifted from a formal, hierarchical structure to a more results-oriented approach. Employees are deeply committed to the company's strategies and work diligently to achieve them. They safeguard innovations and maintain strict confidentiality and secrecy in their operations. Their work culture is closely aligned with the organization's values, practices, and norms. What aspects of an organization are being discussed? Explain. **(5 Marks)**

2. (a) Analyze the role of Key Success Factors (KSFs) in determining competitive success within an industry. **(5 Marks)**

(b) What are distribution channels, and why is analyzing them crucial for business expansion? Describe the three main types of channels explaining their roles in ensuring products reach customers efficiently and with the necessary support. **(5 Marks)**

3. (a) What is a strategic vision, and what are the essential components that make it an effective tool for guiding an organization's future? **(5 Marks)**

(b) Which strategy is implemented by redefining the business, by enlarging its scope of business and substantially increasing investment in the business? Explain the major reasons for adopting this strategy. **(5 Marks)**

4. (a) Describe the principal aspects of strategy-execution process, which are included in most situations. **(5 Marks)**

(b) How does the PESTLE framework assist in analyzing the macro-environment?

OR

A manufacturing company is in direct competition with fifteen companies at the national level. The head of marketing department of this company wishes to study the market position of rival companies by grouping them into like positions. Name the tool that may be used by him/her. Explain the procedure that may be used to implement the techniques. **(5 Marks)**

MODEL TEST PAPER 6

PAPER 6B: STRATEGIC MANAGEMENT

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises case scenario based multiple choice questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*

PART I – Case scenario based MCQs (15 Marks)

Question 1. (A) (Compulsory)

1. (A) EcoForge, a startup specializing in eco-friendly building materials crafted from agricultural waste, entered the highly competitive manufacturing industry with a vision of promoting sustainability. Despite its innovative approach, the company faced significant challenges as a new entrant, including high production costs, limited market visibility, regulatory hurdles, and fierce competition from established players. However, through strategic planning and effective execution, EcoForge successfully navigated these obstacles and positioned itself for sustainable growth.

The company's leadership recognized the importance of understanding its internal strengths and weaknesses, along with external opportunities and threats. This analysis revealed EcoForge's core advantage in sustainability and innovation, contrasted with scalability issues and market pressure from cheaper alternatives. Additionally, market analysis uncovered the potential of urban housing projects as an opportunity, while intense competition posed a significant threat.

EcoForge's leadership focused on creating unique value propositions by emphasizing its eco-friendly materials. This differentiation helped the company appeal to environmentally conscious builders and developers. To expand its market reach, EcoForge adopted strategies to deepen its presence in existing markets and explore new ones. Concurrently, it analyzed the industry landscape and identified the critical influence of regulatory policies and socio-cultural factors shaping consumer preferences.

Internally, EcoForge implemented structural and cultural changes to enhance its operational efficiency and responsiveness. By adopting a Strategic Business Unit (SBU) model, the company streamlined its decision-making process, allowing each product line to adapt quickly to market demands.

Recognizing the need for collaborative leadership, EcoForge's CEO, Ms. Aarti Mehra, invested in leadership training programs for senior managers. This shifted the company's culture from hierarchical to team-driven, encouraging innovation and cross-functional collaboration.

To enhance its competitiveness, EcoForge optimized its production and supply chain processes by addressing inefficiencies and partnering with technology providers. These efforts significantly reduced costs and improved product quality. Simultaneously, the company pursued green certifications and localized marketing efforts to build brand recognition, attracting environmentally conscious clients. Over three years, these initiatives enabled EcoForge to expand into new markets, secure partnerships with leading developers, and increase its revenue by 40%.

By integrating market analysis, operational improvements, and a focus on cost efficiency, EcoForge transitioned from a struggling startup to a leader in sustainable building materials, setting a benchmark for innovation and environmental stewardship in the industry.

Based on the above Case Scenario, answer the Multiple-Choice Questions.

(i) The SBU model adopted by EcoForge is an example of strategic decision-making at which level?

(a) Corporate Level

(b) Business Level

(c) Functional Level

(d) Operational Level **(2 Marks)**

(ii) EcoForge's strategy of appealing to environmentally conscious builders and developers by emphasizing its eco-friendly materials is an example of which type of generic strategy by Michael Porter?

(a) Cost Leadership

(b) Differentiation

(c) Focussed Cost Leadership

(d) Focussed Differentiation **(2 Marks)**

(iii) The case mentions EcoForge identifying "critical influence of regulatory policies and socio-cultural factors shaping consumer preferences." Which strategic analysis framework is most relevant here?

(a) SWOT Analysis

(b) Value Chain Analysis

(c) PESTLE Analysis

(d) Ansoff's Matrix **(2 Marks)**

(iv) EcoForge's strategy to deepen its presence in existing markets and explore new ones corresponds to which growth strategy in Ansoff's Matrix?

(a) Market Penetration

(b) Market Development

(c) Product Development

(d) Diversification **(2 Marks)**

(v) Which key industry force, as per Porter's Five Forces, is reflected in EcoForge's challenges from cheaper alternatives and intense competition?

(a) Threat of New Entrants

(b) Bargaining Power of Suppliers

(c) Bargaining Power of Buyers

(d) Threat of Substitutes **(2 Marks)**

(B) Compulsory Application Based Independent MCQs

(i) The CEO of GoFlyHigh Airlines has built a high-performance team over five years by closely monitoring performance metrics, setting clear expectations, and motivating employees through rewards and structured improvement plans. Her disciplined and results-focused approach has driven organizational success by fostering accountability and maintaining high standards. This leadership style emphasizes achieving defined goals through a structured framework, balancing performance recognition with corrective measures for sustained excellence. What strategic leadership style does the CEO exhibit?

(a) Entrepreneur Leadership

(b) Transformational Leadership

(c) Transactional Leadership

(d) Intrapreneur Leadership **(2 Marks)**

(ii) UN&T reached out to Mukesh S, an entrepreneur from India to get his team to work on a mega solar energy project and enter India's deccan plateau which enjoys an abundance of sunshine. What strategy is UN&T trying to implement?

(a) Market Penetration

(b) Market Development

(c) Strategic Alliance

(d) Diversification **(2 Marks)**

(iii) Urbankey has a unique capability in rapid prototyping, allowing them to bring new products to market faster than the competitors. Such an advantage can be termed as?

(a) Market Expansion Strategy

(b) Core Competency

(c) Cost Leadership Strategy

(d) Appropriate SWOT Analysis **(1 Mark)**

PART II – Descriptive Questions (35 Marks)

*Question No. **1** is compulsory.*

*Attempt any **two** questions out of the remaining **three** questions.*

1. (a) *Chic Threads*, a boutique fashion brand renowned for its commitment to sustainability and ethical practices, has recently launched a new line of eco-friendly clothing made from recycled materials. The brand recognizes the growing influence of environmentally conscious consumers who actively shape industry standards through their advocacy and purchasing decisions. These consumers align with *Chic Threads'* values and have a significant impact on its market position and reputation. How should *Chic Threads* effectively manage its relationship with environmentally conscious consumers, considering their high power and high interest in shaping the brand's success? **(5 Marks)**

   (b) You are a strategic manager for a tech company launching a new smartphone model. The company wants to target tech-savvy consumers who value innovation and cutting-edge technology. Using the concept of customer behavior, develop a marketing strategy to promote the new smartphone. **(5 Marks)**

   (c) *GreenEdge Solutions*, a mid-sized technology company, has implemented a new strategic plan focused on achieving sustainable growth and strengthening its market presence. The leadership team is determined to monitor the effectiveness of their strategies to ensure they align with the organization's overall goals and objectives. They seek a systematic approach to assess key performance areas critical to their success. What are Strategic Performance Measures (SPM), and how can *GreenEdge Solutions* effectively use them to evaluate and enhance the success of their strategic plan? **(5 Marks)**

2. (a) *Connect Group* was one of the leading makers of the mobile handsets till a few years ago and which went at the bottom of the heap. *Connect Group* didn't adapt to the current market trends, which eventually led to its downfall. Which would have helped *Connect Group* to change, adapt and survive? Explain the steps to initiate the change. **(5 Marks)**

   (b) Define strategic management. Also discuss the limitations of strategic management. **(5 Marks)**

3. (a) *Easy Access* is a marketing services company providing consultancy to a range of business clients. *Easy Access* and its rivals have managed to persuade the Government to require all marketing services companies to complete a time-consuming and bureaucratic registration process and to comply with an industry code of conduct. Do you think that by doing this *Easy Access* and its rivals has an advantage in some ways to fight off competitors? Explain. **(5 Marks)**

   (b) Explain in brief the various basis of differentiation strategies. **(5 Marks)**

4. (a) *Leatherite Ltd.* was started as a leather company to manufacture footwear. Currently, they are in the manufacturing of footwears for males and females. The top management desires to expand the business in leather manufacturing goods. To expand they decided to purchase more machines to manufacture leather bags for males and females. Identify and explain the strategy opted by the top management of *Leatherite Ltd.*

(5 Marks)

(b) Major core competencies are identified in three areas - competitor differentiation, customer value and application to other markets. Discuss.

OR

Differentiation between Strategic Planning and Operational Planning.

(5 Marks)

MODEL TEST PAPER 7

PAPER 6B: STRATEGIC MANAGEMENT

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises case scenario based multiple choice questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*

PART I – Case scenario based MCQs (15 Marks)

Question 1. (A) (Compulsory)

1. (A) Galaxy Enterprises Limited (GEL) operates as a diversified conglomerate with a significant presence in various industries, including electronics, packaged foods, textiles, heavy machinery, and renewable energy. Leveraging its substantial free reserves of ₹85,000 crores, GEL has built a strong brand reputation, largely driven by its market leadership across multiple sectors.

In the renewable energy sector, GEL has been the industry leader for over 15 years. The division's recent performance has been exceptional. A significant market development occurred when two competitors, Nova Green Energy Limited and Zenith Solar Limited – previously ranked second and third in market share, respectively – merged to create a new entity, Synergy Renewables Ltd (SRL). Following the merger, SRL has claimed the top spot in market share, intensifying competition.

Against this backdrop, the Chairman of GEL convened a strategic meeting with the Board of Directors, divisional heads, marketing executives, and the Group CFO. The meeting focused on formulating growth strategies for the renewable energy division, identifying opportunities for diversification, and announcing an interim dividend in honour of GEL's platinum jubilee celebrations.

Mr. Arvind Malhotra, CEO of the renewable energy division, emphasized the industry's slow pace of modernization compared to global standards. He highlighted the potential in emerging product categories, such as next-generation solar panels, energy storage systems, and advanced wind turbines. He proposed a modernization initiative requiring an investment of ₹7,000 crores. This transformation is projected to reduce operational costs by 20% and minimize wastage by 12%.

The CFO presented an analysis revealing that competitors are unlikely to invest in significant upgrades or expansions for the next 6–8 years due to financial constraints. In response, the Board approved the modernization initiative and allocated an additional ₹1,500 crores to strengthen the division's supply chain.

Another proposal discussed was GEL's entry into the electric vehicle (EV) segment. The Board approved this diversification strategy, allocating ₹8,000 crores to establish a foothold in this rapidly growing market. Additionally, the Board authorized the distribution of an interim dividend of ₹75 per share to commemorate GEL's platinum jubilee.

In preparing for these strategic initiatives, the Board also evaluated key stakeholders to determine their influence and interest. Shareholders and the Board of Directors emerged as primary stakeholders with both high influence and interest, necessitating active engagement to secure their support. Regulatory authorities were recognized as influential but less interested in the immediate plans, requiring regular updates to ensure compliance. Customers and employees, while not as powerful, were identified as highly interested stakeholders, particularly concerning the renewable energy division's modernization and the entry into the EV market.

Based on the above Case Scenario, answer the Multiple-Choice Questions.

(i) GEL has approved significant investments in modernizing its renewable energy division and entering the electric vehicle segment. Analyze the level of strategy these decisions represent and identify the correct justification for your answer.

(a) Functional level, as these are related to operational improvements within the renewable energy division.

(b) Business level, as these initiatives align with the goals of a single division to gain a competitive edge.

(c) Corporate level, as they involve decisions impacting the overall portfolio and diversification of GEL.

(d) Operational level, as these focus on day-to-day activities within the divisions. **(2 Marks)**

(ii) With the merger of Nova Green Energy Limited and Zenith Solar Limited into Synergy Renewables Ltd (SRL), how does this development influence GEL's strategic priorities in the renewable energy sector under Porter's Five Forces framework?

(a) The merger reduces the threat of substitutes by consolidating competing technologies.

(b) It increases the bargaining power of buyers by providing them with a stronger alternative supplier.

(c) It heightens the intensity of industry rivalry by creating a stronger competitor with greater market share.

(d) The merger strengthens the bargaining power of suppliers due to greater reliance on key inputs. **(2 Marks)**

(iii) GEL's decision to enter the EV market represents a diversification strategy. Evaluate which type of diversification strategy is being pursued and the reasoning behind this classification.

(a) Concentric diversification, as the EV market shares synergies with renewable energy technologies.

(b) Vertical integration, as GEL seeks to integrate upstream or downstream activities in the automotive value chain.

(c) Horizontal diversification, as GEL expands into a market unrelated to its existing renewable energy operations.

(d) Conglomerate diversification, as GEL enters an entirely unrelated and independent business segment. **(2 Marks)**

(iv) GEL identified shareholders and the Board of Directors as key stakeholders. Analyze the rationale for classifying them as both high influence and high interest and how this influences strategic communication.

(a) They directly impact compliance with regulatory standards, necessitating regular updates.

(b) Their vested interest in dividends and long-term value creation makes their engagement essential for approval of key initiatives.

(c) They represent the end consumers whose perceptions directly influence GEL's market reputation.

(d) Their role in operational execution requires constant communication and support for strategy implementation. **(2 Marks)**

(v) By approving modernization in renewable energy and diversification into EVs, what corporate strategy is GEL pursuing, and how does it position the company as per Ansoff's product market growth matrix?

(a) Cost leadership, to lower operational expenses and offer competitive pricing.

(b) Product differentiation, by leveraging innovation in both existing and new markets.

(c) Market penetration, through deeper investments in existing product lines.

(d) Market expansion and diversification, to capture growth opportunities across unrelated industries. **(2 Marks)**

(B) Compulsory Application Based Independent MCQs

(i) Harish, a middle manager, is confused about the difference between flexibility and resilience while working around an uncertain situation in the organization. Can you help find the right difference between the two?

(a) Flexibility is about adapting to new things quickly, while resilience is about holding on to the current position of the things for the short-term as the organisation is confident of its efficiencies.

(b) Flexibility is a subset of resilience, and to be flexible means to be resilient.

(c) Flexibility is the opposite of resilience, where, if the organisation is flexible, it changes and if it is resilient it doesn't change at all.

(d) Both are the same. **(2 Marks)**

(ii) Suman, the marketing head of Jalwa Music Co., was doing research on the online music streaming business in India for her new age music for youngsters. She analyzed that though the players in the market were innovating rapidly, it was difficult to maintain a sustainable competitive advantage. Which aspect of strategic management best reflects this challenge?

(a) The need for continuous innovation.

(b) The importance of understanding the competitive landscape.

(c) The dynamic and unpredictable nature of the industry.

(d) The difficulty in estimating competitors' responses. **(2 Marks)**

(iii) During which stage of the Product Life Cycle would you typically expect the highest marketing expenditure per unit sold as companies aggressively promote their product?

(a) Maturity

(b) Introduction

(c) Growth

(d) Decline **(1 Mark)**

PART II – Descriptive Questions (35 Marks)

*Question No. **1** is compulsory.*

*Attempt any **two** questions out of the remaining **three** questions.*

1. (a) *Jupiter Electronics Ltd.* is known for its ability to come out with path-breaking products. Though the work environment at Jupiters is relaxed and casual, there is a very strong commitment to deadlines. The employees believe in a "work hard play hard" ethic. The organisation has moved away from formal and hierarchical set up to a more results-driven approach. Employees are committed to strategies and work towards achieving them. They guard innovations, maintain confidentiality and secrecy in their work. They are closely related to values, practices, and norms of organisations. What aspects of an organization are being discussed? Explain. **(5 Marks)**

(b) *Reshuffle Corp* is a company that manufactures and sells office furniture. They offer a range of products, from desks and chairs to cabinets and shelves. Recently, the company has been facing increased competition from online retailers offering similar products at lower prices.

Analyzing the characteristics of products in the furniture industry, discuss how *Reshuffle Corp* can differentiate its products to maintain a competitive edge in the market. **(5 Marks)**

(c) A business consultancy firm focuses on providing specialized services in environmental management consultancy. It assists client companies in establishing robust environmental management accounting systems for the measurement, recording, and analysis of environmental costs. A significant portion of the firm's operations involve conducting environmental audits to verify compliance with international assurance standards in environmental management—an exclusive service not offered by its competitors. While the firm also undertakes other management consultancy projects, these constitute only a minor share of its total annual revenue. Identify the strategy categories by Michael Porter which best describes the strategy of this firm. **(5 Marks)**

2. (a) Analyze the role of Key Success Factors (KSFs) in determining competitive success within an industry. **(5 Marks)**

   (b) How the 'Strategic Business Unit' (SBU), structure becomes imperative in an organization with increase in number, size and diversity of divisions? **(5 Marks)**

3. (a) Rohit Patel has a small chemist shop in the central part of Ahmedabad. What kind of competencies Rohit can build to gain competitive advantage over online medicine sellers? **(5 Marks)**

   (b) Distinguish between Vision and Mission. **(5 Marks)**

4. (a) Vikram Patel owns a chain of ten bookstores across the Mumbai region. Three of these stores were launched in the past two years. He has always believed in strategic management and enjoyed robust sales of books, magazines, and educational materials until about five years ago. However, with the increasing preference for online shopping, the sales at his physical stores have declined by approximately sixty percent over the last five years. Analyze Vikram Patel's current position in light of the limitations of strategic management. **(5 Marks)**

   (b) Explain the strategic implications of each of the following types of business in a corporate portfolio:

   (a) Stars (b) Question Marks (c) Cash Cows (d) Dogs

   OR

   Strategic alliances are formed if they provide an advantage to all the parties in the alliance. Do you agree? Explain in brief the advantages of a strategic alliance. **(5 Marks)**

MODEL TEST PAPER 8

PAPER 6B: STRATEGIC MANAGEMENT

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises case scenario based multiple choice questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*

PART I – Case scenario based MCQs (15 Marks)

Question 1. (A) (Compulsory)

1. (A) Once upon a time in the land of sun, sand, and vibrant cultures, there existed a company named "MuseoGoa" - a company that managed museums in the beautiful state of Goa. MuseoGoa had a vision to celebrate the rich history and culture of Goa, but their journey was not without its fair share of challenges.

MuseoGoa had chosen a picturesque location in a quaint village to build their first museum. However, this initial enthusiasm was met with an uproar from the local communities. The villagers were concerned about the impact on their way of life and traditions. They worried that the influx of tourists might disrupt their peaceful existence.

To address this challenge, MuseoGoa applied Mendelow's matrix, identifying the local communities as key stakeholders. They decided to engage in open dialogues, understanding and respecting the villagers' concerns. MuseoGoa initiated community-building activities, such as involving locals in museum operations, supporting local artisans, and organizing cultural events that showcased the village's heritage. Slowly but steadily, the company transformed from being perceived as a threat to a valued partner within the community.

While MuseoGoa had successfully resolved their initial issues with the local community, they faced another challenge. Their location, although idyllic, was a bit off the beaten path. Tourists typically preferred the bustling beaches closer to the city, and this posed a real challenge. MuseoGoa decided to employ a pricing strategy. They priced their tickets affordably, significantly cheaper than the city's attractions. This strategy attracted budget-conscious tourists who were looking for unique experiences in Goa without burning a hole in their pockets. As word spread about the cultural gem tucked away in the village, visitors started flocking in, drawn not just by the museum's charm but also the economical ticket prices.

In the age of social media, MuseoGoa knew that word-of-mouth was no longer limited to whispers. They tapped into the power of social media to promote their unique museum experience. MuseoGoa ran interactive campaigns, encouraging visitors to share their experiences on various platforms. One particular Instagram post featuring a vibrant Goan mural in the museum went viral. This was the turning point. The picture-perfect aesthetics of the museum attracted influencers, bloggers, and travel enthusiasts, making MuseoGoa a social media sensation. Visitors came pouring in, not just from India but from across the globe, eager to capture their own moments at the "Instagrammable Museum of Goa."

With success came ambition. MuseoGoa decided to expand its footprint beyond Goa. To guide this expansion, they conducted a strategy audit and trend analysis. They identified emerging cultural and tourism trends and found potential markets in Pune and Trivandrum.

In Pune, MuseoGoa curated a special exhibition that celebrated the fusion of Goan and Maharashtrian cultures. They strategically partnered with local influencers and travel agencies to market the new experience. The expansion into Pune was met with resounding success.

For Trivandrum, MuseoGoa recognized the importance of local traditions and the distinct flavor of Kerala. They tailored their offerings to harmonize with the regional culture. MuseoGoa became the gateway for tourists to explore Kerala's rich heritage, with the museum acting as a bridge between Goa and Kerala's cultural tapestry.

MuseoGoa's journey from initial uproar to expansion was a testament to their commitment to community building, strategic pricing, social media savvy, and a keen eye for trends. The company continued to flourish, celebrating the diverse cultural tapestry of India and making history come alive in every location they touched.

Based on the above Case Scenario, answer the Multiple Choice Questions.

(i) Which strategic management concept did MuseoGoa use to address the initial concerns of the local community?

(a) SWOT analysis

(b) Mendelow's matrix

(c) Cost leadership strategy

(d) Porter's Five Forces model **(2 Marks)**

(ii) MuseoGoa's idyllic location in a quaint village posed a challenge as tourists preferred beaches closer to the city. To attract visitors, MuseoGoa priced their tickets affordably, cheaper than city attractions, drawing budget-conscious tourists looking for unique experiences. What business strategy did MuseoGoa employ to attract more tourists?

(a) Cost leadership strategy

(b) Differentiation strategy

(c) Focus strategy

(d) Diversification strategy **(2 Marks)**

(iii) How did MuseoGoa approach its expansion into new markets such as Pune and Trivandrum?

(a) Outsourcing strategy

(b) Franchising strategy

(c) Product diversification strategy

(d) Market development strategy **(2 Marks)**

(iv) Which element of the 7S McKinsey model is demonstrated by MuseoGoa's strategic use of social media and pricing strategies to attract visitors?

(a) Style

(b) Strategy

(c) Shared Values

(d) Skills **(2 Marks)**

(v) What played a crucial role in MuseoGoa's success in Pune and Trivandrum?

(a) Strategic partnerships

(b) Aggressive advertising

(c) Product differentiation

(d) Vertical integration **(2 Marks)**

(B) Compulsory Application Based Independent MCQs

(i) Jaago Lights, a successful brand from Jalandhar, aimed to enter the Middle East market by teaming up with major industry players. They needed to reorganize internal operations and refine product designs, facing pressure to expand quickly and turbulence in existing operations. What is the primary limitation of strategic management highlighted in the business case?

(a) Lack of senior management support

(b) Time-consuming and complex nature

(c) Inability to adapt to market changes

(d) Excessive focus on short-term goals **(2 Marks)**

(ii) A traditional desi ghee company modernized its production and introduced pro-biotic desi ghee, facing initial market doubts. Aggressive marketing campaigns highlighted its benefits, gaining acceptance. During which stage of the product life cycle did the desi ghee company face doubts but gained acceptance through aggressive marketing campaigns?

(a) Introduction stage

(b) Growth stage

(c) Maturity stage

(d) Decline stage **(2 Marks)**

(iii) Alpha Corp is undergoing a shift to foster a culture that encourages innovative thinking and team collaboration. To achieve this, the company is focusing on how leaders interact with their teams and set examples for behavior, aiming to align leadership practices with desired cultural outcomes. Which aspect of AlphaCorp is being adjusted to foster a culture of innovation and collaboration?

(a) Structure

(b) Systems

(c) Skills

(d) Style **(1 Mark)**

PART II – Descriptive Questions (35 Marks)

*Question No. **1** is compulsory.*

*Attempt any **two** questions out of the remaining **three** questions.*

1. (a) Tech Innovators Inc., a rapidly expanding technology company, aims to lead in artificial intelligence (AI) and machine learning (ML). With recent growth, the company is evaluating which organizational structure will best support its vision for innovation and leadership in AI technologies. They are considering three options: the Functional and Divisional Relationship for specialization, the Horizontal Relationship for flat, collaborative management, and the Matrix Relationship for cross-functional teams. Which of these relationships—Functional and Divisional, Horizontal, or Matrix—will most effectively achieve Tech Innovators Inc.'s strategic goals, and why? **(5 Marks)**

(b) Rajiv Arya owns an electrical appliance company specializing in the manufacture of domestic vacuum cleaners. The market is competitive, with four other manufacturers offering similar products and achieving comparable sales volumes. Additionally, these rival firms hold several patents related to the vacuum cleaner technology. The supplier base for raw materials is extensive, with multiple suppliers available. Identify and explain the significant forces from Porter's Five Forces framework that are relevant to Rajiv Arya's company. **(5 Marks)**

(c) A Mumbai-based conglomerate, PQR Ltd., has announced a major restructuring of its business operations. The company has decided to split its business into four separate units: Manufacturing, Retail, Services, and Technology. Each unit will operate as a separate business, with delegated responsibility for day-to-day operations and strategy to the respective unit managers. Identify the organization structure that PQR Ltd. has planned to implement. Discuss any four attributes and the benefits the firm may derive by using this organization structure. **(5 Marks)**

2. (a) Strategic management helps an organization to work through changes in the environment to gain competitive advantage. In light of statement discuss its benefits. **(5 Marks)**

(b) A company has recently launched a new product in the market. Initially, it faced slow sales growth, limited markets, and high prices. However, over time, the demand for the product expanded rapidly, prices fell, and competition increased. Identify the stages of the product life cycle (PLC) that the company went through. **(5 Marks)**

3. (a) What do you understand by Strategic Alliance? Discuss its advantages. **(5 Marks)**

(b) Why Strategic Performance Measures are essential for organizations? **(5 Marks)**

4. (a) Distinguish between Concentric Diversification and Conglomerate Diversification. **(5 Marks)**

(b) What are channels? Why is channel analysis important? Explain the different types of channels?

OR

How can Mendelow's Matrix be used to analyze and manage the stakeholders effectively? **(5 Marks)**

ANSWERS

ANSWER OF MODEL TEST PAPER 1

INTERMEDIATE: GROUP – II

PAPER – 4: COST AND MANAGEMENT ACCOUNTING

Suggested Answers/ Solution

PART I – Case Scenario based MCQs

1. i. D

Inflow into process	Litres	Outflow from process	Litres
Opening WIP	500	Transferred to finished goods	3,400
Quantity introduced (Balancing figure)	3,800	Total loss	800
		Closing WIP	100
	4,300		4,300

ii. A

Total loss	800 litres
Normal loss (10% of fresh input i.e. 3,800)	380 litres
Abnormal loss	420 litres

iii. B

Calculation of Equivalent production units

Input Details	Units	Output Particulars	Units	Equivalent Production					
				Material		Labour		Overheads	
				%	Units	%	Units	%	Units
Opening WIP	500	From Opening WIP	500	-	-	20	100	40	200
Fresh inputs	3,800	From fresh units	2900	100	2900	100	2900	100	2900
		Normal loss	380	-		-		-	
		Closing WIP	100	100	100	20	20	10	10
		Abnormal loss	420	100	420	100	420	100	420
	4,300		4,300		3,420		3,440		3,530

Value of raw materials introduced during the month

	Equivalent units	Cost per EU (₹)	Total cost (₹)
Total value of raw material	3420	300	10,26,000
Add: Scrap value of normal loss	380	20	7,600
Value of raw material introduced			**10,33,600**

iv. A

Value of labour and overhead in closing Work in process

Cost elements	Equivalent units	Cost per EU (₹)	Total cost (₹)
Labour	20	200	**4,000**
Overheads	10	160	**1,600**

v. C

Value of output transferred to finished goods

Output transferred (Units) × Equivalent cost per unit

3,400 Litres × ₹660 = ₹22,44,000

2. i. D

ii. C Please refer cost sheet below for cost of production

Cost of production per manshift =

Cost of production ÷ Total manshift

₹ 7,87,28,000 ÷ 46,800 = ₹1,682.22

iii. A Car hire charges including GST @5%, please refer the cost sheet

iv. B Selling and distribution cost includes the following:

Maintenance cost for weighing bridge	12,000
AMC cost of CCTV installed at weigh bridge	8,000
TA/ DA & hotel bill of sales manager	36,000
	56,000

For Cost of Sale please refer the cost sheet

v. A Manshift = 1,800 employees × 26 days = 46,800 manshifts

Computation of earnings per manshift (EMS):

$$\text{EMS} = \frac{\text{Total employee benefits paid}}{\text{Manshift}}$$

$$= \frac{₹\ 7,04,20,000}{46,800} = ₹\ 1504.70$$

Computation of Output per manshift (OMS):

$$\text{OMS} = \frac{\text{Total Output/ Production}}{\text{Manshift}}$$

$$= \frac{2,34,000\ \text{Tonne}}{46,800} = 5\ \text{tonnes}$$

Workings

Cost Sheet of M Ltd. for the last month

Particulars	Amount (₹)	Amount (₹)
Materials consumed		50,00,000
Wages & Salary	6,40,00,000	
Gratuity & leave encashment	64,20,000	7,04,20,000
Power cost (13,000 kwh × ₹8)	1,04,000	
Diesel cost (2,000 ltr × ₹93)	1,86,000	2,90,000
HEMM hiring charges		30,00,000
Prime Cost		**7,87,10,000**
AMC cost of CCTV installed at factory premises		18,000
Cost of Production/ Cost of Goods Sold		**7,87,28,000**
Hiring charges of cars	66,000	
Reimbursement of diesel cost	22,000	
	88,000	
Add: GST @5% on RCM basis	4,400	92,400
Maintenance cost for weighing bridge	12,000	
AMC cost of CCTV installed at weigh bridge	8,000	20,000
TA/ DA & hotel bill of sales manager		36,000
Cost of Sales		**7,88,76,400**

3. **D** Labour rate variance = Standard time for actual production (SR- AR)

7,500 (A) = (30,000 × 30 minutes/60 minutes) × (50-AR)

AR = (7,50,000 + 7,500)/15,000 = ₹50.50 per hour

Actual wages per unit = 50.50/2 = ₹25.25

4. **B** Variable overhead for each % of level of activity

$=\frac{40,00,000-30,00,000}{75-50}$ = 40,000

Fixed cost = 30,00,000 – (40,000 × 50) = 10,00,000

Total overheads for 60% level of activity

= 10,00,000 + (40,000 × 60) = 34,00,000

5. **C**

6. **B** Actual Overhead – (Actual machine hours × machine hour rate)

5,20,000 – (17040 × 30) = 8,800 under absorbed

7. **A** Optimum batch size or Economic Batch Quantity (EBQ):

$$\text{EBQ} = \sqrt{\frac{2DS}{C}} = \sqrt{\frac{2 \times 80,000 \times 3,500}{12}} = 6,832 \text{ units.}$$

Number of Optimum runs = 80,000 ÷ 6,832 = 11.70 or 12 run

PART-II

1. (a) (i) Production Budget (in units) for the year ended 31st March 2025

	Product X	Product Y
Budgeted sales (units)	28,000	13,000
Add: Increase in closing stock	320	160
No. good units to be produced	28,320	13,160
Post production rejection rate	4%	6%
No. of units to be produced	29,500 $\left(\frac{28,320}{0.96}\right)$	14,000 $\left(\frac{13,160}{0.94}\right)$

(ii) Calculation of Economic Order Quantity for Material Z

$$\text{EOQ} = \sqrt{\frac{2\times2,52,310\times15,600}{72\times11\%}} = \sqrt{\frac{5,04,620\times15,600}{72\times11\%}} = 31,526.95 \text{ kg.}$$

(b) Purchase budget (in kgs and value) for Material Z

	Product X	Product Y
No. of units to be produced	29,500	14,000
Usage of Material Z per unit of production	5 kg.	6 kg.
Material needed for production	1,47,500 kg.	84,000 kg.
Materials to be purchased	1,63,889 kg. $\left(\frac{1,47,500}{0.90}\right)$	88,421 kg. $\left(\frac{84,000}{0.95}\right)$
Total quantity to be purchased	2,52,310 kg.	
Rate per kg. of Material Z	₹72	
Total purchase price	₹1,81,66,320	

(c) Since, the maximum number of orders per year cannot be more than 40 orders and the maximum quantity per order that can be purchased is 4,000 kg. Hence, the total quantity of Material Z that can be available for production:

= 4,000 kg. × 40 orders =1,60,000 kg.

	Product X	Product Y
Material needed for production to maintain the same production mix	1,03,929 kg. $\left(1,60,000 \times \frac{1,63,889}{2,52,310}\right)$	56,071 kg. $\left(1,60,000 \times \frac{88,421}{2,52,310}\right)$

Less: Process wastage	10,393 kg.	2,804 kg.
Net Material available for production	93,536 kg.	53,267 kg.
Units to be produced	18,707 units $\left(\frac{93,536\text{kg.}}{5\text{kg.}}\right)$	8,878 units $\left(\frac{53,267\text{kg.}}{6\text{kg.}}\right)$

2. (a) (i) Calculation of Absolute Ton-km for the next month:

Journey	Distance in km	Weight-Up (in MT)	Ton-km	Weight-Down (in MT)	Ton-km	Total
	(a)	(b)	(c)=(a)×(b)	(d)	(e)= (a)×(d)	(c)+(e)
Delhi to Kochi	2,700	14	37,800	6	16,200	54,000
Delhi to Guwahati	1,890	12	22,680	0	0	22,680
Delhi to Vijayawada	1,840	15	27,600	0	0	27,600
Delhi to Varanasi	815	10	8,150	0	0	8,150
Delhi to Asansol	1,280	12	15,360	4	5,120	20,480
Delhi to Chennai	2,185	10	21,850	8	17,480	39,330
Total	10,710	73	1,33,440	18	38,800	1,72,240

Total Ton-Km = 1,72,240 ton-km

(ii) Calculation of cost per ton-km:

Particulars	Amount (₹)	Amount (₹)
A. Running cost:		
- Diesel Cost {₹19.20 × (10,710 × 2)}	4,11,264.00	
- Engine oil cost $\left(\frac{₹4,200}{13,000\text{km}}\times 21,420\text{km}\right)$	6,920.31	
- Cost of loading of goods {₹180 × (73+18)}	16,380.00	
- Depreciation {(30,00,000/720,000×21,420 km)×4}	3,57,000.00	7,91,564.31
B. Repairs & Maintenance Cost (36,000/10,000×21,420)		77,112.00
C. Standing Charges		

- Drivers' salary (₹24,000 × 4 trucks)	96,000.00	
- Cleaners' salary (₹15,000 × 4 trucks)	60,000.00	
- Supervision and other general exp.	14,000.00	1,70,000.00
Total Cost (A + B + C)		10,38,676.31
Total ton-km		1,72,240
Cost per ton-km		6.03

(b) Calculation of cost per unit:

Particulars	Units	(₹)
Listed Price of Materials	5,000	5,00,000
Less: Trade discount @ 10% on invoice price		(50,000)
		4,50,000
Add: GST @18% of ₹ 4,50,000		81,000
		5,31,000
Add: Toll Tax		1,800
Freight and Insurance		36,000
Commission and Brokerage Paid		10,000
Add: Cost of returnable containers:		
Amount deposited ₹ 30,000		
Less: Amount refunded ₹ 26,000		4,000
		5,82,800
Add: Other Expenses @ 2% of Total Cost $\left(\frac{₹\ 5,82,800}{98} \times 2\right)$		11,894
Total cost of material		5,94,694
Less: Shortage material due to normal reasons @ 5%	250	-
Total cost of material of good units	4,750	5,94,694
Cost per unit (₹ 5,94,694/4,750 units)		**125.20**

Note:

1. GST is payable on net price i.e., listed price less discount.
2. GST paid on purchase is added with cost as ITC on GST cannot be claimed
3. Cash discount is treated as interest and finance item; hence it is ignored.
4. Demurrage is penalty imposed by the transporter for delay in uploading or off-loading of materials. It is an abnormal cost and not included.

5. Shortage due to normal reasons should not be deducted from cost to ascertain total cost of good units.

3. (a) The important ledgers to be maintained under non-integrated accounting system in the Cost Accounting are the followings:

(a) **Cost Ledger** - This is the principle ledger of the cost department in which impersonal accounts are recorded. This ledger is made self-balancing by maintaining therein a Control Account for each subsidiary ledger.

(b) **Stores Ledger** - It contains an account for each item of stores. The entries in each account maintained in this ledger are made from the invoice, goods received note, material requisitions, material received note etc. Accounts in respect of each item of stores show receipt, issue and balance in physical as well as in monetary terms.

(c) **Work-in-Process Ledger** - This ledger is also known as job ledger, it contains accounts of unfinished jobs and processes. All material costs, wages and overheads for each job in process are posted to the respective job accounts in this ledger. The balance in a job account represents total balance of job/work-in-process, as shown by the job account.

(d) **Finished Goods Ledger** - It contains an account for each item of finished product manufactured or the completed job. If the finished product is transferred to stock, a credit entry is made in the work-in-process ledger and a corresponding debit entry is made in this ledger.

(b) (i) Computation of wages of each worker under guaranteed hourly rate basis

Worker	Actual hours worked (Hours)	Hourly wage rate (₹)	Wages (₹)
I	380	40	15,200
II	100	50	5,000
III	540	60	32,400

(ii) Computation of Wages of each worker under piece work earning basis

Product	Piece rate per unit (₹)	Worker-I		Worker-II		Worker-III	
		Units	Wages (₹)	Units	Wages (₹)	Units	Wages (₹)
X	15	210	3,150	-	-	600	9,000
Y	20	360	7,200	-	-	1,350	27,000
Z	30	460	13,800	250	7,500	-	-
Total			24,150		7,500		36,000

Since each worker's earnings are more than 50% of basic pay. Therefore, worker-I, II and III will be paid the wages as computed i.e. ₹24,150, ₹7,500 and ₹36,000 respectively.

Working Notes:

1. Piece rate per unit

Product	Standard time per unit in minute	Piece rate each minute (₹)	Piece rate per unit (₹)
X	15	1	15
Y	20	1	20
Z	30	1	30

2. Time allowed to each worker

Worker	Product-X	Product-Y	Product-Z	Total Time (Hours)
I	210 units × 15 = 3,150	360 units × 20 = 7,200	460 units × 30 = 13,800	24,150/60 = 402.50
II	-	-	250 units × 30 = 7,500	7,500/60 = 125
III	600 units × 15 = 9,000	1, 350 units × 20 = 27,000	-	36,000/60 = 600

(iii) Computation of wages of each worker under Premium bonus basis (where each worker receives bonus based on Rowan Scheme)

Worker	Time Allowed (Hr.)	Time Taken (Hr.)	Time saved (Hr.)	Wage Rate per hour (₹)	Earnings (₹)	Bonus (₹)*	Total Earning (₹)
I	402.5	380	22.5	40	15,200	850	16,050
II	125	100	25	50	5,000	1,000	6,000
III	600	540	60	60	32,400	3,240	35,640

* $\frac{\text{Time Taken}}{\text{Time Allowed}} \times \text{Time Saved} \times \text{Wage Rate}$

Worker-I = $\frac{380}{402.5} \times 22.5 \times 40 = 850$; Worker-II = $\frac{100}{125} \times 25 \times 50 = 1{,}000$

Worker-III = $\frac{540}{600} \times 60 \times 60 = 3{,}240$

4. (a) (i) Statement of Profit under Absorption Costing

Particulars		April (₹)	May (₹)	June (₹)
Sales (units)		4,200	4,500	5,200
Selling price per unit		2,050	2,050	2,050
Sales value	(A)	86,10,000	92,25,000	1,06,60,000
Cost of Goods Sold:				
Opening Stock @ ₹1,480		0	5,92,000	4,44,000
Production cost @ ₹1,480		68,08,000	65,12,000	81,40,000
Closing Stock @ ₹1,480		(5,92,000)	(4,44,000)	(8,88,000)
Under/ (Over) absorption		40,000	60,000	(50,000)
Add: Fixed Selling Overheads		95,000	95,000	95,000
Cost of Sales	(B)	63,51,000	68,15,000	77,41,000
Profit	(A – B)	22,59,000	24,10,000	29,19,000

Workings:

1. Calculation of full production cost

	(₹)
Direct Materials (4 kg. × ₹ 120)	480
Direct labour (6 hours × ₹ 60)	360
Variable production Overhead (150% of ₹ 360)	540
Total Variable cost	1,380
Fixed production overhead $\left(\frac{₹60,00,000}{60,000 \text{ units}}\right)$	100
	1,480

2. Calculation of Opening and Closing stock

	April	May	June
Opening Stock	0	400	300
Add: Production	4,600	4,400	5,500
Less: Sales	4,200	4,500	5,200
Closing Stock	400	300	600

3. Calculation of Under/Over absorption of fixed production overhead

	April (₹)	May (₹)	June (₹)
Actual Overhead	5,00,000	5,00,000	5,00,000
Overhead absorbed	4,60,000 (4,600 units × ₹100)	4,40,000 (4,400 units × ₹100)	5,50,000 (5,500 units × ₹100)

Under/(Over) absorption	40,000	60,000	(50,000)

(ii) Statement of Profit under Marginal Costing

Particulars	April (₹)	May (₹)	June (₹)
Sales (units)	4,200	4,500	5,200
Selling price per unit	2,050	2,050	2,050
Sales value	86,10,000	92,25,000	1,06,60,000
Less: Variable production cost @ ₹1,380	57,96,000	62,10,000	71,76,000
Contribution	28,14,000	30,15,000	34,84,000
Less: Fixed Production Overheads	5,00,000	5,00,000	5,00,000
Less: Fixed Selling Overheads	95,000	95,000	95,000
Profit	22,19,000	24,20,000	28,89,000

(iii) Reconciliation of profit under Absorption costing to Marginal Costing

Particulars	April (₹)	May (₹)	June (₹)
Profit under Absorption Costing	22,59,000	24,10,000	29,19,000
Add: Opening Stock	0	40,000 (400 × ₹100)	30,000 (300 × ₹100)
Less: Closing Stock	40,000 (400 × ₹100)	30,000 (300 × ₹100)	60,000 (600 × ₹100)
Profit under Marginal Costing	22,19,000	24,20,000	28,89,000

(b) Total Fixed Cost = **₹ 6,00,000 + ₹20,00,000 + ₹8,00,000 + ₹ 2,00,000**

= ₹ 36,00,000

Contribution per unit = ₹600 - ₹470 = ₹130

P/V Ratio = $\frac{\text{Contribution per unit}}{\text{Selling Price}} \times 100 = \frac{₹130}{₹600} \times 100$ = 21.67%

Break-even Point = $\frac{\text{Total Fixed Cost}}{\text{Contribution per unit}}$

= $\frac{₹36,00,000}{₹130}$ = 27,692.31 or 27,693 units

Break-even Sales = $\frac{\text{Total Fixed Cost}}{\text{P / V Ratio}} = \frac{₹36,00,000}{21.67\%}$ = ₹1,66,12,829

Calculation of Profit/ (loss):

Total Contribution (₹130 × 35,000 units) = ₹45,50,000

Less: Fixed Cost = ₹36,00,000

Profit = ₹ 9,50,000

5. **(a)** Budgeted Production 30,000 hours ÷ 6 hours per unit = 5,000 units

Budgeted Fixed Overhead Rate = ₹ 4,50,000 ÷ 5,000 units = ₹ 90 per unit Or

= ₹ 4,50,000 ÷ 30,000 hours = ₹ 15 per hour.

(i) Material Cost Variance = (Std. Qty. × Std. Price) – (Actual Qty. × Actual Price)

= (4,800 units × 15 kg. × ₹15) - ₹ 9,85,000

= ₹ 10,80,000 – ₹ 9,85,000

= ₹ 95,000 (F)

(ii) Labour Cost Variance = (Std. Hours × Std. Rate) – (Actual Hours × Actual rate)

= (4,800 units × 6 hours × ₹ 5) – ₹1,40,000

= ₹ 1,44,000 – ₹ 1,40,000

= ₹ 4,000 (F)

(iii) Fixed Overhead Cost Variance = (Budgeted Rate × Actual Qty) – Actual Overhead

= (₹ 90 x 4,800 units) – ₹ 4,70,000

= ₹ 38,000 (A)

OR

= (Budgeted Rate × Std. Hours) – Actual Overhead

= (₹ 15 x 4,800 units × 6 hours) – ₹ 4,70,000

= ₹ 38,000 (A)

(iv) Variable Overhead Cost Variance = (Std. Rate × Std. Hours) – Actual Overhead

= (4,800 units × 6 hours × ₹ 12) - ₹ 3,60,200

= ₹ 3,45,600 - ₹ 3,60,200

= ₹ 14,600 (A)

(b) **Profit Statement using Activity based costing (ABC) method:**

	Particulars	**Product**			**Total**
		A	**B**	**C**	
A.	Sales Quantity	1,00,000	80,000	60,000	
B.	Selling price per unit (₹)	90	180	140	
C.	Sales Value (₹) [A×B]	90,00,000	1,44,00,000	84,00,000	3,18,00,000

D.	Direct cost per unit (₹)	50	90	95	
E.	Direct Cost (₹) [A×D]	50,00,000	72,00,000	57,00,000	1,79,00,000
F.	Overheads: (Refer working note-3)				
(i)	Machining services (₹)	21,00,000	22,40,000	21,00,000	64,40,000
(ii)	Assembly services (₹)	24,00,000	12,80,000	7,20,000	44,00,000
(iii)	Set-up costs (₹)	4,50,000	3,00,000	1,50,000	9,00,000
(iv)	Order processing (₹)	2,20,000	2,40,000	2,60,000	7,20,000
(v)	Purchasing (₹)	1,50,000	1,75,000	75,000	4,00,000
G.	Total Cost (₹) [E+F]	1,03,20,000	1,14,35,000	90,05,000	3,07,60,000
H.	Profit (₹) (C-G)	(13,20,000)	29,65,000	(6,05,000)	10,40,000

Working Notes:

1.

		Products			
		A	**B**	**C**	**Total**
A.	Production (units)	1,00,000	80,000	60,000	
B.	Machine hours per unit	3	4	5	
C.	Total Machine hours [A×B]	3,00,000	3,20,000	3,00,000	9,20,000
D.	Rate per hour (₹)	8	8	8	
E.	**Machine Dept. cost [C×D]**	**24,00,000**	**25,60,000**	**24,00,000**	**73,60,000**
F.	Labour hours per unit	6	4	3	
G.	Total labour hours [A×F]	6,00,000	3,20,000	1,80,000	11,00,000
H.	Rate per hour (₹)	5	5	5	
I.	**Assembly Dept. cost [G×H]**	**30,00,000**	**16,00,000**	**9,00,000**	**55,00,000**

Machine hour rate = $\frac{₹73,60,000}{9,20,000 \text{ hours}}$ = ₹8

Labour hour rate = $\frac{₹55,00,000}{11,00,000 \text{ hours}}$ = ₹5

2. Calculation of cost driver rate

Cost Pool	Amount (₹)	Cost Driver	Quantity	Driver rate (₹)
Machining services	64,40,000	Machine hours	9,20,000 hours	7.00
Assembly services	44,00,000	Direct labour hours	11,00,000 hours	4.00
Set-up costs	9,00,000	Machine set-ups	9,000 set-ups	100.00
Order processing	7,20,000	Customer orders	7,200 orders	100.00
Purchasing	4,00,000	Purchase orders	800 orders	500.00

3. Calculation of activity-wise cost

		Products			
		A	B	C	Total
A.	Machining hours (Refer Working note-1)	3,00,000	3,20,000	3,00,000	9,20,000
B.	Machine hour rate (₹) (Refer Working note-2)	7	7	7	
C.	**Machining services cost (₹) [A×B]**	**21,00,000**	**22,40,000**	**21,00,000**	**64,40,000**
D.	Labour hours (Refer Working note-1)	6,00,000	3,20,000	1,80,000	11,00,000
E.	Labour hour rate (₹) (Refer Working note-2)	4	4	4	
F.	**Assembly services cost (₹) [D×E]**	**24,00,000**	**12,80,000**	**7,20,000**	**44,00,000**
G.	Machine set-ups	4,500	3,000	1,500	9,000
H.	Rate per set-up (₹) (Refer Working note-2)	100	100	100	
I.	**Set-up cost (₹) [G×H]**	**4,50,000**	**3,00,000**	**1,50,000**	**9,00,000**
J.	Customer orders	2,200	2,400	2,600	7,200

K.	Rate per order (₹) (Refer Working note-2)	100	100	100	
L.	**Order processing cost (₹) [J×K]**	**2,20,000**	**2,40,000**	**2,60,000**	**7,20,000**
M.	Purchase orders	300	350	150	800
N.	Rate per order (₹) (Refer Working note-2)	500	500	500	
O.	**Purchasing cost (₹) [M×N]**	**1,50,000**	**1,75,000**	**75,000**	**4,00,000**

6. (a) Treatment of over and under absorption of overheads are:-

(i) Writing off to costing P&L A/c:– Small difference between the actual and absorbed amount should simply be transferred to costing P&L A/c, if difference is large then investigate the causes and after that abnormal loss/ gain shall be transferred to costing P&L A/c.

(ii) Use of supplementary Rate: Under this method the balance of under and over absorbed overheads may be charged to cost of W.I.P., finished stock and cost of sales proportionately with the help of supplementary rate of overhead.

(iii) Carry Forward to Subsequent Year: Difference should be carried forward in the expectation that next year the position will be automatically corrected.

(b) The impact of IT in cost accounting may include the followings:

(i) After the introduction of ERPs, different functional activities get integrated and as a consequence a single entry into the accounting system provides custom made reports for every purpose and saves an organisation from preparing different sets of documents. Reconciliation process of results of both cost and financial accounting systems become simpler and less sophisticated.

(ii) A move towards paperless environment can be seen where documents like Bill of Material, Material Requisition Note, Goods Received Note, labour utilisation report etc. are no longer required to be prepared in multiple copies, the related department can get e-copy from the system.

(iii) Information Technology with the help of internet (including intranet and extranet) helps in resource procurement and mobilisation. For example, production department can get materials from the stores without issuing material requisition note physically. Similarly, purchase orders can be initiated to the suppliers with the help of extranet. This enables an entity to shift towards Just-in-Time (JIT) approach of inventory management and production.

(iv) Cost information for a cost centre or cost object is ascertained with accuracy in timely manner. Each cost centre and cost object is codified and all related costs are assigned to the cost object or cost centre. This process automates the cost accumulation and ascertainment process. The cost information can be customised as per the requirement. For example, when an entity manufactures or provide services, it can know information job-wise, batch-wise, process-wise, cost centre wise etc.

(v) Uniformity in preparation of report, budgets and standards can be achieved with the help of IT. ERP software plays an important role in bringing uniformity irrespective of location, currency, language and regulations.

(vi) Cost and revenue variance reports are generated in real time basis which enables the management to take control measures immediately.

(vii) IT enables an entity to monitor and analyse each process of manufacturing or service activity closely to eliminate non-value-added activities.

The above are examples of few areas where Cost Accounting is done with the help of IT.

(c) **Controllable costs and Uncontrollable costs*:*** Cost that can be controlled, typically by a cost, profit or investment centre manager is called controllable cost. Controllable costs incurred in a particular responsibility centre can be influenced by the action of the executive heading that responsibility centre.

Costs which cannot be influenced by the action of a specified member of an undertaking are known as uncontrollable costs.

(d) **Apportionment of Joint Cost amongst Joint Products using:**

Market value at the point of separation: This method is used for apportionment of joint costs to joint products upto the split off point. It is difficult to apply if the market value of the product at the point of separation is not available. It is useful method where further processing costs are incurred disproportionately.

Net realizable value Method: From the sales value of joint products (at finished stage) the followings are deducted:

– Estimated profit margins

– Selling & distribution expenses, if any

– Post split off costs.

The resultant figure so obtained is known as net realizable value of joint products. Joint costs are apportioned in the ratio of net realizable value.

ANSWER OF MODEL TEST PAPER 2

INTERMEDIATE: GROUP – II

PAPER – 4: COST AND MANAGEMENT ACCOUNTING

Suggested Answers/ Solution

PART I – Case Scenario based MCQs

1. **i.** **A** Revised Sale $= \frac{\text{Revised Fixed Cost + Expected Profit}}{\text{P / V Ratio}}$

= {₹115 + (20+10)} ÷ 45% **= ₹ 322.22 crores**

ii. **D** Revised Break – even Point = $\frac{\text{Fixed Cost}}{\text{P / V Ratio}}$

= ₹115 Crore ÷ 45% = ₹255.56 Crore (Refer working notes)

iii. **D** Revised Margin of Safety = Revised Sales – Revised Break–even Sales

= ₹ 322.22Crores – ₹ 255.56Crores = **₹ 66.66 Crores.**

iv. **C** ₹ 20 Crore & ₹30 Crore respectively (Refer working note)

v. **A** Total cost in last year = ₹230 Crore

Total cost in coming year = Variable Cost + Fixed Cost

Revised sales × 55% + 115 Crore

= ₹ 322.22 Crore × 55% + ₹ 115 Crore = ₹ 292.22 Crore

Working Note

Present Sales and Profit

Total Sales	=	Break – even Sales + Margin of Safety
	=	₹200 Crores + ₹50 Crores
	=	₹250 Crores
P/V Ratio	=	40%
Variable Cost	=	60% of Sales
	=	₹250 Crores × 60%
	=	₹150 Crores
Fixed Cost	=	Break – even Sales × P/V Ratio
	=	₹200 Crores × 40%
	=	₹80 Crores
Total Cost	=	₹150 Crores + ₹80 Crores
	=	₹230 Crores
Profit	=	Total Sales – Total Cost

= ₹250 Crores – ₹230 Crores

= ₹20 Cores

Revised Sales (₹ in Crores)

Present Fixed Cost	80.00
Increase in Fixed Cost	20.00
Interest at 15 *per cent* on Additional Capital (₹100Crores × 15%)	15.00
Total Revised Fixed Cost (in crore)	115.00
Assuming that the Present Selling Price is ₹100	
Revised Selling Price will be (8% Less)	92.00
New Variable Cost (Reduced from 60% to 55%) of Sales (₹ 92 × 55%)	50.60
Contribution (₹92.00 – ₹ 50.60)	41.40

New P / V Ratio $= \frac{₹\,41.40}{₹\,92.00} \times 100$

= 45%

2. i. D Variable Overhead Cost Variance = Standard Variable Overheads for Production – Actual Variable Overheads

= ₹ 44,800 – ₹ 55,680

= ₹ 10,880 (A)

ii. C Fixed Overhead Volume Variance = Absorbed Fixed Overheads – Budgeted Fixed Overheads

= ₹ 87,200 – ₹ 1,09,000

=₹ 21,800 (A)

iii. A Fixed Overhead Expenditure Variance = Budgeted Fixed Overheads – Actual Fixed Overheads

= ₹ 10.9 × 10,000 units – ₹ 1,30,520

= ₹ 21,520 (A)

iv. B Calendar Variance = Possible Fixed Overheads – Budgeted Fixed Overheads

= ₹ 1,03,550 – ₹ 1,09,000

= ₹ 5,450 (A)

v. A Fixed Overhead Cost Variance = Absorbed Fixed Overheads – Actual Fixed Overheads

= ₹ 87,200 – ₹ 1,30,520

= ₹ 43,320 (A)

WORKING NOTE

Fixed Overheads = $\frac{\text{Budgeted Fixed Overheads}}{\text{Budgeted Output}}$ = 12,00,000÷1,20,000	₹ 10.00
Fixed Overheads element in *Semi-Variable* Overheads i.e. 60% of ₹ 1,80,000	₹ 1,08,000
Fixed Overheads = $\frac{\text{Budgeted Fixed Overheads}}{\text{Budgeted Output}}$ ₹ 1,08,000/120,000	₹ 0.90
Standard Rate of Absorption of Fixed Overheads *per unit* (₹ 10.00 + ₹ 0.90)	₹ 10.90
Fixed Overheads Absorbed on 8,000 units @ ₹10.90	₹ 87,200
Budgeted Variable Overheads	₹ 6,00,000
Add: Variable element in Semi-Variable Overheads 40% of ₹ 1,80,000	₹ 72,000
Total Budgeted Variable Overheads	₹ 6,72,000
Standard Variable Cost *per unit* = $\frac{\text{Budgeted Variable Overheads}}{\text{Budgeted Output}}$	₹5.60
Standard Variable Overheads for 8,000 units @ ₹5.60	₹ 44,800
Budgeted Annual Fixed Overheads (₹ 12,00,000 + 60% of ₹ 1,80,000)	₹ 13,08,000
Possible Fixed Overheads = $\frac{\text{Budgeted Fixed Overheads}}{\text{Budgeted Days}}$ x Actual Days = 1,09,000/20 days ×19 days	₹ 1,03,550
Actual Fixed Overheads (₹ 1,19,000 + 60% of ₹ 19,200)	₹ 1,30,520
Actual Variable Overheads (₹ 48,000 + 40% of ₹ 19,200)	₹ 55,680

3. **A** (TT x 60) + [0.50 x (8-TT) x 60] = 420 TT* = 6 hours

Time saved = 8-6 = 2

* TT=Total Time Taken

4. **C** Ordering Cost = 4,00,000/320 = 1,250

Delivery Cost = 1,35,000/270 = 500

A = 1,250 x 100 + 500 x 70 = 1,60,000

B = 1,250 x 220 + 500 x 200 = 3,75,000

5. **B** Direct labour : ₹ 45,000

Direct expenses : ₹ 15,000

Direct materials consumed : ₹ 67,500

Prime Cost ₹ 1,27,500

6. **A** Abnormal gain units = 7600 - [8000 - 800] = 400 Abnormal gain = [40,000 - (800 x 5)]/ 7200 units x 400 units = 2,000

7. **B** Total cost = ₹ 5,25,000

Tonnes Km carried = 6,55,000

Unit Cost = ₹ 525000/655000 Km = ₹ 0.801

PART-II– Descriptive Questions

1. **(a)** **Process A Account**

Dr Cr.

	₹		₹
To Materials	40,000	By Transfer to Process B A/c	1,20,000
To Labour	40,000		
To Overheads	16,000		
	96,000		
To Profit (20% of transfer price, i.e., 25% of cost)	24,000		
	1,20,000		1,20,000

Process B Account

Dr Cr.

	₹		₹
To Transferred from Process A A/c	1,20,000	By Transfer to Finished Stock A/c	2,88,000
To Labour	56,000		
To Overhead	40,000		
	2,16,000		
To Profit (25% of transfer price i.e., 33.33% of cost)	72,000		
	2,88,000		2,88,000

Statement of Total Profit

	₹
Profit from Process A	24,000
Profit from Process B	72,000
Profit on Sales (₹ 4,00,000 – ₹ 2,88,000)	1,12,000
Total Profit	2,08,000

(b) (i) Calculation of Economic Order Quantity

$$\text{EOQ} = \sqrt{\frac{2\times \text{Annual Demand}\times \text{Ordering Cost}}{\text{Carrying cost per unit per annum}}}$$

$$= \sqrt{\frac{2 \times 12{,}000 \text{ units} \times ₹1{,}200}{₹1{,}740 \times 0.12}} = 371 \text{ units (Approx)}$$

(ii) Evaluation of Profitability of Different Options of Order Quantity

(a) When EOQ is ordered

		(₹)
Purchase Cost	(12,000 units × ₹ 1,740)	2,08,80,000.00
Ordering Cost*	[(12,000 units ÷ 371 units) i.e. 33 × ₹ 1,200]	39,600.00
Carrying Cost**	(371 units × ₹ 1,740 × ½ × 12/100)	38,732.40
Total Cost		2,09,58,332.40

(b) When Quantity Discount of 5% is offered.

		(₹)
Purchase Cost	(12,000 units × ₹ 1,740 × 0.95)	1,98,36,000.00
Ordering Cost*	[(12,000 units ÷ 6,000 units) × ₹1,200]	2,400.00
Carrying Cost**	(6,000 units × ₹1,653 × ½ × 12/100)	5,95,080.00
Total Cost		2,04,33,480.00

Advise – The total cost of inventory is lower if quantity discount offer is accepted. Hence, the company is advised to accept the quantity discount.

$$\text{* Ordering Cost} = \frac{\text{Annual Demand}}{\text{Order Quantity}} \times \text{Cost of placing an order}$$

$$\text{** Carrying Cost} = \frac{\text{Cost per unit} \times \text{Quantity ordered} \times \text{Carrying Cost}}{2}$$

(c) Let T hours be the total time worked in hours by the skilled worker (machine-man Sam); ₹ 30/- is the rate per hour; standard time is 4 hours per unit and effective hourly earning rate is ₹ 37.50 then

Earning = Hours worked × Rate per hour

$$+\frac{\text{Time saved}}{\text{Time allowed}}\times\text{Time taken}\times\text{Rate per hour}$$

(Under Rowan incentive plan)

₹ 37.5 T = (T × ₹ 30) $+\frac{(4-T)}{4}\times T\times ₹\ 30$

₹ 37.5 = ₹ 30 + (4 – T) × ₹ 7.5

Or ₹ 7.5 T = ₹ 22.5

Or T= 3 hours

Total earnings and effective hourly rate of skilled worker (machine man Sam) under Halsey Incentive Scheme (50%)

Total earnings = (Hours worked × Rate per hour) + (½ Time saved × Rate per hour)

(under 50% Halsey Incentive Scheme)

= (3 hours × ₹ 30) + (½ × 1 hour × ₹ 30)

Effective hourly rate = $\frac{\text{Total earnings}}{\text{Hours taken}}=\frac{₹\ 105}{3\text{ hours}}=₹\ 35$

2. (a) Computation of Machine Hour Rate

	Basis of apportionment	Total	Machines		
			P	Q	R
		(₹)	(₹)	(₹)	(₹)
(A) Standing Charges					
Insurance	Depreciation Basis	8,000	3,000	3,000	2,000
Indirect Labour	Direct Labour	24,000	6,000	9,000	9,000
Building Maintenance expenses	Floor Space	20,000	8,000	8,000	4,000
Rent and Rates	Floor Space	1,20,000	48,000	48,000	24,000
Salary of foreman	Equal	2,40,000	80,000	80,000	80,000
Salary of attendant	Equal	60,000	20,000	20,000	20,000

	Total standing charges		4,72,000	1,65,000	1,68,000	1,39,000
	Hourly rate for standing charges			90.36	92.00	76.12
(B)	**Machine Expenses:**					
	Depreciation	Direct	20,000	7,500	7,500	5,000
	Spare parts	Final estimates	13,225	4,600	5,750	2,875
	Power	K.W. rating	40,000	15,000	10,000	15,000
	Consumable Stores	Direct	9,000	3,600	2,700	2,700
	Total Machine expenses		82,225	30,700	25,950	25,575
	Hourly Rate for Machine expenses			16.81	14.21	14.01
	Total (A + B)		5,54,225	1,95,700	1,93,950	1,64,575
	Machine Hour rate			107.17	106.22	90.13

Working Notes:

(i) Calculation of effective working hours:

No. of holidays 52 (Sundays) + 14 (other holidays) = 66

Saturday (52 – 2) = 50

No. of days (Work full time) = 365 – 66 – 50 = 249

	Hours
Full days work 249 × 8	= 1,992
Half days work 50 × 4	= 200
	2,192

	Hours	
Effective capacity 85% of 2,192	1,863	(Rounded off)
Less: Normal loss of time (Breakdown) 2%	37	(Rounded off)
Effective running hour	1,826	

(ii) Amount of spare parts is calculated as under:

	P	Q	R
	₹	₹	₹
Preliminary estimates	4,000	4,000	2,000

Add: Increase in price @ 15%	600	600	300
	4,600	4,600	2,300
Add: Increase in consumption @ 25%	–	1,150	575
Estimated cost	4,600	5,750	2,875

(iii) Amount of Indirect Labour is calculated as under:

	₹
Preliminary estimates	20,000
Add: Increase in wages @ 20%	4,000
	24,000

(iv) Amount of Consumables Stores is calculated as under:

	₹
Preliminary estimates	10,000
Less: Decrease in consumption @ 10%	1,000
	9,000

(v) Interest on capital outlay is a financial matter and, therefore it has been excluded from the cost accounts.

(b) Economic batch quantity in Batch Costing*:* In batch costing the most important problem is the determination of 'Economic Batch Quantity'. The determination of economic batch quantity involves two types of costs viz, (i) set up cost and (ii) carrying cost. With the increase in the batch size, there is an increase in the carrying cost but the set up cost per unit of product is reduced. This situation is reversed when the batch size is reduced. Thus there is one particular batch size for which both set up and carrying costs are minimum. This size of a batch is known as economic or optimum batch quantity.

Economic batch quantity can be determined with the help of table, graph or mathematical formula. The mathematical formula usually used for its determination is as follows:

$$E.B.Q = \sqrt{\frac{2DS}{C}}$$

Where, D= Annual demand for the product

S = Setting up cost per batch

C = Carrying cost per unit of production per annum

3. (a) (a) **Flexible Budget for different levels**

	₹	₹	₹	₹	₹
No. of Students	60	90	120	150	180
VARIABLE COST					

Breakfast	3000	4500	6000	7500	9000
Lunch	6000	9000	12000	15000	18000
Tea	600	900	1200	1500	1800
Entrance fee	1200	1800	2400	3000	3600
Sub-total (A)	10800	16200	21600	27000	32400
Variable cost/unit	180	180	180	180	180
SEMI-VARIABLE COST					
Bus rent	13000	13000	19500	19500	26000
Special permit fee	1000	1000	1500	1500	2000
Allowance for teachers	2000	2000	3000	3000	4000
Sub-total (B)	16000	16000	24000	24000	32000
FIXED COST					
Block entrance fee	2500	2500	2500	2500	2500
Prize to students	500	500	500	500	500
Sub total (C)	3000	3000	3000	3000	3000
Total cost (A + B + C)	29,800	35,200	48,600	54,000	67,400

(b) Cost per student	496.67	391.11	405.00	360.00	374.44

(c) Break-even level

	₹
Collection per students	400
Less Variable Cost	180
Contribution	220

Since semi-fixed costs relate to a block of 50 students, the fixed and semi-variable cost for three level will be:

Level of Student	51–100	101–150	151-200
Fixed + Semi–variable cost (₹)	19,000	27,000	35,000
Contribution per unit (₹)	220	220	220
Break Even level of students	86	123	159

(b) (i) Statement of cost allocation to each product from each activity

	Product			
	A (₹)	**B (₹)**	**C (₹)**	**Total (₹)**
Power (Refer to working note)	10,00,000	20,00,000	15,00,000	45,00,000

	(10,000 kWh × ₹ 100)	(20,000 kWh × ₹ 100)	(15,000 kWh × ₹ 100)	
Quality Inspections (Refer to working note)	31,50,000 (3,500 inspections × ₹ 900)	22,50,000 (2,500 inspections × ₹ 900)	27,00,000 (3,000 inspections × ₹ 900)	81,00,000

Working Note:

Rate per unit of cost driver:

Power : (₹ 60,00,000 ÷ 60,000 kWh) = ₹100/kWh

Quality Inspection: (₹ 90,00,000 ÷ 10,000 inspections) = ₹900 per inspection

(ii) Calculation of cost of unused capacity for each activity:

	(₹)
Power (₹60,00,000 – ₹45,00,000)	15,00,000
Quality Inspections (₹90,00,000 – ₹75,00,000)	15,00,000
Total cost of unused capacity	30,00,000

4. (a) Job Cost Sheet for the period.....

			₹
Direct materials			2,13,000
Direct wages:			
Machine shop		63,000	
Assembly shop		48,000	1,11,000
	Prime Cost		3,24,000
Works overhead:			
Machine shop		88,200	
Assembly shop		51,800	1,40,000
	Work Cost		4,64,000
Administration overhead			92,800
	Cost of Production		5,56,800
Selling overhead			81,000
Distribution overhead			62,100
	Total Cost		6,99,900

Schedule of Overhead Rate

(i) Works Overhead: Hourly rate = (Overhead amount ÷ Hours)

Machine shop = (88,200 ÷ 12,000) = ₹ 7.35 per hour

Assembly shop = (51,800 ÷ 10,000) = ₹ 5.18 per hour

(ii) Administrative Overhead as a % of works cost

$$= \frac{92,800}{4,64,000} \times 100 = 20\%$$

(iii) Selling and distribution overhead as % of works cost

$$= \frac{81,000 + 62,100}{4,64,000} \times 100 = 30.84\%$$

Labour hour rates are calculated as under:

Machine shop = ₹ 63,000 ÷ 12,000 hrs. = ₹ 5.25

Assembly shop = ₹ 48,000÷10,000 hrs. = ₹ 4.80

(b) Cost Estimate for Job

Direct Materials	₹	₹
(i) 25 kg @ ₹ 17.20 per kg	430	
(ii) 15 kg @ ₹ 21 per kg	315	745.00
Direct Labour		
Machine shop (30 hrs. @ ₹ 5.25)	157.50	
Assembly shop (42 hrs. @ ₹ 4.80)	201.60	359.10
Prime Cost		1104.10
Works Overhead		
Machine shop (30 hours @ ₹ 7.35)	220.50	
Assembly shop (42 hours @ ₹ 5.18)	217.56	438.06
Works Cost		1542.16
Administration overhead (20% of works cost)		308.43
Cost of Production		1850.59
Selling and distribution cost (30.84% of works cost)		475.60
Total Estimated Cost		2326.19

(c) Detection of slow moving and non-moving item of stores:

The existence of slow moving and non-moving item of stores can be detected in the following ways.

(i) By preparing and *perusing periodic reports* showing the status of different items or stores.

(ii) By calculating the *inventory turnover period* of various items in terms of number of days/ months of consumption.

(iii) By computing *inventory turnover ratio* periodically, relating to the issues as a percentage of average stock held.

(iv) By implementing the use of a well designed information system.

Necessary steps to reduce stock of slow moving and non-moving item of stores:

(i) Proper procedure and guidelines should be laid down for the disposal of non-moving items, before they further deteriorates in value.

(ii) Diversify production to use up such materials.

(iii) Use these materials as substitute, in place of other materials.

(d) When the Cost and Financial Accounts are integrated - there is no need to have a separate reconciliation statement between the two sets of accounts. Integration means that the same set of accounts fulfil the requirement of both i.e., Cost and Financial Accounts.

5. (a) Cost sheet for the year ended 31st March, 2023.

Units produced - 14,000 units

Units sold - 14,153 units

Particulars	**Amount (₹)**
Raw materials purchased	43,50,000
Add: Freight Inward	1,20,000
Add: Opening value of raw materials	2,28,000
Less: Closing value of raw materials	(3,05,000)
	43,93,000
Less: Sale of scrap of material	(7,000)
Materials consumed	43,86,000
Direct Wages (12,56,000 + 1,50,000)	14,06,000
Prime Cost	57,92,000
Factory overheads (20% of Prime Cost)	11,58,400
Add: Opening value of W-I-P	1,92,500
Less: Closing value of W-I-P	(1,40,700)
Factory Cost	70,02,200
Add: Administrative overheads	1,73,000
Cost of Production	71,75,200
Add: Value of opening finished stock	6,08,500
Less: Value of closing finished stock [₹ 500(71,75,200/14,350) × 767] (1,320 + 14,350 – 14,903 = 767 units)	(3,83,500)
Cost of Goods Sold	74,00,200
Distribution expenses (₹16 × 14,903 units)	2,38,448

Cost of Sales	76,38,648
Profit (Balancing figure)	9,90,189
Sales (₹ 579 × 14,903 units)	86,28,837

(b) Workings:

Total occupancy = Occupancy in normal season + Occupancy in off-season

= (20 rooms × 80% × 8 months × 30 days) + (20 rooms × 50% × 4 months × 30 days)

= 3,840 + 1,200 = 5,040 room-days

Total Cost = Variable cost + Fixed cost

= (₹ 500 × 5,040 room-days) + ₹ 53,25,000

= ₹ 25,20,000 + ₹ 53,25,000

= 78,45,000

(a) Calculation of tariff rate per room

Tariff per room per day = (Total cost + 25% Margin on total cost) ÷ Total occupancy

= (₹ 78,45,000 + 19,61,250) ÷ 5,040 = ₹ 1,945.68

(b) Calculation of break-even occupancy

Contribution per day = Tariff – Variable cost

= ₹ 1,945.68 – 500 = ₹ 1445.68

Break-even occupancy = ₹ 53,25,000 ÷ 1445.68

= 3683

Occupancy in normal season = Break-even occupancy – Occupancy in off-season

= 3683 – (20 rooms × 50% × 4 months × 30 days)

= 3683 – 1200 = 2483 room-days

In Percentage = 2483 ÷ 4800 = 51.73%

6. **(a)** When the cost and financial accounts are kept separately, It is imperative that these should be reconciled, otherwise the cost accounts would not be reliable. The reconciliation of two set of accounts can be made, if both the sets contain sufficient detail as would enable the causes of differences to be located. It is therefore, important that in the financial accounts, the expenses should be analysed in the same way as in cost accounts. It is important to know the causes which generally give rise to differences in the costs & financial accounts. These are:

(i) Items included in financial accounts but not in cost accounts

- Income-tax
- Transfer to reserve

- Dividends paid
- Goodwill / preliminary expenses written off
- Pure financial items
- Interest, dividends
- Losses on sale of investments
- Expenses of Co’s share transfer office
- Damages & penalties

(ii) Items included in cost accounts but not in financial accounts

- Opportunity cost of capital
- Notional rent

(iii) Under / Over absorption of expenses in cost accounts

(iv) Different bases of inventory valuation

Motivation for reconciliation is:

- To ensure reliability of cost data
- To ensure ascertainment of correct product cost
- To ensure correct decision making by the management based on Cost & Financial data
- To report fruitful financial / cost data.

(b) The essential features, which a good Cost Accounting System should possess, are as follows:

(a) **Informative and Simple:** Cost Accounting System should be tailor-made, practical, simple and capable of meeting the requirements of a business concern. The system of costing should not sacrifice the utility by introducing meticulous and unnecessary details.

(b) **Accuracy:** The data to be used by the Cost Accounting System should be accurate; otherwise it may distort the output of the system and a wrong decision may be taken.

(c) **Support from Management and subordinates:** Necessary cooperation and participation of executives from various departments of the concern is essential for developing a good system of Cost Accounting.

(d) **Cost-Benefit:** The Cost of installing and operating the system should justify the results.

(e) **Procedure:** A carefully phased programme should be prepared by using network analysis for the introduction of the system.

(f) **Trust:** Management should have faith in the Costing System and should also provide a helping hand for its development and success.

(c) The following steps are useful for minimizing labour turnover:

(a) *Exit interview*: An interview to be arranged with each outgoing employee to ascertain the reasons of his leaving the organization.

(b) *Job analysis and evaluation*: to ascertain the requirement of each job.

(c) Organization should make use of a scientific system of recruitment, placement and promotion for employees.

(d) Organization should create healthy atmosphere, providing education, medical and housing facilities for workers.

(e) Committee for settling workers grievances.

OR

(c) CVP Analysis:-Assumptions

(i) Changes in the levels of revenues and costs arise only because of changes in the number of products (or service) units produced and sold.

(ii) Total cost can be separated into two components: Fixed and variable

(iii) Graphically, the behaviour of total revenues and total cost are linear in relation to output level within a relevant range.

(iv) Selling price, variable cost per unit and total fixed costs are known and constant.

(v) All revenues and costs can be added, sub traded and compared without taking into account the time value of money.

ANSWER OF MODEL TEST PAPER 3

INTERMEDIATE: GROUP – II

PAPER – 4: COST AND MANAGEMENT ACCOUNTING

PART I – Case Scenario based MCQs

1. (i) (c) Output by experienced workers in 50,000 hours = $\frac{50,000}{10}$ = 5,000 units

∴ Output by new recruits = 60% of 5,000 = 3,000 units

Loss of output = 5,000 – 3,000 = 2,000 units

Total loss of output = Due to delay recruitment + Due to inexperience

= 10,000 + 2,000 = 12,000 units

(ii) (a) Contribution per unit = 20% of ₹180 = ₹ 36

Total contribution lost = ₹36 × 12,000 units = ₹ 4,32,000

(iii) (b) Cost of repairing defective units = 3,000 units × 0.2 × ₹ 25 = ₹ 15,000

(iv) (d) Calculation of loss of profit due to labour turnover

	(₹)
Loss of Contribution	4,32,000
Cost of repairing defective units	15,000
Recruitment cost	1,56,340
Training cost	1,13,180
Settlement cost of workers leaving	1,83,480
Profit forgone in 2022-23	9,00,000

(v) (c) Output by experienced workers in 50,000 hours = $\frac{50,000}{10}$ = 5,000 units

∴ Output by new recruits = 60% of 5,000 = 3,000 units

Loss of output = 5,000 – 3,000 = 2,000 units

2. (i) (b)

(ii) (a)

(iii) (b)

(iv) (c)

(v) (a)

Statement of Cost of P Ltd. for the year ended 31st December, 2023:

Sl. No.	Particulars	Amount (₹)	Amount (₹)
(i)	Material Consumed:		
	- Raw materials purchased	5,00,00,000	
	- Freight inward	9,20,600	
	Add: Opening stock of raw materials	10,00,000	
	Less: Closing stock of raw materials	(8,40,000)	5,10,80,600
(ii)	Direct employee (labour) cost:		
	- Wages paid to factory workers		25,20,000
(iii)	Direct expenses:		
	- Royalty paid for production	1,80,000	
	- Amount paid for power & fuel	3,50,000	
	- Job charges paid to job workers	3,10,000	8,40,000
	Prime Cost		5,44,40,600
(iv)	Works/ Factory overheads:		
	- Stores and spares consumed	1,10,000	
	- Repairs & Maintenance paid for plant & machinery	40,000	
	- Insurance premium paid for plant & machinery	28,200	
	- Insurance premium paid for factory building	18,800	
	- Expenses paid for pollution control and engineering & maintenance	36,000	2,33,000
	Gross factory cost		5,46,73,600
	Add: Opening value of W-I-P		8,60,000
	Less: Closing value of W-I-P		(6,60,000)
	Factory Cost		5,48,73,600
(v)	Quality control cost:		
	- Expenses paid for quality control check activities		18,000
(vi)	Research & development cost paid for improvement in production process		20,000
(vii)	Less: Realisable value on sale of scrap and waste		(48,000)
(viii)	Add: Primary packing cost		46,000
	Cost of Production		5,49,09,600
	Add: Opening stock of finished goods		12,00,000
	Less: Closing stock of finished goods		(10,50,000)

	Cost of Goods Sold		5,50,59,600
(ix)	Administrative overheads:		
	- Depreciation on office building	50,000	
	- Salary paid to General Manager	6,40,000	
	- Fee paid to independent directors	1,20,000	8,10,000
(x)	Selling overheads:		
	- Repairs & Maintenance paid for sales office building	20,000	
	- Salary paid to Manager- Sales & Marketing	5,60,000	
	- Performance bonus paid to sales staffs	1,20,000	7,00,000
(xi)	Distribution overheads:		
	- Packing cost paid for re-distribution of finished goods		80,000
	Cost of Sales		5,66,49,600

3. **(d)**

Variable Overhead Efficiency Variance:

= Std. rate per hour × (Std. hours for actual production – Actual hours)

= ₹10 (2 hours × 11,800 units – 23,200 hours) = ₹4,000 (F)

Workings:

1. Standard cost per unit = $\frac{₹\ 2,40,000}{12,000\text{units}}$ = ₹ 20

2. Standard cost per hour = $\frac{₹\ 2,40,000}{12,000 \text{ units} \times 2 \text{ hours}}$ = ₹10

4. **(b)**

Sales mix (in quantity) is 4 units of Product- A and 3 units of Product- B

Composite contribution per unit by taking weights for the product sales quantity

=Product A: **₹140 ×** $\frac{4}{7}$ + Product B: ` **70** × $\frac{3}{7}$ = ₹ 80 + ₹ 30 = ₹ 110

Composite Break-even point = $\frac{\text{Common Fixed Cost}}{\text{Composite Contribution per unit}} = \frac{₹\ 6,16,000}{₹\ 110}$
= 5,600 units

Break-even units of Product- B = 5,600×$\frac{3}{7}$= 2,400 units

5. **(d)** **60 km**

Let's assume distance between Delhi and Manesar is 'X'

Therefore: Xx39x2x3x26x12 = **₹** 43,80,480

X = 60

6 (a) ₹ 11,27,000

	₹
Purchase price	10,00,000
Custom duty	2,00,000
Octroi	5,000
Carriage inward	12,000
Commission on Purchase	10,000
Total Purchase	12,27,000
Opening stock of Raw Material	1,00,000
Closing stock of Raw Material	(2,00,000)
Raw Material consumed	11,27,000

7. (c) ₹ 1,80,000

costs allocated to product A is

= (60,000kg/30,000kg)*3,60,000

= 1,80,000

PART-II – Descriptive Questions

1. (a) (i) Optimum run size for empty bottle manufacture

$$= \sqrt{\frac{2 \times \text{Annual supply of empty bottles} \times \text{Set-up cost per production run}}{\text{Annual holding cost per bottle}}}$$

$$= \sqrt{\frac{2 \times 1{,}50{,}000 \text{ bottles} \times 520}{12 \text{ months} \times 0.05P}} = 16{,}125 \text{ bottles}$$

(ii) Interval between two consecutive optimum runs

$$= \frac{12 \text{ months}}{\left(\frac{\text{Annual production}}{\text{Optimum run size}}\right)}$$

$$= \frac{12 \text{ months}}{\left(\frac{1{,}50{,}000 \text{ bottles}}{16{,}125 \text{ bottles}}\right)} = \frac{12 \text{ months}}{9.30} = 1.29 \text{ months or } 39 \text{ days}$$

approximately.

(iii) Minimum inventory cost per annum

= Total production run cost + Total carrying cost per annum

$$= \frac{1{,}50{,}000 \text{ bearings}}{16{,}125 \text{ bearings}} \times ₹\ 520 + (1/2)\ 16125 \text{ bottles} \times ₹\ 0.05 \times 12 \text{ months}$$

= ₹ 4,836 + ₹ 4837.50

= ₹ 9673.50

(b) Working Notes:

1. Depreciation per annum:= $\frac{\text{Purchase price - Scrap value}}{\text{Estimated life}}$

$$= \frac{₹\,4,00,000 - ₹\,10,000}{5 \text{ years}} = ₹\,78,000$$

2. Total distance travelled by mini-bus in 25 days:

   = Length of the route (two -sides) × No. of trips per day × No. of days

   = 60 km × 6 trips × 25 days = 9,000 km

3. Total Passenger-Km:

   = Total distance travelled by mini-bus in 25 days × No. of seats

   = 9,000 km × 20 seats = 1,80,000 passenger-km

Statement suggesting fare per passenger-km

Particulars	**Cost per annum ₹**	**Cost per month ₹**
Fixed expenses:		
Insurance	15,000	
Garage rent	9,000	
Road tax	3,000	
Administrative charges	5,000	
Depreciation	78,000	
Interest on loan	10,000	
	1,20,000	10,000
Running expenses:		
Repair and maintenance	15,000	1,250
Replacement of tyre-tube	3,600	300
Diesel and oil cost (9,000 km × ₹ 5)	-	45,000
Driver and conductor's salary	-	5,000
Total cost (per month)		61,550.00
Add: Profit 20% of total revenue cost or 25% of total cost		15,387.50
Total revenue		76,937.50

Rate per passenger-km ₹ 76,937.50/1,80,000 passenger km = 0.42743 i.e., = 0.43 i.e., 43 paise

(c) **(i)** Economic Order Quantity = $\sqrt{\frac{2AO}{C}}$

Where, A= Annual demand

O = Cost of placing an order

C = Carrying cost per unit per annum

$= \sqrt{\frac{2x(40x365)x100}{0.06x365}}$

= 365 units

(ii) Re-Order Level = Maximum usage x maximum lead time

= 40x26

= 1040 units

2. **(a)** **a.** Variable overhead absorption rate:

₹ 3,56,375 – ₹ 3,38,875 = ₹ 17,500 ÷ (16,500 – 14,500) = ₹ 8.75 per machine hour.

b. Total fixed overheads:

	₹
Total overheads at 14,500 hours	3,38,875
Variable overheads = ₹ 8.75 × 14,500	1,26,875
Total fixed overheads	2,12,000

c. Budgeted level of activity:

Let budgeted level of activity = x

$\frac{(₹\ 8.75\ x + ₹\ 2,12,000)}{x} = 22$

8.75x + ₹ 2,12,000 = 22x

2,12,000 = 13.25x

16,000 = x

Thus, budgeted level of activity = 16,000 machine hours.

d. Under/over – recovery of overheads:

	₹
Actual overheads	3,55,050
Absorbed = 15,850 hours × ₹ 22/hour	(3,48,700)
Under - recovery	6,350

e. Departmental absorption rates provide Costs which are more precise than those provided by the use of blanket absorption rates. Departmental absorption rates facilitate Variance analysis and Cost control. The application of these rates makes the task of Stock and WIP valuation easier and more precise. However the setting up and monitoring of these rates can be time consuming and expensive. In cases where departments are similar the use of such rates may not be useful for Costing purposes.

(b) The essential features, which a good cost and management accounting system should possess, are as follows:

(a) **Informative and simple:** Cost and management accounting system should be tailor-made, practical, simple and capable of meeting the requirements of a business concern. The system of costing should not sacrifice the utility by introducing meticulous and unnecessary details.

(b) **Accurate and authentic:** The data to be used by the cost and management accounting system should be accurate and authenticated; otherwise it may distort the output of the system and a wrong decision may be taken.

(c) **Uniformity and consistency:** There should be uniformity and consistency in classification, treatment and reporting of cost data and related information. This is required for benchmarking and comparability of the results of the system for both horizontal and vertical analysis.

(d) **Integrated and inclusive:** The cost and management accounting system should be integrated with other systems like financial accounting, taxation, statistics and operational research etc. to have a complete overview and clarity in results.

3. (a) **COST LEDGER**

Dr. **Cost Ledger Account** Cr.

Particulars	₹	Particulars	₹
To Stores ledger control A/c	5,800	By Balance b/d	13,30,440
To Finished stock ledger control A/c	3,71,780	By Stores ledger control A/c	2,46,000
To Balance c/d	15,37,030	By Wages control A/c	1,01,060
		By Works overhead control A/c	43,330
		By Works overhead control A/c	1,83,020
		By Finished stock ledger control A/c	10,760
	19,14,610		19,14,610
		By Balance b/d	15,37,030

Dr.	**Stores Ledger Control Account**		Cr.
Particulars	₹	Particulars	₹
To Balance b/d	6,02,870	By Cost ledger control A/c	5,800
To Cost ledger control A/c	2,46,000	By Work-in-progress control A/c	2,54,630
		By Balance c/d	5,88,440
	8,48,870		8,48,870
To Balance b/d	5,88,440		

Dr. **Manufacturing Overhead Control Account** Cr.

Particulars	₹	Particulars	₹
To Cost ledger control A/c	1,83,020	By Balance b/d	21,050
To Cost ledger control A/c	43,330	By Work-in-progress control A/c	1,54,400
		By Balance c/d	50,900
	2,26,350		2,26,350
To Balance b/d	50,900		

Dr. **Work-in-progress Control Account** Cr.

Particulars	**₹**	**Particulars**	**₹**
To Balance b/d	2,44,730	By Finished stock ledger control A/c	4,21,670
To Wages control A/c	1,01,060	By Balance c/d	3,33,150
To Stores ledger control A/c	2,54,630		
To Works overhead control A/c	1,54,400		
	7,54,820		7,54,820
To Balance b/d	3,33,150		

Dr.	**Finished Stock Ledger Control Account**		Cr.
Particulars	**₹**	**Particulars**	**₹**
To Balance b/d	5,03,890	By Cost ledger control A/c	3,71,780
To Work-in-progress	4,21,670	By Balance c/d	5,64,540
To Cost ledger control A/c	10,760		
	9,36,320		9,36,320
To Balance b/d	5,64,540		

Trial Balance

	Dr. ₹	*Cr.* ₹
Cost ledger control account	—	15,37,030
Stores ledger control account	5,88,440	—
Mfg. overhead control account	50,900	—
W.I.P. control account	3,33,150	—
Finished stock ledger control account	5,64,540	—
	15,37,030	15,37,030

(b) Production budget

(For the year 2023 by quarters)

(a) Units to be produced in each quarters

Quarters

	I	II	III	IV	Total
2/3 of current quarter's sales demand	8,000	10,000	11,000	12,000	41,000
1/3 of the following quarter demand*	5,000	5,500	6,000	6,500	23,000
	13,000	15,500	17,000	18,500	64,000

(b) Statement showing direct material, variable overhead and fixed overhead

Quarters

	I	II	III	IV	Total
Units to be produced	13,000	15,500	17,000	18,500	64,000
Direct Material @ ₹ 5 Per unit	₹ 65,000	₹ 77,500	₹ 85,000	₹ 92,500	₹ 3,20,000
(Refer to Note 1)					
Direct Labour @ ₹ 6 per Unit	78,000	93,000	1,02,000	1,11,000	3,84,000
(Refer to Note 2)					
Variable overhead ₹ 1.50 per unit	19,500	23,250	25,500	27,750	96,000
(Refer to Note 3)					
Fixed Overhead	45,000	45,000	45,000	45,000	1,80,000
(Refer to Note 4)	2,07,500	2,38,750	2,57,500	2,76,250	9,80,000

(ii)	**Budgeted profit for the whole year**	₹
	Sales (61,500** units @₹ 17 per unit)	₹ 10,45,500
	Less: Total variable cost per unit (61,500** unit @ ₹ 12.50 per unit)	₹ 7,68,705
		2,76,750
	Less: Fixed cost	1,80,000
	Profit for the whole year	96,750
	Variable cost per unit:	₹
	Direct material cost (Refer to Note 1)	5.00
	Direct labour cost (Refer to Note 2)	6.00
	Variable cost (Refer to Note 3)	1.50
		12.50

Working Notes:

1. Direct material cost = 10 kgs @ ₹ 0.50 per kg = ₹ 5.00 per unit.
2. Direct labour per unit = 1 hr. 30 minutes @ ₹ 4 per hour = ₹ 6 per unit.
3. Variable overhead per unit = 1 hr. 30 minutes @ ₹ 1 per hour = ₹ 1.50 unit
4. Fixed Overhead

Budgeted production volume is 90,000 direct labour hours for the year @ ₹ 2 per hour i.e. ₹ 1,80, 000 for the year. This fixed overhead is spread over the four quarters equally.

* Inventory is given for the fourth quarter.

** Sales for the year is given i.e. 12,000 + 15,000+16,500 + 18,000 = 61,500 unit.

4. (a) (a) Material Price variance = Actual quantity (Std. Price – Actual Price)

A = 17200(3.5 – 4.00)	=	8600(A)
B = 36500(5.00 – 4.50)	=	18250(F)
C = 23800(4.25 – 4.30)	=	1190(A)
		8460(F)

(b) Material usage variance = Std. Price (Std. quantity for actual production – Actual quantity)

A = 3.50(6000 X 3 – 17200)	=	2800(F)
B = 5.00(6000 X 6 – 36500)	=	2500(A)
C = 4.25(6000 X 4 – 23800)	=	850(F)
		1150 (F)

(c) Labour rate variance = Actual hour paid (Std. rate – Actual rate)

Skilled labour = 24 X 45 (5.00 – 6.00) = 1080(A)

Semi-skilled labour = 12 X 45 (4.00 - 4.25) = 135(A)

Un-skilled labour = 6 X 45 (2.00 - 3.25) = 337.50(A)

1552.50(A)

(d) Labour Mix variance = Std. rate (Revised std. hours – Actual hours)

Skilled labour = 5.00(1170 - 1080) = 450(F)

Semi-skilled labour = 4.00(450 – 540) = 360(A)

Un-skilled labour = 2.00(360 – 270) = 180(F)

270(F)

(e) Labour yield variance = Std. rate per hour (Standard hours – Revised std. hours)

= 8370/1980(1900 – 1980) = 338 (A)

Working notes:

(i)

	Standard			Actual		
Category of workers	Hrs.*	Rate ₹	Amount ₹	Hrs.*	Rate ₹	Amount ₹
Skilled	1170	5.00	5850.00	1080	6.00	6480.00
Semi-skilled	450	4.00	1800.00	540	4.25	2295.00
Un-skilled	360	2.00	720.00	270	3.25	877.50
	1980		8370.00	1890		9652.50

*Hrs. = No. of workers X 45 hours.

(b) Variable cost to sales = 80%

Contribution to sales = 20%

Or P/V Ratio 20%

We know that: BES x P/V Ratio = Fixed Cost

BES x 0.20 = ₹ 65,000

Or BES = ₹ 3,25,000

It is given that break-even occurs at 65% capacity.

Therefore, sales at 100% capacity = ₹ 3,25,000 / 0.65

= ₹ 5,00,000

<u>Computation of profit at 95% Capacity</u>

		₹
95% of capacity sales (i.e. ₹ 5,00,000 x 0.95)	=	4,75,000
Less: Variable cost (i.e. ₹ 4,75,000 x 0.80)	=	3,80,000
Contribution		95,000

Less: Fixed Cost	65,000
Profit	30,000

5. (a) **Process- I Account**

		Units	₹			*Units*	₹
To	Material	10,000	45,000	By	Normal wastage	300	
"	Labour		6,100	"	Abnormal wastage	100	628
"	Overhead		9,800		(cost per unit, ₹ 6.278)		
				"	Process No. 2	9,600	60,272
					(Transfer of		
					completed units)		
		10,000	60,900			10,000	60,900

Note : The cost of the abnormal wastage :

Normal Output = 10,000 units – 300 units = 9,700 units

Cost per unit of normal output = ₹ 60,900 ÷ 9,700 units = ₹ 6.278

Cost of 100 units = ₹ 6.278 × 100 = ₹ 628

Process- II Account

		Units	₹		*Units*	₹
To	Process No.1	9,600	60,272	By Normal wastage	576	–
"	Materials		23,500	(6% of 9,600)		
"	Labour		4,280	" Process No.3	9,300	1,00,845
"	Overhead		9,800	(cost per unit ₹ 10.84)		
"	Abnormal gain	276	2,993			
	(cost per unit ₹ 10.84)					
		9,876	1,00,845		9,876	1,00,845

Note : The cost per unit is obtained by dividing ₹ 97,852 by 9,024 units, *i.e.,* 9,600 units less 576 units.

Process- III Account

		Units	₹		Units	₹
To	Process No. 2	9,300	1,00,845	By Normal wastage	651	
”	Materials		11,200	” Abnormal wastage	649	9,706
”	Labour		1,200	(Cost per unit ₹ 14.95)		
”	Overhead		16,100	” Finished Stock	8,000	1,19,639
		9,300	1,29,345		9,300	1,29,345

Note : The calculation of the cost of abnormal wastage :

Normal Output = 9,300 units – 651 units = 8,649 units.

Cost per unit of normal output = ₹ 1,29,345 ÷ 8,649 = ₹ 14.95

Cost of 649 units is = ₹ 9706

(b) Treatment of normal and abnormal loss of material arising during storage in Cost Accounts.

The difference between the book balance and actual physical stock, which may either be gain or loss, should be transferred to Inventory Adjustment Account pending scrutiny to ascertain the reason for the difference.

If on scrutiny, the difference arrived at is considered as normal, then such a difference should be transferred to overhead control account and if abnormal, it should be debited to costing profit and loss account.

In the case of normal losses, an alternative method may be used. Under this method the price of the material issued to production may be inflated so as to cover the normal loss.

6. (a) Difference between Cost Accounting and Management Accounting

	Basis	Cost Accounting	Management Accounting
(i)	Nature	It records the quantitative aspect only.	It records both qualitative and quantitative aspect.
(ii)	Objective	It records the cost of producing a product and providing a service.	It Provides information to management for planning and co-ordination.
(iii)	Area	It only deals with cost Ascertainment.	It is wider in scope as it includes financial accounting, budgeting, taxation, planning etc.
(iv)	Recording of data	It uses both past and present figures.	It is focused with the projection of figures for future.

(v)	Development	Its development is related to industrial revolution.	It develops in accordance to the need of modern business world.
(vi)	Rules and Regulation	It follows certain principles and procedures for recording costs of different products.	It does not follow any specific rules and regulations.

(b) CVP Analysis:-Assumptions

(i) Changes in the levels of revenues and costs arise only because of changes in the number of products (or service) units produced and sold.

(ii) Total cost can be separated into two components: Fixed and variable

(iii) Graphically, the behaviour of total revenues and total cost are linear in relation to output level within a relevant range.

(iv) Selling price, variable cost per unit and total fixed costs are known and constant.

(v) All revenues and costs can be added, sub traded and compared without taking into account the time value of money.

(c) Difference between Fixed and Flexible Budgets

	Fixed Budget	**Flexible Budget**
1.	It does not change with actual volume of activity achieved. Thus it is rigid	It can be re-casted on the basis of activity level to be achieved. Thus it is not rigid.
2.	It operates on one level of activity and under one set of conditions	It consists of various budgets for different level of activity.
3.	If the budgeted and actual activity levels differ significantly, then cost ascertainment and price fixation do not give a correct picture.	It facilitates the cost ascertainment and price fixation at different levels of activity.
4.	Comparisons of actual and budgeted targets are meaningless particularly when there is difference between two levels.	It provided meaningful basis of comparison of actual and budgeted targets.

OR

(d) *Job Costing:* It is a method of costing which is used when the work is undertaken as per the customer's special requirement. When an inquiry is received from the customer, costs expected to be incurred on the job are estimated and on the basis of this estimate, a price is quoted to the customer. Actual cost of materials, labour and overheads are accumulated and on the completion of job, these actual costs are compared with the quoted price and thus the profit or loss on it is determined.

Job costing is applicable in printing press, hardware, ship-building, heavy machinery, foundry, general engineering works, machine tools, interior decoration, repairs and other similar work.

Batch Costing: It is a variant of job costing. Under batch costing, a lot of similar units which comprises the batch may be used as a unit for ascertaining cost. In the case of batch costing separate cost sheets are maintained for each batch of products by assigning a batch number. Cost per unit in a batch is ascertained by dividing the total cost of a batch by the number of units produced in that batch.

Such a method of costing is used in the case of pharmaceutical or drug industries, readymade garment industries, industries, manufacturing electronic parts of T.V. radio sets etc.

ANSWER OF MODEL TEST PAPER 4

INTERMEDIATE: GROUP – II

PAPER – 4: COST AND MANAGEMENT ACCOUNTING

PART I – Case Scenario based MCQs

1. **c. 40,000 units.**

   Projected Sales of Product P – 24,000 units

   Less: Opening stock of Product P- (4,000 units)

   Product P to be produced- 20,000 units

   Raw Material required- 50,000 units (20,000 x 2/80% yield)

   Opening stock of Material R available- 10,000 units

   Material to be procured- 40,000 units.

2. **a. Order Quantity as per the current inventory policy – 10,000 units and EOQ – 1,000 units**

   Annual requirement - Procurement- 40,000 units

   Order Quantity as per the current inventory policy (Quarterly) - 10,000 units

   Ordering Cost- ₹125 per order

   Carrying Cost- ₹ 10 per unit p.a.

   EOQ - 1,000 units.

3. **b. Savings from EOQ as Compared to current discount policy – ₹ 20,500**

   Associated Costs under EOQ:

   Ordering Costs = No. of orders x Ordering cost per order

   No of orders = Annual Requirement/ EOQ (or) current order quantity

   Hence No of orders = 40

   Therefore Ordering Cost = 40 x 125 = ₹ 5,000.

   Carrying cost = Average Inventory x Carrying cost per unit per annum

   Average Inventory = (EOQ/ current order quantity)/2

   = 1,000/2 = 500

   Carrying cost = 500 x 10 = ₹ 5,000

   Associated Costs under EOQ = Ordering cost + Carrying Cost

   = ₹ 10,000 ---------------- A

   Associated Costs under current inventory policy:

   No of orders = 4 (Quarterly)

Ordering cost = 4 x 125 = ₹ 500

Average inventory = 10,000/2 = 5,000

Carrying cost = 5,000x10 = 50,000

Associated Costs = 50,000+500 = 50,500

Less: Discount = 20,000

Net cost = 30,500. -------------- B

Incremental Cost = B – A = 20,500

4. b. ₹ 6,400

Time taken under the Overtime regime 180 Hours + 20 Hours overtime = 200 Hours

Time to be taken under the Incentive regime

Units to be produced = 20,000 units

Units produced per hour under incentive scheme = 125 units

Time taken = 160 Hours

Time saved = 200 – 160 = 40 hours.

Incentive under Rowan scheme = (Time saved/Time allowed) x time taken x Rate

= (40/200) x 160x200 = ₹ 6,400.

5. b. ₹ 5,600

<u>Cost under the Overtime scheme:</u>

Base wage = 200 x 200 = 40,000

OT Premium = 20 x 200 = 4,000

Total Wages under Overtime scheme = 44,000

<u>Cost under Incentive scheme:</u>

Base Wage = 160 hours x 200 = 32,000

Incentive = 6,400

Total wages paid = 38,400

Savings in Incentive scheme over Overtime scheme = ₹ 5,600.

6. a ₹ 550

Contribution Margin per Unit = Selling Price per Unit - Variable Cost per Unit

= Variable Cost per unit = ₹ 500*+ ₹ 300**+ ₹ 100+ ₹ 50

Contribution Margin per Unit = ₹ 1,500 - ₹ 950 = ₹ 550

*Raw Material Cost Calculation

Let the cost of Plastic be x

1. The cost of Copper is ₹ 80 more than the cost of Plastic: Cost of Copper = x + 80
2. The cost of Other Materials is twice that of Plastic: Cost of Other Materials = 2x
3. The total Raw Material Cost per unit is ₹ 210 more than the combined cost of Copper & Plastic: x + (x+80) + 2x = (x + (x+80)) + 210

Solving for X = 105

Now, calculate the total cost of Raw Materials:

105 + (105+80) +210 = 500

So, the total cost of Raw Materials is ₹ 500.

** Labour Cost Calculation

1. The Labour Hour Rate is ₹ 100 per hour.
2. The total labour hours used in the last month were 36,000 hours.
3. The production units last month were 12,000 units (10000 normal units plus 2000 special order).

   Total Labour Cost = Labour Hour Rate × Total Labour Hours

   Total Labour Cost= ₹ 100 /hour × 36,000 hours = ₹ 3,600,000

   Per Unit Labour Cost = Total Labour Cost/Production Units

   Per Unit Labour Cost = ₹ 3,600,000/12000

   Per Unit Labour Cost = ₹ 300

   So, the per unit labour cost is ₹ 300.

7. c ₹ 27,27,025

- Break-even Point (Sales Revenue) = Total Fixed Costs / Contribution Margin Ratio
- Contribution Margin Ratio = Contribution Margin per Unit / Selling Price per Unit
- = ₹ 550 / ₹ 1,500 = 0.3667
- Break-even Point = ₹ 10,00,000 / 0.3667 ≈ ₹ 27,27,025

8. b 2,727 units

- Required Sales Volume (Units) = (Total Fixed Costs + Target Profit) / Contribution Margin per Unit
- = (₹ 10,00,000 + ₹ 5,00,000) / ₹ 550 ≈ 2,727.27 units ≈ 2,727 units

(rounded up)

9. b 2,198 units

- New Variable Cost per Unit = ₹ 950 + 10% of ₹ 950 = ₹ 950 + ₹ 95 = ₹ 1,045
- New Contribution Margin per Unit = ₹ 1,500 - ₹ 1,045 = ₹ 455
- New Break-even Point (Units) = Total Fixed Costs / New Contribution Margin per Unit
- = ₹ 10,00,000 / ₹ 455 ≈ 2198 units

10. c 45.05%

- Margin of Safety (Units) = Actual Sales - Break-even Sales
- = 4,000 - 2198 = 1,802 units
- Margin of Safety (%) = (Margin of Safety in Units / Actual Sales in Units) * 100
- = (1,802 / 4,000) * 100 ≈ 45.05%

11. d 9,129 units

Annual demand (D) = 50,000 units

Setup cost per batch (S) = ₹ 10,000

Carrying cost per unit per month (C) = ₹ 1

$$\text{EBQ} = \sqrt{\frac{2 \times \text{D} \times \text{S}}{\text{C}}}$$

= 9,129 units

12. a ₹ 3000(A)

Standard quantity = Standard quantity per sofa × Actual production

= 5 sq. ft x 1000 = 5,000 sq. ft.

Standard material cost = Standard quantity× Standard price per sq. ft.

= 5,000 sq. ft.×₹ 10/sq. ft.= ₹ 50,000

Actual material cost = Actual quantity used × Actual purchase price per sq. ft.

= 5,300 sq. ft.×₹ 10/sq. ft.= ₹ 53,000

Material cost variance = Standard material cost−Actual Material cost

= ₹ 50,000−₹ 53,000 = −₹ 3,000

13. b ₹ 100 per part type

Activity rate = budgeted overhead/budgeted activity level

= 4,00,000/4,000

= ₹ 100 per part type

14. a 52,000

Ton-kilometers = 10 tons x 200 kilometers x 26 days

= 52,000

15. b 83.33%

$$\text{Activity Ratio} = \frac{\text{Standard Hours}}{\text{Budgeted Hours}} \times 100$$

= 83.33%

PART-II Descriptive Questions

1. (a) Calculation of Cost of Production of Meta Ltd for the period.....

Particulars	**Amount (₹)**
Raw materials purchased	64,00,000
Add: Opening stock	2,88,000
Less: Closing stock	(4,46,000)
Material consumed	62,42,000
Wages paid	23,20,000
Prime cost	85,62,000
Repair and maintenance cost of plant & machinery	9,80,500
Insurance premium paid for inventories	26,000
Insurance premium paid for plant & machinery	96,000
Quality control cost	86,000
Research & development cost	92,600
Administrative overheads related with factory and production	9,00,000
	1,07,43,100
Add: Opening value of W-I-P	4,06,000
Less: Closing value of W-I-P	(6,02,100)
	1,05,47,000
Less: Amount realised by selling scrap	(9,200)
Add: Primary packing cost	10,200
Add: Expenses paid for pollution control and engineering & maintenance	22,000
Cost of Production	1,05,70,000

Notes:

(i) Other administrative overhead does not form part of cost of production.

(ii) Salary paid to Director (Technical) is an administrative cost.

(b) Memorandum Reconciliation Accounts

Dr. Cr.

Particulars	Amount (₹)	Particulars	Amount (₹)
To Net Loss as per Cost Accounts	48,700	By Administration overheads over recovered in Cost Accounts	65,000
To Factory overheads under absorbed in Cost Accounts	30,500	By Depreciation overcharged in Cost Accounts (₹ 2,70,000 –₹ 2,25,000)	45,000
To Provision for Income tax	52,400	By Transfer fees in Financial Accounts	10,200
To Obsolescence loss	20,700	By Notional Rent of own premises	49,000
To Overvaluation of closing stock in Cost Accounts**	9,500	By Overvaluation of Opening stock in Cost Accounts*	23,000
To Net Profit (as per Financial Accounts)	30,400		
	1,92,200		1,92,200

* Overvaluation of Opening Stock as per Cost Accounts

= Value in Cost Accounts – Value in Financial Accounts

= ₹ 1,38,000 – ₹ 1,15,000 = ₹ 23,000.

** Overvaluation of Closing Stock as per Cost Accounts

= Value in Cost Accounts – Value in Financial Accounts

= ₹ 1,22,000 – ₹ 1,12,500 = ₹ 9,500.

(c) Calculation of:

(i) Time saved and wages:

Workmen	A	B
Standard time (hrs.)	40	40

Actual time taken (hrs.)	32	30
Time saved (hrs.)	08	10
Wages paid @ ₹ x per hr. (₹)	32x	30x

(ii) Bonus Plan:

	Halsey	Rowan
Time saved (hrs.)	8	10
Bonus (₹)	4x	7.5x
	$\left[\frac{8 \text{ hrs} \times ₹\ x}{2}\right]$	$\left[\frac{10 \text{ hrs}}{40 \text{ hrs}} \times 30\text{hrs} \times ₹\ x\right]$

(iii) Total wages:

Workman A: 32x + 4x = ₹ 36x

Workman B: 30x + 7.5x = ₹ 37.5x

Statement of factory cost of the job

Workmen	**A**	**B**
	₹	₹
Material cost (assumed)	y	y
Wages (shown above)	36x	37.5x
Works overhead	240	225
Factory cost (given)	2,200	2,200

The above relations can be written as follows:

36x + y + 240 = 2,200 (i)

37.5x+ y+ 225 = 2,200 (ii)

Subtracting (i) from (ii) we get

1.5x – 15 = 0

or 1.5 x = 15

or x = ₹ 10 per hour

On substituting the value of x in (i) we get y = ₹ 1,600

Hence the wage rate per hour is ₹ 10 and the cost of raw material is ₹ 1,600 on the job.

2. (a) **Statement of Equivalent Production**

Input Details	Units	Output Particulars	Units	Equivalent Production					
				Material		Labour		Overhead	
				%	Units	%	Units	%	Units
Unit Introduced	45,000	Finished output	42,000	100	42,000	100	42,000	100	42,000
		Normal loss (2% of 45,000)	900	-	-	-	-	-	-
		Abnormal loss	300	100	300	80	240	60	180
		Closing W-I-P	1,800	100	1,800	50	900	40	720
	45,000		45,000		44,100		43,140		42,900

Statement of Cost

Particulars	Units	Rate (₹)	Amount (₹)	Amount (₹)
(i) Finished goods	42,000	17.9042		7,51,976.40
(ii) Abnormal Loss				
Material	300	11.5873	3,476.19	
Labour	240	2.1048	505.15	
Overhead	180	4.2121	758.18	4,739.52
(iii) Closing W-I-P:				
Material	1,800	11.5873	20,857.14	
Labour	900	2.1048	1,894.32	
Overhead	720	4.2121	3,032.71	25,784.17

Cost per Unit

Particulars	Amount (₹)	Units	Per Unit (₹)
(i) Direct Material :			
Unit Introduced	4,50,000		
Add: Material	65,500		
	5,15,500		
Less: Value of normal loss (900 units × ₹ 5)	(4,500)		
	5,11,000	44,100	11.5873
(ii) Labour	90,800	43,140	2.1048
(iii) Overhead	1,80,700	42,900	4.2121
			17.9042

Process – P A/c

Particulars	Units	Amount (₹)	Particulars	Units	Amount (₹)
To Input	45,000	4,50,000	By Normal loss	900	4,500
To Direct Material	-	65,500	By Abnormal loss	300	4,740
To Labour	-	90,800	By Finished goods	42,000	7,51,976
To Overhead		1,80,700	By Closing W-I-P	1,800	25,784
	45,000	7,87,000		45,000	7,87,000

Abnormal Loss A/c

Particulars	Units	Amount (₹)	Particulars	Units	Amount (₹)
To Process-B A/c	300	4,740	By Cost ledger control A/c or Bank A/c	300	600
			By Costing Profit & loss A/c	-	4,140
	300	4,740		300	4,740

(b) Treatment is as follows:

(i) **Credit for Recoveries:** The realised or realisable value of scrap or waste is deducted as it reduces the cost of production.

(ii) **Packing Cost (primary):** Packing material which is essential to hold and preserve the product for its use by the customer is added in the factory cost.

(iii) **Joint Products and By-Products:** Joint costs are allocated between/among the products on a rational and consistent basis. In case of by-products, the net realisable value of by-products is deducted from the cost of production.

(iv) **Quality Control Cost:** It is added in the factory cost as this is the cost of resources consumed towards quality control procedures.

3. (a) (i) Statement showing allocation of Joint Cost

Particulars	AB	PQ
No. of units Produced	1,800	3,000
Selling Price Per unit (₹)	40	30
Sales Value (₹)	72,000	90,000

Less:	Estimated Profit (AB -20% & PQ - 30%)	(14,400)	(27,000)
	Cost of Sales	57,600	63,000
Less:	Estimated Selling Expenses (AB -15% & PQ -15%)	(10,800)	(13,500)
	Cost of Production	46,800	49,500
Less:	Cost after separation	(35,000)	(24,000)
	Joint Cost allocated	11,800	25,500

(ii) Statement of Profitability

Particulars	MA (₹)	AB (₹)	PQ (₹)
Sales Value (A)	4,00,000 (4,000x ₹ 100)	72,000	90,000
Less:- Joint Cost	1,75,100 (2,12,400 -11,800 - 25,500)	11,800	25,500
Cost after separation	-	35,000	24,000
Selling Expenses (MA- 30%, AB-15% & PQ-15%)	1,20,000	10,800	13,500
(B)	2,95,100	57,600	63,000
Profit (A –B)	1,04,900	14,400	27,000
Overall Profit = 1,04,900 + 14,400 + 27,000 = ₹ 1,46,300			

(b) Operating Cost Statement

	Particulars	Total Cost Per annum (₹)
A.	Fixed Charges:	
	Insurance	15,600
	Garage rent (₹ 2,400 × 4 quarters)	9,600
	Road Tax	5,000
	Salary of operating staff (₹ 7,200 × 12 months)	86,400
	Depreciation	68,000
	Total (A)	1,84,600
B.	Variable Charges:	
	Repairs (₹ 4,800 × 4 quarters)	19,200
	Tyres and Tubes (₹ 3,600 × 4 quarters)	14,400
	Diesel {(1,80,000 km. ÷ 5 km.) × ₹ 13}	4,68,000
	Oil and Sundries {(1,80,000 km. ÷ 100 km.) × ₹ 22}	39,600

	Total (B)	5,41,200
	Total Operating Cost (A+B)	7,25,800
	Add: Passenger tax (Refer to WN-1)	3,01,275
	Add: Profit (Refer to WN-1)	3,42,359
	Total takings	13,69,434

Calculation of Cost per passenger kilometre and one way fare per passenger:

Cost per Passenger-Km. = $\frac{\text{Total Operating Cost}}{\text{Total Passenger - Km.}}$

$$= \frac{₹\ 7,25,800}{40,32,000 \text{ Passenger} - \text{Km.}} = ₹\ 0.18$$

One way fare per passenger = $\frac{\text{Total Takings}}{\text{Total Passenger} - \text{Km.}} \times 30 \text{ Km.}$

$$= \frac{₹\ 13,69,434}{40,32,000 \text{ Passenger - Km.}} \times 30\text{km} = ₹\ 10.20$$

Working Notes:

1. Let total taking be X then Passenger tax and profit will be as follows:

   X = ₹ 7,25,800 + 0.22 X + 0.25X

   X – 0.47 X = ₹ 7,25,800

   X = $\frac{₹ 7,25,800}{0.53}$ = ₹ 13,69,434

   Passenger tax = ₹ 13,69,434 × 0.22 = ₹ 3,01,275

   Profit = ₹ 13,69,434 × 0.25 = ₹ 3,42,359

2. Total Kilometres to be run during the year

   = 30 km.× 2 sides × 10 trips × 25 days × 12 months = 1,80,000 Kilometres

3. Total passenger Kilometres

   = 1,80,000 km. × 32 passengers × 70% = 40,32,000 Passenger-km.

4. (a) Working Notes:

(i) Total Productive hours = Estimated Working hours – Machine Maintenance hours

= 2,200 hours – 200 hours = 2,000 hours

(ii) Depreciation per annum = $\frac{₹ 10,000 - ₹ 1,000}{10 \text{ years}}$ = ₹ 900

(iii) Chemical solution cost per annum = ₹ 20 × 50 weeks = ₹ 1,000

(iv) Wages of attendants (per annum) = $\frac{₹120 \times 50\,\text{weeks}}{6\ \text{machines}}$ = ₹ 1,000

Calculation of Machine hour rate

Particulars	**Amount (per annum)**	**Amount (per hour)**
A. Standing Charge		
(i) Wages of attendants	1,000	
(ii) Departmental and general works overheads	3,000	
Total Standing Charge	4,000	
Standing Charges per hour $\left(\frac{4,000}{2,000}\right)$		2.0
B. Machine Expense		
(iii) Depreciation	900	0.45
(iv) Electricity $\left(\frac{₹0.09 \times 16\,\text{units} \times 1,900\,\text{hours}}{2,000\,\text{hours}}\right)$	-	1.37
(v) Chemical solution	1,000	0.50
(vi) Maintenance cost	1,800	0.90
Machine operating cost per hour (A + B)		5.22

(b) (i) Material Usage Variance = Std. Price (Std. Quantity – Actual Quantity)

= ₹ 45 (9,000 kgs. – 8,900 kgs.)

= ₹ 4,500 (Favourable)

(ii) Material Price Variance = Actual Quantity (Std. Price – Actual Price)

= 8,900 kgs. (₹ 45 – ₹ 46)

= ₹ 8,900 (Adverse)

(iii) Material Cost Variance = Std. Material Cost – Actual Material Cost

= (SQ × SP) – (AQ × AP)

= (9,000 kgs. × ₹ 45) – (8,900 kgs. × ₹ 46)

= ₹ 4,05,000 – ₹ 4,09,400

= ₹ 4,400 (Adverse)

(iv) Labour Efficiency Variance = Std. Rate (Std. Hours – Actual Hours)

$= ₹\ 50\ (\frac{9,000}{10}\times 8\,\text{hours}\ – 7,000\ \text{hrs.})$

= ₹ 50 (7,200 hrs. – 7,000 hrs.)

= ₹ 10,000 (Favourable)

(v) Labour Rate Variance = Actual Hours (Std. Rate – Actual Rate)

= 7,000 hrs. (₹ 50 – ₹ 52)

= ₹ 14,000 (Adverse)

(vi) Labour Cost Variance = Std. Labour Cost – Actual Labour Cost

= (SH × SR) – (AH × AR)

= (7,200 hrs. × ₹ 50) – (7,000 hrs. × ₹ 52)

= ₹ 3,60,000 – ₹ 3,64,000

= ₹ 4,000 (Adverse)

(vii) Variable Overhead Cost Variance = Std. Overhead for Actual Production – Actual Variable Overhead Cost

= (7,200 hrs. × ₹ 10) – ₹ 72,500

= ₹ 500 (Adverse)

(viii) Fixed Overhead Cost Variance = Absorbed Fixed Overhead – Actual Fixed Overhead

$= \frac{₹\,200}{10\,\text{kgs.}}\times 9,000\,\text{kgs.} - ₹\,1,92,000$

= ₹ 1,80,000 – ₹ 1,92,000

= ₹ 12,000 (Adverse)

5. (a) Number of days in budget period = 4 weeks × 5 days = 20 days

Number of units to be produced

	Product-A (units)	**Product-B (units)**
Budgeted Sales	2,400	3,600
Add: Closing stock $\left(\frac{2,400\,\text{units}}{20\,\text{days}}\times 4\,\text{days}\right)\left(\frac{3,600\,\text{units}}{20\,\text{days}}\times 5\,\text{days}\right)$	480	900
Less: Opening stock	400	200
Production (units)	2,480	4,300

(i) Material Purchase Budget

	Material-X (Kg.)	Material-Y (Kg.)
Material required:		
Product-A	12,400 (2,480 units × 5 kg.)	9,920 (2,480 units × 4 kg.)
Product-B	12,900 (4,300 units × 3 kg.)	25,800 (4,300 units × 6 kg.)
	25,300	35,720
Add: Closing stock $\left(\frac{25{,}300\text{ kgs.}}{20\text{ days}} \times 10\text{ days}\right)$ $\left(\frac{35{,}720\text{ kgs.}}{20\text{ days}} \times 6\text{ days}\right)$	12,650	10,716
Less: Opening stock	1,000	500
Quantity to be purchased	36,950	45,936
Rate per kg. of Material	₹ 4	₹ 6
Total Cost	₹ 1,47,800	₹ 2,75,616

(ii) Wages Budget

	Product-A (Hours)	Product-B (Hours)
Units to be produced	2,480 units	4,300 units
Standard hours allowed per unit	3	5
Total Standard Hours allowed	7,440	21,500
Productive hours required for production	$\frac{7{,}440\text{ hours}}{80\%} = 9{,}300$	$\frac{21{,}500\text{ hours}}{80\%} = 26{,}875$
Add: Non-Productive down time	1,860 hours. (20% of 9,300 hours)	5,375 hours. (20% of 26,875 hours)
Hours to be paid	11,160	32,250

Total Hours to be paid	= 43,410 hours (11,160 + 32,250)
Hours to be paid at normal rate	= 4 weeks × 40 hours × 180 workers = 28,800 hours
Hours to be paid at premium rate	= 43,410 hours – 28,800 hours = 14,610 hours
Total wages to be paid	= 28,800 hours × ₹ 25 + 14,610 hours × ₹ 37.5
	= ₹ 7,20,000 + ₹ 5,47,875
	= ₹ 12,67,875

(b) a.

1. Estimation of cost-driver rate

Activity	Overhead cost (₹)	Cost driver	Cost driver rate (₹)
Packaging	1,50,00,000	950 Packaging hours	15,789.47
Fridge	2,10,00,000	1,900 Fridge hours	11,052.63

2. Overhead cost for chocolate ice cream

Activity	Overhead for a 1,000 ice cream batch	Amount (₹)
Packaging	1 x ₹ 11,052.63	11,052.63
Fridge	0.5 x ₹ 15,789.47	7,894.74
Total		18,947.37

3. Operating profit for chocolate ice cream

Particulars	Amount (₹)
Revenue (1,000 x ₹ 75)	75,000.00
Less: Direct Material (1,000 x ₹ 15)	15,000.00
Less: Direct Labour (10,000 x ₹ 2)	20,000.00
Less: Overhead	18,947.37
Operating Profit	21,052.63

b. Overhead per direct hour

= Total Overhead / Total Direct Labour Hours

= ₹ 3,60,00,000 / 24,000 hours

= ₹ 1,500 per direct labour hour

Since it takes 10 direct labour hour per 1,000 Chocolate ice cream, the overhead is ₹ 15,000

Particulars	Amount (₹)
Revenue (1,000 x ₹ 75)	75,000.00
Less: Direct Material (1,000 x ₹ 15)	15,000.00
Less: Direct Labour (10,000 x ₹ 2)	20,000.00
Less: Overhead	15,000
Operating Profit	25,000

6. **(a)** The various types of responsibility centres are as follows:

(i) **Cost Centres:** The responsibility centre which is held accountable for *incurrence of costs* which are under its control. The performance of this responsibility centre is measured against pre-determined standards or budgets. The cost centres are of two types:

(a) Standard Cost Centre and (b) Discretionary Cost Centre

(a) **Standard Cost Centre:** Cost Centre where *output is measurable and input required for the output can be specified*. Based on a well-established study, an estimate of standard units of input to produce a unit of output is set. The actual cost for inputs is compared with the standard cost. Any deviation (variance) in cost is measured and analysed into controllable and uncontrollable cost. The manager of the cost centre is expected to comply with the standard and held responsible for adverse cost variances. The input-output ratio for a standard cost centre is clearly identifiable.

(b) **Discretionary Cost Centre:** The cost centre *whose output cannot be measured in financial terms, thus input-output ratio cannot be defined*. The cost of input is compared with allocated budget for the activity. Examples of discretionary cost centres are Research & Development department, Advertisement department where output of these department cannot be measured with certainty and co-related with cost incurred on inputs.

(ii) **Revenue Centres:** The responsibility centres which are accountable for *generation of revenue for the entity*. Sales Department for example, is responsible for achievement of sales target and revenue generation. Though, revenue centres do not have control on expenditures it incurs but sometimes expenditures related with selling activities like commission to sales person etc. are incurred by revenue centres.

(iii) **Profit Centres:** These are the responsibility centres which have *both responsibility of generation of revenue and incurrence of expenditures*. Since, managers of profit centres are accountable for both costs as well as revenue, profitability is the basis for measurement of performance of these responsibility centres. Examples of profit centres are decentralised branches of an organisation.

(iv) **Investment Centres:** These are the responsibility centres which are *not only responsible for profitability but also have the authority* *to make capital investment decisions*. The performance of these responsibility centres are measured on the basis of Return on Investment (ROI) besides profit. Examples of investment centres are Maharatna, Navratna and Miniratna companies of Public Sector Undertakings of Central Government.

(b) Efficiency is usually related with performance and may be computed by comparing the time taken with the standard time allotted to perform the given job/task.

If the time taken by a worker on a job equals or less than the standard time, then he is rated efficient.

In case he takes more time than the standard time he is rated as inefficient.

Efficiency in % = $\frac{\text{Time allowed as per standard}}{\text{Time Taken}} \times 100$

For efficiency rating of employees the following procedures may be followed:

1. **Determining standard time/performance standards:** The first step is to determine the standard time taken by a worker for performing a particular job/task. *The standard time can be determined by using Time & Motion study or Work study techniques*. While determining the standard time for a job/task a heterogeneous group of workers is taken and contingency allowances are added for determining standard time.

2. **Measuring Actual Performance of workers:** For computing efficiency rating it is necessary to develop a procedure for recording the actual performance of workers. The system developed should record the output of each worker along with the time taken by him.

3. **Computation of efficiency rating:** The efficiency rating of each worker can be computed by using the above mentioned Formula.

(c) The essential pre-requisites for integrated accounts include the following steps:

1. The management's decision about the extent of integration of the two sets of books. Some concerns find it useful to integrate up to the stage of prime cost or factory cost while other prefers full integration of the entire accounting records.

2. A suitable coding system must be made available so as to serve the accounting purposes of financial and cost accounts.

3. An agreed routine, with regard to the treatment of provision for accruals, prepaid expenses, other adjustment necessary for preparation of interim accounts.

4. Perfect coordination should exist between the staff responsible for the financial and cost aspects of the accounts and an efficient processing of accounting documents should be ensured.

   Under this system there is no need for a separate cost ledger. Of course, there will be a number of subsidiary ledgers; in addition to the useful Customers' Ledger and the Purchase Ledger, there will be: (a) Stores Ledger; (b) Stock Ledger and (c) Job Ledger.

(d) After identification of the costs and benefits, it is now required to be quantified i.e., the cost and benefit should be measured and estimated. The estimation is done by following the two principles as discusses below:

(i) **Variability:** Variability means by how much a cost or benefit increased or decreased due to the choice of the option. Variable costs are the cost which differs under the different volume or activities. On the other hand, fixed costs remain same irrespective of volume and activities.

(ii) **Traceability:** Traceability of cost means degree of relationship between the cost and the choice of the option. Direct costs are directly assigned to the option on the other hand indirect costs needs to be apportioned to the option on some reasonable basis.

MODEL TEST PAPER 5

INTERMEDIATE: GROUP – II

PAPER – 4: COST AND MANAGEMENT ACCOUNTING

Suggested Answers/ Solution

PART I – Case Scenario based MCQs

1. (a) Working notes:

Factory cost (33,00,000 x 0.25)	INR 8,25,000
Add: Freight (50,000 x 0.25)	INR 12,500
F.O.B. (Free On Board)	INR 8,37,500
Containers (2,00,000 x 0.25)	INR 50,000
Insurance (1,500 x 75)	INR 1,12,500
Ocean freight (2,000 x 75)	INR 1,50,000
CIF (Cost, Insurance and Freight)	= 8,37,500 + 1,12,500 + 1,50,000
	= INR 11,00,000
Custom duty	= 20% x 11,00,000 = INR 2,20,000
IGST	= 18% x (11,00,000 + 2,20,000)
	= INR 2,37,600
Penalty	= INR 15,000
Commission	
Indian	= 6% x 8,25,000 = INR 49,500
Srilankan	= 12% x 8,25,000 = INR 99,000

Particulars	Amount (INR)
Factory cost	8,25,000
Containers (50,000-38,000)	12,000
Insurance	1,12,500
Ocean freight	1,50,000
Freight inwards	12,500
Commission (49,500+99,000)	1,48,500
Custom duty non-refundable 20%* 2,20,000	44,000
TOTAL	**13,04,500**

2. **(a)** Good units = 8,000* (1-5%) = 7,600 UNITS

Normal loss to be absorbed in good units. No abnormal loss.

Particulars	**Product Zenga (INR)**
Factory cost	4,50,000
Other cost except commission, insurance and custom duty to be absorbed on the basis of quantity i.e. 12:8 or 3:2 (12,000+1,50,000+12,500)*2/5	69,800
Commission, insurance and custom duty to be absorbed on value basis 15:18 or 5:6 (1,48,500+1,12,500+44,000)*6/11	1,66,363.63
Total Cost	6,86,163.63
Number of good units	7,600 units
Per unit Cost	**90.28**

3. **(b)** Good units = 12000 * (1-5%) = 11400 units

Particulars	**Product Xendga (INR)**
Factory cost	3,75,000
Other cost (12,000+1,50,000+12,500)*3/5	1,04,700
Commission, insurance and custom duty (1,48,500+1,12,500+44,000)*5/11	1,38,636.36
Total Cost	618,336.36
Number of good units	11,400 units
Per unit Cost	**54.24**

4 **(a)** Custom duty 80% x 2,20,000 = 1,76,000

Add: IGST = 2,37,600

4,13,600

5. **(c)** Normal loss upto 8%

Abnormal loss 1%

Total cost of xendga INR 6,18,336.36

Total cost of zenga INR 6,86,163.63

Particulars	**XENGDA (INR)**	**ZENGA (INR)**	**(INR)**
Normal loss of 8%	960 units	640 units	
Good units after normal loss	11,040 units	7,360 units	
Per unit cost to be absorbed in	56 (6,18,336.36/11,040)	93.23 (6,86,163.63/7,360)	

good units (total costs/no of good units after normal loss)			
Abnormal loss in units 1%	120 units	80 units	
Loss in Profit & Loss	56 x 120 = 6,720	93.23 x 80= 7,458.4	14,178.4

6. **(a)** Material Mix Variance (Cotton + Polyester) = {(RSQ × SP) – (AQ × SP)}

= {7,08,570- 7,10,000}

= 1,430 (A)

Material Yield Variance (Cotton + Polyester) = {(SQ × SP) – (RSQ × SP)}

= {7,51,770 – 7,08,570}

= 43,200 (F)

7. **(d)** Material Price Variance (Cotton + Polyester) = {(AQ × SP) – (AQ × AP)

= {7,10,000 – 6,72,500}

= 37,500 (F)

8. **(c)** Material Cost Variance (Cotton + Polyester) = {(SQ × SP) – (AQ × AP)}

= {7,51,770 – 6,72,500}

= 79,270 (F)

Working Note

Material Variances:

Material	SQ (WN-1)	SP (₹)	SQ × SP (₹)	RSQ (WN-2)	RSQ × SP (₹)	AQ	AQ × SP (₹)	AP (₹)	AQ × AP (₹)
Cotton	9,397 m	50	4,69,850	8,857 m	4,42,850	9,000 m	4,50,000	48	4,32,000
Polyester	7,048 m	40	2,81,920	6,643 m	2,65,720	6,500 m	2,60,000	37	2,40,500
	16,445 m		**7,51,770**	**15,500 m**	**7,08,570**	**15,500 m**	**7,10,000**		**6,72,500**

WN-1: Standard Quantity (SQ):

Cotton - $\left(\frac{8{,}000\text{m}}{0.9 \times 14{,}000\text{m}} \times 14{,}800\text{m}\right)$ = 9,396.8 or 9,397 m

Polyester- $\left(\frac{6{,}000\text{m}}{0.9 \times 14{,}000\text{m}} \times 14{,}800\text{m}\right)$ = 7,047.6 or 7048 m

WN- 2: Revised Standard Quantity (RSQ):

Cotton - $\left(\frac{8{,}000\text{m}}{14{,}000\text{m}} \times 15{,}500\text{m}\right)$ = 8,857.1 or 8857 m

Polyester - $\left(\frac{6{,}000m}{14{,}000m} \times 15{,}500m\right)$ = 6,642.8 or 6643 m

9. **(b)** Labour Efficiency Variance (Skilled + Unskilled) = {(SH × SR) – (AH × SR)}

= {61,496 – 63,920}

= 2,424 (A)

Labour Yield Variance (Skilled + Unskilled) = {(SH × SR) – (RSH × SR)}

= {61,496 – 63,052}

= 1,556 (A)

10. **(a)** Labour Cost Variance (Skilled + Unskilled) = {(SH × SR) – (AH × AR)}

= {61,496 – 62,380}

= 884 (A)

Working Note

Labour Variances:

Labour	SH (WN-3)	SR (₹)	SH × SR (₹)	RSH (WN-4)	RSH × SR (₹)	AH	AH × SR (₹)	AR (₹)	AH × AR (₹)
Skilled	1,116 hrs	37.50	41,850	1144	42,900	1,200	45,000	35.50	42,600
Unskilled	893 hrs	22.00	19,646	916	20,152	860	18,920	23.00	19,780
	2,009 hrs		61,496	2,060	63,052	2,060	63,920		62,380

WN- 3: Standard Hours (SH):

Skilled labour- $\left(\frac{0.95 \times 1{,}000\,hr.}{0.90 \times 14{,}000\,m.} \times 14{,}800\,m.\right)$ =1,115.87 or 1,116 hrs.

Unskilled labour- $\left(\frac{0.95 \times 800\,hr.}{0.90 \times 14{,}000\,m.} \times 14{,}800\,m.\right)$ = 892.69 or 893 hrs.

WN- 4: Revised Standard Hours (RSH):

Skilled labour- $\left(\frac{1{,}000\,hr.}{1{,}800\,hr.} \times 2{,}060\,hr.\right)$ = 1,144.44 or 1,144 hrs.

Unskilled labour- $\left(\frac{800\,hr.}{1{,}800\,hr.} \times 2{,}060\,hr.\right)$ = 915.56 or 916 hrs.

11. **(d)** Break-even point $= \frac{\text{Fixed Costs} + \text{TargetedProfit}}{(\text{Selling Price per Unit} - \text{Variable Cost per Unit})}$

= (5,00,000 + 2,00,000)/100 = 7,000 units

12. **(d)** Expected Output = Input Material−Normal Loss

Expected Output = 1,200 Kg−96 Kg=1,104 kg

Abnormal loss = 1,104 kg – 1,100 kg = 4 kg

13. **(b)** Overhead Rate = Total Estimated Machine Hours/Total Estimated Overhead Cost

= ₹ 6,00,000/30,000 = ₹ 20

Allocated Overhead = Overhead Rate x Machine Hours Used by the Job

= ₹ 20 x 300 hrs = ₹ 6,000

14. **(c)** Efficiency Ratio = Activity Ratio/Capacity Utilization Ratio

= 0.95/0.85 = 1.117 or 112%

15. **(b)** Total cost ₹ 20,000 + (300 units × (₹ 20 + ₹10)) = ₹ 29,000

PART-II– Descriptive Questions

1. **(a)** Increase in hourly rate of wages under Rowan Plan is ₹ 30 i.e. (₹180 – ₹ 150)

$\frac{\text{Time Saved}}{\text{Time Allowed}} \times ₹\,150$ = ₹30 (Please refer Working Note)

Or, $\frac{\text{Time Saved}}{50\text{ hours}} \times ₹\,150$ = ₹ 30

Or, Time saved = $\frac{1,500}{150}$ = 10 hours

Therefore, Time Taken is 40 hours i.e. (50 hours – 10 hours)

Effective Hourly Rate under Halsey System:

Time saved	= 10 hours	
Bonus @ 50%	= 10 hours × 50% × ₹ 150	= Rs 750
Total Wages	= (₹150 × 40 hours + ₹ 750)	= Rs 6,750
Effective Hourly Rate = ₹ 6,750 ÷ 40 hours		= ₹ 168.75

Working Note:

Effective hourly rate

$$= \frac{(\text{Time Taken} \times \text{Rate per hour}) + \frac{\text{Time Taken}}{\text{Time Allowed}} \times \text{Time Saved} \times \text{Rate per hour}}{\text{Time Taken}}$$

Or, $$₹\,180 = \frac{\text{Time Taken} \times \text{Rate per hour}}{\text{Time Taken}} + \frac{\frac{\text{Time Taken}}{\text{Time Allowed}} \times \text{Time Saved} \times \text{Rate per hour}}{\text{Time Taken}}$$

Or, $$₹\,180 - \frac{\text{Time Taken} \times \text{Rate per hour}}{\text{Time Taken}} = \frac{\text{Time Taken}}{\text{Time Allowed}} \times \text{Time Saved} \times \text{Rate per hour} \times \frac{1}{\text{Time Taken}}$$

Or, ₹ 180 – ₹ 150 = $\frac{\text{Time Saved}}{\text{Time Allowed}} \times ₹ 150$

(b)

	Particulars	**Amount in ₹**
A	**Operating costs:**	
	Petrol	400
	Oil	170
	Grease	90
	Wages to Driver	550
	Wages to Worker	350
	(A)	1,560
B	**Maintenance Costs:**	
	Repairs	170
	Overhead	60
	Tyres	150
	Garage Charges	100
	(B)	480
C	**Fixed Cost:**	
	Insurance	50
	License, Tax etc	80
	Interest	40
	Other Overheads	190
	Depreciation $\frac{(54,000 - 36,000)}{5 \times 12}$	300
	(C)	660
	Total Cost (A + B + C)	2,700

(i) Cost per days maintained = ₹ 2700/30 days = ₹ 90

(ii) Cost per days operated = ₹ 2700/25 days = ₹ 108

(iii) Cost per hours operated = ₹ 2700/300 hours = ₹ 9

(iv) Cost per kilometres covered = ₹ 2700/2500 kms = ₹ 1.08

(v) Cost per commercial tonne kms= ₹ 2700/5000 tonne kms = ₹ 0.54

*Commercial tonne kms = Total distance travelled x Average load

$= \frac{(4 \text{ tonnes} + 0 \text{ tonnes})}{2} \times 2500 \text{ kms}$

= 5000 tonne kms

(c) (i) Calculation of most Economical Production Run

$$= \sqrt{\frac{2 \times 60{,}000 \times ₹\ 4{,}800}{12 \times 12}} = 2{,}000 \text{ Vaccine}$$

(ii) Calculation of Extra Cost due to processing of 15,000 vaccines in a batch

	When run size is 2,000 vaccines	When run size is 15,000 vaccines
Total set up cost	$= \frac{60{,}000}{2{,}000} \times ₹\ 4{,}800$ = ₹ 1,44,000	$= \frac{60{,}000}{15{,}000} \times ₹\ 4{,}800$ = ₹ 19,200
Total Carrying cost	½ × 2,000 × ₹ 144 = ₹ 1,44,000	½ × 15,000 × ₹ 144 = ₹ 10,80,000
Total Cost	₹ 2,88,000	₹ 10,99,200

Thus, extra cost = ₹ 10,99,200 – ₹ 2,88,000 = ₹ 8,11,200

2. (a) (i) Statement of Equivalent Production

Particulars	Input Units	Particulars	Output Units	Equivalent Production			
				Material		Labour & O.H.	
				%	Units	%	Units
Opening WIP	31,000	Completed and transferred to Process (Soldering)	5,42,500	100	5,42,500	100	5,42,500
Units introduced	5,89,000	Normal Loss (5% of 6,20,000)	31,000	--	--	--	--
		Abnormal loss (Balancing figure)	15,500	100	15,500	80	12,400
		Closing WIP	31,000	100	31,000	80	24,800
	6,20,000		6,20,000		5,89,000		5,79,700

Statement showing cost for each element

Particulars	Materials (₹)	Labour (₹)	Overhead (₹)	Total (₹)
Cost of opening work-in-process	12,40,000	2,32,500	6,97,500	21,70,000
Cost incurred during the month	2,29,40,000	55,64,500	1,66,93,500	4,51,98,000
Less: Realisable Value of normal scrap (₹ 20 × 31,000 units)	(6,20,000)	--	--	(6,20,000)
Total cost: (A)	2,35,60,000	57,97,000	1,73,91,000	4,67,48,000
Equivalent units: (B)	5,89,000	5,79,700	5,79,700	
Cost per equivalent unit: (C) = (A ÷ B)	**40.00**	**10.00**	**30.00**	**80.00**

(ii) Statement of Distribution of cost

	Amount (₹)	Amount (₹)
1. Value of units completed and transferred (5,42,500 units × ₹ 80)		4,34,00,000
2. Value of Abnormal Loss:		
- Materials (15,500 units × ₹ 40)	6,20,000	
- Labour (12,400 units × ₹ 10)	1,24,000	
- Overheads (12,400 units × ₹ 30)	3,72,000	11,16,000
3. Value of Closing W-I-P:		
- Materials (31,000 units × ₹ 40)	12,40,000	
- Labour (24,800 units × ₹ 10)	2,48,000	
- Overheads (24,800 units × ₹ 30)	7,44,000	22,32,000
Total		**4,67,48,000**

(iii) Process Account (Mounting)

Particulars	Units	(₹)	Particulars	Units	(₹)
To Opening W.I.P:			By Normal Loss (₹ 20 × 31,000 units)	31,000	6,20,000
- Materials	31,000	12,40,000	By Abnormal loss	15,500	11,16,000
- Labour	--	2,32,500	By Process A/c (Soldering)	5,42,500	4,34,00,000
- Overheads	--	6,97,500	By Closing WIP	31,000	22,32,000
To Materials introduced	5,89,000	2,29,40,000			
To Direct Labour		55,64,500			
To Overheads		1,66,93,500			
	6,20,000	4,73,68,000		6,20,000	4,73,68,000

(iv) Normal Loss A/c

Particulars	Units	(₹)	Particulars	Units	(₹)
To Process Account (Mounting)	31,000	6,20,000	By Cost Ledger Control A/c	31,000	6,20,000
	31,000	6,20,000		31,000	6,20,000

Abnormal Loss A/c

Particulars	Units	(₹)	Particulars	Units	(₹)
To Process Account (Mounting)	15,500	11,16,000	By Cost Ledger Control A/c	15,500	3,10,000

			By Costing Profit & Loss A/c		8,06,000
	15,500	11,16,000		15,500	11,16,000

(b) ABC is particularly needed by organisations for product costing in the following situations:

1. **High amount of overhead**: When production overheads are high and form significant costs, ABC is more useful than traditional costing system.
2. **Wide range of products**: ABC is most suitable, when, there is diversity in the product range or there are multiple products.
3. **Presence of non-volume related activities**: When non-volume related activities e.g. material handling, inspection set-up, are present significantly and traditional system cannot be applied, ABC is a superior and better option. ABC will identify non-value-adding activities in the production process that might be a suitable focus for attention or elimination.
4. **Stiff competition**: When the organisation is facing stiff competition and there is an urgent requirement to compute cost accurately and to fix the selling price according to the market situation, ABC is very useful. ABC can also facilitate in reducing cost by identifying non-value-adding activities in the production process that might be a suitable focus for attention or elimination.

3. (a)

Contribution *per tonne*	**(₹)**
Sales Price	185.00
Variable Cost:	
Material (W.N.-1)	90.00
Labour (W.N.-2)	13.00
Variable Overhead (W.N.-3)	40.00
Contribution	42.00
Profit Required (₹7,56,000 /1,26,000 tonnes)	6.00
Balance Contribution *per tonne* for meeting Fixed Costs	36.00
Fixed Costs (W.N.-4)	54,72,000
Quantity Required (₹54,72,000 ÷ ₹36)	1,52,000 tonnes

Working Notes

1. Materials Cost per tonne in Year II ₹90

$$\left(\frac{₹1,29,60,000}{1,44,000\text{tonnes}}\right)$$

2.	Labour Cost per tonne in Year II $\left(\frac{₹18,72,000}{1,44,000 \text{tonnes}}\right)$	₹13
3.	Variable portion of Factory, Administration and Sell. Expenditure, etc	₹
	Total in Year II	1,12,32,000
	Less: Increase otherwise than on account of increased turnover	8,10,000
		1,04,22,000
	Less: Amount Spent in Year I	97,02,000
	Increase	7,20,000
	Increase in Quantity Sold	18,000 tonnes
	Variable Expenses per tonne $\left(\frac{₹7,20,000}{18,000 \text{tonnes}}\right)$	₹40
4.	Fixed portion of Factory, Administration and Selling Expenses (Yr. 2)	₹1,12,32,000
	Variable Expenses @ ₹ 40 per tonne	₹57,60,000
	Fixed Portion	₹54,72,000

(b) **Cost Sheet**

Particulars	Units	Amount (₹)
Material		
Opening stock	10,000	5,00,00,000
Add: Purchases	4,90,000	25,20,00,000
Less: Closing stock	(17,500)	(85,00,000)
	4,82,500	**29,35,00,000**
Less: Normal wastage of materials realized @ ₹ 350 per unit	(2,000)	(7,00,000)
Material consumed		29,28,00,000
Direct employee's wages and allowances		5,50,50,000
Direct expenses- Royalty paid for production		3,10,50,000
Prime cost	4,80,500	**37,89,00,000**
Factory overheads - Consumable stores, depreciation etc.		3,42,00,000
Rearrangement design of factory machine		75,00,000
Gross Works Cost	4,80,500	**38,64,00,000**
Add: Opening WIP	20,000	1,20,00,000
Less: Closing WIP	(10,000)	(60,50,000)

Factory/Works Cost	4,90,500	**39,23,50,000**
Administration Overheads related to production		3,45,00,000
R&D expenses and Quality control cost		1,90,00,000
AMC cost of CCTV installed at factory premises		6,00,000
Guard Salaries for factory premises		14,00,000
Product Inspection		22,00,000
Add: Primary packaging cost @ ₹ 140 per unit		6,86,70,000
Cost of production	4,90,500	**51,87,20,000**
Administration Overheads		
Guard salaries for office		4,00,000
Audit and legal fees		29,00,000
Director's Salaries		60,00,000
EPF Director's Salaries @12%		7,20,000
AMC cost for CCTV installed at office.		2,00,000
Selling and Distribution Overheads		
Cost of maintaining website for online sale		60,75,000
Secondary packaging cost @ ₹ 20 per unit	4,90,500	98,10,000
Gift and snacks		30,50,000
Guard salaries for selling department		2,00,000
AMC cost for CCTV installed at selling department		2,00,000
Hiring charges of cars		25,00,000
Add: GST @5% on RCM basis		1,25,000
Television programme sponsorship cost		20,00,000
Customers' prize cost*		2,00,000
Selling expenses		3,94,50,000
Cost of sales		**58,64,75,000**
Add: Profit @ 25% on sales or 33.333% of cost		19,54,89,712
Sales value		**78,19,64,712**

***Customers' prize cost:**

	Amount (₹)
1st Prize	1,00,000
2nd Prize	50,000
3rd Prize	20,000

Consolation Prizes (3 × ₹10,000)	30,000
Total	**2,00,000**

***Customers' prize cost:**

	Amount (₹)
1st Prize	1,00,000
2nd Prize	50,000
3rd Prize	20,000
Consolation Prizes (3 × ₹10,000)	30,000
Total	**2,00,000**

4. Computation of overhead absorption rate

(as per the blanket rate)

Department	**Budgeted factory Overheads (₹)**	**Budgeted direct wages (₹)**
Operating	35,64,000	7,92,000
Assembly	9,66,000	24,15,000
Quality Control	4,20,000	10,50,000
Packing	12,37,500	6,93,000
Total	**61,87,500**	**49,50,000**

$$\text{Overhead absorption rate} = \frac{\text{Budgeted factory Overheads}}{\text{Budgeted direct wages}} \times 100$$

$$= \frac{61,87,500}{49,50,000} \times 100$$

$$= 125\% \text{ of Direct wages}$$

Selling Price of the Job No. 157

Particulars	**Operating (₹)**	**Assembly (₹)**	**Quality Control (₹)**	**Packing (₹)**	**Total (₹)**
Direct Materials	11,880	4,140	1,800	2,970	20,790
Direct Wages	2,376	2,484	1,080	594	6,534
Rectification cost of normal defectives			495		495
Overheads [(125% x (6,534 + 495)]					8,786.25
Total Factory Cost					**36,605.25**
Add: Mark-up (25% x ₹ 36,605.25)					9,151.31
Selling Price					**45,756.56**

(b) As the machinery is used to a varying degree in different departments, the use of **departmental rates** is to be preferred. The overhead recovery rates in different departments would be as follows:

(i) Operating Department: The use of machine hours is the predominant factor of production in Operating Department. Hence, machine hour rate should be used to recover overheads.

The overhead recovery rate based on machine hours would be calculated as follows:

$$\textbf{Machine hour rate} = \frac{\text{Budgeted factory Overheads}}{\text{Budgeted machine hours}}$$

$$= \frac{₹\ 35,64,000}{7,92,000} = ₹\ 4.50 \text{ per hour}$$

(ii) Assembly Department: Direct labour hours is the main factor of production in Assembly Department. Hence, direct labour hour rate should be used to recover overheads.

The overhead recovery rate based on direct labour hours would be calculated as follows:

$$\textbf{Direct labour hour rate} = \frac{\text{Budgeted factory Overheads}}{\text{Budgeted direct labour hours}}$$

$$= \frac{₹\ 9,66,000}{6,90,000} = ₹\ 1.40 \text{ per hour}$$

(iii) Quality Control Department: Direct labour hours is the main factor of production in Quality Control Department. Hence, direct labour hour rate should be used to recover overheads.

The overhead recovery rate based on direct labour hours would be calculated as follows:

$$\textbf{Direct labour hour rate} = \frac{\text{Budgeted factory Overheads}}{\text{Budgeted direct labour hours}}$$

$$= \frac{₹\ 4,20,000}{3,00,000} = ₹\ 1.40 \text{ per hour}$$

(iv) Packing Department: Direct labour hours is the main factor of production in Packing Department. Hence, direct labour hour rate should be used to recover overheads.

The overhead recovery rate based on direct labour hours would be calculated as follows:

$$\textbf{Direct labour hour rate} = \frac{\text{Budgeted factory Overheads}}{\text{Budgeted direct labour hours}}$$

$$= \frac{₹\ 12,37,500}{4,95,000} = ₹\ 2.50 \text{ per hour}$$

(c) Selling Price of Job No. 157

[based on the overhead rates calculated in (b) above]

Particulars	Operating (₹)	Assembly (₹)	Quality Control (₹)	Packing (₹)	Total (₹)
Direct Materials	11,880	4,140	1,800	2,970	20,790
Direct Wages	2,376	2,484	1,080	594	6,534
Rectification cost of normal defectives			495		495
Overheads (refer working note)					10,672
Total Factory Cost					**38,491**
Add: Mark-up (25% x ₹ 38,491)					9,622.75
Selling Price					**48,113.75**

Working note:

Overhead Statement

Department	Basis	Hours	Rate (₹)	Overheads (₹)
Operating	Machine hour	1,782	4.50	8,019
Assembly	Direct labour hour	828	1.40	1,159
Quality Control	Direct labour hour	360	1.40	504
Packing	Direct labour hour	396	2.50	990
			Total	**10,672**

(d) Department-wise statement of under or over recovery of overheads

(i) As per the current policy

Particulars	Operating (₹)	Assembly (₹)	Quality Control (₹)	Packing (₹)	Total (₹)
Direct wages (Actual)	9,50,400	18,63,000	8,10,000	8,91,000	45,14,400
Overheads recovered @ 125% of Direct wages: (A)	11,88,000	23,28,750	10,12,500	11,13,750	56,43,000
Actual overheads: (B)	38,61,000	5,79,600	2,52,000	13,36,500	60,29,100
(Under)/Over recovery of overheads: (A–B)	**(26,73,000)**	**17,49,150**	**7,60,500**	**(2,22,750)**	**(3,86,100)**

(ii) As per the method suggested

	Machine hours (Operating)	Direct labour hours (Assembly)	Direct labour hours (Quality Control)	Direct labour hours (Packing)	Total (₹)
Hours worked	9,50,400	6,21,000	2,70,000	5,94,000	
Rate/hour (₹)	4.50	1.40	1.40	2.50	
Overhead recovered (₹): (A)	42,76,800	8,69,400	3,78,000	14,85,000	70,09,200
Actual overheads (₹): (B)	38,61,000	5,79,600	2,52,000	13,36,500	60,29,100
(Under)/Over recovery: (A–B)	**4,15,800**	**2,89,800**	**1,26,000**	**1,48,500**	**9,80,100**

5. (a) (i) Statement of Profit as per financial records

(for the year ended March 31, 2024)

	(₹)		**(₹)**
To Opening stock of Finished Goods	48,250	By Sales	13,96,500
To Work-in-process	38,000	By Closing stock of finished Goods	44,500
To Raw materials consumed	5,00,000	By Work-in-Process	36,200
To Direct labour	4,20,000	By Interest received	42,000
To Factory overheads	3,56,000	By Loss	3,35,050
To Administration overheads	2,10,000		
To Selling & distribution overheads	84,000		
To Dividend paid	98,000		
To Bad debts	16,000		
To Stores adjustment	50,000		
To Income tax	34,000		
	18,54,250		**18,54,250**

Statement of Profit as per costing records

(for the year ended March 31,2024)

	(₹)
Sales revenue (A) *(14,250 units)*	13,96,500
Cost of sales:	
Opening stock *(545 units x ₹ 90)*	49,050
Add: Cost of production of 14,165 units *(Refer to working note 2)*	14,08,560

Less: Closing stock (₹ 99.44 x 460 units)	45,742
Production cost of goods sold (14,250 units)	14,11,868
Selling & distribution overheads	
(14,250 units x ₹ 6)	85,500
Cost of sales: (B)	14,97,368
Profit/Loss: {(A) – (B)}	(1,00,868)

(ii) Statement of Reconciliation

(Reconciling the profit as per costing records with the profit as per financial records)

	(₹)	*(₹)*
Loss as per Cost Accounts		(1,00,868)
Add: Administration overheads over absorbed (₹ 2,34,760 – ₹ 2,10,000)	24,760	
Opening stock overvalued (₹ 49,050 – ₹ 48,250)	800	
Interest received	42,000	
Selling & distribution overheads over recovered (₹ 85,500 – ₹ 84,000)	1,500	69,060
		(31,808)
Less: Factory overheads over recovered (₹ 3,56,000 - ₹2,52,000)	1,04,000	
Closing stock overvalued (₹ 45,742 – ₹ 44,500)	1,242	
Stores adjustment	50,000	
Income tax	34,000	
Dividend	98,000	
Bad debts	16,000	(3,03,242)
Loss as per financial accounts		(3,35,050)

Working notes:

1. Number of units produced	
	Units
Sales	14,250
Add: Closing stock	460
Total	14,710
Less: Opening stock	545
Number of units produced	14,165

2. **Cost Sheet**	
	(₹)
Raw materials consumed	5,00,000
Direct labour	4,20,000
Prime cost	9,20,000
Factory overheads (60% of direct wages)	2,52,000
Factory cost	11,72,000
Add: Opening work-in-process	38,000
Less: Closing work-in-process	36,200
Factory cost of goods produced	11,73,800
Administration overheads (20% of factory cost)	2,34,760
Cost of production of 14,165 units (Refer to working note 1)	14,08,560
Cost of production per unit: $\frac{₹\ 14,08,560}{14,165}$	99.44

(b) **PPP Ltd.**

Budget for 90% capacity level for the next year

Budgeted production (units)		**90,000**
	Per Unit (₹)	**Amount (₹)**
Direct Material (note 2)	22	19,80,000
Direct Labour (note 3)	12	10,80,000
Variable factory overhead (note 4)	2.10	1,89,000
Variable selling overhead (note 5)	4.40	3,96,000
Variable cost	**40.50**	**36,45,000**
Fixed factory overhead (note 4)		2,20,000
Fixed selling overhead (note 5)		1,15,000
Administrative overhead (note 6)		1,84,000
Fixed cost		**5,19,000**
Total cost		**41,64,000**
Add: Profit 25% on total cost		10,41,000
Sales		**52,05,000**
Contribution (Sales – Variable cost)		**15,60,000**

Working Notes:

1. At 80% level of capacity (current year), the production is 80,000 units.

   Thus, total level of capacity is 1,00,000 units.

   Therefore, Year 2 is at 70% capacity and Year 3 is at 60% capacity as the production is increasing by 10% of its capacity consistently.

2. Direct Material

	(₹)		(₹)
80% Capacity	16,00,000	70% Capacity	14,00,000
70% Capacity	14,00,000	60% Capacity	12,00,000
10% change in capacity	**2,00,000**	10% change in capacity	**2,00,000**

   For 10% increase in capacity, the total direct material cost regularly changes by ₹ 2,00,000

   Thus, Direct material cost (variable) = ₹ 2,00,000 ÷ 10,000 = ₹ 20

   After 10% increase in price, direct material cost per unit = ₹ 20 × 1.10 = ₹ 22

   Direct material cost at 90,000 budgeted units = 90,000 × ₹ 22 = ₹ 19,80,000

3. Direct labour:

	(₹)		(₹)
80% Capacity	8,00,000	70% Capacity	7,00,000
70% Capacity	7,00,000	60% Capacity	6,00,000
10% change in capacity	**1,00,000**	10% change in capacity	**1,00,000**

   For 10% increase in capacity, direct labour cost regularly changes by ₹ 1,00,000.

   Direct labour cost per unit = ₹ 1,00,000 ÷ 10,000 = ₹ 10

   After 20% increase in price, direct labour cost per unit = ₹ 10 × 1.20 = ₹ 12

   Direct labour for 90,000 units = 90,000 units × ₹ 12 = ₹ 10,80,000.

4. Factory overheads are semi-variable overheads:

	(₹)		(₹)
80% Capacity	3,60,000	70% Capacity	3,40,000
70% Capacity	3,40,000	60% Capacity	3,20,000
10% change in capacity	**20,000**	10% change in capacity	**20,000**

Variable factory overhead = ₹ 20,000 ÷ 10,000 units = ₹ 2

Variable factory overhead for 80,000 units = 80,000 × ₹ 2 = ₹ 1,60,000

Fixed factory overhead = ₹ 3,60,000 – ₹ 1,60,000 = ₹ 2,00,000.

Variable factory overhead after 5% increase = ₹ 2 × 1.05 = ₹ 2.10

Fixed factory overhead after 10% increase = ₹ 2,00,000 × 1.10 = ₹ 2,20,000.

5. Selling overhead is semi-variable overhead:

	(₹)		(₹)
80% Capacity	4,20,000	70% Capacity	3,80,000
70% Capacity	3,80,000	60% Capacity	3,40,000
10% change in capacity	**40,000**	10% change in capacity	**40,000**

Variable selling overhead = ₹ 40,000 ÷ 10,000 units = ₹ 4

Variable selling overhead for 80,000 units = 80,000 × ₹ 4 = ₹ 3,20,000.

Fixed selling overhead = ₹ 4,20,000 – ₹ 3,20,000 = ₹ 1,00,000

Variable selling overhead after 10% increase = ₹ 4 × 1.10 = ₹ 4.40

Fixed selling overhead after 15% increase = ₹ 1,00,000 × 1.15 = ₹ 1,15,000

6. Administrative overhead is fixed:

After 15% increase = ₹ 1,60,000 × 1.15 = ₹ 1,84,000

6. (a) The Practical difficulties with which a Cost Accountant is usually confronted with while installing a costing system in a manufacturing company are as follows:

(i) *Lack of top management support:* Installation of a costing system does not receive the support of top management. They consider it as interference in their work. They believe that such, a system will involve additional paperwork. They also have a misconception in their minds that the system is meant for keeping a check on their activities.

(ii) *Resistance from cost accounting departmental staff*: The staff resist because of fear of loosing their jobs and importance after the implementation of the new system.

(iii) *Non co-operation from user departments:* The foremen, supervisor and other staff members may not cooperate in providing requisite data, as this would not only add to their responsibilities but will also increase paper work of the entire team as well.

(iv) *Shortage of trained staff:* Since cost accounting system's installation involves specialised work, there may be a shortage of trained staff.

To overcome these practical difficulties, necessary steps required are:

- Sell the idea to top management and convince them of the utility of the system.
- Resistance and non co-operation can be overcome by behavioural approach. To deal with the staff concerned effectively.
- Proper training should be given to the staff at each level
- Regular meetings should be held with the cost accounting staff, user departments, staff and top management to clarify their doubts/ misgivings.

(b) Buttermilk is a by-product of butter and treatment of by-product in cost accounting is as follows.

(i) When they are of small total value, the amount realized from their sale may be dealt as follows:

- Sales value of the by-product may be credited to Profit and Loss Account and no credit be given in Cost Accounting. The credit to Profit and Loss Account here is treated either as a miscellaneous income or as additional sales revenue.
- The sale proceeds of the by-product may be treated as deduction from the total costs. The sales proceeds should be deducted either from production cost or cost of sales.

(ii) When the by-products are of considerable total value: Where by-products are of considerable total value, they may be regarded as joint products rather than as by- products. To determine exact cost of by-products the costs incurred upto the point of separation, should be apportioned over by-products and joint products by using a logical basis.

(iii) When they require further processing: In this case, the net realisable value of the by-product at the split-off point may be arrived at by subtracting the further processing cost from realisable value of by-product. If the value is small, it may be treated as discussed in (i) above.

(c)

Demerits of Fixed Budget
1. It does not suite a dynamic organization and may give misleading results. A poor or good performance may remain un-noticed.
2. It is not suitable for long period.

3.	It is also found unsuitable particularly when the business conditions are changing constantly.
4.	Accurate estimates are not possible.

Demerits of Flexible Budget	
1.	The formulation of flexible budget is possible only when there is proper accounting system maintained, perfect knowledge about the factors of production and various business circumstances is available.
2.	Flexible Budget also requires the system of standard costing in business.
3.	It is very expensive and labour oriented.

OR

(c) Objectives of time keeping and time booking: Time keeping has the following two objectives:

(i) *Preparation of Payroll:* Wage bills are prepared by the payroll department on the basis of information provided by the time keeping department.

(ii) *Computation of Cost:* Labour cost of different jobs, departments or cost centers are computed by costing department on the basis of information provided by the time keeping department.

The objectives of time booking are as follows:

(i) To ascertain the labour time spent on a job and the idle labour hours.

(ii) To ascertain labour cost of various jobs and products.

(iii) To calculate the amount of wages and bonus payable under the wage incentive scheme.

(iv) To compute and determine overhead rates and absorption of overheads under the labour and machine hour method.

(v) To evaluate the performance of labour by comparing actual time booked with standard or budgeted time.

ANSWER OF MODEL TEST PAPER 6

INTERMEDIATE: GROUP – II

PAPER – 4: COST AND MANAGEMENT ACCOUNTING

Suggested Answers/ Solution

PART I – Case Scenario based MCQs

1. (c) ₹ 1,50,000 (A)

Fixed Overhead Cost Variance = Absorbed Fixed Overheads - Actual Fixed Overheads

Absorbed Fixed Overheads = (Budgeted Fixed Overheads / Budgeted Production) x Actual Production

= (₹ 20,00,000 / 10,000 units) x 9,500 units

= ₹ 19,00,000

Adjusted Actual Fixed Overheads = ₹ 19,50,000 + ₹ 1,00,000 = ₹ 20,50,000

Fixed Overhead Cost Variance = ₹ 19,00,000 - ₹ 20,50,000 = ₹ 1,50,000 (Adverse)

2. (d) ₹ 1,00,000 (A)

Fixed Overhead Volume Variance = (Actual Production - Budgeted Production) x Standard Fixed Overhead Rate per Unit

Standard Fixed Overhead Rate per Unit = ₹ 20,00,000 / 10,000 units = ₹ 200 per unit

Fixed Overhead Volume Variance = (9,500 units - 10,000 units) x ₹ 200

= 500 units x ₹ 200

= ₹ 1,00,000 (Adverse)

3. (c) 0

Variable Overhead Efficiency Variance = (Standard Hours for Actual Production - Actual Hours Worked) x Standard Variable Overhead Rate

Standard Hours for Actual Production = 9,500 units x 1.5 hours/unit = 14,250 hours

Variable Overhead Efficiency Variance = (14,250 – 14,250) x ₹ 50 = 0

4. (b) ₹ 42,500 (A)

Variable Overhead Expenditure Variance = (Standard Rate - Actual Rate) x Actual Hours Worked

Total Variable Overhead for Actual Hours: (10,000 x ₹ 50) + (4,250 x ₹ 60) = ₹ 5,00,000 + ₹ 2,55,000 = ₹ 7,55,000

Variable Overhead Expenditure Variance = (₹ 50 x 14,250 hours) - ₹ 7,55,000

= ₹ 42,500 (Adverse)

5. (b) ₹ 50,000 (A)

Fixed Overhead Expenditure Variance = Budgeted Fixed Overheads - Actual Fixed Overheads

= ₹ 20,00,000 - ₹ 20,50,000

= ₹ 50,000 (Adverse)

6. (b) ₹ 75,47,750

Funds required for foreign order:

Costs	**Amounts**
Direct material per unit	90
Add: Direct labour per unit	60
Add: special services per unit	40
	190
Add: packaging per unit (20% x prime cost, 20% x (90 + 60 + 80))	46
Variable cost per unit	236
Total variable cost (236x30,000)	**70,80,000**
Add: freight	80,000
Add: professional fees	25,000
Add: custom charges (500kg x 80% x 80 x 6)	1,92,000
	73,77,000
Add: shipping ((500x80%/10) x 2,800)	1,12,000
Add: insurance	1,11,000
Funds required	**76,00,000**

Net amount of interest earned (interest earned in 9.25% and paid is 6.50% for 3 months) = 76,00,000 x (9.25% - 6.50%) x 3/12 = 52,250

So, net cash outflow due to export order = 76,00,000 - 52,250 = 75,47,750

7. (a) **$ 4.23**

Minimum price :-

Variable cost (net)	75,47,750
Add: fixed cost recovery (110 x 10,000 units)	11,00,000
Add: loss of profit (200 x 10,000 units)	20,00,000
Minimum price	1,06,47,750
Minimum price per unit 1,06,47,750/30,000	₹ 354.925
Minimum price is $ ($1 = ₹ 83.864)	$4.23

8. (c) **₹ 39,94,250**

PROFIT EARNED:

SALES ($4.90 x 30,000 x RS. 86)	**₹ 1,26,42,000**
(-) Variable cost (net)	(75,47,750)
(-) allotted fixed cost (10,000 units x110)	(11,00,000)
PROFIT	₹ 39,94,250

9. (d) **₹ 50,94,250**

CASH INFLOW:

SALES ($4.90 x 30,000 x RS. 86)	₹ 1,26,42,000
(-) Variable cost (net)	(75,47,750)
CASH INFLOW	**₹ 50,94,250**

10. (a) **₹ 19,94,250**

Incremental benefits:

SALES ($4.90 x 30,000 x RS. 86)	₹ 1,26,42,000
(-) Variable cost (net)	(75,47,750)
(-) allotted fixed cost (10,000 units x110)	(11,00,000)
(-) loss of profit (10,000x200)	(20,00,000)
Incremental benefits	**19,94,250**

11. (c) **Replaced- 30 employees, left and discharged- 18 employees and recruited & joined- 42 employees**

(i) Number of employees replaced:

Employee Turnover rate (Replacement method)

$$= \left(\frac{\text{No. of Replacements}}{\text{Average number of employees on roll}} \times 100\right)$$

Or, $$\left(\frac{15}{100}\right) = \left(\frac{\text{No. of replacements}}{200}\right)$$

Or, Number of Replacements $= \left(\frac{200 \times 15}{100}\right) = 30$

(ii) Number of employees left and discharged:

Employee turnover rate (Separation method)

$$= \left(\frac{\text{No. of Separations (S)}}{\text{Average number of employees on roll}} \times 100\right)$$

Or, $\left(\frac{9}{100}\right) = \left(\frac{S}{200}\right)$

Or, $S = 18$

Hence, number of employees left and discharged = 18

(iii) Number of employees recruited and joined:

Employee turnover rate (Flux method)

$$= \left(\frac{\text{No. of Separations (S) + No. of Accessions (A)}}{\text{Average number of employees on roll}} \times 100\right)$$

Or, $\left(\frac{30}{100}\right) = \left(\frac{18 + A}{200}\right)$

Or, $A = \left(\frac{6000}{100} - 18\right) = 42$

Hence, number of employees recruited and joined = 42

12. (c) Losses on the sale of investments not treated in Financial Accounts

13. (d) 1,00,000 units

Current Year production = 60% of 2,00,000 units

= 1,20,000 units

Previous Year production $= \left(\frac{\text{1,20,000 units}}{\text{1.5 times}}\right)$

= 80,000 units

Particulars	Previous Year	Current Year	Difference
Sales (Units)	80,000	1,20,000	40,000
Total Cost (₹)	44,72,000	59,28,000	14,56,000

Variable Cost per unit $= \frac{\text{Change in Total Cost}}{\text{Change in sales volume}}$

$= \left(\frac{\text{₹ 14,56,000}}{\text{40,000 units}}\right)$

= ₹ 36.40 per unit

Total Fixed Cost (₹) = ₹ 59,28,000-(1,20,000 units × ₹ 36.40)

= ₹ 15,60,000

Break- even point (in units) $= \frac{\text{Fixed Cost}}{\text{Contribution per unit}}$

$$= \left(\frac{₹\ 15,60,000}{₹\ 52 - ₹\ 36.40}\right)$$

$$= 1,00,000 \text{ units}$$

14. (c) Marketing and Sales support- ₹ 28,62,01,000, Operations- ₹ 18,03,52,500, I.T. Cost- ₹ 30,71,90,000 and Support functions- ₹ 19,92,56,500

Calculation of total cost for 'Max Jivan' Insurance policy

	Particulars	Amount (₹)	Amount (₹)
a.	**Marketing and Sales support:**		
	- Policy development cost	4,86,50,000	
	- Cost of marketing	19,30,71,000	
	- Sales support expenses	4,44,80,000	28,62,01,000
b.	**Operations:**		
	- Policy issuance cost	4,10,05,000	
	- Policy servicing cost	13,40,65,500	
	- Claim management cost	52,82,000	18,03,52,500
c.	**IT Cost**		30,71,90,000
d.	**Support functions**		
	- Postage and logistics	4,50,36,000	
	- Facilities cost	6,49,82,500	
	- Employees cost	2,25,18,000	
	- Office administration cost	6,67,20,000	19,92,56,500
	Total Cost		**97,30,00,000**

15. (a) ₹ 65,00,000

Calculation of Net joint costs to be allocated:

Particulars	Amount (₹)
Joint Costs	1,30,00,000
Less: Net Realizable value of by-product R^{12} (81,250 kg. × ₹ 40)	32,50,000
Net joint costs to be allocated	97,50,000

Therefore, the amount of joint product cost to be allocated to P^2 by using the physical volume method

$$= \left(\frac{\text{Physical quantity of } P^2}{\text{Total quantity}}\right) \text{x Net joint costs to be allocated}$$

$$= \left(\frac{3,90,000 \text{ kg}}{5,85,000 \text{ kg}}\right) \text{x ₹ } 97,50,000 = \text{₹ } 65,00,000$$

PART-II Descriptive Questions

1. (a) (i) **Statement of Joint Cost allocation of inventories of gasoline, diesel and Heavy fuel oil (HFO)**

(By using Net Realisable Value Method)

	Products			Total
	Gasoline	Diesel	Heavy fuel oil (HFO)	
	(₹)	(₹)	(₹)	(₹)
Final sales value of total production (Working Note 1)	13,17,600 (3,294 × ₹ 400)	15,84,900 (5,283 × ₹ 300)	13,69,800 (6,849 × ₹ 200)	42,72,300
Less: Additional cost	-	-	(7,44,000)	(7,44,000)
Net realisable value (at split-off point)	13,17,600	15,84,900	6,25,800	35,28,300
Joint cost allocated (Working Note 2)	**5,60,156**	**6,73,795**	**2,66,049**	**15,00,000**

(ii) **Cost of goods sold**

(By using Net Realisable Value Method)

	Products			Total
	Gasoline	Diesel	Heavy fuel oil (HFO)	
	(₹)	(₹)	(₹)	(₹)
Allocated joint cost (from (i))	5,60,156	6,73,795	2,66,049	15,00,000
Additional costs	--	--	7,44,000	7,44,000
Cost of goods available for sale (CGAS)	5,60,156	6,73,795	10,10,049	22,44,000
Less: Cost of ending inventory (Working Note 1)	2,75,485 (CGAS × 49.18%)	68,862 (CGAS × 10.22%)	33,231 (CGAS × 3.29%)	3,77,578
Cost of goods sold	**2,84,671**	**6,04,933**	**9,76,818**	**18,66,422**

Working Notes

1. **Total production of three products for the year**

Products	Quantity sold (in gallon)	Quantity of ending inventory (in gallon)	Total production	Ending inventory percentage (%)
(1)	(2)	(3)	(4) = [(2) + (3)}	(5) = (3)/ (4)
Gasoline	1,674	1,620	3,294	49.18

Diesel	4,743	540	5,283	10.22
Heavy fuel oil (HFO)	6,624	225	6,849	3.29

2. Joint cost apportioned to each product

$$\frac{\text{Total Joint cost}}{\text{Total Net Realisable Value}} \times \text{Net Realisable Value of each product}$$

Total cost of Gasoline	$\frac{₹\ 15,00,000}{₹\ 35,28,300}$ x ₹ 13,17,600	₹ 5,60,156
Total cost of Diesel	$\frac{₹\ 15,00,000}{₹\ 35,28,300}$ x ₹ 15,84,900	₹ 6,73,795
Total cost of Heavy fuel oil (HFO)	$\frac{₹\ 15,00,000}{₹\ 35,28,300}$ x ₹ 6,25,800	₹ 2,66,049

(b) Stores Ledger Control A/c

Particulars	(₹)	Particulars	(₹)
To Balance b/d	9,000	By Work in Process	48,000
To General Ledger Adjustment A/c	48,000	By Overhead Control A/c	6,000
To Work in Process A/c	24,000	By Overhead Control A/c (Deficiency)	1,800*
		By Balance c/d	25,200
	81,000		81,000

*Deficiency assumed as normal (alternatively can be treated as abnormal loss)

Work in Progress Control A/c

Particulars	(₹)	Particulars	(₹)
To Balance b/d	18,000	By Stores Ledger Control a/c	24,000
To Stores Ledger Control A/c	48,000	By Costing P/L A/c (Balancing figures being Cost of finished goods)	1,20,000
To Wages Control A/c	18,000	By Balance c/d	12,000
To Overheads Control a/c	72,000		
	1,56,000		1,56,000

Overheads Control A/c

Particulars	(₹)	Particulars	(₹)
To Stores Ledger Control A/c	6,000	By Work in Process A/c	72,000
To Stores Ledger Control A/c	1,800	By Balance c/d (Under absorption)	13,800

To Wages Control A/c (₹ 21,000- ₹18,000)	3,000		
To Gen. Ledger Adjust. A/c	75,000		
	85,800		85,800

Costing Profit & Loss A/c

Particulars	(₹)	Particulars	(₹)
To Work in progress	1,20,000	By Gen. ledger Adjust. A/c (Sales) (1,20,000 + 12,000)	1,32,000
To Gen. Ledger Adjust. A/c (Profit)	12,000		
	1,32,000		1,32,000

(c) Calculation of earnings for workers under different incentive plans:

Halsey's Premium Plan:

	Worker – A	**Worker – B**
Actual time taken	40 hours	40 hours
Standard time for actual Production	44 hours $(\frac{176 \text{ Pcs} \times 15 \text{ Min.}}{60 \text{ Min.}})$	35 hours $(\frac{140 \text{ Pcs} \times 15 \text{ Min.}}{60 \text{ Min.}})$
Minimum Wages	₹ 1,600 (40 hours x ₹ 40)	₹ 1,600 (40 hours x ₹ 40)
Bonus	₹ 80 {50% (44-40) x ₹40}	No bonus
Earning	₹ 1,680	₹ 1,600
Rowan's Premium Plan:		
Minimum Wages (as above)	₹ 1,600	₹ 1,600
Bonus	= ₹ 145.45 $(\frac{4 \text{ hours}}{44 \text{ hours}} \times 40 \text{ hours} \times ₹40)$	No bonus
Earning	₹ 1,745.45	₹ 1,600

2. (a) (i) Statement Showing Distribution of Overheads of Baba Ltd.

Particulars	Basis	Total	Production Departments			Service Departments	
			X1	Y2	Z3	QC	M
		(₹)	(₹)	(₹)	(₹)	(₹)	(₹)
Direct wages	Actual	13,56,000	-	-	-	12,00,000	1,56,000
Rent & rates	Area	40,00,000	8,00,000	10,00,000	12,00,000	8,00,000	2,00,000

General lighting	Light points	4,80,000	80,000	1,20,000	1,60,000	80,000	40,000
Indirect wages	Direct wages	15,51,200	4,80,000	3,20,000	4,80,000	2,40,000	31,200
Power	H.P.	12,00,000	4,80,000	2,40,000	4,00,000	80,000	–
Depreciation of machines	Value of machines	80,00,000	19,20,000	25,60,000	32,00,000	1,60,000	1,60,000
Sundries	Direct wages	77,56,000	24,00,000	16,00,000	24,00,000	12,00,000	1,56,000
		2,43,43,200	**61,60,000**	**58,40,000**	**78,40,000**	**37,60,000**	**7,43,200**

(ii) Redistribution of Service Department's Expenses over Production Departments

	X1 (₹)	Y2 (₹)	Z3 (₹)	QC (₹)	M (₹)
Total overhead distributed as above	61,60,000	58,40,000	78,40,000	37,60,000	7,43,200
Dept. QC Overheads apportioned (20:30:40:—:10)	7,52,000	11,28,000	15,04,000	-37,60,000	3,76,000
Dept. M overheads apportioned (40:20:30:10:—)	4,47,680	2,23,840	3,35,760	1,11,920	-11,19,200
Dept. QC Overheads apportioned (20:30:40:—:10)	22,384	33,576	44,768	-1,11,920	11,192
Dept. M overheads apportioned (40:20:30:10:—)	4,477	2,238	3,358	1,119	-11,192
Dept. QC Overheads apportioned (20:30:40:—:10)	224	336	448	-1,119	112
Dept. M overheads apportioned (40:20:30:10:—)	45	22	34	11	-112
Dept. QC Overheads apportioned (20:30:40:—:10)	2	3	5	-11	-
Total	**73,86,812**	**72,28,015**	**97,28,373**		
Working hours	6,140	8,950	4,838		
Rate per hour	**1,203**	**808**	**2,011**		

(iii) Determination of total cost of a bicycle:

Particulars	**(₹)**
Direct material cost	20,000
Direct labour cost	12,000
Overhead cost (See working note)	14,885
	46,885

Working Note:

Overhead cost

= (₹ 1,203 × 4 hrs.) + (₹ 808 × 5 hrs.) + (₹ 2,011 × 3 hrs.)

= ₹ 4,812 + ₹ 4,040 + ₹ 6,033 = ₹ 14,885

(b) Determination of total sales value of Luxury pens

Particulars	**Amount per Batch (₹)**	**Amount for 2,400 units or 20 batches (₹)**
Direct materials	57,375	11,47,500
Direct wages	6,750	1,35,000
Batch set-up cost	18,900	3,78,000
Production overheads (20% of direct wages)	1,350	27,000
Total Production Cost	84,375	**16,87,500**
Selling, distribution and administration cost (15% of Total Production cost)	12,656	2,53,125
Total Cost	97,031	**19,40,625**
Add: Profit (25% of Sales value or 1/3rd of Total cost)	32,344	6,46,875
Total Sales value	1,29,375	**25,87,500**

3. (a) Statement of Cost of YSPP Ltd. for the year ended 31st March:

S. NO.	**PARTICULARS**	**(₹)**	**(₹)**
(I)	Material consumed:		
	Raw materials purchased	35,00,00,000	
	Freight inwards	39,22,100	
	Add: opening stock of raw materials	63,00,000	
	Less: closing stock of raw materials	(33,60,000)	35,68,62,100
(II)	Direct employee (labour) cost:		
	Wages paid to factory workers	1,02,20,000	
	Contribution made towards employees' PF & ESIS	12,60,000	1,14,80,000
(III)	Direct expenses:		

	Hire charges paid for hiring specific equipment	8,40,000	
	Amount paid for power & fuel	16,17,000	
	Amortised cost of moulds and patterns	7,84,000	
	Job charges paid to job workers	28,42,000	60,83,000
	Prime cost		**37,44,25,100**
(IV)	Works/ factory overheads:		
	Lease rent paid for production assets	3,92,000	
	Depreciation on factory building	2,94,000	
	Depreciation on plant & machinery	4,41,000	
	Repairs & maintenance paid for plant & machinery	1,68,000	
	Insurance premium paid for plant & machinery	1,09,200	
	Insurance premium paid for factory building	63,350	
	Insurance premium paid for stock of raw materials & WIP	1,26,000	
	Salary paid to supervisors	4,41,000	20,34,550
	Gross factory cost		37,64,59,650
	Add: opening value of w-i-p		32,20,000
	Less: closing value of w-i-p		(30,45,000)
	Factory cost		**37,66,34,650**
(V)	Quality control cost:		
	Expenses paid for quality control check activities	68,600	
	Salary paid to quality control staffs	3,36,700	4,05,300
(VI)	Research & development cost paid for improvement in production process		63,700
(VII)	Administration cost related with production:		
	-Expenses paid for administration of factory work	4,15,100	

	-Salary paid to production control manager	33,60,000	37,75,100
(VIII)	Add: primary packing cost		3,36,000
	Cost of production		**38,12,14,750**
	Add: opening stock of finished goods		38,50,000
	Less: closing stock of finished goods		(63,00,000)
	Cost of goods sold		37,87,64,750
(IX)	Administrative overheads:		
	Depreciation on office building	1,96,000	
	Salary paid to manager- finance & accounts	32,13,000	
	Salary paid to general manager	43,96,000	
	Fee paid to auditors	6,30,000	
	Fee paid to independent directors	7,70,000	92,05,000
(X)	Selling overheads:		
	Repairs & maintenance paid for sales office building	63,000	
	Salary paid to manager- sales & marketing	35,42,000	36,05,000
(XI)	Distribution overheads:		
	Depreciation on delivery vehicles	3,01,000	
(XII)	Packing cost paid for re-distribution of finished goods	3,92,000	6,93,000
	Cost of sales		**39,22,67,750**

Note: Demurrage is a type of penalty, thus will not form part of cost.

(b) Basic Data:

A (Number of units to be purchased annually) = 10,000 units

O (Ordering cost per order) = ₹ 40

C (Annual cost of storage per unit) = ₹ 5

Purchase price per unit = ₹ 80 + ₹ 20 (Insurance charges)

= ₹ 100

(Note: Cash discount is treated as an interest and finance item and thus, it is ignored.)

Computations:

(i) Re-ordering level (ROL) = Maximum usage per period × Maximum lead time

= 40 units per day × 30 days

= **1,200 units**

(ii) Maximum level = ROL + ROQ – [Min. rate of consumption × Min. lead time] (Refer to working notes 1 and 2)

= 1200 units + 400 units – [20 units per day × 10 days]

= **1,400 units**

(iii) Minimum level = ROL – [Average rate of consumption × Average re-order-period]

= 1,200 units – (30 units per day × 20 days)

= **600 units**

(iv) Danger level = Average consumption × Lead time for emergency purchases

= 30 units per day × 8 days

= **240 units**

Working Notes:

1. Minimum rate of consumption per day (X)

$$\text{Av. rate of consumption} = \frac{\text{Minimum rate of consumption} + \text{Maximum rate of consumption}}{2}$$

$$30 \text{ units per day} = \frac{\text{X units/day} + 40 \text{ units per day}}{2}$$

Or, X = 20 units per day.

2. Re-order Quantity (ROQ) or Economic Order Quantity (EOQ)

$$= \sqrt{\frac{2x10{,}000 units x Rs.40}{Rs.5}}$$

= 400 units

4. (a) (i) Statement Showing "Cost per unit - Traditional Method"

Particulars of Costs	Hand towels (₹)	Kitchen towels (₹)	Gym towels (₹)
Direct Materials	450	400	600

Direct Labour [(4, 12, 8 hours) × ₹ 100]	400	1,200	800
Production Overheads [(10, 18, 14 hours) × ₹ 30]	300	540	420
Cost per unit	**1,150**	**2,140**	**1,820**

(ii) Statement Showing "Cost per unit - Activity Based Costing"

Products	Hand towels	Kitchen towels	Gym towels
Production (units)	9,000	15,000	60,000
	(₹)	(₹)	(₹)
Direct Materials	40,50,000 (9,000 units x ₹ 450)	60,00,000 (15,000 units x ₹ 400)	3,60,00,000 (60,000 units x ₹ 600)
Direct Labour (refer Part (i) above)	36,00,000 (9,000 units x ₹ 400)	1,80,00,000 (15,000 units x ₹ 1,200)	4,80,00,000 (60,000 units x ₹ 800)
Setup Costs @ ₹ 1,44,000 per setup	28,80,000 (20 setups x ₹ 1,44,000)	14,40,000 (10 setups x ₹ 1,44,000)	28,80,000 (20 setups x ₹ 1,44,000)
Inspection Costs @ ₹ 63,000 per inspection	63,00,000 (100 inspections x ₹ 63,000)	25,20,000 (40 inspections x ₹ 63,000)	37,80,000 (60 inspections x ₹ 63,000)
Purchase Related Costs @ ₹ 11,250 per purchase order	6,75,000 (60 purchase orders x ₹ 11,250)	11,25,000 (100 purchase orders x ₹ 11,250)	18,00,000 (160 purchase orders x ₹ 11,250)
Store delivery costs @ ₹ 14,400 per store delivery	6,48,000 (45 store delivery x ₹ 14,400)	11,52,000 (80 store delivery x ₹ 14,400)	18,00,000 (125 store delivery x ₹ 14,400)
Machine Related Costs @ ₹ 7.5 per hour	6,75,000 (90,000 hours x ₹ 7.5)	20,25,000 (2,70,000 hours x ₹ 7.5)	63,00,000 (8,40,000 hours x ₹ 7.5)
Total Costs	**1,88,28,000**	**3,22,62,000**	**10,05,60,000**
Cost per unit (Total Cost ÷ no. of Units)	**2,092**	**2,151**	**1,676**

Working Notes:

A. Number of Batches, Purchase Orders, Inspections and Store Deliveries-

	Particulars	Hand towels	Kitchen towels	Gym towels	Total
A.	Production (units)	9,000	15,000	60,000	
B.	Batch Size (units)	450	1,500	3,000	
C.	Number of Batches (A÷B)	20	10	20	50
D.	Number of Purchase Order per batch	3	10	8	

E.	Total Purchase Orders [C × D]	60	100	160	320
F.	Number of Inspections per batch	5	4	3	
G.	Total Inspections [C × F]	100	40	60	200
H.	Total Store Deliveries	45	80	125	250

B. Total Machine Hours-

	Particulars	Hand towels	Kitchen towels	Gym towels
A.	Machine Hours per unit	10	18	14
B.	Production (units)	9,000	15,000	60,000
C.	Total Machine Hours [A × B]	90,000	2,70,000	8,40,000

Total Machine Hours = 12,00,000

Total Production Overheads-

= 12,00,000 hrs. × ₹ 30 = ₹ 3,60,00,000

C. Cost Driver Rates-

Cost Pool	%	Overheads (₹)	Cost Driver Basis	Cost Driver (Units)	Cost Driver Rate (₹)
Setup	20%	72,00,000	Number of batches	50	1,44,000 per Setup
Inspection	35%	1,26,00,000	Number of inspections	200	63,000 per Inspection
Purchases	10%	36,00,000	Number of purchase order	320	11,250 per Purchase order
Store delivery	10%	36,00,000	Number of store deliveries	250	14,400 per store delivery
Machine Operation	25%	90,00,000	Machine Hours	12,00,000	7.5 per Machine Hour

(b) Workings:

1. Sale receipts

Month	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Forecast sales (S)	1,000	1,000	1,000	1,250	1,500	2,000	1,900	2,200
	₹	₹	₹	₹	₹	₹	₹	₹
S×3000	30,00,000	30,00,000	30,00,000	37,50,000	45,00,000	60,00,000	57,00,000	66,00,000
Debtors pay:								
1 month 50%		15,00,000	15,00,000	15,00,000	18,75,000	22,50,000	30,00,000	28,50,000
2nd month 50%		-	15,00,000	15,00,000	15,00,000	18,75,000	22,50,000	30,00,000
	-	15,00,000	30,00,000	30,00,000	33,75,000	41,25,000	52,50,000	58,50,000

2. Variable overheads

Month	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Qty produced (Q)	1,000	1,250	1,500	2,000	1,900	2,200	2,200	2,300
	₹	₹	₹	₹	₹	₹	₹	₹
Var. overhead (Q×400)	4,00,000	5,00,000	6,00,000	8,00,000	7,60,000			
Var. overhead (Q×500)						11,00,000	11,00,000	11,50,000
Paid one month later		4,00,000	5,00,000	6,00,000	8,00,000	7,60,000	11,00,000	11,00,000

3. Wages payments

Month	Dec	Jan	Feb	Mar	Apr	May	Jun
Qty produced (Q)	1,250	1,500	2,000	1,900	2,200	2,200	2,300
	₹	₹	₹	₹	₹	₹	₹
Wages (Q × 800)	10,00,000	12,00,000	16,00,000				
Wages (Q × 1,000)				19,00,000	22,00,000	22,00,000	23,00,000
75% this month	7,50,000	9,00,000	12,00,000	14,25,000	16,50,000	16,50,000	17,25,000
25% next month		2,50,000	3,00,000	4,00,000	4,75,000	5,50,000	5,50,000
	7,50,000	11,50,000	15,00,000	18,25,000	21,25,000	22,00,000	22,75,000

CASH BUDGET – SIX MONTHS ENDED JUNE

	Jan	Feb	Mar	Apr	May	Jun
	₹	₹	₹	₹	₹	₹
Receipts:						
Sales receipts	30,00,000	30,00,000	33,75,000	41,25,000	52,50,000	58,50,000
Freehold property	-	-	-	-	-	20,00,000
	30,00,000	**30,00,000**	**33,75,000**	**41,25,000**	**52,50,000**	**78,50,000**
Payments:						
Materials	10,00,000	12,50,000	15,00,000	20,00,000	19,00,000	22,00,000
Var. overheads	5,00,000	6,00,000	8,00,000	7,60,000	11,00,000	11,00,000
Wages	11,50,000	15,00,000	18,25,000	21,25,000	22,00,000	22,75,000
Machine	-	-	-	-	-	5,00,000
Tax	-	-	1,00,000	-	-	-
	26,50,000	**33,50,000**	**42,25,000**	**48,85,000**	**52,00,000**	**60,75,000**
Net cash flow	3,50,000	(3,50,000)	(8,50,000)	(7,60,000)	50,000	17,75,000
Balance b/f	50,000	4,00,000	50,000	(8,00,000)	(15,60,000)	(15,10,000)
Cumulative cash flow	4,00,000	50,000	(8,00,000)	(15,60,000)	(15,10,000)	2,65,000

5. (a) (i) **Process I – Statement of Equivalent Production**

Particulars	Completed Units	Closing stock of WIP			Equivalent Production units
		Units	% of Completion	Equivalent Units	
	(1)			(2)	(1) + (2)
Material	90,000	30,000	100%	30,000	1,20,000
Wages	90,000	30,000	50%	15,000	1,05,000
Overhead	90,000	30,000	50%	15,000	1,05,000

Process I

Particulars	Process Cost (₹)	Equivalent Production (units)	Process Cost p.u. (₹) (2)/(3)	WIP stock Equivalent units	Cost of WIP Stock (₹) (4) x (5)	Transfer to Process II (₹) (2)-(6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Material	22,50,000	1,20,000	18.750	30,000	5,62,500	16,87,500
Wages	27,00,000	1,05,000	25.714	15,000	3,85,714	23,14,286
Overhead	18,00,000	1,05,000	17.143	15,000	2,57,143	15,42,857
	67,50,000				12,05,357	55,44,643

Process I A/c

	Particulars	Unit	(₹)		Particulars	Units	(₹)
To	Direct material	1,20,000	22,50,000	By	Process II A/c	90,000	55,44,643
To	Direct wages	--	27,00,000	By	Closing W-I-P	30,000	12,05,357
To	Factory overhead	--	18,00,000				
		1,20,000	67,50,000			1,20,000	67,50,000

(ii) **Process II – Statement of Equivalent Production**

Particulars	Completed Units	Closing stock of WIP			Equivalent Production units
		Units	% of Completion	Equivalent Units	
	(1)			(2)	(1) + (2)
Material	84,000	5,400*	100%	5,400	89,400
Wages	84,000	5,400	25%	1,350	85,350
Overhead	84,000	5,400	25%	1,350	85,350

*(90,000 - 84,000 - 600) units = 5,400 units

Process II

Particulars	Process Cost (₹)	Equivalent Production (units)	Process Cost p.u. (₹) (2)/(3)	WIP stock Equivalent units	Cost of WIP Stock (₹) (4) x (5)	Transfer to Finished Stock (₹) (2)-(6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Material	55,44,643	89,400	62.021	5,400	3,34,911	52,09,732

Wages	5,25,000	85,350	6.151	1,350	8,304	5,16,696
Overhead	6,75,000	85,350	7.909	1,350	10,677	6,64,323
	67,44,643				3,53,892	63,90,751
Add: Packing Material Cost						6,00,000
Cost of Finished Stock						69,90,751

Process II A/c

	Particulars	Units	(₹)		Particulars	Units	(₹)
To	Process I	90,000	55,44,643	By	Finished Stock	84,000	69,90,751
To	Direct wages	--	5,25,000	By	Normal loss	600	--
To	Factory overhead	--	6,75,000	By	WIP stock	5,400	3,53,892
To	Packing charges	--	6,00,000				
		90,000	73,44,643			90,000	73,44,643

(b) ABC is particularly needed by organisations for product costing in the following situations:

1. High amount of overhead: When production overheads are high and form significant costs, ABC is more useful than traditional costing system.
2. Wide range of products: ABC is most suitable, when, there is diversity in the product range or there are multiple products.
3. Presence of non-volume related activities: When non-volume related activities e.g. material handling, inspection set-up, are present significantly and traditional system cannot be applied, ABC is a superior and better option. ABC will identify non-value-adding activities in the production process that might be a suitable focus for attention or elimination.
4. Stiff competition: When the organisation is facing stiff competition and there is an urgent requirement to compute cost accurately and to fix the selling price according to the market situation, ABC is very useful. ABC can also facilitate in reducing cost by identifying non-value-adding activities in the production process that might be a suitable focus for attention or elimination.

6. (a) Internal Users

Internal users, who use the Cost and Management Accounting information may include the followings:

(a) Policy Makers- The policy makers are those who formulate strategies

(i) to achieve the goals (short & long term both) to fulfil the objectives of the organisation.

(ii) to position the organisation into the competitive market environment.

(iii) to design the organisational structure to get the policy and strategies implemented. etc.

(b) Managers- The managers use the information

(i) to know the cost of a cost object and cost centre

(ii) to know the price for the product or service

(iii) to measure and evaluate performance of responsibility centres

(iv) to the know the profitability-product-wise, department-wise, customer-wise etc.

(v) to evaluate the strategic options and to make decisions

(c) Operational level staff- The operational level staff like supervisors, foreman, team leaders require information

(i) to know the objectives and performance goals for them

(ii) to know product and service specifications like volume, quality and process etc.

(iii) to know the performance parameters against which their performance is measured and evaluated.

(iv) to know divisional (responsibility centre) profitability etc.

(d) Employees- Employees are concerned with the information related with time and attendance, incentives for work, performance standards etc.

External Users

External users, who use the Cost and Management Accounting information may include the followings:

(a) Regulatory Authorities- Regulatory Authorities are concerned with cost accounting data and information for different purpose which includes tariff determination, providing subsidies, rate fixation etc. To do this the regulatory bodies require information on the basis of some standards and format in this regard.

(b) Auditors- The auditors while conducting audit of financial accounts or for some other special purpose audit like cost audit etc. require information related with costing and reports reviewed by management etc.

(c) Shareholders- Shareholders are concerned with information that effect their investment in the entity. Management communicates to the shareholders through periodic communique, annual reports etc. regarding new orders received, product expansion, market share for products etc.

(d) **Creditors and Lenders-** Creditors and lenders are concerned with data and information which affects an entity's ability to serve lenders or creditors. For example, any financial institutions which provides loan to an entity against book debts and inventories are more concerned with regular reporting on net debt position and stock balances.

(b) Methods for ascertaining Service Cost Unit

Composite Cost Unit

Sometime two measurement units are combined together to know the cost of service or operation. These are called composite cost units. For example, a public transportation undertaking would measure the operating cost per passenger per kilometer.

Examples of Composite units are Tonne- km., Quintal- km, Passenger-km., Patient-day etc. **Composite unit may be computed in two ways**.

(i) Absolute (Weighted Average) basis.

(ii) Commercial (Simple Average) basis.

In both bases of computation of service cost unit, weightage is also given to qualitative factors rather quantitative (which are directly related with variable cost elements) factors alone.

(i) Weighted Average or Absolute basis – It is a summation of the products of qualitative and quantitative factors. For example, to calculate absolute Tonne-Km for a goods transport is calculated as follows.:

$$\sum(\text{Weight Carried} \times \text{Distance})_1 + (\text{Weight Carried} \times \text{Distance})_2 + \ldots + (\text{Weight Carried} \times \text{Distance})_n$$

Similarly, in case of Cinema theatres, price for various classes of seats is fixed differently. For example–

First class seat may be provided with higher quality service and hence charged at a higher rate, whereas Second Class seat may be priced less. In this case, appropriate weight to be given effect for First Class seat and Second Class seat – to ensure proper cost per composite unit.

(ii) Simple Average or Commercial Basis – It is the product of average qualitative and total quantitative factors. For example, in case of goods transport, Commercial Tonne-Km is arrived at by multiplying total distance km., by average load quantity.

$$\sum(\text{Distance}_1 + \text{Distance}_2 + \ldots\ldots + \text{Distance}_n) \times \left(\frac{W_1 + W_2 + \ldots + W_n}{n}\right)$$

In both the example, variable cost is dependent of distance and is a quantitative factor. Since, the weight carried does not affect the variable cost hence and is a qualitative factor.

Equivalent Cost Unit/ Equivalent Service Unit:

To calculate cost or pricing of two more different grade of services which uses common resources, **each grade of service is assigned a weight and converted into equivalent units**. Converting services into equivalent units make different grade of services equivalent and comparable.

(c)

	Points	**Description**
1.	Based on Estimates	Budgets are based on a series of estimates, which are based on the conditions prevalent or expected at the time budget is established. It requires revision in plan if conditions change.
2.	Time factor	Budgets cannot be executed automatically. Some preliminary steps are required to be accomplished before budgets are implemented. It requires proper attention and time of management. Management must not expect too much during the initial development period.
3.	Co-operation Required	Staff co-operation is usually not available during the initial budgetary control exercise. In a decentralised organisation, each unit has its own objective and these units enjoy some degree of discretion. In this type of organisation structure, coordination among different units is required. The success of the budgetary control depends upon willing co-operation and teamwork,
4.	Expensive	The implementation of budget is somewhat expensive. For successful implementation of the budgetary control, proper organisation structure with responsibility is prerequisite. Budgeting process start from the collection of information to for preparing the budget and performance analysis. It consumes valuable resources (in terms of qualified manpower, equipment, etc.) for this purpose; hence, it is an expensive process.
5.	Not a substitute for management	Budget is only a managerial tool and must be intelligently applied for management to get

		benefited. Budgets are not a substitute for good management.
6.	Rigid document	Budgets are sometime considered as rigid documents. But in reality, an organisation is exposed to various uncertain internal and external factors. Budget should be flexible enough to incorporate ongoing developments in the internal and external factors affecting the very purpose of the budget.

(d)

S. No.	**Method of costing**	**Example of industry where this method is followed**
(i)	Job Costing	Printing press
(ii)	Process Costing	Paper and Pulp
(iii)	Batch Costing	Bakery
(iv)	Multiple Costing	Bicycles

ANSWER OF MODEL TEST PAPER 7

INTERMEDIATE: GROUP – II

PAPER – 4: COST AND MANAGEMENT ACCOUNTING

Suggested Answers/ Solution

PART I – Case Scenario based MCQs

1. C Profit if no minimum charges are there, on absolute tonne basis, but he will charge for diesel petrol when running empty

Absolute tonne-kms: (250 kms x 4 tonnes + 150 kms x 3 tonnes) x 90 days

= 1,30,500 tonne-kms

Vacant moving (Chandigarh to Ludhiana) = 100kms x 90 days = 9,000 kms

Charges for vacant running:

	(₹)
June (80.30 x 16 x 100)/8	16,060
July (80.50 x 31 x 100) /8	31,194
August (81.25 x 29 x 100) /8	29,453
September (80.90 x 14 x 100) /8	14,158
Total Charges	**90,864**

	(₹)
Total revenue (1,30,500 x 10)	13,05,000
Add: diesel recovery for vacant running	90,864
Less: service & maintenance (80,000 x 3)	(2,40,000)
Less: salary (15,000 x 3)	(45,000)
Less: diesel cost	(4,54,323)
Less: interest	(22,578)
Less: depreciation	(36,986)
Profit	**5,96,977**

Bifurcation of principal and interest

Years	Calculation of interest (₹)	Interest (₹)	Principal repayment (₹)	Loan balance (₹)
0	-	-	-	20,00,000
1	20,00,000 x 10%	2,00,000	3,27,595	16,72,405
2	16,72,405 x 10%	1,67,241	3,60,354	13,12,051
3	13,12,051 x 10%	1,31,205	3,96,390	9,15,661
4	9,15,661 x 10%	91,566	4,36,029	4,79,632
5	4,79,632 x 10%	47,963	4,79,632	-

Interest allocated to this job = 91,566 x 90 / 365 = 22,578

Depreciation = $\frac{20,00,000-5,00,000}{10} \times \frac{90}{365}$ = 36,986

Diesel expenses:

	(₹)
June (80.30 x 16 x 500)/8	80,300
July (80.50 x 31 x 500)/8	1,55,969
August (81.25 x 29 x 500)/8	1,47,266
September (80.90 x 14 x 500)/8	70,788
Total diesel expenses	**4,54,322**

2. A

	With minimum limit (₹)	Without minimum limit (₹)
Commercial tonne kms	3.75 x 500 x 90 = 1,68,750	((4+0+3)/3) x 500 x 90 = 1,05,000
revenue	1,68,750 x 10 = 16,87,500	1,05,000 x 10 = 10,50,000
Less: costs	(7,98,887)	(7,98,887)
Profit/(loss)	8,88,613	2,51,113

Loss arising due to no minimum limit = 8,88,613-2,51,113 = 6,37,500

3. B **Total Revenue = Cost + Profit =** 7,98,887+ 2,70,000 = ₹ 10,68,887

Absolute Tonne-Kms = 1,74,375

Rate = 10,68,887/1,74,375 = ₹ 6.13

4. **B**

5. **B** Profit at current rate (based on minimum charges of 75%)

Absolute tonne-kms: (250 kms x 4 tonnes + 100 kms x 3.75 tonnes + 150 kms x 3.75 tonnes) x 90 days = 1,74,375 tonne-kms

	(₹)
Total revenue (1,74,375 x 10)	17,43,750
Less: service & maintenance (80,000 x 3)	(2,40,000)
Less: salary (15,000 x 3)	(45,000)
Less: diesel cost	(4,54,323)
Less: interest	(22,578)
Less: depreciation	(36,986)
Profit	**9,44,863**

6. **C**

Particulars	**Base Material**	**Conversion cost**
Previous year cost (₹)	5,34,000	8,01,000
Increased by	2 times	-
Increased to		3 times
Current year cost (₹)	5,34,000 + (5,34,000 x 2) = 16,02,000	8,01,000 x 3 = 24,03,000

7. **D**

Products	**Production/ Sales(in tonne)**	**Joint Cost Apportioned (₹)**
Sodium hydroxide	24,030	24,03,000
Halogen	16,020	16,02,000
Total	**40,050**	**40,05,000**

Joint cost = base material + conversion cost

= 16,02,000 + 24,03,000

= 40,05,000

Apportioned joint cost = $\frac{\text{Total joint cost}}{\text{Total physical value}}$ x Physical units of each product

For Sodium hydroxide = $\frac{₹\ 40,05,000}{40,050 \text{ tonnes}}$ x 24,030 tonnes

= ₹ 24,03,000

For Halogen = $\frac{₹\ 40,05,000}{40,050 \text{ tonnes}}$ x 16,020 tonnes

= ₹ 16,02,000

8. A

Products	Sales (in Tonne)	Selling Price per Tonne (₹)	Sales Revenue (₹)	Joint Cost Apportioned (₹)
Sodium hydroxide	24,030	100	24,03,000	20,02,500
Halogen	16,020	150	24,03,000	20,02,500
Total	**40,050**		**48,06,000**	**40,05,000**

Apportioned joint cost = $\frac{\text{Total joint cost}}{\text{Total sale revenue}}$ x Sale revenue of each product

For Sodium hydroxide = $\frac{₹\ 40,05,000}{₹\ 48,06,000}$ x 24,03,000 = ₹ 20,02,500

For Halogen = $\frac{₹\ 40,05,000}{₹\ 48,06,000}$ x 24,03,000 = ₹ 20,02,500

9. B

Products	Sales (in Tonne)	Selling Price per Tonne (₹)	Sales Value (₹)	Post split-off cost (₹)	Net Realisable Value (₹)	Joint Cost Apportioned (₹)
Sodium hydroxide	24,030	100	24,03,000	-	24,03,000	17,16,429
Halogen (Vinyl after further processing)	10,012.50	150 + 250 = 400	40,05,000	8,01,000	32,04,000	22,88,571
Total					**56,07,000**	**40,05,000**

Apportioned joint cost = $\frac{\text{Total joint cost}}{\text{Total Net Realisable Value}}$ x Net Realisable Value of each product

For Sodium hydroxide = $\frac{₹\ 40,05,000}{₹\ 56,07,000}$ x 24,03,000

= ₹ 17,16,429

For Halogen = $\frac{₹\ 40,05,000}{₹\ 56,07,000}$ x 32,04,000

= ₹ 22,88,571

10. C

Particulars	**Amount (in ₹)**
Revenue from sales of Vinyl if Halogen further processed (10,012.50 tonnes × ₹ 400) (A)	40,05,000
Revenue from sales of Halogen if no further processing done (16,020 tonnes × ₹ 150)(B)	24,03,000
Incremental revenue from further processing of Halogen into Vinyl (A-B)	**16,02,000**
Incremental cost of further processing Halogen into Vinyl	8,01,000
Incremental operating income from further processing	**8,01,000**

Incremental revenue would be ₹ 8,01,000, thus the decision relating to further processing Halogen needs to be approved.

11. C Let X be the cost of material and Y be the normal rate of wages per hour.

Factory Cost of Mr. Akon (Rowan System) = X + 45Y + $\frac{45}{75}$ x (75 - 45) Y + (45 x ₹ 120)

₹ 1,25,640 = X + 63Y + ₹ 5,400

X + 63Y = ₹ 1,20,240 … (i)

Factory Cost of Mr. Ben (Halsey System) = X + 60Y + 50% (75 - 60) Y + (60 x ₹ 120)

₹ 1,29,600 = X + 67.5Y + ₹ 7,200

X + 67.5Y = ₹ 1,22,400 … (ii)

From subtracting (i) from (ii), we get,

4.5Y = ₹ 2,160

Y = ₹ 480 per hour

Or, **normal wage rate = ₹ 480 per hour**

Therefore, X = ₹ 1,20,240 - 63Y

X = ₹ 1,20,240 - (63 x ₹ 480)

X = ₹ 90,000

Or, **cost of material = ₹ 90,000**

12. C

13. D Sales for current year $= 3 \times \left(\frac{62,00,000 + 50,00,000 + 52,00,000 + 44,00,000}{4}\right)$

= ₹ 1,56,00,000

P/V ratio $= \frac{\text{Sales - Variable Cost}}{\text{Sales}}$

$= \frac{₹\ 1,56,00,000 - 93,60,000}{₹\ 1,56,00,000}$

= 40%

Now, Break even point $= \frac{\text{Fixed Cost}}{\text{P/V ratio}}$

Therefore, **Fixed Cost** = Break even point x P/V ratio

= ₹ 1,17,00,000 x 40%

= ₹ 46,80,000

14. C Annual demand = 9,000 x 12 = 1,08,000

Economic Batch Quantity (EBQ):

$$\text{EBQ} = \sqrt{\frac{2DS}{C}}$$

$$= \sqrt{\frac{2 \times 1,08,000 \times 16,002.25}{60}}$$

= 7,590 bushings

Number of runs $= \frac{1,08,000}{7,590}$ = 14.23 = **15 runs**

15. C Fixed Overhead Cost Variance = Absorbed Fixed Overheads - Actual Fixed Overheads

$0 = \left(\frac{₹\ 75,00,000}{15,000} \times 15,600\right)$ - Actual Fixed Overheads

Actual Fixed Overheads = ₹ 78,00,000

PART-II Descriptive Questions

1. (a) (i) Variable overhead absorption rate: $= \frac{\text{Difference in Total Overheads}}{\text{Difference in levels in terms of machine hours}}$

$= \frac{₹3,47,625 - ₹3,38,875}{15,500 \text{ hours} - 14,500 \text{ hours}}$ = ₹ 8.75 per machine hour.

(ii) Calculation of Total fixed overheads:

	(₹)
Total overheads at 14,500 hours	3,38,875
Variable overheads = ₹ 8.75 × 14,500	1,26,875
Total fixed overheads	2,12,000

(iii) Calculation of Budgeted level of activity in machine hours:

Let budgeted level of activity = X

Then, $\frac{(₹\, 8.75\, X + ₹\, 2{,}12{,}000)}{X}$ = ₹ 22

8.75X + ₹ 2,12,000 = 22X

13.25X = 2,12,000

X =16,000

Thus, budgeted level of activity = 16,000 machine hours.

(iv) Calculation of Under / Over absorption of overheads:

	(₹)
Actual overheads	3,22,000
Absorbed overheads = 14,970 hours × ₹ 22 per hour	3,29,340
Over-absorption (3,29,340 – 3,22,000)	7,340

(v) Departmental absorption rates provide costs which are more precise than those provided by the use of blanket absorption rates. Departmental absorption rates facilitate variance analysis and cost control. The application of these rates makes the task of stock and work-in-process (WIP) valuation easier and more precise. However, the setting up and monitoring of these rates can be time-consuming and expensive.

(b) For Material Cost Variances:

	SQ × SP	**AQ × AP**	**AQ × SP**
X	12,000 x 4 x ₹ 8 = ₹ 3,84,000	50,000 x ₹ 8.80 = ₹ 4,40,000	50,000 x ₹ 8 = ₹ 4,00,000
Y	12,000 x 6 x ₹ 6 = ₹ 4,32,000	72,000 x ₹ 5.60 = ₹ 4,03,200	72,000 x ₹ 6 = ₹ 4,32,000
Z	12,000 x 30 x ₹ 2 = ₹ 7,20,000	3,54,000 x ₹ 2.40 = ₹ 8,49,600	3,54,000 x ₹ 2 = ₹ 7,08,000
Total	₹ 15,36,000	₹ 16,92,800	₹ 15,40,000

Material Price Variance = Actual quantity (Std. price – Actual price)

= (AQ x SP) – (AQ x AP)

= ₹ 15,40,000 – ₹ 16,92,800

= ₹ 1,52,800 (A)

Material Usage Variance = Standard Price (Std. Quantity – Actual Quantity)

= (SP x SQ) – (SP x AQ)

= ₹ 15,36,000 – ₹ 15,40,000

= ₹ 4,000 (A)

For Labour Cost Variance:

	SH × SR	**AH × AR**	**AH × SR**
Labour	(12,000 x 6) x ₹ 16 = ₹ 11,52,000	10,000 x ₹ 24 = ₹ 2,40,000 60,000 x ₹ 16 = ₹ 9,60,000	70,000 x ₹ 16 = ₹ 11,20,000
Total	₹ 11,52,000	₹ 12,00,000	₹ 11,20,000

Labour Rate Variance = Actual Hours (Std. Rate – Actual Rate)

= (AH x SR) – (AH x AR)

= ₹ 11,20,000 – ₹ 12,00,000

= ₹ 80,000 (A)

Labour Efficiency Variance = Standard Rate (Std. Hours – Actual Hours)

= (SR x SH) – (SR x AH)

= ₹ 11,52,000 – ₹ 11,20,000

= ₹ 32,000 (F)

(c) Production during the month 1,250 units

Time allowed for 1,250 units @ 2 hours per unit (1,250 x 2 hours) 2,500 hours

Actual time taken 25 days x 8 hours x 10 workers 2,000 hours

Time saved 500 hours

Labour cost per piece under time rate scheme: 2 hours x ₹ 2 = ₹ 4

Calculation of effective hourly rate under:

Halsey Scheme:

(₹)

Basic wages of 10 workers: 2,000 hours @ ₹ 2 per hour	4,000
Bonus 50% x (500 hours x ₹ 2)	500
Total wages for 2,000 hours	4,500

Effective hourly rate of earning = $\frac{₹\ 4{,}500}{2{,}000\ \text{hours}}$ = ₹ 2.25

Labour cost per piece = $\frac{₹\ 4{,}500}{1{,}250\ \text{units}}$ = ₹ 3.60

Saving in terms of direct labour cost per piece (₹ 4.00 – ₹ 3.60) = ₹ 0.40

Rowan Scheme:

	(₹)
Basic wages (as calculated under Halsey scheme)	4,000
Bonus: $500\ \text{hours} \times \frac{2{,}000\ \text{hours}}{2{,}500\ \text{hours}} \times ₹\ 2$	800
Total wages for 2,000 hours	4,800

Effective hourly rate of earnings $\frac{₹\ 4{,}800}{2{,}000\ \text{hours}}$ = ₹ 2.40

Labour cost per piece $\frac{₹\ 4{,}800}{1{,}250\ \text{units}}$ = ₹ 3.84

Saving in terms of direct labour cost per piece (₹ 4.00 – ₹ 3.84) = ₹ 0.16

Advise: Shivi should introduce Halsey incentive scheme, as it gives more saving than the Rowan incentive scheme.

2. (a) (a) Cost and Quoted Price Using Labour Hours to Absorb Overheads

		RBC (₹ in lakhs)	IPC (₹ in lakhs)
Materials		5.00	12.00
Labour	1200 x ₹ 100; 2500 x ₹ 100	1.20	2.50
Overheads	1200 x ₹ 1200; 2500 x ₹ 1200	14.40	30.00
Total cost		20.60	44.50
Add: Profit	50% of Total Cost	10.30	22.25
Quoted Price		**30.90**	**66.75**

(b) Cost and Quoted Price Using ABC

Step 1: Calculate Overhead Rates for Each Activity

Overhead Category	Total Overhead (₹ Lakhs)	Activity Driver	Activity Rate
Site Engineers	₹120	Site Visits	₹ 120 / 600 = ₹ 20,000 per site visit
Project Planners	₹80	Planning Documents	₹ 80 / 300 = ₹ 26,667 per planning document
Equipment Depreciation	₹400	Labour Hours	₹ 400 / 50,000 = ₹ 800 per labour hour

Step 2: Allocate Overheads Using ABC

		RBC (in lakhs)	IPC (in lakhs)
Materials		5.00	12.00
Labour	1200 x ₹100; 2500 x ₹100	1.20	2.50
Overheads			
Site Engineers	2 x ₹ 20,000; 10 x ₹ 20,000	0.40	2.00
Project Planners	2 x ₹ 26,667; 8 x ₹ 26,667	0.53	2.13
Equipment Depreciation	1200 x ₹ 800; 2500 x ₹ 800	9.60	20.00
Total cost		16.73	38.63
Add: Profit	50% of Total Cost	8.37	19.32
Quoted Price		**25.10**	**57.95**

(c) Possible pricing strategies for the two services offered by XYZ Constructions

- The pricing policy is a matter for XYZ Constructions to decide. They could elect to maintain the current 50% mark-up on cost and if they did the price of the RBC would fall by around 7% in line with the costs. This should make them more competitive in the market.
- They could also reduce the prices by a little less than 7% (say 5%) in order to increase internal margins a little.

Reasons other than high prices for the current poor sales of RBC:

- If the quality of work or the reputation and reliability of the builder are questionable, lowering prices is unlikely to boost sales.

While it is possible that XYZ Constructions has a strong reputation for IPC but not for RBC, it is more likely that a poor reputation would impact all their products. Poor service or inflexibility in meeting customer needs may also hurt sales and can't be fixed by lowering prices.

ي Poor marketing strategies also discourage customers from selecting XYZ Constructions.

ي XYZ Constructions faces competition and may need to adopt a more competitive pricing strategy, such as 'going rate pricing,' instead of simply adding a markup to costs.

ي XYZ Constructions could enter the market by pricing some projects competitively to establish a foothold. Completed projects could then be leveraged to attract new customers.

(b) The crux of standard costing lies in variance analysis. Standard costing is the technique whereby standard costs are predetermined and subsequently compared with the recorded actual costs. It is a technique of cost ascertainment and cost control. It establishes predetermined estimates of the cost of products and services based on management's standards of efficient operation. It thus lays emphasis on "what the cost should be". These should be costs are when compared with the actual costs. The difference between standard cost and actual cost of actual output is defined as the variance.

The variance in other words in the difference between the actual performance and the standard performance. The calculations of variances are simple. A variance may be favourable or unfavourable. If the actual cost is less than the standard cost, the variance is favourable but if the actual cost is more than the standard cost, the variance will be unfavourable. They are easily expressible and do not provide detailed analysis to enable management of exercise control over them. It is not enough to know the figures of these variances from month to month. We in fact are required to trace their origin and causes of occurrence for taking necessary remedial steps to reduce / eliminate them.

A detailed probe into the variance particularly the controllable variances helps the management to ascertain:

(i) the amount of variance

(ii) the factors or causes of their occurrence

(iii) the responsibility to be laid on executives and departments and

(iv) corrective actions which should be taken to obviate or reduce the variances.

Mere calculation and analysis of variances is of no use. The success of variance analysis depends upon how quickly and effectively the corrective actions can be taken on the analysed variances. In fact variance gives information. The manager needs to act on the information provided for taking corrective action. Information is the means and action taken on it is the end. In other words, the calculation of variances in standard costing is not an end in itself, but a means to an end.

3. (a) Dr. **Process A Account** Cr.

	₹		₹
To Materials	40,000	By Transfer to Process B A/c	1,20,000
To Labour	40,000		
To Overheads	16,000		
	96,000		
To Profit (20% of transfer price, i.e., 25% of cost)	24,000		
	1,20,000		1,20,000

Dr. **Process B Account** Cr.

	₹		₹
To Transferred from Process A A/c	1,20,000	By Transfer to Finished Stock A/c	2,88,000
To Labour	56,000		
To Overhead	40,000		
	2,16,000		
To Profit (25% of transfer price i.e., 33.33% of cost)	72,000		
	2,88,000		2,88,000

Statement of Total Profit

	₹
Profit from Process A	24,000
Profit from Process B	72,000
Profit on Sales (₹ 4,00,000 – ₹ 2,88,000)	1,12,000
Total Profit	2,08,000

(b) (i) Calculation of Administration cost:

Particulars	Amount (₹)
Salary paid to office staffs	8,20,000
Fees paid to auditors	92,000
Vehicle hire charges paid for directors attending general meeting	10,200
Fees paid to independent directors	1,02,000
	10,24,200

(ii) Calculation of Selling cost:

Particulars	Amount (₹)
Salary paid to sales manager	8,00,000
Wages paid to workers engaged in storing goods at sales depot	7,200
Travelling allowance paid to sales staffs	9,600
Electricity bill paid for sales office	1,800
Bonus paid to sales staffs for achieving targets	96,000
	9,14,600

(iii) Calculation of Distribution cost:

Particulars	Amount (₹)
Cost paid for secondary packing	8,200
Depreciation on goods delivery vehicles	13,000
	21,200

(c) Statement showing computation of the cost of processing an education loan application

Particulars	(₹)
Salary paid to the education loan processors	21,60,000
Legal advice cost relating to education loan	11,000
Overhead cost (30% of (₹ 16,40,000 - ₹ 11,000)]	4,88,700
Total processing cost per month	26,59,700
No. of applications processed per month	500
Total processing cost per education loan application	**5,319.40**

4. (a) (i) Re-ordering level = Maximum usage per period × Maximum lead time

(ROL) = 2,000 units per day × 20 days

= 40,000 units

(ii) Maximum level = ROL+ROQ–[Min. rate of consumption× Min. lead time] (Refer to working notes 1 and 2)

= 40,000 units + 20,000 units – [1,000 units per day x 10 days]

= 50,000 units

(iii) Minimum level = ROL – Average rate of consumption × Average re-order-period

= 40,000 units – (1,500 units per day × 15 days)

= 17,500 units

(iv) Danger level = Average consumption × Lead time for emergency purchases

= 1,500 units per day × 3 days

= 4,500 units

Working Notes:

1. Minimum rate of consumption per day

Average rate of consumption =

$$\left(\frac{\text{Minimum rate of consumption + Maximum rate of consumption}}{2}\right)$$

$$1{,}500 \text{ units per day} = \left(\frac{\text{X units per day + 2,000 units per day}}{2}\right)$$

Or, X = 1,000 units per day

2. Re-order Quantity (ROQ) $= \sqrt{\frac{2 \text{x} 12{,}50{,}000 \text{units x ₹}10{,}000}{62.50}}$

= 20,000 units

(b) Causes/examples of normal idle time:

1. The time lost between factory gate and the place of work.
2. The interval between one job and another.
3. The setting up time for the machine.
4. Normal rest time, **break for lunch etc.**

Causes/examples of abnormal idle time:

1. Lack of coordination.
2. Power failure, Breakdown of machines.
3. Non-availability of raw materials, strikes, lockouts, poor supervision, fire, flood etc.

(c) Statement of Reconciliation

(to ascertain Profit as per Financial Accounts)

Particulars	**(₹)**	**(₹)**
Profit as per Cost Account		7,77,150
Add: Income from interest and dividends		2,35,500
		10,12,650
Less: Factory expenses under-charged in Cost Accounts	2,35,500	
Administrative expenses under-charged in Cost Accounts	1,17,750	
Selling & distribution expenses under-charged in Cost Accounts	31,400	(3,84,650)
Profit as per Financial Accounts		**6,28,000**

5. (a) (i) Computation of Sale Price *Per Bottle*

Output: 40,000 Bottles

	(₹)
Variable Cost:	
Material	3,15,000
Labour (₹ 1,40,000 × 75%)	1,05,000
Factory Overheads (₹ 1,35,000 × 50%)	67,500
Administrative Overheads (₹ 50,000 × 35%)	17,500
Commission (10% on ₹ 8,00,000) (W.N.-1)	80,000
Fixed Cost:	
Labour (₹ 1,40,000 × 25%)	35,000
Factory Overheads (₹ 1,35,000 × 50%)	67,500
Administrative Overheads (₹ 50,000 × 65%)	32,500
Total Cost	7,20,000
Profit (W.N.-1)	80,000
Sales Proceeds (W.N.-1)	8,00,000
Sales Price per bottle $\left(\frac{₹\ 8,00,000}{40,000 \text{Bottles}}\right)$	20

(ii) Calculation of Break-even Point

Sales Price per Bottle = ₹19

Variable Cost per Bottle = $\frac{`\ 5,85,000\ (W.N.-2)}{40,000\ Bottles}$

= ₹ 14.625

Contribution per Bottle = ₹ 19 − ₹14.625

= ₹ 4.375

Break -even Point

(in number of Bottles) = $\frac{\text{Fixed Costs}}{\text{Contribution per Bottle}}$

= $\frac{₹1,35,000}{₹4.375}$ = 30,857 Bottles

Break- even Point

(in Sales Value) = 30,857 Bottles × ₹ 19

= ₹ 5,86,285/-

Working Note

W.N.-1

Let the Sales Price be 'x'

Commission = $\frac{10x}{100}$

Profit = $\frac{10x}{100}$

x = $6,40,000 + \frac{10x}{100} + \frac{10x}{100}$

100x - 10x - 10x = 6,40,00,000

80x = 6,40,00,000

x = 6,40,00,000 / 80

= ₹ 8,00,000

W.N.-2

Total Variable Cost

	(₹)
Material	3,15,000
Labour	1,05,000
Factory Overheads	67,500
Administrative Overheads	17,500
Commission [(40,000 Bottles x ₹20) x 10%]	80,000
Total	5,85,000

(b) Number of days in budget period = 4 weeks × 5 days = 20 days

Number of units to be produced

	Product-A (units)	**Product-B (units)**
Budgeted Sales	2,400	3,600
Add: Closing stock	480 $\left(\frac{2,400 \text{ units}}{20 \text{ days}} \times 4 \text{ days}\right)$	900 $\left(\frac{3,600 \text{ units}}{20 \text{ days}} \times 5 \text{ days}\right)$
Less: Opening stock	(400)	(200)
	2,480	4,300

(i) Material Purchase Budget

	Material-X (Kg.)	Material-Y (Kg.)
Material required:		
- Product-A	12,400 (2,480 units × 5 kg.)	9,920 (2,480 units × 4 kg.)
- Product-B	12,900 (4,300 units × 3 kg.)	25,800 (4,300 units × 6 kg.)
	25,300	35,720
Add: Closing stock	12,650 $\left(\frac{25{,}300\text{ kgs.}}{20\text{ days}} \times 10\text{ days}\right)$	10,716 $\left(\frac{35{,}720\text{ kgs.}}{20\text{ days}} \times 6\text{ days}\right)$
Less: Opening stock	(1,000)	(500)
Quantity to be purchased	36,950	45,936
Rate per kg. of Material	₹ 4	₹ 6
Total Cost	₹ 1,47,800	₹ 2,75,616

(ii) Wages Budget

	Product-A (Hours)	Product-B (Hours)
Units to be produced	2,480 units	4,300 units
Standard hours allowed per unit	3	5
Total Standard Hours allowed	7,440	21,500
Productive hours required for production	$\frac{7{,}440\text{ hours}}{80\%} = 9{,}300$	$\frac{21{,}500\text{ hours}}{80\%} = 26{,}875$
Add: Non-Productive down time	1,860 hours. (20% of 9,300 hours)	5,375 hours. (20% of 26,875 hours)
Hours to be paid	11,160	32,250

Total Hours to be paid	= 43,410 hours (11,160 + 32,250)
Hours to be paid at normal rate	= 4 weeks × 40 hours × 180 workers = 28,800 hours
Hours to be paid at premium rate	= 43,410 hours – 28,800 hours = 14,610 hours
Total wages to be paid	= 28,800 hours × ₹ 25 + 14,610 hours × ₹ 37.5 = ₹ 7,20,000 + ₹ 5,47,875 = ₹ 12,67,875

6. **(a)** Before installation of a system of cost accounting in a manufacturing organisation the under mentioned factors should be studied:

(a) **Objective:** The objective of costing system, for example whether it is being introduced for fixing prices or for insisting a system of cost control.

(b) **Nature of Business or Industry:** The Industry in which business is operating. Every business industry has its own peculiar feature and costing objectives. According to its cost information requirement cost accounting methods are followed. For example Indian Oil Corporation Ltd. has to maintain process wise cost accounts to find out cost incurred on a particular process say in crude refinement process etc.

(c) **Organisational Hierarchy:** Costing system should fulfill the requirement of different level of management. Top management is concerned with the corporate strategy, strategic level management is concerned with marketing strategy, product diversification, product pricing etc. Operational level management needs the information on standard quantity to be consumed, report on idle time etc.

(d) **Knowing the product:** Nature of product determines the type of costing system to be implemented. The product which has by-products requires costing system which account for by-products as well. In case of perishable or short self- life, marginal costing method is required to know the contribution and minimum price at which it can be sold.

(e) **Knowing the production process:** A good costing system can never be established without the complete knowledge of the production process. Cost apportionment can be done on the most appropriate and scientific basis if a cost accountant can identify degree of effort or resources consumed in a particular process. This also includes some basic technical know-how and process peculiarity.

(f) **Information synchronisation:** Establishment of a department or a system requires substantial amount of organisational resources. While drafting a costing system, information needs of various other departments should be taken into account. For example in a typical business organisation accounts department needs to submit monthly stock statement to its lender bank, quantity wise stock details at the time filing returns to tax authorities etc.

(g) **Method of maintenance of cost records:** The manner in which Cost and Financial accounts could be inter-locked into a single integral accounting system and in which results of separate sets of accounts, cost and financial, could be reconciled by means of control accounts.

(h) **Statutory compliances and audit**: Records are to be maintained to comply with statutory requirements, standards to be followed (Cost Accounting Standards and Accounting Standards).

(i) **Information Attributes**: Information generated from the Costing system should be possess all the attributes of an information i.e. complete, accurate, timeliness, confidentiality etc. This also meets the requirements of management information system.

(b) The following steps are necessary for establishing a good budgetary control system:

1. Determining the objectives to be achieved, over the budget period, and the policy or policies that might be adopted for the achievement of these objectives.
2. Determining the activities that should be undertaken for the achievement of the objectives.
3. Drawing up a plan or a scheme of operation in respect of each class of activity, in quantitative as well as monetary terms for the budget period.
4. Laying out a system of comparison of actual performance by each person, or department with the relevant budget and determination of causes for the variation, if any.
5. Ensuring that corrective action will be taken where the plan has not been achieved and, if that is not possible, for the revision of the plan.

(c) Detection of slow moving and non-moving item of stores:

The existence of slow moving and non-moving item of stores can be detected in the following ways.

(i) By preparing and *perusing periodic reports* showing the status of different items or stores.

(ii) By calculating the *inventory turnover period* of various items in terms of number of days/ months of consumption.

(iii) By computing *inventory turnover ratio* periodically, relating to the issues as a percentage of average stock held.

(iv) By implementing the use of a well-designed information system.

Necessary steps to reduce stock of slow moving and non-moving item of stores:

(i) Proper procedure and guidelines should be laid down for the disposal of non-moving items, before they further deteriorate in value.

(ii) Diversify production to use up such materials.

(iii) Use these materials as substitute, in place of other materials.

OR

(c) The three main methods of allocating support departments costs to operating departments are:

(i) ***Direct re-distribution method:*** Under this method, support department costs are directly apportioned to various production departments only. This method does not consider the service provided by one support department to another support department.

(ii) ***Step method:*** Under this method the cost of the support departments that serves the maximum numbers of departments is first apportioned to other support departments and production departments. After this the cost of support department serving the next largest number of departments is apportioned. In this manner we finally arrive on the cost of production departments only.

(iii) ***Reciprocal service method:*** This method recognises the fact that where there are two or more support departments they may render services to each other and, therefore, these inter-departmental services are to be given due weight while re-distributing the expenses of the support departments. The methods available for dealing with reciprocal services are:

(a) Simultaneous equation method

(b) Repeated distribution method

(c) Trial and error method.

ANSWERS OF MODEL TEST PAPER 8
INTERMEDIATE: GROUP – II
PAPER – 4: COST AND MANAGEMENT ACCOUNTING
Suggested Answers/ Solution
PART I – Case Scenario based MCQs

1. (i) (d) Monthly Production of X = 30,000 kgs.

Raw Material Required = $\frac{30,000}{3} \times 5$ = 50,000 kgs.

Material A = $\frac{50,000}{5} \times 3$ = 30,000 kg.

Material B = $\frac{50,000}{5} \times 2$ = 20,000 kg.

(ii) (a) Calculation of Economic Order Quantity (EOQ):

Material A = $\sqrt{\frac{2 \times \text{Annual consumption} \times \text{Order cost}}{\text{Carrying cost per unit p.a.}}}$

= $\sqrt{\frac{2 \times (30,000 \times 12) \times 1,200}{15\% \; of \; 30}}$ = 13,856 kg.

Material B = $\sqrt{\frac{2 \times (20,000 \times 12) \times 1,200}{5\% \; of \; 44}}$ = 16,181 kg.

(iii) (b) Calculation of Maximum Stock level: Since, the Material A is perishable in nature and it required to be used within 10 days, hence, the Maximum Stock Level shall be lower of two:

(a) Stock equal to 10 days consumption

$= \frac{30000}{25} \times 10 \; days$ = 12,000 kg.

(b) Maximum Stock Level for Material A:

Re-order Quantity + Re-order level – (Min consumption* × Min. lead time)

Where, Re-order Quantity = 15,000 kg.

Re-order level = Max. Consumption* × Max. Lead time

= 30,000/25×2 days=2,400 kg.

Maximum stock Level = 15,000 kg. + 2,400 kg. - (30,000/25 × 1 day)

= 17,400 – 1,200 = 16,200 kg.

Stock required for 10 days consumption is lower than the maximum stock level calculated through the formula. Therefore, Maximum Stock Level will be 12,000 kg.

(*Since, production is processed evenly throughout the month hence material consumption will also be even.)

(iv) (b) Calculation of Savings/ loss in Material A if purchase quantity equals to EOQ.

	Purchase Quantity = 15,000 kg.	**Purchase Quantity = EOQ i.e. 13,856 kg.**
Annual consumption	3,60,000 kg. (30,000 × 12 months)	3,60,000 kg. (30,000 × 12 months)
No. of orders [Note- (i)]	30 (3,60,000 ÷ 12,000)	30 (3,60,000 ÷ 12,000)
Ordering Cost (a)	₹ 36,000 (₹ 1200 × 30)	₹ 36,000 (₹ 1200 × 30)
Carrying Cost (b) [Note- (ii)]	₹30,375 (15% of ₹ 27 × 7,500)	₹31,176 (15% of ₹ 30 × 6,928)
Purchase Cost (c) (for good portion)	₹ 97,20,000 (₹ 27 × 3,60,000)	₹ 1,08,00,000 (₹ 30 × 3,60,000)
Loss due to obsolescence (d) [Note- (iii)]	₹ 24,30,000 [₹ 27 × (30 × 3,000)]	₹16,70,400 [₹ 30 × (30 × 1,856)]
Total Cost [(a) + (b) + (c) + (d)]	₹ 1,22,16,375	₹ 1,25,37,576

Purchasing of material - A at present policy of 15,000 kg. saves ₹ 3,21,201.

Notes: (i) Since, material gets obsolete after 10 days, the quantity in excess of 10 days consumption i.e. 12,000 kg. are wasted. Hence, after 12,000 kg. a fresh order needs to be given.

(ii) Carrying cost is incurred on average stock of Materials purchased.

(iii) the excess quantity of material gets obsolete and loss has to be incurred.

(v) (c) Minimum Stock Level for Material A

= Re-order level – (Average Consumption Rate x Average Re-order Period)

= 2400 – (1200 x 1.5) = 600 kgs

Re-order level = Max. Consumption* × Max. Lead time

= 30,000/25 × 2 days = 2,400 kg.

2. (i) (d) Budgeted Machine hour rate (Blanket rate) $= \frac{₹\ 50,40,000}{6,000 \text{ hours}} = ₹840 \text{ per hour}$

(ii) (a)

(iii) (a)

	Amount (₹)	**Amount (₹)**
Total production overheads actually incurred during the period		34,08,000
Less: Amount paid to worker as per court order	4,50,000	
Expenses of previous year booked in the current year	1,00,000	
Wages paid for the strike period under an award	4,20,000	
Obsolete stores written off	36,000	10,06,000
		24,02,000
Less: Production overheads absorbed as per machine hour rate (3,000 hours × ₹840*)		25,20,000
Amount of over absorbed production overheads		1,18,000

* Budgeted Machine hour rate (Blanket rate) calculated in part (i)

(iv) (b) Accounting treatment of over absorbed production overheads: As, 40% of the over absorbed overheads were due to defective production policies, this being abnormal, hence should be credited to Costing Profit and Loss Account.

Amount to be credited to Costing Profit and Loss Account

= ₹1,18,000× 40% = ₹47,200.

Balance of over absorbed production overheads should be distributed over Works in progress, Finished goods and Cost of sales by applying supplementary rate*.

Amount to be distributed = ₹1,18,000× 60% = ₹70,800

Supplementary rate =

(v) (c) Apportionment of over absorbed production overheads over WIP, Finished goods and Cost of sales:

	Equivalent completed units	**Amount (₹)**
Work-in-Progress (80,000 units × 50% × 0.472)	40,000	18,880
Finished goods (20,000 units × 0.472)	20,000	9,440
Cost of sales (90,000 units × 0.472)	90,000	42,480
Total	1,50,000	70,800

3. **(b)** Let the wages be 'X'

Therefore:

Material	2,40,000
Wages	'X'
Prime cost	2,40,000 + X
Factory overheads	0.75X
Factory cost	2,40,000 + 1.75X
Quality control cost and research and development cost	20% (2,40,000 + 1.75X)
Cost of Production	75,000
288000 + 2.1X	= 7,50,000
X	= 2,20,000

4. **(b)** Rooms days

Summer	200 x 80% x 30 x 4 =19,200
Winter	200 x 25% x 30 x 4 = 6,000
Autumn	200 x 60% x 30 x 4 = 14,400
Total room days:	39,600

5. **(a)** Variable overhead cost variance: Standard Variable overheads - Actual variable overheads

8,000/2,500 x 3,000 – 10,000 = 400A

Fixed overhead cost variance: Standard fixed overheads - Actual fixed overheads

12,000/2,500 x 3,000 – 11,800 = 2,600F

6. **(c)** Equivalent Units:

Units transferred: 24,000 x 100%	=	24,000
Closing WIP: 2,500 x 60%	=	1,560
Total Equivalent units		25,560

7. **(a)** If final sales are ₹ 50,000 and separable costs are ₹ 35,000, then net realizable value will be ₹15,000.

PART-II – Descriptive Questions

1. (a) Calculation of Total Cost and Selling Price

		Job XYZ (₹)		Job MNO (₹)
Direct material		15,400		10,800
Direct labour				
Department A	(20 x ₹76)	1,520	(16 x₹ 76)	1,216
Department B	(12 x ₹70)	840	(10 x ₹70)	700
Department C	(10 x ₹ 68)	680	(14 x ₹68)	952
Total Direct cost		18,440		13,668
Overhead:				
Department A	(20 x ₹12.86)	257.20	(16 x ₹12.86)	205.76
Department B	(12 x ₹12.40)	148.80	(10 x ₹12.40)	124.00
Department C	(10 x ₹ 14.03)	140.30	(14 x ₹ 14.03)	196.42
Total cost		18,986.30		14,194.18
Profit (note)		6,328.77		4,731.39
Quoted selling price		25,315.07		18,925.57

Note: If profit is 25% on selling price this is the same as 33 1/3 % (25/75) on cost.

	(₹)
Selling price	100
Cost	75
Profit	25

(b) (i) Calculation of Administration cost:

Particulars	Amount (₹)
Salary paid to office staffs	8,20,000
Fees paid to auditors	92,000
Vehicle hire charges paid for directors attending general meeting	10,200
Fees paid to independent directors	1,02,000
	10,24,200

(ii) Calculation of Selling cost:

Particulars	Amount (₹)
Salary paid to sales manager	8,00,000
Wages paid to workers engaged in storing goods at sales depot	7,200
Travelling allowance paid to sales staffs	9,600
Electricity bill paid for sales office	1,800

Bonus paid to sales staffs for achieving targets	96,000
	9,14,600

(iii) Calculation of Distribution cost:

Particulars	Amount (₹)
Cost paid for secondary packing	8,200
Depreciation on goods delivery vehicles	13,000
	21,200

(c) (i) Separation method

$$= \frac{\text{Number of workers separated during the year}}{\text{Average number of workers on roll during the year}} \times 100$$

$$= \frac{29+85}{(1900+2250)/2} \times 100 = 5.49\%$$

(ii) Replacement method

$$= \frac{\text{Number of workers replaced during the year}}{\text{Average number of workers on roll during the year}} \times 100$$

$$= \frac{480}{(1900+2250)/2} \times 100 = 23.13\%$$

(iii) Flux method

$$= \frac{\text{Number of workers separated+ Number of workers replaced during the year}}{\text{Average number of workers on roll during the year}} \times 100$$

$$= \frac{114+480}{(1900+2250)/2} \times 100 = 28.63\%$$

2. (a) Process Account

Particulars		***Units***	***Amount***	***Particulars***		***Units***	***Amount***
			₹				₹
To	Units introduced	50,000	1,47,000	By	Normal loss @ ₹ 1	1,500	1,500
To	Direct material		1,38,300	By	Abnormal loss*	1,200	6,960
To	Direct wages		65,550	By	Finished production*	39,300	3,65,490
To	Production overhead		74,700	By	Closing WIP*	8,000	51,600
		50,000	4,25,550			50,000	4,25,550

Abnormal Loss Account

Particulars		*Amount*	*Particulars*		*Amount*
		₹			₹
To	Process A/c	6,960	By	Scrap (120 × ₹ 1)	1,200
			By	Profit and Loss A/c	5,760
		6,960			6,960

*See working notes.

Working Notes:

This is a peculiar question of normal / abnormal loss involving use of equivalent concept. For valuation of abnormal loss, finished production and WIP, first of all equivalent units for them will have to be found out as under:

Statement showing equivalent units

Particulars	Input Materials			Direct wages		P. overheads	
		%	Units	%	Units	%	Units
Abnormal loss	1,200	66.67	800	33.33	400	16.67	200
Finished units	39,300	100.00	39,300	100.00	39,300	100.00	39,300
Clg. WIP	8,000	75.00	6,000	50.00	4,000	25.00	2,000
Total	48,500		46,100		43,700		41,500

Statement of Cost per Equivalent unit for each element

Particulars		Cost	Equivalent Unit	Cost per unit
		₹	₹	₹
Input material	1,47,000			
Less: Scrap realization	1,500	1,45,500	48,500	3.00
Materials added		1,38,300	46,100	3.00
Direct wages		65,550	43,700	1.50
Production overhead		74,700	41,500	1.80

Statement showing cost of Abnormal Loss, finished production and WIP

Particulars	**Cost per unit**	**Equivalent units**	**Total cost**
Abnormal Loss			
Input	1,200	3.00	3,600
Material added	800	3.00	2,400
Direct wages	400	1.50	600
Production overheads	200	1.80	360
			6,960
Finished Production			
Input	39,300	3.00	1,17,900
Material added	39,300	3.00	1,17,900
Direct wages	39,300	1.50	58,950
Production overheads	39,300	1.80	70,740
			3,65,490
Closing WIP			
Input	8,000	3.00	24,000

Material added	6,000	3.00	18,000
Direct wages	4,000	1.50	6,000
Production overheads	2,000	1.80	3,600
			51,600

(b) Standard Quantity of Materials for Actual Output:

P	6,000 × 2	12,000 units
Q	6,000 × 3	18,000 units
R	6,000 × 15	90,000 units
Standard hours for Actual Output:		
	6,000 × 3	18,000 units

Material price Variance:

(Standard Price – Actual Price) × Actual Quantity		₹
P	(₹ 4.00 – ₹ 4.40) × 12,500	5,000 A
Q	(₹ 3.00 – ₹ 2.80) × 18,000	3,600 F
R	(₹ 1.00 – ₹ 1.20) × 88,500	17,700 A
		19,100 A

Material Usage Variance:

(Standard Usage – Actual Usage) × Standard Price

P	(12,000 – 12,500) × ₹ 4.00	2,000 A
Q	(18,000 – 18,000) × ₹ 3.00	Nil
R	(90,000 – 88,500) × ₹ 1.00	1,500 F
		500 A

Labour Rate Variance:

(Standard Rate – Actual Rate) × Actual hours

(₹ 8.00 – ₹ 12.00) × 2,500	10,000 A
(₹ 8.00 – ₹ 8.00) × 15,000	Nil
	10,000 A

Labour Efficiency Variance:

(Standard hours – Actual hours) × Standard Rate

(18,000 – 17,500) × ₹ 8.00	4,000 F

3. (a) Income Statement (under Marginal Costing)

	May	June
	₹ ('000)	*₹ ('000)*
(A) Sales	12,095	15,340
Variable manufacturing cost	9,600	10,400
Add: opening inventory @ ₹40,000 per unit	–	1,400
Cost of Goods available for sale	9,600	11,800
Less: Closing inventory @ ₹40,000 per Unit	1,400	1,400
Variable cost of goods sold	8,200	10,400
Variable distribution cost	820	1,040
(B) Total variable cost	9,020	11,440
(C) Contribution (A-B)	3,075	3,900
Fixed cost:-Manufacturing	3,200	3,200
Marketing	600	600
(D) Total fixed cost	3,800	3,800
Net Income (C-D)	(725)	100

Income Statement (under Absorption Costing)

	May	June
(A) Sales	12,095	15,340
Variable manufacturing	9,600	10,400
Fixed manufacturing cost	3,200	3,200
	12,800	13,600
Add: opening inventory*	–	1,867
Cost of goods available for sales	12,800	15,467
Less: Closing inventory*	1,867	1,831
Cost of goods sold	10,933	13,636
Add: Distribution cost-variable	820	1,040
Add: Marketing cost-fixed	600	600
(B) Total Cost	12353	15276
Net Income (A-B)	(258)	64

Comments Marginal costing rewards sales while absorption costing rewards production. This means that when sales are more than production, marginal costing produces higher profit and vice versa, when production is more than sales, absorption costing shows higher profit.

In August, absorption costing shows higher profit by ₹6,60,000 (i.e., 19,10,000 – 12,50,000) than marginal costing because production is more than sales . In September marginal costing shows higher profit than absorption costing by ₹ 4,35,000.

Sales are more than production. Difference in profit is exactly equal to difference in inventory values in the two months.

***Working Notes:**

In marginal costing inventory is valued at variable manufacturing cost while in absorption costing inventory valuation is done as follows:

For June closing inventory of 35 Units:

	₹
Variable manufacturing cost (35 units @ ₹40,000)	14,00,000
Fixed manufacturing cost (35 units @ ₹12,308)	4,30,780
	18,30,780

Fixed manufacturing cost per unit is calculated as under:

$$\frac{₹\ 32,00,000}{260 \text{ units of production}} = ₹\ 12,308 \text{ per unit}$$

For May, inventory of 35 units:

	₹
Variable manufacturing cost (35 units @ ₹40,000)	14,00,000
Fixed manufacturing cost (35 units @ ₹13,333)	4,66,667
	18,66,667

$$\text{Fixed manufacturing cost per unit} = \frac{₹\ 32,00,000}{240 \text{ units of production}} = ₹\ 13,333 \text{ per unit}$$

(b) The two approaches will compute the different profit because of the difference in the stock valuation. This difference is explained as follows in different circumstances.

1. **No opening and closing stock:** In this case, profit / loss under absorption and marginal costing will be equal.

2. **When opening stock is equal to closing stock:** In this case, profit / loss under two approaches will be equal provided the fixed cost element in both the stocks is same amount.

3. **When closing stock is more than opening stock:** In other words, when production during a period is more than sales, then **profit as per absorption approach will be more** than that by marginal approach. The reason behind this difference is that a part of fixed overhead included in closing stock value is carried forward to next accounting period.

4. **When opening stock is more than the closing stock:** In other words, when production is less than the sales, **profit shown by marginal costing will be more** than that shown by absorption costing. This is because a part of fixed cost from the preceding period is added to the current year's cost of goods sold in the form of opening stock.

(c) Financial expenses which are not included in cost accounting are as follows:

- Interest on debentures and deposit
- Gratuity
- Pension
- Bonus of Employee,
- Income Tax,
- Preliminary Expenses
- Discount on issue of Share
- Underwriting Commissions.

4. (a) Journal entries are as follows:

			Dr.	*Cr.*
			₹	₹
1.	Finished stock ledger Control A/c	Dr.	2,10,000	
	To Work-in-Progress Control A/c			2,10,000
2.	Manufacturing Overhead Control A/c	Dr.	90,000	
	To Cost Ledger Control A/c			90,000
3.	Stores Ledger Control A/c	Dr.	1,23,000	
	To Cost Ledger Control A/c			1,23,000
4.	(*i*) Wage Control A/c	Dr.	71,000	
	To Cost Ledger Control A/c			71,000
	(*ii*) Work-in-progress Control A/c	Dr.	50,000	
	To Wage Control A/c			50,000
	(*iii*) Manufacturing Overhead Control A/c	Dr.	21,000	
	To Wage Control A/c			21,000
5.	Cost of Sales A/c	Dr.	1,85,000	
	To Finished Stock Ledger A/c			1,85,000
6.	Work-in-Progress Control A/c	Dr.	1,27,000	
	To Stores Ledger Control A/c			1,27,000
7.	Finished Stock Ledger Control A/c	Dr.	5,000	
	To Cost of Sales A/c			5,000
8.	Cost Ledger Control A/c	Dr.	3,000	
	To Stores Ledger Control A/c			3,000
9.	Work-in-Progress Control A/c	Dr.	77,000	
	To Manufacturing Overhead Control A/c			77,000

(b) (i) Traditional Absorption Costing

	BABY SOFT-Gold	BABY SOFT-Pearl	BABY SOFT-Diamond	*Total*
(a) Production of soaps (Units)	4,000	3,000	2,000	9,000
(b) Direct labour (minutes)	30	40	60	-
(c) Direct labour hours (a × b)/60 minutes	2,000	2,000	2,000	6,000

Overhead rate per direct labour hour:

= Budgeted overheads ÷ Budgeted labour hours

= ₹ 1,98,000 ÷ 6,000 hours

= ₹ 33 per direct labour hour

Unit Costs:

	BABYSOFT- Gold (₹)	BABYSOFT-Pearl (₹)	BABYSOFT-Diamond (₹)
Direct Costs:			
- Direct Labour	5.00 $\left(\frac{10\times 30}{60}\right)$	6.67 $\left(\frac{10\times 40}{60}\right)$	10.00 $\left(\frac{10\times 60}{60}\right)$
- Direct Material	167.50 $\left(60\times\frac{200}{100}\right)+\left(20\times\frac{200}{100}\right)+\left(30\times\frac{15}{100}\right)+\left(10\times\frac{30}{100}\right)$	215.50 $\left(55\times\frac{300}{100}\right)+\left(20\times\frac{200}{100}\right)+\left(30\times\frac{15}{100}\right)+\left(12\times\frac{50}{100}\right)$	248.50 $\left(65\times\frac{300}{100}\right)+\left(20\times\frac{200}{100}\right)+\left(30\times\frac{15}{100}\right)+\left(15\times\frac{60}{100}\right)$
Production Overhead:	16.50 $\left(33\times\frac{30}{60}\right)$	22.00 $\left(33\times\frac{40}{60}\right)$	33.00 $\left(33\times\frac{60}{60}\right)$
Total unit costs	189.00	244.17	291.50
Number of units	4,000	3,000	2,000
Total costs	**7,56,000**	**7,32,510**	**5,83,000**

(ii) Activity Based Costing

	BABYSOFT- Gold	BABYSOFT- Pearl	BABYSOFT-Diamond	Total
Quantity (units)	4,000	3,000	2,000	-
Weight per unit (grams)	102 $((60\times .8)+20+(30\times .8)+10))$	100 $((55\times .8)+20+(30\times .8)+12))$	111 $((65\times .8)+20+(30\times .8)+15))$	-
Total weight (grams)	4,08,000	3,00,000	2,22,000	9,30,000
Direct labour (minutes)	30	40	60	-

Direct labour hours	2,000 $\left(4,000 \times \frac{30}{60}\right)$	2,000 $\left(3,000 \times \frac{40}{60}\right)$	2,000 $\left(2,000 \times \frac{60}{60}\right)$	6,000
Machine operations per unit	5	5	6	-
Total operations	20,000	15,000	12,000	47,000

Forklifting rate per gram = ₹ 58,000 ÷ 9,30,000 grams = ₹ 0.06 per gram

Supervising rate per direct labour hour = ₹ 60,000 ÷ 6,000 hours
= ₹ 10 per labour hour

Utilities rate per machine operations = ₹ 80,000 ÷ 47,000 machine operations
= ₹ 1.70 per machine operations

Unit Costs:

	BABYSOFT-Gold (₹)	**BABYSOFT-Pearl (₹)**	**BABYSOFT-Diamond (₹)**
Direct Costs:			
- Direct Labour	5.00	6.67	10.00
- Direct material	167.50	215.50	248.50
Production Overheads:			
Forklifting cost	6.12 (0.06 × 102)	6.00 (0.06 × 100)	6.66 (0.06 × 111)
Supervising cost	5.00 $\left(\frac{10 \times 30}{60}\right)$	6.67 $\left(\frac{10 \times 40}{60}\right)$	10.00 $\left(\frac{10 \times 60}{60}\right)$
Utilities	8.50 (1.70 × 5)	8.50 (1.70 × 5)	10.20 (1.70 × 6)
Total unit costs	192.12	243.34	285.36
Number of units	4,000	3,000	2,000
Total costs	**7,68,480**	**7,30,020**	**5,70,720**

5. (a) Flexible Budget for the period ….

	80% ₹	*90%* ₹	*100%* ₹	*110%* ₹
Sales	9,60,000	10,80,000	12,00,000	13,20,000
Administration Costs:				
Office Salaries (fixed)	1,10,000	1,10,000	1,10,000	1,10,000
General expenses (2% of Sales)	19,200	21,600	24,000	26,400
Depreciation (fixed)	6,200	6,200	6,200	6,200
Rent and rates (fixed)	9,750	9,750	9,750	9,750
(A) Total Adm. Costs	1,45,150	1,47,550	1,49,950	1,52,350

Selling Costs :				
Salaries (6% of sales)	57,600	64,800	72,000	79,200
Travelling expenses (5% of sales)	48,000	54,000	60,000	66,000
Sales office (2% of sales)	19,200	21,600	24,000	26,400
General expenses (1% of sales)	9,600	10,800	12,000	13,200
(B) Total Selling Costs	1,34,400	1,51,200	1,68,000	1,84,800
Distribution Costs :				
Wages (2% of sales)	19,200	21,600	24,000	26,400
Rent (1% of sales)	9,600	10,800	12,000	13,200
Other expenses (6% of sales)	57,600	64,800	72,000	79,200
(C) Total Distribution Costs	86,400	97,200	1,08,000	1,18,800
Total Costs (A + B + C)	3,65,950	3,95,950	4,25,950	4,55,950

Note : All fixed costs have been assumed to remain unchanged even at 110% capacity. However, in practice, fixed costs may change when capacity utilisation exceeds 100%.

(b) Statement showing cost per patient day

Particulars	Amount (₹)
A. *Variable Cost*	
Food Supplied to patients (₹ 72 × 5,600*)	4,03,200
Laundry charges (₹ 30 × 5,600)	1,68,000
Medicines (₹ 60 × 5,600)	3,36,000
Expert doctors fee (₹ 250 × 5,600)	14,00,000
	23,07,200
B. *Fixed Cost*	
Rent of the premises (₹ 15,000 × 12)	1,80,000
Repairs & Maintenance	10,000
Administrative expenses	72,000
Salary expenses:	
- Supervisors (2 × ₹ 2,000 × 12)	48,000
- Nurses (4 × ₹ 1,500 × 12)	72,000
- Ward Boys (2 × ₹ 1,200 × 12)	28,800
	4,10,800
C Total Cost (A + B)	27,18,000

* Refer to working note -1

(i) Fee should have been charged to earn 75% profit on fees received

Let fee charged is 'X', then profit will be 0.75 X

Total fee: X – 0.75 X = ₹ 27,18,000

Or, X = 1,08,72,000

Fee should have been charged for per patient-day $= \frac{₹1,08,72,000}{5,600} = ₹1941.43$

6. (a) Difference between fixed and flexible budgets

S. No.	Fixed Budget	Flexible Budget
1.	It does not change with actual volume of activity achieved. Thus it is rigid	It can be recasted on the basis of activity level to be achieved. Thus it is not rigid.
2	It operates on one level of activity and under one set of conditions	It consists of various budgets for different level of activity.
3	If the budgeted and actual activity levels differ significantly, then cost ascertainment and price fixation do not give a correct picture.	It facilitates the cost ascertainment and price fixation at different levels of activity.
4.	Comparisons of actual and budgeted targets are meaningless particularly when there is difference between two levels.	It provided meaningful basis of comparison of actual and budgeted targets.

(b) Scope of Cost Reduction: Cost reduction is attainable in almost all areas of business activities. There is perhaps no situation which cannot be improved. It covers a wide range like new layout, product design, production methods, materials and machines in factories as well as in offices, innovation in marketing, etc. It also extends to specified activities like purchasing, handling, packaging, shipping, warehousing, marketing, use of administrative facilities and even utilisation of financial resources.

Excessive cost may result in every organisation from:

(a) Lack of information about raw materials, processes, products, components etc.

(b) Lack of utilisation of ideas generated from performance and economic analysis.

(c) Honest but wrong beliefs that certain things are impossible for achievement.

(d) Temporary circumstances like features developed under pressure or modifications made to meet certain circumstances.

(e) Habits and attitudes of confining to one conventional method.

It is not necessary for management to proceed in any specific sequence in considering the various aspects of cost reduction and it may be necessary to start the campaign in more than one direction at the same time.

(c) **Job Costing and Batch Costing :** According to Job Costing, costs are collected and accumulated according to jobs. Each job or unit of production is treated as a separate entity for the purpose of costing. Job Costing may be employed when jobs are executed for different customers according to their specifications.

Batch Costing is a form of Job Costing, a lot of similar units which comprises the batch may be used as a cost unit for ascertaining job. Such a method of costing is used in case of pharmaceutical industry readymade garments industries, manufacturing parts of TV, radio sets etc.

OR

(d) ***Time and motions study:*** It is the study of time taken and motions (movements) performed by workers while performing their jobs at the place of their work. Time and motion study has played a significant role in controlling and reducing labour cost.

Time Study is concerned with the determination of standard time required by a person of average ability to perform a job. Motion study, on the other hand, is concerned with determining the proper method of performing a job so that there are no wasteful movements, hiring the worker unnecessarily. However, both the studies are conducted simultaneously. Since materials, tools, equipment and general arrangement of work, all have vital bearing on the method and time required for its completion. Therefore, their study would be incomplete and would not yield its full benefit without a proper consideration of these factors.

Time and motion study is important to management because of the following features:

1. Improved methods, layout, and design of work ensure effective use of men, material and resources.
2. Unnecessary and wasteful methods are pin-pointed with a view to either improving them or eliminating them altogether. This leads to reduction in the work content of an operation, economy in human efforts and reduction of fatigue.
3. Highest possible level of efficiency is achieved in all respect.
4. Provides information for setting labour standards - a step towards labour cost control and cost reduction.
5. Useful for fixing wage rates and introducing effective incentive scheme.

ANSWERS OF MODEL TEST PAPER 1

INTERMEDIATE: GROUP – II

PAPER – 5: AUDITING AND ETHICS

SUGGESTED ANSWERS / HINTS

PART I - Multiple Choice Questions

1. **(b)**

2. **(b)**

3. **(b)**

4. **(d)**

5. **(c)**

6. **(a)**

7. **(c)**

8. **(a)**

9. **(a)**

10. **(d)**

11. **(b)**

12. **(d)**

13. **(c)**

14. **(c)**

15. **(b)**

PART II-Descriptive Answers

1. **(a)** DOX Limited is in business of providing courier services. As name of the company and given facts suggest: -

- It is not a small company under section 2(85) of the Companies Act, 2013.
- It is not a private company.
- It is not a one person company.
- It is not a banking or insurance company.
- It is not a Section 8 company as it does not has charitable objects etc.

Therefore, it does not qualify for any exemption from applicability of CARO, 2020. Hence, reporting requirements under CARO, 2020 are applicable. While reporting under CARO, 2020, statutory auditor is required to report under clause (xiv) of paragraph 3 as under:

(i) whether the company has an internal audit system commensurate with the size and nature of its business

(ii) whether the reports of the internal auditors for the period under audit were considered by the statutory auditor

(b) The above situation is an example of misstatement relating to non-compliance with requirements of AS 9 identified during audit. In accordance with requirements of SA 450, the auditor shall communicate on a timely basis all misstatements accumulated during the audit with the appropriate level of management, unless prohibited by law or regulation. The auditor shall request management to correct those misstatements.

Timely communication of misstatements to the appropriate level of management is important as it enables management to evaluate whether the items are misstatements, inform the auditor if it disagrees and take action as necessary. The correction by management of all misstatements, including those communicated by the auditor, enables management to maintain accurate accounting books and records and reduces the risks of material misstatement of future financial statements because of the cumulative effect of immaterial uncorrected misstatements related to prior periods.

If management refuses to correct some or all of the misstatements communicated by the auditor, the auditor shall obtain an understanding of management's reasons for not making the corrections and shall take that understanding into account when evaluating whether the financial statements as a whole are free from material misstatement.

(c) In the given situation, following information is required to be disclosed in accordance with requirements to Schedule III to the Companies Act, 2013:

(a)	amount required to be spent by the company during the year ₹14.00 lacs	
(b)	amount of expenditure incurred	₹ 14.50 lacs
(c)	shortfall at the end of the year	NIL
(d)	total of previous years shortfall	NA
(e)	reason for shortfall	NA
(f)	nature of CSR activities - Women empowerment activities through implementing agency	
(g)	details of related party transactions, e.g., contribution to a trust controlled by the company in relation to CSR expenditure as per relevant Accounting Standard	NIL

(h)	where a provision is made with respect to a liability incurred by entering into a contractual obligation, the movements in the provision during the year should be shown separately	NIL

(d) The firm is providing free hospitality to engagement team members including engagement partner. In such circumstances, fundamental principles governing professional ethics are violated. Such acts of free hospitality are capable of impairing objectivity of auditor.

The situation given in the question signifies that auditors have formed relationships with client where they may end up being too sympathetic to the client's interests. Due to free hospitality enjoyed by engagement team members, they may take a sympathetic view to issues which may have arisen during course of audit. In this way, familiarity threats are created in the situation.

2. (a) Financial events or conditions that may cast significant doubt on the entity's ability to continue as going concern:

(i) Net liability or net current liability position.

(ii) Fixed-term borrowings approaching maturity without realistic prospects of renewal or repayment; or excessive reliance on short term borrowings to finance long term assets.

(iii) Indications of withdrawal of financial support by trade payables.

(iv) Negative operating cash flows indicated by historical or prospective financial statements.

(v) Adverse key financial ratios.

(vi) Substantial operating losses or significant deterioration in the value of assets used to generate cash flows.

(vii) Arrears or discontinuance of dividends.

(viii) Inability to pay trade payables on due dates.

(ix) Inability to comply with terms of loan agreements.

(x) Change from credit to cash-on-delivery transactions with suppliers.

(xi) Inability to obtain financing for essential new product development or other essential investments.

(b) Adequate planning benefits the audit of financial statements in several ways, including the following:

(i) Helping the auditor to devote appropriate attention to important areas of the audit.

(ii) Helping the auditor identify and resolve potential problems on a timely basis.

(iii) Helping the auditor properly organize and manage the audit engagement so that it is performed in an effective and efficient manner.

(iv) Assisting in the selection of engagement team members with appropriate levels of capabilities and competence to respond to anticipated risks, and the proper assignment of work to them.

(v) Facilitating the direction and supervision of engagement team members and the review of their work.

(vi) Assisting, where applicable, in coordination of work done by auditors of components and experts.

(c) Example of practical limitation on ability of auditor to obtain audit evidence

An auditor does not test all transactions and balances. He forms his opinion only by testing samples. It is an example of practical limitation on auditor's ability to obtain audit evidence.

Example of legal limitation on ability of auditor to obtain audit evidence

Management may not provide complete information as requested by auditor. There is no way by which auditor can force management to provide complete information as may be requested by auditor. In case he is not provided with required information, he can only report. It is an example of legal limitation on auditor's ability to obtain audit evidence.

(d) The above company is a government company. Section 143(5) of the Companies Act,2013 states that, in the case of a Government company or any other company owned or controlled, directly or indirectly, by the Central Government, or by any State Government or Governments, or partly by the Central Government and partly by one or more State Governments, the comptroller and Auditor-General of India shall appoint the auditor under sub-section (5) of section 139 i.e. appointment of subsequent auditor and direct such auditor the manner in which the accounts of the Government company are required to be audited and thereupon the auditor so appointed shall submit a copy of the audit report to the Comptroller and Auditor-General of India which, among other things, include the directions, if any, issued by the Comptroller and Auditor-General of India, the action taken thereon and its impact on the accounts and financial statements of the company.

3. (a) Audit evidence comprises both information that supports and corroborates management's assertions, and any information that contradicts such assertions. Purchase bill of ₹ 5.00 lacs pertaining to TIM Industries has been entered in books of TIM Private Limited. Therefore, it is contradicting management's assertion relating to occurrence of such purchases. Hence, it constitutes audit evidence.

Further, the absence of information (for example, management's refusal to provide a requested representation) is used by auditor, and therefore, also constitutes audit evidence. In the given case, management has refused to provide a written representation relating to physical verification of inventories during the year. Therefore, absence of information is used by auditor and it also constitutes audit evidence.

(b) As described in the situation given in the question, banking regulator has imposed restrictions due to non-compliance with regulatory requirements and there is material uncertainty of such events or conditions which may cast a significant doubt on ability of Bank to continue as going concern. However, the financial statements of Bank do not make adequate disclosure of material uncertainty due to above events in financial statements.

If adequate disclosure about the material uncertainty is not made in the financial statements, the auditor shall:

(i) Express a qualified opinion or adverse opinion, as appropriate, in accordance with SA 705.

(ii) In the Basis for Qualified (Adverse) Opinion section of the auditor's report, state that a material uncertainty exists that may cast significant doubt on the entity's ability to continue as a going concern and that the financial statements do not adequately disclose this matter.

(c) SA 300 states that auditor shall develop an audit plan that shall include description of-

(i) The nature, timing and extent of planned risk assessment procedures

(ii) The nature, timing and extent of planned further audit procedures at assertion level

(iii) Other planned audit procedures that are required to be carried out so that the engagement complies with SAs.

(d) Audit documentation refers to the record of audit procedures performed, relevant audit evidence obtained, and conclusions the auditor reached. The objective of the auditor in accordance with SA 230 is to prepare documentation that provides: -

(i) A sufficient and appropriate record of the basis for the auditor's report and

(ii) Evidence that the audit was planned and performed in accordance with SAs and applicable legal and regulatory requirements.

4. (a) Following audit procedures can be performed to perform to verify that recorded sales in financial statements represent goods actually sold during the period and recorded sales are not overstated.

- Check whether a single sales invoice is recorded twice or a cancelled sales invoice has been recorded.
- Test check few invoices with their relevant entries in sales journal.
- Obtain confirmation from few customers to ensure genuineness of sales transaction
- Check whether any fictitious customers and sales have been recorded.

- Verify whether any shipments were done without the consent and agreement of the customer, especially at the year end to inflate the sales figure
- Whether unearned revenue recorded as earned.
- Whether any substantial uncertainty exists about collectability
- Whether customer obligations are contingent on other (financing, resale, etc.).
- Review sequence of sales invoices
- Review journal entries for unusual transactions
- Calculate the ratio of sales return to sales and compare it with previous year and enquire for the reasons for unusual variation.

(b) The list given in the question does not contain following important matters: -

- Whether adequate procedures are expected to be established and proper instructions issued for physical inventory counting. The auditor has to evaluate management's instructions for recording and controlling physical inventory counting. It is important for the auditor to know beforehand how the inventory count will be conducted so as to assess its effectiveness.
- The nature of internal control related to inventories at different locations. It is possible that inventories at one location have unsatisfactory control leading to higher risk of material misstatement related to inventories at that particular location.

(c) The auditor should decide whether relevant information is properly disclosed in the financial statements. He should also keep in mind applicable statutory requirements in this regard.

It is done by ensuring that financial statements properly summarize transactions and events recorded therein and by considering the judgments made by management in preparation of financial statements.

The management responsible for preparation and presentation of financial statements makes many judgments in this process of preparing and presenting financial statements. For example, choosing of appropriate accounting policies in relation to various accounting issues like choosing method of charging depreciation on fixed assets or choosing appropriate method for valuation of inventories.

The auditor evaluates selection and consistent application of accounting policies by management; whether such a selection is proper and whether chosen policy has been applied consistently on a period-to-period basis.

(d) Significant judgments made in an engagement should be reviewed by an engagement quality control reviewer for taking an objective view before the report is issued. Engagement quality control review is mandatory for all audits of financial statements of **listed entities.**

In respect of other engagements, firm should devise criteria to determine cases requiring performance of engagement quality control review.

5. **(a)** In the given situation, ₹ 60 lacs is accumulated in Electronic credit ledger of WTE Private Limited as finished product is liable to lower GST rate whereas input raw materials for manufacturing carry higher GST rate. It is refundable to company by virtue of provisions of GST law. The above balance would be reflected and classified under current assets. Within current assets, it would be classified into "Other current assets".

Few audit procedures to be performed for verification of above balance are:

- ➢ In relation to balances with statutory authorities like GST input credit, prepare a reasonability analysis with respect to purchases by applying the applicable rate to the purchases and in case of any variance with the asset recorded by the entity, reasons for variance should be requested from the entity.
- ➢ Obtain copies of statutory GST returns filed on GST portal.
- ➢ In case refundable amount as on balance sheet date is still outstanding, verify whether the amount recorded as per books of account tallies with the claim made with the authorities subsequently by going to GST portal.
- ➢ In case refundable amount as on balance sheet date is received subsequently, verify it from Bank statement.

(b) For the purpose of identifying and assessing the risks of material misstatement, the auditor shall:

(i) Identify risks throughout the process of obtaining an understanding of the entity and its environment, including relevant controls that relate to the risks, and by considering the classes of transactions, account balances, and disclosures in the financial statements.

(ii) Assess the identified risks, and evaluate whether they relate more pervasively to the financial statements as a whole and potentially affect many assertions.

(iii) Relate the identified risks to what can go wrong at the assertion level, taking account of relevant controls that the auditor intends to test and

(iv) Consider the likelihood of misstatement, including the possibility of multiple misstatements, and whether the potential misstatement is of a magnitude that could result in a material misstatement.

(c) **Verification of inventories in the nature of food and beverages:** The inventories in any hotel are both readily portable and saleable particularly the food and beverage inventories. It is therefore extremely important that all movements and transfers of such inventories should be properly documented to enable control to be exercised over each individual stores' areas and sales point. The auditor should carry out tests to ensure that all such documentation is accurately processed. Therefore, following may be noted in this regard:

(i) All movement and transfer of inventories must be properly documented.

(ii) Areas where inventories are kept must be kept locked and the key retained by the departmental manager.

(iii) The key should be released only to trusted personnel and unauthorized persons should not be permitted in the stores area.

(iv) Many hotels use specialized professional valuers to count and value the inventories on a continuous basis throughout the year.

(v) The auditor should ensure that all inventories are valued at the year end and that he should himself be present at the year-end physical verification, to the extent practicable, having regard to materiality consideration and nature and location of inventories.

(d) The Principle of Professional Behaviour requires an accountant to comply with relevant laws and regulations and avoid any conduct that the accountant knows or should know might discredit the profession. A professional accountant shall not knowingly engage in any employment, occupation or activity that impairs or might impair the integrity, objectivity or good reputation of the profession, and as a result would be incompatible with the fundamental principles.

Example

A Chartered Accountant has conducted audit of accounts of an entity for a particular year. ICAI has issued a letter to him relating to certain matters concerning audit. He didn't even bother to reply to the letter despite reminders. Failure to reply to professional body smacks of lack of courtesy and professional responsibility. In the given case, Chartered accountant has not followed principle of Professional Behaviour.

6. (a) In accordance with SA 610, the external auditor shall not use internal auditors to provide direct assistance to perform procedures that relate to higher assessed risks of material misstatement where the judgment required in performing the relevant audit procedures or evaluating the audit evidence gathered is more than limited.

In the given situation, valuation of trade receivables is assigned as an area of higher risk by statutory auditor. Judgment required in checking of accuracy of aging of trade receivables is limited. Therefore, external auditor can assign the checking of the accuracy of the aging to Chief Internal Auditor providing direct assistance as it involves limited judgment.

However, because the evaluation of the adequacy of the provision based on the aging would involve more than limited judgment, it would not be appropriate to assign that latter procedure to Chief Internal Auditor providing direct assistance.

(b) Expenditure Audit: The audit of government expenditure is one of the major components of government audit. The basic standards set for audit of expenditure are to ensure that there is provision of funds authorized by competent authority fixing the limits within which expenditure can be incurred. These standards are—

(i) that the expenditure incurred conforms to the relevant provisions of the statutory enactment and in accordance with the Financial Rules and Regulations framed by the competent authority. Such an audit is called as the audit against 'rules and orders'.

(ii) that there is sanction, either special or general, accorded by competent authority authorising the expenditure. Such an audit is called as the audit of sanctions.

(iii) that there is a provision of funds out of which expenditure can be incurred and the same has been authorised by competent authority. Such an audit is called as audit against provision of funds.

(iv) that the expenditure is incurred with due regard to broad and general principles of financial propriety. Such an audit is also called as propriety audit.

(v) that the various programmes, schemes and projects where large financial expenditure has been incurred are being run economically and are yielding results expected of them. Such an audit is termed as the performance audit.

OR

The special steps involved in the audit of receipts from sale of tickets are stated below-

(i) Verify that entrance to the cinema-hall during show is only through printed tickets;

(ii) Verify that they are serially numbered and bound into books. In case bookings are made online, verify the system for online booking;

(iii) Verify that the number of tickets issued for each show and class, are different though the numbers of the same class for the show on the same day, each week, run serially;

(iv) Verify that for advance booking a separate series of tickets is issued;

(v) Verify that the inventory of tickets is kept in the custody of a responsible official.

(vi) Confirm that at the end of show, a statement of tickets sold is prepared and cash collected is agreed with it.

(vii) Verify that a record is kept of the 'free passes' and that these are issued under proper authority.

(viii) Reconcile the amount of Tax collected with the total number of tickets issued for each class.

(ix) Vouch the entries in the Cash Book in respect of cash collected on sale of tickets for different shows on a reference to Daily Statements which have been test checked as aforementioned with record of tickets issued for the different shows held.

(c)

Column A (Description of control in an automated environment)	**Column B (Type of control)**
Reasonableness checks	Application controls
Controls over Data centre and network operations	General IT controls
Controls over application system acquisition, development and maintenance	General IT controls
Program change controls	General IT controls

(d) Leadership responsibility of an engagement partner is to take responsibility for the overall quality on each audit engagement. The actions of the engagement partner and appropriate messages to the other members of the engagement team, in taking responsibility for the overall quality on each audit engagement, emphasise-

(1) The importance to audit quality of:

(i) Performing work that complies with professional regulatory and legal requirements

(ii) Complying with the firm's quality control policies and procedures as applicable

(iii) Issuing auditor's reports that are appropriate in the circumstances and

(iv) The engagement team's ability to raise concerns without fear of reprisals.

(2) The fact that quality is essential in performing audit engagements.

ANSWERS OF MODEL TEST PAPER 2

INTERMEDIATE: GROUP – II

PAPER – 5: AUDITING AND ETHICS

SUGGESTED ANSWERS / HINTS

PART I - Multiple Choice Questions

1. (b)

2. (c)

3. (a)

4. (b)

5. (d)

6. (c)

7. (c)

8. (d)

9. (d)

10. (d)

11. (a)

12. (c)

13. (c)

14. (c)

15. (a)

PART II -Descriptive Answers

1. (a) Audit Sampling refers to the application of audit procedures to less than 100% of items within a population relevant under the audit such that all sampling units (i.e. all the items in the population) have an equal chance of selection.

In the given situation, senior team member is not selecting items for testing by means of audit sampling. He is only selecting specific items from a population. In accordance with SA 500, one of the means available to auditor for selecting items for testing is "by selecting specific items."

Specific items selected may include: -

- **High value or key items:** The auditor may decide to select specific items within a population because they are of high value, or exhibit some other characteristic, for example, items that are suspicious, unusual, particularly risk-prone or that have a history of error.
- **All items over a certain amount:** The auditor may decide to examine items whose recorded values exceed a certain amount so as to verify

a large proportion of the total amount of a class of transactions or account balance.

- **Items to obtain information:** The auditor may examine items to obtain information about matters such as the nature of the entity or the nature of transactions.

Therefore, Sanjeev's understanding is not proper.

The above approach for selecting items for testing is subject to non-sampling risk. Non-sampling risk is the risk that auditor may reach an erroneous conclusion for any reason not related to sampling risk. Like, erroneous conclusion may be reached due to some inappropriate audit procedure.

(b) In carrying out audit of advances, the auditor is primarily concerned with obtaining evidence about the following: -

(i) Amounts are included in balance sheet in respect of advances which are outstanding at the date of the balance sheet.

(ii) Advances represent amount due to the bank branch.

(iii) Amounts due to the bank branch are appropriately supported by loan documents and other documents as applicable to the nature of advances.

(iv) There are no unrecorded advances.

(v) The stated basis of valuation of advances is appropriate and properly applied and the recoverability of advances is recognised in their valuation.

(vi) The advances are disclosed, classified and described in accordance with recognised accounting policies and practices and relevant statutory and regulatory requirements.

(vii) Appropriate provisions towards advances have been made as per the RBI norms, Accounting Standards and generally accepted accounting practices.

(c) Subsequent events are events occurring between the date of financial statements and the date of the auditor's report and facts that become known to the auditor after the date of the auditor's report.

In the given case, the company had already made provision of ₹ 10 lakhs in financial statements for year 2022-23. However, there is an out of court settlement between the company and employee for ₹ 6 lakhs.

It is an example of event which provides evidence of conditions that existed at the date of financial statements i.e. 31st March, 2023. It provides evidence on adjustment in provision amount already made in financial statements. Therefore, internal auditor should ask management to revise provision downwards to ₹ 6 lakhs so that financial statements are in accordance with applicable accounting standards.

(d) As given above, the engagement involves gathering of sufficient appropriate evidence on the basis of which limited conclusion can be drawn up. It is a limited assurance engagement like review. Other two features of such type of engagement are: -

(1) It provides lower level of assurance than reasonable assurance engagement.

(2) It performs fewer procedures than reasonable assurance engagement.

2. **(a)** Written representation about management's responsibilities involves confirmation of fulfilment of management's responsibilities in following areas: -

(I) Preparation of the financial statements

The auditor shall request management to provide a written representation that it has fulfilled its responsibility for the preparation of the financial statements in accordance with the applicable financial reporting framework, including, where relevant, their fair presentation, as set out in the terms of the audit engagement.

Due to its responsibility for the preparation and presentation of the financial statements and its responsibilities for the conduct of the entity's business, management would be expected to have sufficient knowledge of the process followed by the entity in preparing and presenting the financial statements and the assertions therein on which to base the written representations.

(II) Information provided and completeness of transactions

The auditor shall request management to provide a written representation that: -

(i) It has provided the auditor with all relevant information and access as agreed in the terms of the audit engagement and

(ii) All transactions have been recorded and are reflected in the financial statements.

(b) Prior to auditor's identification and assessment of risks of material misstatement, planning includes the need to consider following matters:

1. The analytical procedures to be applied as risk assessment procedures.
2. Obtaining a general understanding of the legal and regulatory framework applicable to the entity and how the entity is complying with that framework.
3. The determination of materiality.
4. The involvement of experts.
5. The performance of other risk assessment procedures.

(c) In an initial audit engagement, in the case of inventories, the current period's audit procedures on the closing inventory balance provide little audit evidence regarding inventory on hand at the beginning of the period. Therefore, additional audit procedures may be necessary, and one or more of the following may provide sufficient appropriate audit evidence:

- Observing a current physical inventory count and reconciling it to the opening inventory quantities.
- Performing audit procedures on the valuation of the opening inventory items.
- Performing audit procedures on gross profit and cut-off.

(d) **Internal Control Questionnaire**

- Are competitive quotes obtained from different insurers?
- Is comprehensive insurance cover obtained for fire, flood, burglary, earthquake risks etc.?
- Are all three locations in city A and B covered?
- Are all assets consisting of building, plant & machinery and inventories covered?
- Is there an adequate procedure to ensure that assets acquired between two renewal dates are also covered by insurance?
- Is there an official who decides on value for which policies are taken?
- Does officer who decides on policy value review periodically adequacy of insurance cover?
- Is loss-of-profits insurance cover taken?
- Have there been any instances of rejection of claims?
- Are pending claims followed-up with insurers?

3. **(a)** The above disclosure is not in accordance with requirements of Division I of Schedule III of the Companies Act, 2013. The discrepancies are as under: -

(1) The Company has wrongly disclosed information for trade receivables in a manner which is applicable for trade payables.

(2) No distinction between MSME and other trade receivables is required.

(3) Trade receivables are to be categorised into undisputed and disputed trade receivables as under: -

- Undisputed trade receivables considered good
- Undisputed trade receivables considered doubtful
- Disputed trade receivables considered good

- Disputed trade receivables considered doubtful

(4) Aging is to be reflected for each of above categories in respect of outstandings for the following periods from due date of payment

- for less than 6 months
- 6 months-1 year
- 1- 2 years
- 2-3 years
- more than 3 years

(5) Following information is also required to be disclosed: -

Trade receivables shall be sub-classified as:

(a) Secured, considered good

(b) Unsecured, considered good

(c) Doubtful.

(6) Allowance for bad and doubtful debts shall be disclosed under the relevant heads separately.

(7) Debts due by

- directors or other officers of the company or any of them either severally or jointly with any other person or
- firms or private companies respectively in which any director is a partner or a director or a member should be separately stated.

(b) Audit procedures to verify existence and valuation assertions for work-in-progress are as under: -

- Attend inventory count in accordance with SA 501 and understand how work in progress is arrived at.
- Evaluate work of management expert, if any, in this regard.
- Ascertain how the various stages of production/ value additions are measured and in case estimates are made, understand the basis for such estimates.
- Ascertain what elements of cost are included. If overheads are included, ascertain the basis on which they are included and compare such basis with the available costing and financial data/ information maintained by the entity.
- Ensure that material costs exclude any abnormal wastage factors.

(c) The ascertaining of reporting objectives of engagement helps the auditor to plan timing of different audit procedures and also nature of communications. Some of the instances are given under: -

➢ The entity's timetable for reporting

- ➢ Organization of meetings to discuss of nature, timing and extent of audit work with management
- ➢ Discussion with management regarding the expected type and timing of reports to be issued including the auditor's report
- ➢ Discussion with management regarding the expected communications on the status of audit work throughout the engagement.
- ➢ Expected nature and timing of communications among engagement team members, including the nature and timing of team meetings and timing of the review of work performed.

(d) One of the factors affecting the form, content and extent of audit documentation relates to size and complexity of audit. Other factors are:

1. The nature of the audit procedures to be performed.
2. The identified risks of material misstatement.
3. The significance of the audit evidence obtained.
4. The nature and extent of exceptions identified.
5. The need to document a conclusion or the basis for a conclusion not readily determinable from the documentation of the work performed or audit evidence obtained.
6. The audit methodology and tools used.

4. (a) It is important to carry out Tests of Controls for checking the effectiveness of internal control over sales as a part of the debtors' audit procedure. Following points need to be considered in respect of trade receivables:

- Only bona fide sales lead to trade receivables.
- All such sales are made to approved customers.
- All such sales are properly recorded in the books of accounts.
- Once recorded, the debtors can be settled only by receipt of cash or on the authority of a responsible official.
- Segregation of duties at every point in sales transaction. (accounting for debtors, collecting the payments, sending reminders etc.)
- Debtors are collected on time.
- In case debtors are not collected in time, sending reminders and taking legal actions if required.
- Balances are regularly reviewed.

- A proper system of follow up exists and if necessary, adequate provision for bad debt should be made by preparing adequate ageing schedule of the debtors.

(b) Factors to be considered to form an opinion:

The auditor shall form an opinion on whether the financial statements are prepared, in all material respects, in accordance with the applicable financial reporting framework.

In order to form that opinion, the auditor shall conclude as to whether the auditor has obtained reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error. That conclusion shall take into account:

(1) whether sufficient appropriate audit evidence has been obtained

(2) whether uncorrected misstatements are material, individually or in aggregate.

(3) The evaluations required

(i) The auditor shall evaluate whether the financial statements are prepared in accordance with the requirements of the applicable financial reporting framework.

(ii) This evaluation shall include consideration of the qualitative aspects of the entity's accounting practices, including indicators of possible bias in management's judgments.

(c) Preparation of financial statements involves making many judgments by management. These judgments may involve subjective decisions or a degree of uncertainty. Therefore, auditor may not be able to obtain absolute assurance that financial statements are free from material misstatements due to frauds or errors.

One of the premises for conducting an audit is that management acknowledges its responsibility of preparation of financial statements in accordance with applicable financial reporting framework and for devising suitable internal controls. However, such controls may not have operated to produce reliable financial information due to their own limitations.

Therefore, nature of financial reporting itself is one of causes inherent limitations of audit.

(d) As per Standard on Auditing (SA) 705 "Modifications to the Opinion In The Independent Auditor's Report", the objective of the auditor is **to express clearly an appropriately modified opinion** on the financial statements that is necessary when:

(a) The auditor concludes, based on the audit evidence obtained, that the financial statements as a whole are not free from material misstatement; or

(b) The auditor is unable to obtain sufficient appropriate audit evidence to conclude that the financial statements as a whole are free from material misstatement.

5. **(a)** Audit of borrower client of bank carried out at bank's request to verify borrower's current assets- **Stock audit**

Limit up to which an entity can withdraw from sanctioned working capital limit- **Drawing power**

Statutory right of a creditor to adjust debit balance in debtor's account against any credit balance lying in another account of debtor- **Set-off**

Creation of security in a bank branch by mere delivery of title deeds by a prospective borrower of funds- **Equitable Mortgage**

(b) Obtaining an understanding of the entity and its environment, including the entity's internal control, is a continuous, dynamic process of gathering, updating and analysing information throughout the audit. The understanding establishes a frame of reference within which the auditor plans the audit and exercises professional judgment throughout the audit, for example, when:

1. Assessing risks of material misstatement of the financial statements
2. Determining materiality in accordance with SA 320
3. Considering the appropriateness of the selection and application of accounting policies
4. Identifying areas where special audit consideration may be necessary, for example, related party transactions, the appropriateness of management's use of the going concern assumption, or considering the business purpose of transactions
5. Developing expectations for use when performing analytical procedures
6. Evaluating the sufficiency and appropriateness of audit evidence obtained such as the appropriateness of assumptions and of management's oral and written representations.

(c) **Fee from Students:**

The fees concessions have to be under proper authority of college management. The auditor would verify internal controls in this regard. Besides, detailed checking of few cases needs to be undertaken to ensure genuineness of fees concessions and proper management approvals.

Other points to verify fee from students are :

1. Check names entered in the Students Fee Register for each month or term, with the respective Class Registers, showing names of students on rolls and test amount of fees charged; and verify that there operates a system of internal control which ensures that demands against the students are properly raised.

2. Check fees received by comparing counterfoils of receipts granted with entries in the Cash Book and tracing the collections in the Fee Register to confirm that the revenue from this source has been duly accounted for.

3. Total up the various columns of the Fees Register for each month or term to ascertain that fees paid in advance have been carried forward and that the arrears that are irrecoverable have been written off under the sanction of an appropriate authority.

4. Check admission fees with admission slips signed by the head of the institution and confirm that the amount has been credited to a Capital fund, unless the Managing Committee has taken a decision to the contrary.

5. Confirm that fines for late payment or absence, etc. have been either collected or remitted under proper authority.

6. Confirm that hostel dues were recovered before student's accounts were closed and their deposits of caution money refunded.

(d) The audit engagement letter is sent by the auditor to his client. It is in the interest of both the auditor and the client to issue an engagement letter so that the possibility of misunderstanding is reduced to a great extent. Such a letter includes:

(i) The objective and scope of the audit of the financial statements

(ii) The responsibilities of the auditor

(iii) The responsibilities of management

(iv) Identification of the applicable financial reporting framework for the preparation of the financial statements and

(v) Reference to the expected form and content of any reports to be issued by the auditor and a statement that there may be circumstances in which a report may differ from its expected form and content.

6. (a) Risk of Material Misstatement – Greater for Significant Non-Routine Transactions:

Significant risks often relate to significant non- routine transactions or judgmental matters. Non-routine transactions are transactions that are unusual, due to either size or nature, and that therefore occur infrequently.

Risks of material misstatement may be greater for significant non-routine transactions arising from matters such as the following:

(i) Greater management intervention to specify the accounting treatment.

(ii) Greater manual intervention for data collection and processing.

(iii) Complex calculations or accounting principles.

(iv) The nature of non-routine transactions, which may make it difficult for the entity to implement effective controls over the risks.

Keeping in view above, view of Auditor of Sunshine Ltd is correct.

(b) While pointing out significant deficiencies in internal control, auditor has not only to communicate significant deficiencies giving their description but also explain the potential effects and sufficient information to those charged with governance and management to understand context of communication.

Therefore, the above communication is not proper. Not only significant deficiency has to be communicated, it should also be explained to management the potential effects of not following the standard instructions/ procedures specified in relation to various aspects of sales as stipulated by the management. It should explain that such a significant deficiency can lead to misstatement of revenue and trade receivables impacting profits of the company. Highlighting importance of such a control, it should be stated that responsibility be fixed for concerned persons for adhering to such an important control.

OR

Some general principles have been laid down in the Audit Code, which have for long been recognised as standards of financial propriety. Audit against propriety seeks to ensure that expenditure conforms to these principles which have been stated as follows:

(1) The expenditure should not be prima facie more than the occasion demands. Every public officer is expected to exercise the same vigilance in respect of expenditure incurred from public moneys as a person of ordinary prudence would exercise in respect of expenditure of his own money.

(2) No authority should exercise its powers of sanctioning expenditure to pass an order which will be directly or indirectly to its own advantage.

(3) Public moneys should not be utilised for the benefit of a particular person or section of the community unless:

   (i) the amount of expenditure involved is insignificant; or

   (ii) a claim for the amount could be enforced in a Court of law; or

   (iii) the expenditure is in pursuance of a recognised policy or custom; and

   (iv) the amount of allowances, such as travelling allowances, granted to meet expenditure of a particular type should be so regulated that the allowances are not, on the whole, sources of profit to the recipients.

(c) The auditor needs to direct efforts of engagement team towards matters that in his professional judgment are significant. Preliminary identification of material classes of transactions, account balances and disclosures helps auditor in establishing overall audit strategy. More energies need to be devoted to significant matters to obtain desired outcomes. Few examples are listed as under: -

- Volume of transactions which may determine whether it is more efficient for the auditor to rely on internal control
- Significant industry developments such as changes in industry regulations and new reporting requirements.
- Significant changes in the financial reporting framework, such as changes in accounting standards.
- Other significant relevant developments, such as changes in the legal environment affecting the entity.

(d) Clause (ix) (d) of CARO, 2020 whether funds raised on short term basis have been utilised for long term purposes, if yes, the nature and amount to be indicated.

In the given situation, funds have been raised for meeting working capital requirements for ₹ 4 crores. Cash credit facilities for meeting working capital requirements are, by their very nature, short term borrowings. Out of above, ₹ 1 crore have been used by the company for investment in effluent treatment plant which is ostensibly for a long-term purpose.

Hence, the matter needs to be reported in accordance with requirements of Clause (ix) (d) of CARO, 2020.

ANSWERS OF MODEL TEST PAPER 3

INTERMEDIATE: GROUP – II

PAPER – 5: AUDITING AND ETHICS

SUGGESTED ANSWERS / HINTS

Part I - Multiple Choice Questions

1. **(d)**

2. **(d)**

3. **(c)**

4. **(a)**

5. **(c)**

6. **(d)**

7. **(a)**

8. **(a)**

9. **(b)**

10. **(c)**

11. **(c)**

12. **(a)**

13. **(d)**

14. **(c)**

15. **(a)**

Part II - Descriptive Answers

1. **(a)** Facts Which Become Known to the Auditor After the Date of the Auditor's Report but Before the Date the Financial Statements are Issued: As per SA 560, "Subsequent Events", the auditor has no obligation to perform any audit procedures regarding the financial statements after the date of the auditor's report.

However, when, after the date of the auditor's report but before the date the financial statements are issued, a fact becomes known to the auditor that, had it been known to the auditor at the date of the auditor's report, may have caused the auditor to amend the auditor's report, the auditor shall

(i) Discuss the matter with management and, where appropriate, those charged with governance.

(ii) Determine whether the financial statements need amendment and, if so,

(iii) Inquire how management intends to address the matter in the financial statements.

If management amends the financial statements, the auditor shall carry out the audit procedures necessary in the circumstances on the amendment. Further, the auditor shall extend the audit procedures and provide a new auditor's report on the amended financial statements. However, the new auditor's report shall not be dated earlier than the date of approval of the amended financial statements.

In the instant case, ABC Ltd. received an amount of ₹ 5 crore on account of incentives pertaining to year 2023-24 in the month of April 2024 i.e. after finalisation of financial statements and signing of audit report but before the issuance of Financial Statements to stakeholders. The Board of Directors of ABC Ltd. wished to amend the financial statements and requested the CA. Rashmi (auditor) to consider this event and issue a fresh audit report on the financial statements for the year ended on 31.03.2024.

After applying the conditions given in SA 560, CA. Rashmi can issue new audit report subject to date of audit report which should not be earlier than the date of approval of the amended financial statements.

(b) Sample Selections Methods:

(i) Stratified Sampling method involves dividing the whole population to be tested in a few separate groups called strata and taking a sample from each of them. Each stratum is treated as if it was a separate population and proportionate of items are selected from each of these stratum. The number of groups into which the whole population has to be divided is determined on the basis of auditor judgment.

In the given case, Auditor divided the trade receivables in three groups i.e. balances above ₹ 20 lakhs, balances between ₹ 10 lakhs to 20 lakhs and balances below ₹ 10 lakhs and he selected different percentages of items from each group will be considered as Stratified Sampling.

(ii) Block Sampling: This method involves selection of a block(s) of contiguous items from within the population. Usually, a range of continuous transaction shall have similar characteristics, therefore, selection of a group at one time will not give a reasonable basis for opinion on the overall population as different types of transactions and unusual transactions may not be covered in the group taken all at once.

In the given case, the auditor uses the sample of 50 consecutive cheques to test whether the cheques are signed by authorized signatories, rather than picking 50 single cheques throughout the year is Block Selection Method.

(c) Scope of Audit in detection of Fraud: In conducting audit of financial statements objectives of auditor, in accordance with SA 200, "Overall Objectives of the Independent auditor and the conduct of an audit in accordance with Standards on Auditing" is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, thereby enabling the auditor to express an opinion.

An audit is not an official investigation into alleged wrongdoing. The auditor does not have any specific legal powers of search or recording statements of witness on oath which may be necessary for carrying out an official investigation.

Audit is distinct from investigation. Investigation is a critical examination of the accounts with a special purpose. For example, if fraud is suspected and it is specifically called upon to check the accounts whether fraud really exists, it takes character of investigation.

The scope of audit is general and broad whereas scope of investigation is specific and narrow.

Thus, inclusion of such a clause in the engagement letter is uncalled for and outside the scope of audit.

(d) Reporting responsibility of the auditor under paragraph 3 of CARO, 2020: The auditor is required to report as per clause (vii) (a) of Paragraph 3 of CARO, 2020 that whether the company is regular in depositing undisputed statutory dues including Goods and Services Tax, provident fund, employees' state insurance, income tax, sales-tax, service tax, duty of customs, duty of excise, value added tax, cess and any other statutory dues to the appropriate authorities and if not, the extent of the arrears of outstanding statutory dues as on the last day of the financial year concerned for a period of more than six months from the date they became payable, shall be indicated;

Further, the auditor is also required to report as per Clause (vii) (b) of Paragraph 3 of CARO, 2020, where statutory dues referred to in sub-clause (a) have not been deposited on account of any dispute, then the amounts involved and the forum where dispute is pending shall be mentioned (a mere representation to the concerned Department shall not be treated as a dispute).

2. (a) Inquiries of Management and Others Within the Entity: After assimilating the internal control system, the auditor needs to examine whether and how far the same is actually in operation. Test of controls are performed to obtain audit evidence about the effectiveness of the: -

(i) Design of the accounting and internal control system

(ii) Operation of the internal control throughout the period

In the given case, CA B was performing Re-performance. It involves the auditor’s independent execution of procedures or controls that were originally performed as part of the entity’s internal control, for example, reconciliation of bank accounts, to ensure they were correctly performed by the entity.

Other procedures that can be applied while undertaking test of controls are:

- Inspection of documents supporting transactions and other events to gain audit evidence that internal controls have operated properly, for example, verifying that a transaction has been authorised.
- Inquiries about, and observation of, internal controls which leave no audit trail, for example, determining who actually performs each function and not merely who is supposed to perform it.
- Testing of internal control operating on specific computerised applications or over the overall information technology function, for example, access or program change controls.

(b) **Vouching /Verification of borrowings from Bank:** The auditor is required to roll out and obtain independent balance confirmations in respect of all the borrowings from the lender (banks/ financial institutions etc.) and perform the following:

- Ascertain that the confirmation asks for all information likely to be relevant to the tests of debt and related interest balances (e.g., applicable interest rates, due dates, collateral and security interests).
- Send reminders for non-replies.
- Compare the balances as per the confirmations obtained to the books of the accounts. Ask for reconciliations, if there are any differences and test the supporting documents for the reconciling items on a test check basis.
- Reconcile the balances in the overdrafts or loan accounts with that shown in the pass book(s) and confirm the last-mentioned balance by obtaining a certificate from the bank showing the balance in the accounts as at the end of the year.
- Obtain independent balance confirmation from the bank showing balances, particulars of securities deposited with the bank as security for the loans or of the charge created on an asset and confirm that the same has been correctly disclosed and duly registered with Registrar of Companies and recorded in the Register of charges.
- Verify the authority under which the loan or draft has been raised. In the case of a company, only the Board of Directors is authorised to raise a loan or borrow from a bank.
- Confirm, in the case of a company, that the restraint contained in Section 180 of the Companies Act, 2013 as regards the maximum amount of loan that the company can raise has not been contravened.
- Ascertain the purpose for which loan has been raised and the

manner in which it has been utilised and that this has not prejudicially affected the entity.

(c) Disclosure of Ratios as a part of Additional Regulatory Information as per Schedule III of the Companies Act 2013 and its Rules relating to disclosure are:

(1) Current Ratio,

(2) Debt-Equity Ratio,

(3) Debt Service Coverage Ratio,

(4) Return on Equity Ratio,

(5) Inventory turnover ratio,

(6) Trade Receivables turnover ratio,

(7) Trade payables turnover ratio,

(8) Net capital turnover ratio,

(9) Net profit ratio,

(10) Return on Capital employed,

(11) Return on investment.

Rules relating to disclosures of Ratios: The company shall explain the items included in the numerator and denominator for computing the above ratios.

Further explanation shall be provided for any change in the ratio by more than 25% as compared to the preceding year.

(d) Relationship between audit strategy and audit plan

- Audit strategy sets the broad overall approach to the audit whereas audit plan addresses the various matters identified in the overall audit strategy.
- Audit strategy determines scope, timing and direction of audit. Audit plan describes how strategy is going to be implemented.
- The audit plan is more detailed than the overall audit strategy that includes the nature, timing and extent of audit procedures to be performed by engagement team members. Planning for these audit procedures takes place over the course of the audit as the audit plan for the engagement develops.
- Once the overall audit strategy has been established, an audit plan can be developed to address the various matters identified in the overall audit strategy, taking into account the need to achieve the audit objectives through the efficient use of the auditor's resources.
- The establishment of the overall audit strategy and the detailed audit plan are not necessarily discrete or sequential processes but are closely inter-related since changes in one may result in

consequential changes to the other.

3. (a) (i) **In this case, CA. Amit is trying to understand that whether controls in the LMN Ltd. are operating as intended and they are modified as appropriate for change in conditions:** He is gaining the understanding of the Monitoring of controls component of internal control. Monitoring of controls is a process to assess the effectiveness of internal control performance over time. It helps in assessing the effectiveness of controls on a timely basis and taking necessary remedial actions. It includes considering whether controls are operating as intended and that they are modified as appropriate for change in conditions.

(ii) In the given situation, CA Amit is trying to understand that whether there exists a proper system of segregation of duties in the company and the person responsible for recording a transaction is different from the person authorising it. He is gaining an understanding of internal control of the company. In particular, he is understanding "control activities". When a person recording a transaction is different from one authorizing it, he gains confidence that there exists a system for preventing misstatements. It helps him in gaining insight into the internal control system of the company.

(b) In the given case, the audit assistant has kept a large chunk of draft inventory sheets and the final inventory sheet in the audit file which is not correct as the auditor is not required to document draft inventory sheets. Auditor should ensure that only final inventory sheets will form part of the audit documentation. Thus, approach of the audit assistant of filing draft and final inventory sheet is not correct.

As per SA 230, "Audit documentation", audit documentation may be recorded on paper or on electronic or other media.

The auditor need not include in audit documentation:

- superseded drafts of working papers and financial statements,
- notes that reflect incomplete or preliminary thinking,
- previous copies of documents corrected for typographical or other errors, and
- duplicates of documents.

(c) An account should be treated as 'out of order' if: -

- the outstanding balance remains continuously in excess of the sanctioned limit/drawing power or
- In cases where the outstanding balance in the principal operating account is less than the sanctioned limit/drawing power, but there are no credits continuously for 90 days as on the date of Balance Sheet; or

- credits are there but are not enough to cover the interest debited during the same period, these accounts should be treated as 'out of order'.

In the given case, K Ltd. is availing cash credit limit of ₹ 25 crores from LMN Bank Ltd and the drawing power of the company range between ₹ 22 crores and ₹ 25 crores during the year 2023-24. The limit availed by K Ltd. remained less than ₹ 20 crores during all the days of the financial year 2023-24 and the company has not deposited any amount in the cash credit account and there are no other credits to this account during the last two quarters.

Thus, account should be treated as out of order in the books of LMN Bank Ltd. as the outstanding balance in the principal operating account (₹ 20 crore) is less than the sanctioned limit/drawing power (₹ 22 cores and ₹ 25 crores), but there are no credits continuously for 90 days as on the date of Balance Sheet.

(d) Statistical sampling: Statistical sampling is an approach to sampling that has the random selection of the sample units and the use of probability theory to evaluate sample results, including measurement of sampling risk characteristics.

Statistical Sampling is more scientific and appropriate as:

Audit testing done through this approach is more scientific than testing based entirely on the auditor's own judgment because it involves use of mathematical laws of probability in determining the appropriate sample size in varying circumstances.

Statistical sampling has reasonably wide application where a population to be tested consists of a large number of similar items and more in the case of transactions involving compliance testing, trade receivables' confirmation, payroll checking, vouching of invoices and petty cash vouchers.

There is no personal bias of the auditor in case of statistical sampling. Since it is scientific, the results of samples can be evaluated and projected on the whole population in a more reliable manner.

In larger organisations, with huge transactions, statistical sampling is always recommended as it is unbiased, and the samples selected are not prejudged.

4. (a) Establishing the overall audit strategy- Assistance for the auditor : Overall audit strategy sets the scope, timing and direction of the audit, and guides the development of the more detailed audit plan. The auditor shall establish an overall audit strategy that sets the scope, timing and direction of the audit, and that guides the development of the audit plan.

The process of establishing the overall audit strategy assists the auditor to determine, subject to the completion of the auditor's risk assessment procedures, such matters as: -

(i) The resources to deploy for specific audit areas, such as the use of appropriately experienced team members for high-risk areas or the involvement of experts on complex matters

(ii) The amount of resources to allocate to specific audit areas, such as the number of team members assigned to observe the inventory count at material locations, the extent of review of other auditors' work in the case of group audits, or the audit budget in hours to allocate to high risk areas

(iii) When these resources are to be deployed, such as whether at an interim audit stage or at key cut-off dates

(iv) How such resources are managed, directed and supervised, such as when team briefing and debriefing meetings are expected to be held, how engagement partner and manager reviews are expected to take place (for example, on-site or off-site), and whether to complete engagement quality control reviews.

(b) In the given situation, JB Limited has invested huge sums of money on establishment of new Property, Plant and Equipment and incurred an amount of ₹ 5,70,000 on dismantling of old plant which had become obsolete so that new plant can be set up at the existing location. An item of property, plant and equipment that qualifies for recognition as an asset should be measured at its cost. The costs of dismantling, removing the item and restoring the site on which it is located referred to as decommissioning will form part of the new Property, Plant and Equipment.

Elements of Cost: The cost of an item of property, plant and equipment comprises:

(i) its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates.

(ii) any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

(iii) the initial estimate of the costs of dismantling, removing the item and restoring the site on which it is located, referred to as decommissioning, restoration and similar liabilities', the obligation for which an enterprise incurs either when the item is acquired or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period.

(c) **Appropriate and Inappropriate Phrases while drafting an Unmodified Opinion:** When expressing an unmodified opinion on financial statements, the auditor's opinion shall, unless otherwise required by law or regulation, use one of the following phrases, which are regarded as being equivalent:

(i) In our opinion, the accompanying financial statements **present fairly, in all material respects**, […] in accordance with [the applicable financial reporting framework]; or

(ii) In our opinion, the accompanying financial statements **give a true and fair view of** […] in accordance with [the applicable financial reporting framework].

The phrases "present fairly, in all material respects," and "give a true and fair view" are regarded as being equivalent.

Inappropriate Phrases: When the auditor expresses an unmodified opinion, it is not appropriate to use phrases such as "with the foregoing explanation" or "subject to" in relation to the opinion, as these suggest a conditional opinion or a weakening or modification of opinion.

(d) Special report to the Registrar: During the course of audit, if the auditor notices that there are some serious irregularities in the working of the society he may report these special matters to the Registrar, drawing his specific attention to the points. The Registrar on receipt of such a special report may take necessary action against the society. In the following cases, for instance, a special report may become necessary:

(i) Personal profiteering by members of managing committee in transactions of the society, which are ultimately detrimental to the interest of the society.

(ii) Detection of fraud relating to expenses, purchases, property and stores of the society.

(iii) Specific examples of mis-management. Decisions of management against co-operative principles.

(iv) In the case of urban co-operative banks, disproportionate advances to vested interest groups, such as relatives of management, and deliberate negligence about the recovery thereof. Cases of reckless advancing, where the management is negligent about taking adequate security and proper safeguards for judging the credit worthiness of the party.

5. (a) Review of the audit programme: There should be periodic review of the audit programme to assess whether the same continues to be adequate for obtaining requisite knowledge and evidence about the transactions. Unless this is done, any change in the business policy of the client may not be adequately known, and consequently, audit work may be carried on, on the basis of an obsolete programme and, for this negligence, the whole audit may be held as negligently conducted and the auditor may have to face legal consequences.

The utility of the audit programme can be retained and enhanced only by keeping the programme as also the client's operations and internal control under periodic review so that inadequacies or redundancies of the programme may be removed.

Audit programme not only lists the tasks to be carried out but also contains a few relevant instructions, like the extent of checking, the sampling plan, etc. So long as the programme is not officially changed by the principal, every assistant deputed on the job should unfailingly carry out the detailed work according to the instructions governing the work. Many persons believe that this brings an element of rigidity in the audit programme. This is not true provided the periodic review is undertaken to keep the programme as up-to-date as possible and by encouraging the assistants on the job to observe all salient features of the various accounting functions of the client.

In the given situation, Ms. PP & Co., a firm of Chartered Accountants has been auditing the books of accounts of KALI Ltd. for the past 3 years and the Company has recently made major changes in its business policies, therefore, it is very essential to review the audit programme. Thus, contention of the audit manager to adhere with the instructions of following the same audit programme as per routine practice is not correct.

(b) As per SA 500, "Audit Evidence", issued by ICAI, when using the work of a management's expert as audit evidence the auditor should evaluate the competence, capabilities and objectivity of that expert that:

- Whether the expert is employed by the entity or is an outside party.
- Whether the expert is independent in respect of the entity.
- Auditor's previous experience of the work of the expert.
- Knowledge of the expert, his qualification, membership of a professional body or industry association, etc.

The auditor should also obtain an understanding of the work of that expert that:

- Whether the auditor has expertise to evaluate the work of the expert.
- Evaluating the assumptions and methods used by the management.
- Evaluating the nature of internal or external data used by the expert.

(c) **Use of Digital Technology in the conduct of an audit:** Entities are embracing digitization as part of their operations to keep pace with changing times. New technologies are helping companies revamp their operations and rethink the way business is conducted. Companies are restructuring their business models driven by technology. Automation is key to digitization.

In such a business environment, use of digital technology is being made by auditors right from planning to expression of final opinion.

- Auditors are making use of artificial intelligence, data analytics and other latest technologies to help understand business processes in a better way.
- By using such tools, auditors can conduct audits in a better way and devote more attention to areas requiring greater focus.

- Digital audit is helping auditors to better identify risks making use of technology.

(d) **Audit Engagement Letter:** The auditor shall agree the terms of the audit engagement with management or those charged with governance, as appropriate. The agreed terms of the audit engagement are recorded in a letter or other the suitable form of written agreement. Such an agreement is known as Audit Engagement Letter. The audit engagement letter is sent by the auditor to his client. It is in the interest of both the auditor and the client to issue an engagement letter so that the possibility of misunderstanding is reduced to a great extent.

Audit Engagement letter includes: -

(1) The objective and scope of the audit of the financial statements

(2) The responsibilities of the auditor

(3) The responsibilities of management

(4) Identification of the applicable financial reporting framework for the preparation of the financial statements and

(5) Reference to the expected form and content of any reports to be issued by the auditor and a statement that there may be circumstances in which a report may differ from its expected form and content.

If law or regulation prescribes in sufficient detail the terms of the audit engagement, the auditor need not record them in a written agreement, except for the fact that such law or regulation applies, and that management acknowledges and understands its responsibilities.

6. **(a)** For audit of provisions and contingencies the auditor should:

- ensure that the compliances for various regulatory requirements for provisioning as contained in the various circulars have been fulfilled.
- obtain an understanding as to how the bank computes provision on standard assets and non-performing assets. It will primarily include checking the basis of classification of loans and receivables into standard, sub-standard, doubtful, loss and non-performing assets. The auditor may verify the loan classification on a sample basis.
- obtain the detailed break up of standard loans, non-performing loans and agree the outstanding balances with the general ledger.
- obtain the tax provision computation from the bank's management and verify the nature of items debited and credited to profit and loss account to ascertain that the same are appropriately considered in the tax provision computation.
- examine the other provisions for expenses vis-a-vis the circumstances warranting the provisioning and the adequacy of the same by discussing and obtaining the explanations from the bank's management.

Or

(a) **(i)** Meaning of Deficiency in internal control: This exists when -

(1) A control is designed, implemented or operated in such a way that it is unable to prevent, or detect and correct, misstatements in the financial statements on a timely basis or

(2) A control necessary to prevent, or detect and correct, misstatements in the financial statements on a timely basis is missing.

(ii) As per SA 265, While pointing out significant deficiencies in internal control, auditor has not only to communicate significant deficiencies giving their description but also explain the potential effects and sufficient information to those charged with governance and management to understand context of communication.

Therefore, the above communication is not proper. Not only significant deficiency has to be communicated, it should also be explained to management the potential effects of transactions with firm in which the directors are interested. It should explain that such a significant deficiency can lead to misstatement of transactions with related party. Highlighting importance of such a control, it should be stated that responsibility be fixed for concerned persons for adhering to such an important control.

(b) Confidentiality principle requires a professional accountant to respect the confidentiality of information acquired as a result of professional or business relationships. Confidentiality serves the public interest because it facilitates the free flow of information from the professional accountant's client or employing organization to the accountant with the understanding that the information will not be disclosed to a third party.

However, such confidential information may be disclosed, for example, when it is required by law, when it is permitted by law and is authorised by the client or employer or there is a professional duty or right to disclose when not prohibited by law.

In the given situation, CA P, who is a professional accountant in service, and in terms of employment and professional relationships with the employer he is alert to the possibility of inadvertent disclosures of any information outside the employing organization. However, CA P had to divulge the information and documents as evidence in the course of legal proceedings and same was required by law. Therefore, CA. P will not be held responsible for violation of fundamental principle of "Confidentiality" governing professional ethics.

(c) **Positive confirmation request:** A request that the confirming party respond directly to the auditor indicating whether the confirming party agrees or disagrees with the information in the request or providing the requested information.

Exception – A response that indicates a difference between information requested to be confirmed, or contained in the entity's records, and information provided by the confirming party. The exception needs to be assessed to the entire population after analyzing the reason for difference.

In the given situation, the auditor has sent the positive confirmation request for the amount of 4,25,000 to a trade receivable which was outstanding for more than 6 months, however, due to difference between information requested to be confirmed, or contained in the entity's records (i.e. 4,25,000), and information provided by the confirming party (i.e. 4,20,000) is forming situation of exception confirmation.

The auditor's evaluation, when taken into account with other audit procedures the auditor may have performed, may assist the auditor in concluding whether sufficient appropriate audit evidence has been obtained or whether performing further audit procedures is necessary, as required by SA 330 in case a response is indicating an exception.

The company should be asked to investigate and reconcile the discrepancy indicated by the confirming party.

(d) The lease agreement should be examined, and the following points may be noted:

(i) the description of the lessor, the lessee, the equipment and the location where the equipment is to be installed. (The stipulation that the equipment shall not be removed from the described location except for repairs. For the sake of identification, the lessor may also require plates or markings to be attached to the equipment).

(ii) the amount of tenure of lease, dates of payment, late charges, deposits or advances etc. should be noted.

(iii) whether the equipment shall be returned to the lessor on termination of the agreement and the cost shall be borne by the lessee.

(iv) whether the agreement prohibits the lessee from subletting the equipment and authorises the lessor to do so.

ANSWERS OF MODEL TEST PAPER 4

INTERMEDIATE: GROUP – II

PAPER – 5: AUDITING AND ETHICS

SUGGESTED ANSWERS / HINTS

Part I - Multiple Choice Questions

1. (a)

2. (c)

3. (a)

4. (b)

5. (b)

6. (d)

7. (c)

8. (a)

9. (b)

10. (a)

11. (b)

12. (b)

13. (c)

14. (b)

15. (b)

Part II -Descriptive Answers

1. (a) The auditor shall establish an overall audit strategy that sets the scope, timing and direction of the audit, and that guides the development of the audit plan. One of the factors to be taken into consideration while establishing audit strategy relates to ascertaining of reporting objectives of engagement to plan the timing of the audit and the nature of the communications required. Some of the instances are given under:

- The entity's timetable for reporting
- Organization of meetings to discuss of nature, timing and extent of audit work with management
- Discussion with management regarding the expected type and timing of reports to be issued including the auditor's report
- Discussion with management regarding the expected communications on the status of audit work throughout the engagement.
- Expected nature and timing of communications among

engagement team members, including the nature and timing of team meetings and timing of the review of work performed.

In the given case, working paper highlights that auditor has taken into account expected timelines to plan the audit and nature of the communications required. Since the working paper relates to the statutory audit of a company, the ascertaining of reporting objectives of engagement helps the auditor to plan timing of different audit procedures and also nature of communications.

(b) **(i)** In the given case, risk of material misstatement has been assessed as high in respect of assertions relating to revenue and various direct expenses due to increase in gross profit ratio of company from 14% in year 2022-23 to 24% in year 2023-24.

Few possible reasons which could have led to abnormal jump in gross profit ratio include: -

- Overvaluation of inventories
- Overstatement of revenues
- Understatement of direct expenses

(ii) SA 200, "Overall Objectives of the Independent auditor and the conduct of an audit in accordance with Standards on Auditing" defines detection risk as the risk that the procedures performed by the auditor to reduce audit risk to an acceptably low level will not detect a misstatement that exists and that could be material, either individually or when aggregated with other misstatements.

Tisha is of a view that detection risk in this engagement should be kept at high level whereas in the given situation, risk of material misstatement has been assessed as high for assertions relating to revenue and direct expenses. Therefore, detection risk has to be kept at low level so that a material misstatement in these assertions does not remain undetected.

Therefore, view of Ms. Tisha is not proper.

(c) As per SA 500, "Audit Evidence", if the entity has employed or engaged experts, the auditor may rely on the works of experts, provided he is satisfied that sufficient and appropriate audit evidence is obtained with reasonable assurance to form an opinion on the financial statements. When information to be used as audit evidence has been prepared using the work of a management's expert, the auditor shall, to the extent necessary, having regard to the significance of that expert's work for the auditor's purposes: -

(a) Evaluate the competence, capabilities and objectivity of that expert

(b) Obtain an understanding of the work of that expert and

(c) Evaluate the appropriateness of that expert's work as audit evidence for the relevant assertion.

Before using the work of PQR Associates, management's expert, auditor should ensure that the criteria mentioned above are fulfilled.

2. (a) As per SA 570, "Going Concern", going concern is one of the fundamental accounting assumptions. The enterprise is normally viewed as a going concern, that is, as continuing in operation for the foreseeable future. It is assumed that the enterprise has neither the intention nor the necessity of liquidation or of curtailing materially the scale of the operations.

Under the going concern basis of accounting, the financial statements are prepared on the assumption that the entity is a going concern and will continue its operations for the foreseeable future. General purpose financial statements are prepared using the going concern basis of accounting, unless management either intends to liquidate the entity or to cease operations, or has no realistic alternative but to do so.

In the given situation, company has reflected net losses in financial statements of last two years but is able to meet its financial commitments signifying its ability to carry on business/trade. The revenue of company is also expected to grow in the coming period. It shows that management has neither the intention nor the necessity of liquidation or of curtailing materially the scale of operations. Therefore, view of the management for following going concern basis of accounting in current year is appropriate.

Further, the significance of going concern is due to its effect on the preparation of financial statements. Ability or otherwise of an enterprise to be viewed as going concern affects its preparation of financial statements. When the use of the going concern basis of accounting is appropriate, assets and liabilities are recorded on the basis that the entity will be able to realise its assets and discharge its liabilities in the normal course of business. When an enterprise is not viewed as a going concern, the financial statements are prepared on liquidation basis. For example, inventories may need to be written down as these may be sold for a lower price. Assets may have to be recorded at the likely prices they will fetch.

(b) In accordance with SA 299, "Joint Audit of financial statements", before the commencement of the audit, the joint auditors should discuss and develop a joint audit plan. In developing the joint audit plan, PQR & Associates and MNO & Co., the joint auditors should:

(a) identify division of audit areas and common audit areas;

(b) ascertain the reporting objectives of the engagement;

(c) consider and communicate among all joint auditors the factors that are significant in directing the engagement team's efforts;

(d) consider the results of preliminary engagement activities, or similar engagements performed earlier

(e) ascertain the nature, timing and extent of resources necessary to accomplish the engagement.

(c) Audit is distinct from investigation. Investigation is a critical examination of the accounts with a special purpose. For example, if fraud is suspected and it is specifically called upon to check the accounts whether fraud really exists, it takes character of investigation. The objective of audit, on the other hand, is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, thereby enabling the auditor to express an opinion.

The scope of audit is general and broad whereas scope of investigation is specific and narrow.

In the given situation, management of company suspects that some of its employees may be involved in making fraudulent payments on account of dummy workers at its different plants in the country. Such an assignment is in the nature of "investigation".

Therefore, Mr. P is right in objecting the use of word "audit" in the proposed assignment.

3. (a) CARO 2020 shall apply to every company including a foreign company as defined in clause (42) of section 2 of the Companies Act, 2013, except–

(i) a banking company as defined in clause (c) of section 5 of the Banking Regulation Act, 1949;

(ii) an insurance company as defined under the Insurance Act,1938;

(iii) a company licensed to operate under section 8 of the Companies Act;

(iv) a One Person Company as defined in clause (62) of section 2 of the Companies Act and a small company as defined in clause (85) of section 2 of the Companies Act; and

(v) a private limited company, not being a subsidiary or holding company of a public company, having a paid up capital and reserves and surplus not more than one crore rupees as on the balance sheet date and which does not have total borrowings exceeding one crore rupees from any bank or financial institution at any point of time during the financial year and which does not have a total revenue as disclosed in Scheduled III to the Companies Act (including revenue from discontinuing operations) exceeding ten crore rupees during the financial year as per the financial statements.

(b) Audit procedures to be followed by the statutory auditor of Zed Limited to ensure that only the inventories held by entity have been recorded in the financial statements and do not include any inventories that belong to third parties but does include inventories owned by the entity and lying with a third party are as under: -

- Perform analytical procedures (comparison tests with industry averages, budgets, prior years, trend analysis, etc.).
  - Compute inventory turnover ratio (COGS/ average inventory)
  - Perform vertical analysis (inventory/ total assets)
  - Compare budgetary expectations vis-à-vis actuals
- Examine non-financial information related to inventory, such as weights and other measurements.
- Perform purchase and sales cut-off tests. Trace shipping documents (bills of lading and receiving reports, warehouse records, and inventory records) to accounting records immediately before and after year-end.
- With respect to tagged inventory, perform tests for omitted transactions and tests for invalid transactions.
- Verify the clerical and arithmetical accuracy of inventory listings.
- Reconcile physical inventory amounts with perpetual records.
- Reconcile physical counts with ledger control totals.
- Reconcile inventories which belong to client but are held with third parties like transporters, warehouses, port authorities etc.
- Goods received on a consignment basis have been properly segregated from other items of inventory.

(c) SQC 1 requires firms to establish policies and procedures designed to promote an internal culture based on the recognition that quality is essential in performing engagements. Therefore, such leadership responsibilities are required for all engagements and not for audit engagements only.

Such policies and procedures should require the firm's chief executive officer or the firm's managing partners to assume ultimate responsibility for the firm's system of quality control. The example set by firm's leadership encourages an inner culture that recognizes high quality audit work. Further, persons assigned operational responsibilities for the firm's quality control system by the firm's chief executive officer or managing partners should have sufficient and appropriate experience, ability and the necessary authority to assume that responsibility.

4. (a) In accordance with SA 505, "External Confirmations", the auditor shall not use negative confirmation requests as the sole substantive audit procedure to address an assessed risk of material misstatement at the assertion level unless all of the following are present:

(i) The auditor has assessed the risk of material misstatement as low and has obtained sufficient appropriate audit evidence regarding the operating effectiveness of controls relevant to the assertion.

(ii) The population of items subject to negative confirmation procedures comprises a large number of small, homogeneous, account balances, transactions or conditions.

(iii) A very low exception rate is expected and

(iv) The auditor is not aware of circumstances or conditions that would cause recipients of negative confirmation requests to disregard such requests.

The failure to receive a response to a negative confirmation request does not explicitly indicate receipt by the intended confirming party of the confirmation request or verification of the accuracy of the information contained in the request.

Accordingly, a failure of a confirming party to respond to a negative confirmation request provides significantly less persuasive audit evidence than does a response to a positive confirmation request.

Therefore, view of CA X is not correct.

(b) As per SA 210, "Agreeing the Terms of Audit Engagements", the auditor shall agree the terms of the audit engagement with management or those charged with governance, as appropriate. The agreed terms of the audit engagement shall be recorded in an audit engagement letter or other suitable form of written agreement. Such a letter includes, inter alia, objective and scope of audit of financial statements. The absence of such a letter leads to misunderstanding between auditor and management. As auditor has failed to send engagement letter, the governing body has formed an improper view of objective and scope of audit of financial statements.

By not following requirements of SA 210, CA H is not acting ethically. He has violated principle of professional competence and due care governing professional ethics. This principle requires an accountant to attain and maintain professional knowledge and skill at the level required to ensure that a client or employing organization receives competent professional service, based on current technical and professional standards and relevant legislation and act diligently and in accordance with applicable technical and professional standards. Maintaining professional competence requires awareness of current technical and professional standards. Non sending of engagement letter shows lack of such awareness on part of CA H. Therefore, he has violated said fundamental principle governing professional ethics.

(c) CA D should ensure that BRS is signed by the authorized personnel so that he is able to assign responsibility in case of any errors.

Verification of BRS shall entail the following: -

- Tallying the balance as per bank book to the bank confirmation/ statement.
- Checking of all material reconciling items included under cheques issued but presented for payment to the underlying bank book forming part of books of account. In addition, the auditor should

request for bank statements of subsequent period and should verify if the cheques issued have subsequently been cleared by the bank. For all cases where cheques have become stale i.e. 3 months or more have lapsed since the issue date, the same should not appear in the BRS and should instead be taken back to liabilities.

- Checking of all material reconciling items included under cheques deposited but not credited by bank by requesting for bank deposit slips, duly acknowledged by bank and verifying if the balances were credited by bank subsequently by tallying to the bank statement of subsequent period. For any instances related to cheques not cleared beyond reasonable time, the auditor should seek brief descriptions from the management and in case such explanations are found to be unsatisfactory, the auditor should verify the revenue recognition related to such parties was in order and as per the Company's revenue recognition policy.

- Checking of all material reconciling items included under amounts or charges debited/ credited by bank but not accounted for by requesting for bank statements for the period under audit and tallying the same. If the amounts are found to be material, the auditor should ensure that the management records the adjustments for the same in its books of account.

5. (a) Examples of matters that the auditor may consider in determining whether a deficiency or combination of deficiencies in internal control constitutes a significant deficiency

- The likelihood of the deficiencies leading to material misstatements in the financial statements in the future.
- The susceptibility to loss or fraud of the related asset or liability.
- The subjectivity and complexity of determining estimated amounts, such as fair value accounting estimates.
- The financial statement amounts exposed to the deficiencies.
- The volume of activity that has occurred or could occur in the account balance or class of transactions exposed to the deficiency or deficiencies.
- The importance of the controls to the financial reporting process, for example:
  - — General monitoring controls (such as oversight of management).
  - — Controls over the prevention and detection of fraud.
  - — Controls over the selection and application of significant accounting policies.
  - — Controls over significant transactions with related parties.
  - — Controls over significant transactions outside the entity's

normal course of business.

— Controls over the period-end financial reporting process (such as controls over non-recurring journal entries).

- The cause and frequency of the exceptions detected as a result of the deficiencies in the controls.
- The interaction of the deficiency with other deficiencies in internal control.

(b) CA E, the auditor of Zeena Limited, shall obtain an understanding of whether the entity has a process for: -

(a) Identifying business risks relevant to financial reporting objectives

(b) Estimating the significance of the risks

(c) Assessing the likelihood of their occurrence

(d) Deciding about actions to address those risks

The entity's risk assessment process forms the basis for the risks to be managed. If that process is appropriate, it would assist the auditor in identifying risks of material misstatement. Risks can arise or change due to factor such as new technology, new business models, products or activities, changes in operating environment etc. Whether the entity's risk assessment process is appropriate to the circumstances is a matter of judgment.

(c) As per section 72 of the Multi-State Co-operative Society Act, 2002 following persons are not qualified for appointment as auditors of a multi-state co-operative society: -

(a) A body corporate

(b) An officer or employee of the multi-state co-operative society

(c) A person who is a member or who is in employment, of an officer or employee of the multi-state co-operative society.

(d) A person who is indebted to the multi-state co-operative society or who has given any guarantee or provided any security in connection with the indebtedness of any third person to the multi-state co-operative society for an amount exceeding one thousand rupees.

6. (a) In accordance with RBI norms on asset classification, a non-performing asset is a loan or advance where the account remains "out of order" in respect of an Overdraft/Cash Credit.

An account should be treated as 'out of order' if:

- the outstanding balance remains continuously in excess of the sanctioned limit/drawing power or
- In cases where the outstanding balance in the principal operating account is less than the sanctioned limit/drawing power, but there are no credits continuously for 90 days as on the date of Balance

Sheet; or

- credits are there but are not enough to cover the interest debited during the same period.

In the given case, although outstanding balance in account is less than sanctioned limit/drawing power of ₹ 25 lacs, there are no credits continuously for 90 days as on the date of Balance sheet. Therefore, it has become out of order and is required to be classified as NPA.

Under non-performing assets, it would be classified as "Sub-Standard Asset" as it has remained NPA for a period of less than or equal to 12 months.

(b) During the audit, the auditor should maintain alertness for related party information while reviewing records and documents. Examples of the records or the documents that may provide information about related party relationships and transactions are:

1. Entity income tax returns.
2 Information supplied by the entity to regulatory authorities.
3. Shareholder registers to identify the entity's principal shareholders.
4. Statements of conflicts of interest from management and those charged with governance.
5. Records of the entity's investments and those of its pension plans.
6. Contracts and agreements with key management or those charged with governance.
7. Significant contracts and agreements not in the entity's ordinary course of business.
8. Specific invoices and correspondence from the entity's professional advisors.
9. Life insurance policies acquired by the entity.
10. Significant contracts re-negotiated by the entity during the period.
11. Internal auditor's reports.
12. Documents associated with the entity's filings with a securities regulator (e.g. prospectuses).

(c) The view of Sanjana is appropriate. Some disadvantages are there in the use of audit programmes but most of these can be removed by following some concrete steps. The disadvantages are: -

(i) The work may become mechanical and particular parts of the programme may be carried out without any understanding of the object of such parts in the whole audit scheme.

(ii) The programme often tends to become rigid and inflexible following set grooves; the business may change in its operation of conduct, but the old programme may still be carried on. Changes in staff or internal control may render precaution necessary at points different from those originally decided upon.

(iii) Inefficient assistants may take shelter behind the programme i.e., defend deficiencies in their work on the ground that no instruction in the matter is contained therein.

(iv) A hard and fast audit programme may kill the initiative of efficient and enterprising assistants.

All these disadvantages may be eliminated by imaginative supervision of the work carried on by the assistants; the auditor must have a receptive attitude as regards the assistants; the assistants should be encouraged to observe matters objectively and bring significant matters to the notice of supervisor/principal.

OR

It is a common understanding that the value of fixed assets/ PPE depreciates due to efflux of time, use and obsolescence. The diminution of the value represents an item of cost to the entity for earning revenue during a given period. Unless this cost in the form of depreciation is charged to the accounts, the profit or loss would not be correctly ascertained, and the values of PPE would be shown at higher amounts. Therefore, such verification is significant.

Audit procedures that the auditor should follow to verify that the PPE items have been valued appropriately as per generally accepted accounting policies and practices are: -

- Verify that the entity has charged depreciation on all items of PPE unless any item of PPE is non- depreciable like freehold land
- Assess that the depreciation method used reflects the pattern in which the asset's future economic benefits are expected to be consumed by the entity. It could be Straight line method, diminishing value method, unit of production method, as applicable.
- The auditor should also verify whether the management has done an impairment assessment to determine whether an item of property, plant and equipment is impaired as per the requirements of AS 28 Impairment of Assets.

ANSWERS OF MODEL TEST PAPER 5

INTERMEDIATE: GROUP – II

PAPER – 5: AUDITING AND ETHICS

SUGGESTED ANSWERS / HINTS

Part I - Multiple Choice Questions

1. (b)
2. (c)
3. (c)
4. (d)
5. (c)
6. (b)
7. (b)
8. (a)
9. (a)
10. (b)
11. (a)
12. (a)
13. (c)
14. (b)
15. (d)

Part II - Descriptive Answers

1. (a) Misstatement refers to a difference between the amount, classification, presentation, or disclosure of a reported financial statement item and the amount, classification, presentation, or disclosure that is required for the item to be in accordance with the applicable financial reporting framework.

In the given situation, there is a difference in amount to be recorded as well as in disclosure of a financial statement item from what is required in accordance with applicable financial reporting framework. The company should have recorded gross amount of dividend and interest amounting to ₹ 2.00 lakhs and ₹ 3.00 lakhs respectively in its financial statements in accordance with AS 13. Therefore, amount recorded under head “Other income” should have been for ₹ 10 lakhs (2 lakhs+3 lakhs+5 lakhs).

Further, in accordance with disclosure requirements of Schedule III of the Companies Act, 2013, other income shall be classified in the above situation as: -

(a) Interest Income of ₹ 3 lakhs

(b) Dividend Income of ₹ 2 lakhs

(c) Net gain on sale of investments of ₹ 5 lakhs

Few examples of misstatements are:

- Charging of an item of capital expenditure to revenue or vice-versa.
- Difference in disclosure of a financial statement item vis-à-vis its requirement in applicable financial reporting framework.
- Selection or application of inappropriate accounting policies.
- Difference in accounting estimate of a financial statement item vis-à-vis its appropriateness in applicable financial reporting framework.
- Intentional booking of fake expenses in statement of profit and loss.
- Overstating of receivables in the financial statements by not writing off irrecoverable debts.
- Overstating or understating inventories.

(b) In the given case, method of sampling being used in software is known as interval sampling or systematic sampling. It is a selection method in which the number of sampling units in the population is divided by the sample size to give a sampling interval.

Sampling interval = Sampling units in population/Sample size i.e 1000/100

Sampling interval = 10

Records selected = 100

Software would pick every 10th record from 1 to 1000 records.

When using this method, the auditor would need to determine that sampling units within the population are not structured in such a way that the sampling interval corresponds with a particular pattern in the population.

Further, partner of CA Z suggested him to select the first 200 sales invoices from the sales book for the last month. He is suggesting him block sampling for sales, this method involves selection of a block(s) of contiguous items from within the population.

(c) Maintaining professional skepticism throughout audit is necessary if auditor is to reduce risks of overlooking unusual circumstances and using inappropriate assumptions in determining the nature, time and extent of audit procedures and evaluating results thereof.

In the given situation, revenue from operations of the company have increased from ₹ 80 crores to ₹100 crores despite its operations being affected by fire for about two months. Further, despite loss of inventories to the tune of ₹ 5 crores, financial statements reflect increase in net profit before tax from 7.5% in year 2022-23 to 10% in year 2023-24. Thus, approach of CA D lacks professional skepticism.

In spite of these unusual circumstances, the auditor has decided to rely upon same tests of details as performed in the previous years. The nature and extent of audit procedures need to be suitably altered considering changed circumstances. He may include substantive analytical procedures to analyse variations and seek necessary explanations from management. In case of doubt about the reliability of information or indications of possible fraud, Standards on Auditing require auditor to determine what modifications or additions to audit procedures are necessary to resolve the matter. CA D, the auditor of a listed company, shall document the overall audit strategy, the audit plan and any significant changes made during the audit engagement to the overall audit strategy or the audit plan, and the reasons for such changes.

2. **(a)** Three examples of assurance engagements are as under :-

(i) Audit of financial statements

An audit of financial statements provides reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, thereby enabling the auditor to express an opinion on whether the financial statements are prepared, in all material respects, in accordance with an applicable financial reporting framework.

(ii) Review of financial statements

Review provides lower level of assurance than audit. Further, review involves fewer procedures and gathers sufficient appropriate evidence on the basis of which limited conclusions can be drawn up.

(iii) Examination of prospective financial information

In assurance reports involving prospective financial information, the practitioner obtains sufficient appropriate evidence to the effect that management's assumptions on which the prospective financial information is based are not unreasonable, the prospective financial information is properly prepared on the basis of the assumptions and it is properly presented and all material assumptions are adequately disclosed. Such type of assurance engagement provides a moderate assurance.

(b) **(i)** When the auditor includes an Emphasis of Matter (EOM) paragraph in the auditor's report, the auditor shall:-

(a) include the paragraph within a separate section of the auditor's report with an appropriate heading that includes the term "Emphasis of Matter"

(b) include in the paragraph a clear reference to the matter being emphasized and to where relevant disclosures that fully describe the matter can be found in the financial statements. The paragraph shall refer only to information presented or disclosed in the financial statements and

(c) indicate that the auditor's opinion is not modified in respect of the matter emphasized.

(ii) Examples of circumstances where the auditor may consider it necessary to include an Emphasis of Matter (EOM) paragraph are:

- An uncertainty relating to the future outcome of exceptional litigation or regulatory action.
- A significant subsequent event that occurs between the date of the financial statements and the date of the auditor's report.
- Early application (where permitted) of a new accounting standard that has a material effect on the financial statements.
- A major catastrophe that has had, or continues to have, a significant effect on the entity's financial position.

(c) The auditor's determination of materiality is a matter of professional judgment and is affected by the auditor's perception of the financial information needs of users of the financial statements. In this context, it is reasonable for CA Y, the auditor, to assume that users: -

(a) Have a reasonable knowledge of business and economic activities and accounting and a willingness to study the information in the financial statements with reasonable diligence

(b) Understand that financial statements are prepared, presented and audited to levels of materiality

(c) Recognize the uncertainties inherent in the measurement of amounts based on the use of estimates, judgment and the consideration of future events and

(d) Make reasonable economic decisions on the basis of the information in the financial statements.

3. **(a)** In a banking environment, there exist documentary evidence containing observations/comments on advances which can be useful to the statutory branch auditor in performing an effective audit. CA Amrish, the auditor should take into account the adverse comments, if any, on advances appearing in the following:-

- Previous year's audit reports.
- Latest internal inspection reports of bank officials.
- Reserve Bank's latest inspection report.
- Concurrent / Internal audit report.
- Report on verification of security.
- Any other internal reports specially related to particular accounts.
- Manager's charge-handing-over report when incumbent is changed.

(b) The auditor, CA L should read the LLP agreement & note the following provisions: -

(a) Nature of the business of the LLP.

(b) Amount of capital contributed by each partner.

(c) Interest – in respect of additional capital contributed.

(d) Duration of partnership.

(e) Drawings allowed to the partners.

(f) Salaries, commission etc. payable to partners.

(g) Borrowing powers of the LLP.

(h) Rights & duties of partners.

(i) Method of settlement of accounts between partners at the time of admission, retirement, admission etc.

(j) Any loans advanced by the partners.

(k) Profit sharing ratio

Reporting Responsibilities of CA L/ concerning the financial statements of Bro Traders LLP is as follows:

The auditor should mention

(a) Whether the records of the firm appear to be correct & reliable.

(b) Whether he was able to obtain all information & explanation necessary for his work.

(c) Whether any restriction was imposed upon him.

(c) Changes may be made to the audit documentation during the final assembly process, if they are administrative in nature.

Examples of such changes include: -

- Deleting or discarding superseded documentation.
- Sorting, collating and cross-referencing working papers.
- Signing off on completion checklists relating to the file assembly process.

- Documenting audit evidence that the auditor has obtained, discussed and agreed with the relevant members of the engagement team before the date of the auditor's report.

4. **(a)** Few audit procedures to obtain sufficient appropriate audit evidence to conclude that trade receivables have been valued appropriately are as under: -

- Review the process followed by the Company to derive an allowance for doubtful accounts. This will include a consistency comparison with the method used in the last year, and a determination of whether the method is appropriate for the underlying business environment.
- Obtain the ageing report receivable (both Dr/Cr balance).
- Also, obtain the list of debtors under litigation and compare with previous year.
- Scrutinize the analysis and identify those debtors which appear doubtful; discuss with management about reasons as to why these debtors are not included in the provision for bad debts. Perform further testing where any disputes exist.
- He should check if provisions are made at appropriate rates considering recoverability of amounts due.
- Prepare schedule of movements of bad debts – Provision accounts and debts written off and compare the proportion of bad debt expense to sales for the current year in comparison to prior years to see if the current expense appears reasonable.
- Check that write-offs of the receivable balances have been authority appropriate approved by an appropriate authority i.e. the Board of Directors in case of a company.

(b) The assessment of risks is based on audit procedures to obtain information necessary for that purpose and evidence obtained throughout the audit. The assessment of risks is a matter of professional judgment, rather than a matter capable of precise measurement.

Audit risk is a technical term related to the process of auditing; it does not refer to the auditor's business risks such as loss from litigation, adverse publicity, or other events arising in connection with the audit of financial statements. For the purpose of the Standards on Auditing, audit risk does not include the risk that the auditor might express an opinion that the financial statements are materially misstated when they are not. This risk is ordinarily insignificant.

In the given case, CA K is of the view that materiality and audit risk are only considered at planning stage of an audit. The concept of materiality is applied by the auditor both in planning and performing the audit, and in evaluating the effect of identified misstatements on the audit and of uncorrected misstatements, if any, on the financial statements and in forming the opinion in the auditor's report. Thus, the view of CA K is not correct.

(c) The documentation of the overall audit strategy is a record of the key decisions considered necessary to properly plan the audit and to communicate significant matters to the engagement team.

The documentation of the audit plan is a record of the planned nature, timing and extent of risk assessment procedures and further audit procedures at the assertion level in response to the assessed risks.

It also serves as a record of the proper planning of the audit procedures that can be reviewed and approved prior to their performance. The auditor may use standard audit programs and/or audit completion checklists, tailored as needed to reflect the particular engagement circumstances.

A record of the significant changes to the overall audit strategy and the audit plan, and resulting changes to the planned nature, timing and extent of audit procedures, explains why the significant changes were made, and the overall strategy and audit plan finally adopted for the audit. It also reflects the appropriate response to the significant changes occurring during the audit.

5. (a) Under section 143(1) of the Companies Act, 2013 auditor shall inquire into following matters given as under: -

(a) whether loans and advances made by the company on the basis of security have been properly secured and whether the terms on which they have been made are prejudicial to the interests of the company or its members

(b) whether transactions of the company which are represented merely by book entries are prejudicial to the interests of the company

(c) where the company not being an investment company or a banking company, whether so much of the assets of the company as consist of shares, debentures and other securities have been sold at a price less than that at which they were purchased by the company

(d) whether loans and advances made by the company have been shown as deposits

(e) whether personal expenses have been charged to revenue account

(f) where it is stated in the books and documents of the company that any shares have been allotted for cash, whether cash has actually been received in respect of such allotment, and if no cash has actually been so received, whether the position as stated in the account books and the balance sheet is correct, regular and not misleading.

(b) Auditor wants to ensure Completeness and the audit procedures to be followed by him to verify that trade payables and liability balances that were supposed to be recorded have been recognized in the financial statements are as follows:

- The auditor needs to perform the following cut off procedures:
  - — For the last 5 invoices received/ recorded at the end of the reporting date (cut off date) and which have been included in the trade payables; the goods should have been received/ risk and rewards of ownership in goods should have been transferred in favour of the entity;
  - — All goods received prior to the period/ year- end should have been booked in the form of purchases and included in trade creditors.
- Test purchases/ expenses on a sample basis selecting the same from the accounts payable ledgers and checking their supporting documents to ensure that the purchases were recorded at the correct amounts and correct dates.
- Match purchase invoice dates to the gate entry (inward) dates to check whether the purchases are being recorded in the correct accounting period. This can include an examination of purchase/ expense invoices received subsequent to the period being audited, to see if they should have been included in the period under audit.
- Review subsequent expense vouchers. Review all material expense vouchers recorded post the balance sheet date to see if they relate to transactions from within the audit period.
- For advance received from customers/ revenue received in advance, obtain the customer wise listing along with its ageing and the nature. Enquire from the entity's management if there has been any dispute with the customer and if there is any additional liability to be recorded. For all such advances, the auditor should verify the underlying documentation based on which the entity had received the advance.
- In relation to statutory dues liability like withholding tax (TDS) payable, GST payable, luxury tax payable, professional tax payable, PF and ESI payable etc., prepare a reasonability with respect to sales/ purchases/ employee benefit expenses. Example- GST liability for last month may be calculated by applying the applicable rate to the sales made and in case of any variance with the GST liability recorded by the entity, reasons for variance should be requested from client and in case found satisfactory, the same should be maintained as part of audit documentation.

Similarly, Provident Fund liability for last month may be calculated by applying the applicable rate to the employee benefit expense and in case of any variance with the liability recorded by the entity, reasons for variance should be requested from client and in case found satisfactory, the same should be maintained as part of audit documentation.

Further, the auditor should obtain and verify the challans for deposits made subsequent to the period-end for all statutory liabilities as at the balance sheet date and also analyse the reasons, if any, in consultation with the management for any variance between the amounts deposited subsequently vis-à-vis the liability recorded in books of account.

- He shall prepare a complete list of all statutory dues and consider his reporting requirements under CARO,2020.

(c) **(i)** Substantive analytical procedures are more appropriate when an account balance or relationships between items of data are predictable. A predictable relationship is one that may reasonably be expected to exist and continue over time.

In the given case CA M, auditor of a company, has planned to use substantive analytical procedures for testing relationship between sales and cost of sales. Hence, auditor's approach is appropriate in this case.

(ii) Using substantive analytical procedures is also affected by nature of assertion. Substantive analytical procedures may be more effective in providing evidence for some assertions (e.g., completeness or valuation) than for others (e.g., rights and obligations).

In the given case, CA M has planned to use substantive analytical procedures for testing rights over certain assets forming part of account balances. Such procedures are likely to be less effective in this case.

6. **(a)** PPE have been valued appropriately and as per generally accepted accounting policies and practices:

It is a common understanding that the value of fixed assets/ PPE depreciates due to efflux of time, use and obsolescence. The diminution of the value represents an item of cost to the entity for earning revenue during a given period. Unless this cost in the form of depreciation is charged to the accounts, the profit or loss would not be correctly ascertained, and the values of PPE would be shown at higher amounts. Mr. Vaayu, the auditor should:

- Verify that the entity has charged depreciation on all items of PPE unless any item of PPE is non- depreciable like freehold land;
- Assess that the depreciation method used reflects the pattern in which the asset's future economic benefits are expected to be consumed by the entity. It could be Straight line method, diminishing value method, unit of production method, as applicable.
- The auditor should also verify whether the management has done an impairment assessment to determine whether an item of property, plant and equipment is impaired as per the requirements of AS 28 - Impairment of Assets.

The entity has valid legal ownership rights over the PPE claimed to be held by the entity and recorded in the financial statements (Rights and Obligation)

- In addition to the procedures undertaken for verifying completeness of additions to PPE during the period under audit, the auditor while performing testing of additions should also verify that all PPE purchase invoices are in the name of the entity that entitles legal title of ownership to the respective entity.
- For all additions to land and building in particular, the auditor should check the conveyance deed/ sale deed to verify whether the entity is the legal and valid owner or not.
- The auditor should insist and verify the original title deeds for all immoveable properties held as at the balance sheet date.
- In case the entity has given such immoveable property as security for any borrowings and the original title deeds are not available with the entity, the auditor should request the entity's management for obtaining a confirmation from the respective lenders that they are holding the original title deeds of immoveable property as security.
- In addition, the auditor should also verify the register of charges, available with the entity to assess that any charge has been created against the PPE.

(b) In the given situation, the senior member of the audit team handed over the standard audit programme of earlier years to the audit assistants and instructed them to follow the same.The assistant to keep an open mind as follows:

- To start with, an auditor having regard to the nature, size and composition of the business and the dependability of the internal control and the given scope of work, should frame a programme which should aim at providing for a minimum essential work which may be termed as a standard programme.
- As experience is gained by actually carrying out the work, the programme may be altered to take care of situations which were left out originally but are found relevant for the particular concern.
- Similarly, if any work originally provided for proves beyond doubt to be unnecessary or irrelevant, it may be dropped.
- The assistant engaged in the job should be encouraged to keep an open mind beyond the programme given to him. He should be instructed to note and report significant matters coming to his notice, to his seniors or to the partners or proprietor of the firm engaged for doing the audit.

Thus, the attitude of assistants of TP & Co. is not justified. They should keep an open mind and go beyond the programme to take care of newer areas of the business of KSR Ltd. into which the Company has diversified.

(c) "Date the financial statements are issued" reflects the date on which the auditor's report and audited financial statements are made available to the third parties. The date the financial statements are issued generally depends on the regulatory environment of the entity.

In some circumstances, the date the financial statements are issued may be the date that they are filed with a regulatory authority. Since audited financial statements cannot be issued without an auditor's report, the date that the audited financial statements are issued must not only be at or later than the date of the auditor's report but must also be at or later than the date the auditor's report is provided to the entity.

Therefore, "date the financial statements are issued" can be later than date of providing auditor's report to the entity.

OR

Standard on Quality Control 1 (SQC 1),"Quality Control for Firms that Perform Audits and Reviews of Historical Financial Information, and Other Assurance and Related Services Engagements", provides that, unless otherwise specified by law or regulation, audit documentation is the property of the auditor. Therefore, it is not mandatory for CA N to share audit file with client.

He may at his discretion, make portions of, or extracts from, audit documentation available to clients, provided such disclosure does not undermine the validity of the work performed, or, in the case of assurance engagements, the independence of the auditor or of his personnel.

ANSWERS OF MODEL TEST PAPER 6

INTERMEDIATE: GROUP – II

PAPER – 5: AUDITING AND ETHICS

SUGGESTED ANSWERS / HINTS

Part I - Multiple Choice Questions

1. (b)
2. (a)
3. (a)
4. (b)
5. (b)
6. (d)
7. (b)
8. (c)
9. (a)
10. (a)
11. (a)
12. (a)
13. (c)
14. (b)
15. (b)

Part II - Descriptive Answers

1. (a) In the given situation, company's management has not provided complete information regarding instances of non-compliance with laws & regulations. If the auditor has concerns about the competence, integrity, ethical values or diligence of management, or about its commitment to or enforcement of these, the auditor shall determine the effect that such concerns may have on the reliability of representations and audit evidence in general.

The above situation highlights that auditor has obtained audit evidence relating to non-compliance with laws which is inconsistent with written representations in this respect casting a doubt about reliability of written representations.

As per SA 580, "Written Representation", if written representations are inconsistent with other audit evidence, the auditor shall perform audit procedures to attempt to resolve the matter. If the matter remains unresolved, the auditor shall reconsider the assessment of the competence, integrity, ethical values or diligence of management, or of its commitment to or enforcement of these, and shall determine the effect that this may have on the reliability of representations and audit evidence in general.

If the auditor concludes that the written representations are not reliable, the auditor shall take appropriate actions, including determining the possible effect on the opinion in the auditor's report in accordance with SA 705, "Modifications to the Opinion in the Independent Auditor's Report" having regard to the requirement of disclaimer of opinion.

(b) In the given case, while performing tests of details on a sample in respect of sales, misstatements have been found by CA Shubham in selected sample pertaining to the sales transactions of small values. This indicates observance of deviations and misstatements while performing tests of controls and tests of details respectively in selected samples.

As per SA 530, "Audit Sampling", in analysing the deviations and misstatements identified, the auditor may observe that many have a common feature, for example, type of transaction, location, product line or period of time.

In such circumstances, the auditor may decide to identify all items in the population that possess the common feature, and extend audit procedures to those items. In addition, such deviations or misstatements may be intentional, and may indicate the possibility of fraud.

Therefore, the auditor shall investigate the nature and causes of any deviations or misstatements identified, and evaluate their possible effect on the purpose of the audit procedure and on other areas of the audit.

In the extremely rare circumstances when the auditor considers a misstatement or deviation discovered in a sample to be an anomaly, the auditor shall obtain a high degree of certainty that such misstatement or deviation is not representative of the population. The auditor shall obtain this degree of certainty by performing additional audit procedures to obtain sufficient appropriate audit evidence that the misstatement or deviation does not affect the remainder of the population.

(c) In the given case, CA Srishti is performing analytical procedures as risk assessment procedures.

Analytical procedures performed as risk assessment procedures may identify aspects of the entity of which the auditor was unaware and may assist in assessing the risks of material misstatement in order to provide a basis for designing and implementing responses to the assessed risks. Analytical procedures performed as risk assessment procedures may include both financial and non-financial information.

Analytical procedures may help identify the existence of unusual transactions or events, and amounts, ratios, and trends that might indicate matters that have audit implications. Unusual or unexpected relationships that are identified may assist the auditor in identifying risks of material misstatement, especially risks of material misstatement due to fraud.

Risk assessment procedures are a basis for the identification and assessment of risks of material misstatement at the financial statement and assertion levels Risk assessment procedures by themselves, however, do not provide sufficient appropriate audit evidence on which to base the audit opinion.

Thus, it can be concluded that auditor's opinion cannot be solely based upon such procedures.

2. (a) Key areas that should be included in Audit engagement letter are:

(i) The objective and scope of the audit of the financial statements;

(ii) The responsibilities of the auditor;

(iii) The responsibilities of management;

(iv) Identification of the applicable financial reporting framework for the preparation of the financial statements and

(v) Reference to the expected form and content of any reports to be issued by the auditor and a statement that there may be circumstances in which a report may differ from its expected form and content.

If law or regulation prescribes in sufficient detail the terms of the audit engagement, the auditor need not record them in a written agreement, except for the fact that such law or regulation applies and that management acknowledges and understands its responsibilities.

(b) "When the auditor modifies the audit opinion, the auditor shall use the heading "Qualified Opinion," "Adverse Opinion," or "Disclaimer of Opinion," as appropriate, for the Opinion section." The auditor should consider the following while expressing the opinion in accordance with SA 705, "Modifications to the Opinion in the Independent Auditor's Report".

(i) **Qualified Opinion**

- The auditor, having obtained sufficient appropriate audit evidence, concludes that misstatements, are material, but not pervasive or
- The auditor is unable to obtain sufficient appropriate audit evidence on which to base the opinion, but the auditor concludes that the possible effects on the financial statements of undetected misstatements, if any, could be material but not pervasive.

(ii) **Adverse Opinion:** The auditor shall express an adverse opinion when the auditor, having obtained sufficient appropriate audit evidence, concludes that misstatements, individually or in the aggregate, are both material and pervasive to the financial statements.

(iii) **Disclaimer of Opinion:** The auditor shall disclaim an opinion when he is unable to obtain sufficient appropriate audit evidence on which to base the opinion, and he concludes that the possible effects on the financial statements of undetected misstatements, if any, could be both material and pervasive.

(c) In the given situation, Standards on Assurance Engagements will be applicable and such type of assurance engagement provides only a "moderate" level of assurance.

In assurance reports involving prospective financial information, the practitioner obtains sufficient appropriate evidence to the effect that management's assumptions on which the prospective financial information is based are not unreasonable, the prospective financial information is properly prepared on the basis of the assumptions and it is properly presented and all material assumptions are adequately disclosed.

"Historical financial information" and "Prospective financial information." The former relates to information expressed in financial terms of an entity about economic events, conditions or circumstances occurring in past periods. The latter relates to financial information based on assumptions about occurrence of future events and possible actions by an entity. Therefore, historical financial information is rooted in past events which have already occurred whereas prospective financial information is related to future events.

3. (a) Accounts regularized near the Balance Sheet Date: The asset classification of borrower accounts where a solitary or a few credits are recorded before the balance sheet date should be handled with care and without scope for subjectivity. Where the account indicates inherent weakness on the basis of the data available, the account should be deemed as NPA.

The auditor should check for sample transactions immediately before the closing of the financial year and immediately after the closing of the financial year to get a knowledge of the objective behind the transactions if they have any relation to each other in the borrower accounts or if any/some transactions are being reversed during the first few days after closing which might show an arrangement to prevent the Borrower account(s) from slipping into the NPA category.

In the given case of Sidharth Industries, a payment of ₹10,00,000 was made on March 29, 2024 reducing the outstanding loan balance to ₹40,00,000. and subsequently reversed by ₹8,00,000 on April 4, 2024. Thus, Mahavir and Associates should carefully assess the classification of Sidharth Industries' Account, and determine if the payment and reversal transactions indicate an attempt to prevent the account from slipping into the NPA category. If yes, the account should be classified as an NPA in compliance with regulatory guidelines.

(b) The following points need to be considered while auditing income and expenditure items of a club: -

(1) Entrance Fee: Vouch the receipt on account of entrance fees with members' applications, counterfoils issued to them, as well as on a reference to minutes of the Managing Committee.

(2) Subscriptions: Vouch members' subscriptions with the counterfoils of receipt issued to them, trace receipts for a selected period to the Register of Members; also reconcile the amount of total subscriptions due with the amount collected and that outstanding.

(3) Arrears of Subscriptions: Ensure that arrears of subscriptions for the previous year have been correctly brought over and arrears for the year under audit and subscriptions received in advance have been correctly adjusted.

(4) Arithmetical accuracy: - Check totals of various columns of the Register of members and tally them across.

(5) Irrecoverable Member Dues :- See the Register of Members to ascertain the Member's dues which are in arrear and enquire whether necessary steps have been taken for their recovery; the amount considered irrecoverable should be mentioned in the Audit Report.

(6) Pricing: Verify the internal check as regards members being charged with the price of foodstuffs and drinks provided to them and their guests, as well as, with the fees chargeable for the special services rendered, such as billiards, tennis, etc.

(7) Member Accounts: Trace debits for a selected period from subsidiary registers maintained in respect of supplies and services to members to confirm that the account of every member has been debited with amounts recoverable from him.

(8) Purchases: Vouch purchase of sports items, furniture, crockery, etc. and trace their entries into the respective inventory registers.

(9) Margins earned: Vouch purchases of foodstuffs, cigars, wines, etc., and test their sale price so as to confirm that the normal rates of gross profit have been earned on their sales. The inventory of unsold provisions and stores, at the end of year, should be verified physically and its valuation checked.

(10) Management Powers: Examine the financial powers of the secretary and, if these have been exceeded, report specific case for confirmation by the Managing Committee.

(c) Reporting requirements of a fraud under the CARO 2020: The auditor is required to report the fraud under clause (xi) of Paragraph 3 of CARO 2020:

(a) whether any fraud by the company or any fraud on the company has been noticed or reported during the year, if yes, the nature and the amount involved is to be indicated;

(b) whether any report under sub-section (12) of section 143 of the Companies Act has been filed by the auditors in Form ADT-4 as prescribed under rule 13 of Companies (Audit and Auditors) Rules, 2014 with the Central Government;

(c) whether the auditor has considered whistle-blower complaints, if any, received during the year by the company;

4. (a) The audit procedures to be performed by CA Karan to test completeness assertion relating to intangible assets are as under: -

- Verify the movement in the intangible assets schedule compiled by the management i.e. Opening balances + Additions – Deletions = Closing balances. Tally the closing balances to the entity's books of account.
- Check the arithmetical accuracy of the movement in intangible assets schedule.
- For additions during the period under audit, obtain a listing of all additions from the management and undertake the following procedures: -
  - For all material additions, verify whether such expenditure meets the criterion for recognition of an intangible asset as per AS 26.
  - Ensure that no intangible asset arising from research (or from the research phase of an internal project) should be recognised. Expenditure on research (or on the research phase of an internal project) should be recognised as an expense when it is incurred. Check the certificate or report or other similar documentation maintained by the entity to verify the date of use of the intangible which could be linked to date of commencement of commercial production/ economic use to the entity, for all additions to intangible assets during the period under audit.
  - Verify whether the additions (acquisitions) have been approved by appropriate entity's personnel.
  - Verify whether proper internal processes and procedures like inviting competitive quotations/ proper tenders etc. were followed prior to finalizing the vendor for procuring item of intangible assets by testing those documents on a sample basis.
  - In relation to deletions of intangible assets, understand from the management the reason and rationale for deletion and the

manner of disposal. Obtain the management approval and disposal note authoring disposal of the asset from its active use. Verify the process followed for sale of discarded asset, for example inviting competitive quotes, tenders and the basis of calculation of sales proceeds. Verify that the management has accurately recorded the deletion of intangible asset (original cost and accumulated amortization up to the date of disposal) and the resultant gain/ loss on disposal in the entity's books of account.

(b) The auditor shall design and perform tests of controls to obtain sufficient appropriate audit evidence as to the operating effectiveness of relevant controls when: -

(i) The auditor's assessment of risks of material misstatement at the assertion level includes an expectation that the controls are operating effectively (i.e., the auditor intends to rely on the operating effectiveness of controls in determining the nature, timing and extent of substantive procedures) or

(ii) Substantive procedures alone cannot provide sufficient appropriate audit evidence at the assertion level.

In designing and performing tests of controls, the auditor shall obtain more persuasive audit evidence, the greater the reliance the auditor places on the effectiveness of a control.

A higher level of assurance may be sought about the operating effectiveness of controls when the approach adopted consists primarily of tests of controls, in particular, where it is not possible or practicable to obtain sufficient appropriate audit evidence only from substantive procedures.

(c) Consider the factors that, in the auditor's professional judgment, are significant in directing the engagement team's efforts.

The auditor needs to direct efforts of engagement team towards matters that in his professional judgment are significant. Preliminary identification of material classes of transactions, account balances and disclosures help auditor in establishing overall audit strategy. More attention need to be devoted to significant matters to obtain desired outcomes.

Examples of the factors that need to be considered by CA Ravi for establishing audit strategy are: -

- Volume of transactions which may determine whether it is more efficient for the auditor to rely on internal control.
- Significant industry developments such as changes in industry regulations and new reporting requirements.
- Significant changes in the financial reporting framework, such as changes in accounting standards.

- Other significant relevant developments, such as changes in the legal environment affecting the entity.

5. **(a)** The auditor shall assemble the audit documentation in an audit file and complete the administrative process of assembling the final audit file on a timely basis after the date of the auditor's report.

❖ SQC 1 "Quality Control for Firms that perform Audits and Review of Historical Financial Information, and other Assurance and related services", requires firms to establish policies and procedures for the timely completion of the assembly of audit files.

❖ An appropriate time limit within which to complete the assembly of the final audit file is ordinarily not more than 60 days after the date of the auditor's report. The completion of the assembly of the final audit file after the date of the auditor's report is an administrative process that does not involve the performance of new audit procedures or the drawing of new conclusions.

❖ Changes may, however, be made to the audit documentation during the final assembly process, if they are administrative in nature.**Examples of such changes include:**

- Deleting or discarding superseded documentation.
- Sorting, collating and cross-referencing working papers.
- Signing off on completion checklists relating to the file assembly process.
- Documenting audit evidence that the auditor has obtained, discussed and agreed with the relevant members of the engagement team before the date of the auditor's report.

❖ After the assembly of the final audit file has been completed, the auditor shall not delete or discard audit documentation of any nature before the end of its retention period.

❖ SQC 1 requires firms to establish policies and procedures for the retention of engagement documentation. The retention period for audit engagements ordinarily is no shorter than seven years from the date of the auditor's report, or, if later, the date of the group auditor's report.

(b) While recognising that exceptions may exist, the following generalisations about the reliability of audit evidence may be useful:

- The reliability of audit evidence is increased when it is obtained from independent sources outside the entity.
- The reliability of audit evidence that is generated internally is increased when the related controls, including those over its preparation and maintenance, imposed by the entity are effective.
- Audit evidence obtained directly by the auditor is more reliable than audit evidence obtained indirectly or by inference.

- Audit evidence in documentary form, whether paper, electronic, or other medium, is more reliable than evidence obtained orally
- Audit evidence obtained as original documents is more reliable than audit evidence obtained as photocopies or facsimiles, or documents that have been filmed, digitised or otherwise transformed into electronic form because in these cases the reliability of which may depend on the controls over their preparation and maintenance.

(c) To verify the rights and obligations assertion regarding Property, Plant, and Equipment (PPE), the auditor must ensure the entity has valid legal ownership and identify any charges against it. The audit procedures should include the following:

- In addition to the procedures undertaken for verifying completeness of additions to PPE during the period under audit, the auditor while performing testing of additions should also verify that all PPE purchase invoices are in the name of the entity that entitles legal title of ownership to the respective entity.
- For all additions to land and building in particular, the auditor should check the conveyance deed/ sale deed to verify whether the entity is the legal and valid owner or not.
- The auditor should insist and verify title deeds for immoveable property acquired.
- In case, the entity has given such immoveable property as security for any borrowings and the original title deeds are not likely to be available with the entity, the auditor should request the entity's management for obtaining a confirmation from the respective lenders that they are holding the original title deeds of immoveable property as security.
- The auditor should also verify the register of charges, available with the entity to assess that any charge has been created against the PPE.

6. (a) There is a direct relationship between an entity's objectives and the control it implements to provide reasonable assurance about their achievement. FDP Ltd. has implemented internal controls addressing financial reporting, operational efficiency, and compliance. However, not all of these objectives and controls are relevant to the auditor's risk assessment.

Factors relevant to the auditor's judgment about whether a control, individually or in combination with others, is relevant to the audit may include such matters as the following:

- Materiality.
- The significance of the related risk.
- The size of the entity.

- The nature of the entity’s business, including its organisation and ownership characteristics.
- The diversity and complexity of the entity’s operations.
- Applicable legal and regulatory requirements.
- The circumstances and the applicable component of internal control.
- The nature and complexity of the systems that are part of the entity’s internal control, including the use of service organisations.
- Whether, and how, a specific control, individually or in combination with others, prevents, or detects and corrects, material misstatement.

In the given case, CA Karan suggests that all controls should be assessed to mitigate the risk of material misstatement in the financial statements, while CA Rajat is of the view that only those controls deemed relevant to the audit should be assessed based on professional judgment.

Based on the factors mentioned above, it can be concluded that the auditors should assess only those controls deemed relevant to mitigate the risk of material misstatement in FDP Ltd.'s financial statements.

(b) The advantages of an audit programme are:

- It provides the assistant carrying out the audit with total and clear set of instructions of the work generally to be done.
- It is essential, particularly for major audits, to provide a total perspective of the work to be performed.
- Selection of assistants for the jobs on the basis of capability becomes easier when the work is rationally planned, defined and segregated.
- Without a written and pre-determined programme, work is necessarily to be carried out on the basis of some ‘mental’ plan. In such a situation there is always a risk of ignoring or overlooking certain books and records. Under a properly framed programme, such risk is significantly less and the audit can proceed systematically.
- The assistants, by putting their signature on programme, accept the responsibility for the work carried out by them individually and, if necessary, the work done may be traced back to the assistant.
- The principal can control the progress of the various audits in hand by examination of audit programmes initiated by the assistants deputed to the jobs for completed work.
- It serves as a guide for audits to be carried out in the succeeding year.

- A properly drawn up audit programme serves as evidence in the event of any charge of negligence being brought against the auditor. It may be of considerable value in establishing that he exercised reasonable skill and care that was expected of professional auditor.

(c) The statutory auditor of Ginni Ltd. should perform the following audit procedures to verify if the company has valid legal ownership rights over the inventories recorded in the balance sheet as on March 31st, 2024.

- Vouch recorded purchases to underlying documentation (purchase requisition, purchase order, receiving report, vendor invoice and cancelled cheque or payment file).
- Evaluate the consigned goods.
- Examine client correspondence, sales and receivables records, purchase documents.
- Determine existence of collateral agreements.
- Review consignment agreements.
- Review material purchase commitment agreements.
- Examine invoices for evidence of ownership i.e. the invoices shall be in the name of the client.
- Obtain confirmation for significant items of inventory.
- For instances of inventory held by third party, the auditor should insist on obtaining declaration from the third party on its business letterhead and signed by an authorized personnel of that third party confirming that the items of inventory belong to the entity and are being held by such third party on behalf of and for the benefit of the entity under audit.

OR

Significant shortage of skilled labour, inability to pay creditors on time and overall liquidity crisis faced by the company are examples of events or conditions that, individually or collectively, may cast significant doubt on the entity's ability to continue as a going concern.

In such a situation, management should try to address auditor's concerns by preparing its future plan of action including preparation of cash flow forecast showing inflow and outflow of cash. Such a cash flow forecast should address auditor's concerns regarding liquidity crisis being faced by the company.

The auditor should perform audit procedures to evaluate the reliability of the underlying data to prepare the forecast and determining whether there is adequate support for the assumptions underlying the forecast.

The auditor should also consider whether any additional facts or information have become available since the date on which management made its assessment.

ANSWERS OF MODEL TEST PAPER 7

INTERMEDIATE: GROUP – II

PAPER – 5: AUDITING AND ETHICS

SUGGESTED ANSWERS / HINTS

Part I - Multiple Choice Questions

1. (b)

2. (c)

3. (d)

4. (b)

5. (b)

6. (c)

7. (a)

8. (b)

9. (c)

10. (b)

11. (a)

12. (b)

13. (b)

14. (a)

15. (a)

Part II - Descriptive Answers

1. (a) SA 570, "Going Concern", deals with the auditor's responsibilities in the audit of financial statements relating to going concern and the implications for the auditor's report.

If events or conditions have been identified that may cast significant doubt on the entity's ability to continue as a going concern, the auditor shall obtain sufficient appropriate audit evidence to determine whether or not a material uncertainty exists related to events or conditions that may cast significant doubt on the entity's ability to continue as a going concern through performing additional audit procedures, including consideration of mitigating factors. These procedures shall include:

(i) Where management has not yet performed an assessment of the entity's ability to continue as a going concern, requesting management to make its assessment.

(ii) Evaluating management's plans for future actions in relation to its going concern assessment, whether the outcome of these plans is likely to improve the situation and whether management's plans are feasible in the circumstances.

(iii) Where the entity has prepared a cash flow forecast, and analysis of the forecast is a significant factor in considering the future outcome of events or conditions in the evaluation of management's plans for future actions:

(I) Evaluating the reliability of the underlying data generated to prepare the forecast; and

(II) Determining whether there is adequate support for the assumptions underlying the forecast.

(iv) Considering whether any additional facts or information have become available since the date on which management made its assessment.

(v) Requesting written representations from management and, where appropriate, those charged with governance, regarding their plans for future actions and the feasibility of these plans.

(b) As per SA 505, "External Confirmation", If management refuses to allow the auditor to send a confirmation request, the auditor shall:

(i) Inquire as to management's reasons for the refusal, and seek audit evidence as to their validity and reasonableness;

(ii) Evaluate the implications of management's refusal on the auditor's assessment of the relevant risks of material misstatement, including the risk of fraud, and on the nature, timing and extent of other audit procedures; and

(iii) Perform alternative audit procedures designed to obtain relevant and reliable audit evidence.

If the auditor concludes that management's refusal to allow the auditor to send a confirmation request is unreasonable, or the auditor is unable to obtain relevant and reliable audit evidence from alternative audit procedures, the auditor shall communicate with those charged with governance in accordance with SA 260 "Communication with Those Charged with Governance".

The auditor also shall determine the implications for the audit and the auditor's opinion in accordance with SA 705 "Modifications to the Opinion in the Independent Auditor's Report".

(c) As per SA 230, "Audit Documentation", the auditor shall assemble the audit documentation in an audit file and complete the administrative process of assembling the final audit file on a timely basis after the date of the auditor's report.

- ♦ An appropriate time limit within which to complete the assembly of the final audit file is ordinarily not more than 60 days after the date of the auditor's report. The completion of the assembly of the final audit file after the date of the auditor's report is an administrative process that does not involve the performance of new audit procedures or the drawing of new conclusions.

- ♦ Changes may, however, be made to the audit documentation during the final assembly process, if they are administrative in nature.
- ♦ After the assembly of the final audit file has been completed, the auditor shall not delete or discard audit documentation of any nature before the end of its retention period.

In the given situation, the auditor CA Tanuj has issued the auditor's report on 18th August 2024 for the financial year ended on 31st March 2024. However, he discarded some supporting schedules and corrected cross-referencing errors of working papers during the final assembly of the audit file by 10th October 2024 which is under prescribed time-limit of 60 days from the issuance of auditors report. Further, no new audit conclusions were drawn. Thus, CA Tanuj can make said changes to the audit documentation during the final assembly process.

2. (a) As per SA 210, “Agreeing the Terms of Audit Engagements”, a request from the entity for the auditor to change the terms of the audit engagement may result from a change in circumstances affecting the need for the service, a misunderstanding as to the nature of an audit as originally requested or a restriction on the scope of the audit engagement, whether imposed by management or caused by other circumstances.

The auditor considers the justification given for the request, particularly the implications of a restriction on the scope of the audit engagement.

A change in circumstances that affects the entity’s requirements or a misunderstanding concerning the nature of the service originally requested may be considered a reasonable basis for requesting a change in the audit engagement.

In contrast, a change may not be considered reasonable if it appears that the change relates to information that is incorrect, incomplete or otherwise unsatisfactory. An example might be where the auditor is unable to obtain sufficient appropriate audit evidence regarding receivables and the entity asks for the audit engagement to be changed to a review engagement to avoid a qualified opinion or a disclaimer of opinion.

Hence Deepa Ltd.’s request for the audit engagement to be changed to a review engagement to avoid a qualified opinion or a disclaimer of opinion is not reasonable.

(b) CARO, 2020 shall apply to every company including a foreign company as defined in clause (42) of section 2 of the Companies Act, 2013, except:

(i) a banking company as defined in clause (c) of section 5 of the Banking Regulation Act, 1949 (10 of 1949);

(ii) an insurance company as defined under the Insurance Act,1938 (4 of 1938);

(iii) a company licensed to operate under section 8 of the Companies Act;

(iv) a One Person Company as defined in clause (62) of section 2 of the Companies Act and a small company as defined in clause (85) of section 2 of the Companies Act; and

(v) a private limited company, not being a subsidiary or holding company of a public company, having a paid up capital and reserves and surplus not more than one crore rupees as on the balance sheet date and which does not have total borrowings exceeding one crore rupees from any bank or financial institution at any point of time during the financial year and which does not have a total revenue as disclosed in Scheduled III to the Companies Act (including revenue from discontinuing operations) exceeding ten crore rupees during the financial year as per the financial statements.

(c) Benefits and need of Audit:

- Audited accounts provide high quality information. It gives confidence to users that information on which they are relying is qualitative and it is the outcome of an exercise carried out by following Auditing Standards recognized globally.
- In case of companies, shareholders may or may not be involved in daily affairs of the company. The financial statements are prepared by management consisting of directors. As shareholders are owners of the company, they need an independent mechanism so that financial information is qualitative and reliable. Hence, their interest is safeguarded by an audit.
- An audit acts as a moral check on employees from committing frauds for the fear of being discovered by audit.
- Audited financial statements are helpful to government authorities for determining tax liabilities.
- Audited financial statements can be relied upon by lenders, bankers for making their credit decisions i.e. whether to lend or not to lend to a particular entity.

3. **(a)** Understanding the Risk Management Process: Management develops controls and uses performance indicators to aid in managing key business and financial risks. An effective risk management system in a bank generally requires the following:

   (i) Oversight and involvement in the control process by those charged with governance: Those charged with governance (Board of Directors/Managing Director) should approve written risk management policies. The policies should be consistent with the bank's business objectives and strategies, capital strength, management expertise, regulatory requirements and the types and amounts of risk it regards as acceptable.

   (ii) Identification, measurement and monitoring of risks: Risks that could significantly impact the achievement of bank's goals should be identified, measured and monitored against pre-approved limits and criteria.

   (iii) Control activities: A bank should have appropriate controls to mitigate its risks including effective segregation of duties (particularly between front and back offices), accurate measurement and reporting of positions, verification and approval of transactions, reconciliation of positions and results, setting up limits, reporting and approval of exceptions, physical security and contingency planning.

   (iv) Monitoring activities: Risk management models, methodologies and assumptions used to measure and mitigate risk should be regularly assessed and updated. This function may be conducted by the independent risk management unit.

   (v) Reliable information systems: Banks require reliable information systems that provide adequate financial, operational and compliance information on a timely and consistent basis. Those charged with governance and management require risk management information that is easily understood and that enables them to assess the changing nature of the bank's risk profile.

(b) **Restrictions on share holdings:** - According to section 5 of the Central Act, in the case of a society where the liability of a member of the society is limited, no member of a society other than a registered society can hold such portion of the share capital of the society as would exceed a maximum of twenty percent of the total number of shares or of the value of shareholding to ₹ 1,000/-.

Restrictions on borrowings - Section 30 of the Central Act further puts restriction on borrowings. According to this section, a registered society shall accept loans and deposits from persons who are not members subject to the restrictions and limits of the bye-laws of the society. The auditor will have to examine the bye-laws in this respect."

In the given situation, Mr. Dhairya, a member of the society, is holding 200 shares amounting to ₹ 2000 from the previous year. In view of the aforementioned restriction on shareholding by a member, Mr. Dhairya is allowed to hold a maximum of 100 shares according to the Act.

Further, Aman Co-operative Society had accepted a loan from Mr. Shivam, a non-member. Since, there are no restrictions regarding the acceptance of loan received from non-member in the society's bye-laws, the loan received from Mr. Shivam is permissible.

(c) In establishing the overall audit strategy, the auditor shall:

(i) Identify the characteristics of the engagement that define its scope;

(ii) Ascertain the reporting objectives of the engagement to plan the timing of the audit and the nature of the communications required;

(iii) Consider the factors that, in the auditor's professional judgment, are significant in directing the engagement team's efforts;

(iv) Consider the results of preliminary engagement activities and, where applicable, whether knowledge gained on other engagements performed by the engagement partner for the entity is relevant; and

(v) Ascertain the nature, timing and extent of resources necessary to perform the engagement.

4. (a) Follow up for items that are obsolete, damaged, slow moving and ascertain the possible realizable value of such items. Carefully examine the valuation of obsolete and damaged inventory.

For the purpose, request the client to provide inventory ageing split and follow up for any inventories which at time of observance of physical counting were noted as being damaged or obsolete.

- Compare recorded costs with replacement costs.
- Examine vendor price lists to determine if recorded cost is less than current prices.
- Calculate inventory turnover ratio. Obsolete inventory may be revealed if ratio is significantly lower.
- In manufacturing environments, test overhead allocation rates and ensure that only direct labour, direct material and overhead have been included.
- Verify the correct application of lower-of- cost-or-net realizable value principles.

(b) Relationship between audit strategy and audit plan:

- Audit strategy sets the broad overall approach to the audit whereas audit plan addresses the various matters identified in the overall audit strategy.
- Audit strategy determines scope, timing and direction of audit. Audit plan describes how strategy is going to be implemented.

- The audit plan is more detailed than the overall audit strategy that includes the nature, timing and extent of audit procedures to be performed by engagement team members. Planning for these audit procedures takes place over the course of the audit as the audit plan for the engagement develops.
- Once the overall audit strategy has been established, an audit plan can be developed to address the various matters identified in the overall audit strategy, taking into account the need to achieve the audit objectives through the efficient use of the auditor's resources.
- The establishment of the overall audit strategy and the detailed audit plan are not necessarily discrete or sequential processes but are closely inter-related since changes in one may result in consequential changes to the other.

(c) Determining materiality involves the exercise of professional judgment. A percentage is often applied to a chosen benchmark as a starting point in determining materiality for the financial statements as a whole. Factors that may affect the identification of an appropriate benchmark include the following:

- The elements of the financial statements like assets, liabilities, equity, revenue, expenses.
- Whether there are items on which the attention of the users of the particular entity's financial statements tends to be focused. For example, for the purpose of evaluating financial performance users may tend to focus on profit, revenue or net assets.
- The nature of the entity, where the entity is at in its life cycle, and the industry and economic environment in which the entity operates, the entity's ownership structure and the way it is financed. For example, If an entity is financed solely by debt rather than equity, users may put more emphasis on assets, and claims on them, than on the entity's earnings.
- The relative volatility of the benchmark.

5. (a) Attributes for verifying other expenses like Power and Fuel, Repair etc.: An entity in addition to making purchases and incurring employee benefit expenses, also incurs other expenditures like rent, power and fuel, repairs and maintenance, insurance, travelling, miscellaneous expenses etc., that are essential and incidental to running of business operations.

While the auditor may choose to analyse the monthly trends for expenses like rent, power and fuel, an auditor generally prefers to vouch for other expenses to verify following attributes:

(i) Whether the expenditure pertained to current period under audit;

(ii) Whether the expenditure qualified as a revenue and not capital expenditure;

(iii) Whether the expenditure had a valid supporting document like travel tickets, insurance policy, third party invoice etc.;

(iv) Whether the expenditure has been classified under the correct expense head;

(v) Whether the expenditure was authorised as per the delegation of authority matrix;

(vi) Whether the expenditure was in relation to the entity's business and not a personal expenditure.

(b) If the auditor assesses a risk of material misstatement regarding litigation or claims that have been identified, or when audit procedures performed indicate that other material litigation or claims may exist, the auditor shall, in addition to the procedures required by other SAs, seek direct communication with the entity's external legal counsel. The auditor shall do so through a letter of inquiry requesting the entity's external legal counsel to communicate directly with the auditor.

If law, regulation or the respective legal professional body prohibits the entity's external legal counsel from communicating directly with the auditor, the auditor shall perform alternative audit procedures.

If it is considered unlikely that the entity's external legal counsel will respond appropriately to a letter of general inquiry, for example if the professional body to which the external legal counsel belongs prohibits response to such a letter, the auditor may seek direct communication through a letter of specific inquiry. For this purpose, a letter of specific inquiry includes:

(i) A list of litigation and claims;

(ii) Where available, management's assessment of the outcome of each of the identified litigation and claims and its estimate of the financial implications, including costs involved; and

(iii) A request that the entity's external legal counsel confirm the reasonableness of management's assessments and provide the auditor with further information if the list is considered by the entity's external legal counsel to be incomplete or incorrect.

(c) **Familiarity threats:** Familiarity threats are self-evident and occur when auditors form relationships with the client where they end up being too sympathetic to the client's interests. This can occur in many ways including:

(i) close relative of the audit team working in a senior position in the client company;

(ii) former partner of the audit firm being a director or senior employee of the client;

(iii) long association between specific auditors and their specific client counterparts; and

(iv) acceptance of significant gifts or hospitality from the client company, its directors or employees.

Provisions in Companies Act, 2013 regarding rotation of auditors mainly address these very familiarity threats. Such provisions prescribe that auditor is rotated after a certain number of years so that auditors do not become too familiar with their clients.

6. (a) Matters the auditor may consider in determining the extent of test of controls include the following:

- The frequency of the performance of the control by the entity during the period.
- The length of time during the audit period that the auditor is relying on the operating effectiveness of the control.
- The expected rate of deviation from a control.
- The relevance and reliability of the audit evidence to be obtained regarding the operating effectiveness of the control at the assertion level.
- The extent to which audit evidence is obtained from tests of other controls related to the assertion.

(b) Joint Audit of Financial Statements: As per SA 299, "Joint Audit of Financial Statements", all the joint auditors shall be jointly and severally responsible for:

(i) the audit work which is not divided among the joint auditors and is carried out by all joint auditors;

(ii) decisions taken by all the joint auditors under audit planning in respect of common audit areas;

(iii) matters which are brought to the notice of the joint auditors by any one of them and there is an agreement among the joint auditors on such matters;

(iv) examining that the financial statements of the entity comply with the requirements of the relevant statutes;

(v) presentation and disclosure of the financial statements as required by the applicable financial reporting framework;

(vi) ensuring that the audit report complies with the requirements of the relevant statutes, applicable Standards on Auditing and other relevant pronouncements issued by ICAI.

(c) As per SA 580, "Written Representations", the date of the written representations shall be as near as practicable to, but not after, the date of the auditor's report on the financial statements. The written representations shall be for all financial statements and period(s) referred to in the auditor's report.

Furthermore, because the auditor is concerned with events occurring up to the date of the auditor's report that may require adjustment to or disclosure in the financial statements, the written representations are dated as near as practicable to, but not after, the date of the auditor's report on the financial statements.

The written representations are for all periods referred to in the auditor's report because management needs to reaffirm that the written representations it previously made with respect to the prior periods remain appropriate.

Situations may arise where current management were not present during all periods referred to in the auditor's report. Such persons may assert that they are not in a position to provide some or all of the written representations because they were not in place during the period. This fact, however, does not diminish such persons' responsibilities for the financial statements as a whole. Accordingly, the requirement for the auditor to request from them written representations that cover the whole of the relevant period(s) still applies. In view of above, management is required to provide the written representation for all the periods even when current management were not present during all periods referred to in the auditor's report.

OR

(c) As per SA 315, "Identifying and Assessing the Risk of Material Misstatement through Understanding the Entity and its Environment", the auditor shall obtain an understanding of the relevant industry, regulatory and other external factors including the applicable financial reporting framework. Relevant industry factors include industry conditions such as the competitive environment, supplier and customer relationships, and technological developments.

- Examples of matters the auditor may consider include market and competition, whether entity is engaged in seasonal activities, product technology relating to the entity's products. The industry in which the entity operates may give rise to specific risks of material misstatement arising from the nature of the business or the degree of regulation.
- Relevant regulatory factors include the regulatory environment. The regulatory environment includes, among other matters, the applicable financial reporting framework and the legal and political environment.
- Examples of matters the auditor may consider include accounting principles and industry specific practices, regulatory framework for a regulated industry, legislation and regulation that significantly affect the entity's operations, including direct supervisory activities, taxation, government policies currently affecting the conduct of the entity's business, environmental requirements affecting the industry and the entity's business.
- Examples of other external factors affecting the entity that the auditor may consider include the general economic conditions, interest rates and availability of financing, and inflation etc.

ANSWERS OF MODEL TEST PAPER 8

INTERMEDIATE GROUP – II

PAPER – 5: AUDITING AND ETHICS

SUGGESTED ANSWERS / HINTS

PART I – Multiple Choice Questions

1. (a)

2. (a)

3. (a)

4. (a)

5. (b)

6. (a)

7. (c)

8. (c)

9. (d)

10. (c)

11. (d)

12. (b)

13. (d)

14. (c)

15. (b)

PART II - Descriptive Answers

1. (a) Following matters should be considered generally while preparing an Audit Programme:

(1) Stay within the scope and limitation of the assignment.

(2) Prepare a written audit programme setting forth the procedures that are needed to implement the audit plan.

(3) Determine the evidence reasonably available and identify the best evidence for deriving the necessary satisfaction.

(4) Apply only those steps and procedures which are useful in accomplishing the verification purpose in the specific situation.

(5) Include the audit objectives for each area and sufficient details which serve as a set of instructions for the assistants involved in audit and help in controlling the proper execution of the work.

(6) Consider all possibilities of error.

(7) Co-ordinate the procedures to be applied to related items.

Evolving one audit programme- Not Practicable for All businesses: Businesses vary in nature, size and composition; work which is suitable to one business may not be suitable to others; efficiency and operation of internal controls and the exact nature of the service to be rendered by the auditor are the other factors that vary from assignment to assignment. On account of such variations, evolving one audit programme applicable to all business under all circumstances is not practicable.

In view of above mentioned provisions, CA. P is correct in emphasizing for a different audit programme for Time Ltd.

(b) **Value of Inventory:** Inventory to be recognized at the lower of cost and net realizable value in accordance with AS 2 - Inventories. Further, any costs that could not be reasonably allocated to the cost of production (e.g. general and administrative costs) and any abnormal wastage have been excluded from the cost of inventory. An acceptable valuation basis (e.g. FIFO, Weighted average etc.) has been used to value inventory as at the period-end.

In the given situation, ABC & Co. is using FIFO method for valuation of its inventories. Further, cost of inventory as on 31.03.2024 is rupees 25,25,000 which includes material purchase cost of rupees 25,05,000, allocated cost of transport of rupees 18,000 and abnormal wastage of rupees 2,000. Net realizable value of said inventory is ₹ 25,24,000. In view of provisions of AS 2, cost allocated to transport for inventory is relating to bringing the inventory to the location, thus it will be added in cost of material. However, abnormal wastage of rupees 2000 should be excluded from cost of inventory.

Thus, cost of inventory will be ₹ 25,25,000 – ₹ 2,000 = 25,23,000 rupees and Net realizable value of inventory is ₹ 25,24,000.

For valuation in accordance with AS 2, “Inventory”, lower of cost and net realizable value will be considered. Accordingly, ₹ 25,23,000 to be considered as value of inventory in the given situation.

(c) **Internal financial controls as per regulatory requirements:** The Companies Act, 2013 has placed a greater emphasis on the effective implementation and reporting on the internal controls for a company. The term “internal financial controls” is used at some places in Companies Act, 2013 casting responsibilities as under: -

Relevant provision of Companies Act,2013	Nature of Responsibility
Section 134(5)(e)	In case of listed Companies, the Directors’ responsibility statement shall state that the Directors had laid down Internal financial controls to be followed by the company and that such Internal

	financial controls are adequate and were operating effectively.
As per Section 149(8) of the Act	The company and independent directors shall abide by the provisions specified in Schedule IV which lays down the Code for independent Directors. As per this code, the role and functions of independent directors include that they shall satisfy themselves on the integrity of financial information and that financial controls and the systems of risk management are robust and defensible.
Section 177(4)(vii) of the Act	Every audit Committee shall act in accordance with the terms of reference specified in writing by the Board which shall, inter alia, include - evaluation of internal financial controls and risk management systems.

(d) Assembly of the Final Audit File:

Audit documentation may be recorded on paper or on electronic or other media. Audit file may be defined as one or more folders or other storage media, in physical or electronic form, containing the records that comprise the audit documentation for a specific engagement. Hence the views of CA B that audit documentation should be maintained mandatorily in paper form is not correct.

The auditor shall prepare audit documentation on timely basis. Preparing sufficient and appropriate audit documentation on a timely basis helps to enhance the quality of the audit and facilitates the effective review and evaluation of the audit evidence obtained and conclusions reached before the auditor's report is finalized. Documentation prepared after the audit work has been performed is likely to be less accurate than documentation prepared at the time such work is performed. Completing the audit Documentation by CA B not on timely basis is not proper.

An appropriate time limit within which to complete the assembly of the final audit file is ordinarily not more than 60 days after the date of the auditor's report. In the given situation, CA. B, after completion of audit season, is completing the audit file as well as assembling of final audit files of his client after three months of the date of audit report which is not valid as per SQC 1.

SQC 1 "Quality Control for Firms that perform Audits and Review of Historical Financial Information, and other Assurance and Related Services", requires firms to establish policies and procedures for the retention of engagement documentation. The retention period for audit engagements ordinarily is no shorter than seven years from the date of the auditor's report, or, if later, the date of the group auditor's report. He retains audit file of the client for 4 years from the date of audit report is also non-compliance of SQC 1.

2. (a) Inquiries of Management and Others Within the Entity:

- **(i) Inquiries directed toward internal audit personnel** may provide information about internal audit procedures performed during the year relating to the design and effectiveness of the entity's internal control and whether management has satisfactorily responded to findings from those procedures.
- **(ii) Inquiries directed toward in-house legal counsel** may provide information about such matters as litigation, compliance with laws and regulations, knowledge of fraud or suspected fraud affecting the entity, warranties, post-sales obligations, arrangements (such as joint ventures) with business partners and the meaning of contract.
- **(iii) Inquiries directed towards marketing or sales personnel** may provide information about changes in the entity's marketing strategies, sales trends, or contractual arrangements with its customers.
- **(iv) Inquiries directed to information systems personnel** may provide information about system changes, system or control failures, or other information system-related risks.

(b) A letter of specific inquiry includes:

- (i) A list of litigation and claims;
- (ii) Where available, management's assessment of the outcome of each of the identified litigation and claims and its estimate of the financial implications, including costs involved; and
- (iii) A request that the entity's external legal counsel confirm the reasonableness of management's assessments and provide the auditor with further information if the list is considered by the entity's external legal counsel to be incomplete or incorrect.

In certain circumstances**,** the auditor also may judge it necessary to meet with the entity's external legal counsel to discuss the likely outcome of the litigation or claims. Further, if management refuses to give the auditor permission to communicate or meet with the entity's external legal counsel, or the entity's external legal counsel refuses to respond appropriately to the letter of inquiry, or is prohibited from responding, and the auditor is unable to obtain sufficient appropriate evidence by performing alternate audit procedures, the auditor shall modify the opinion in the auditor's report in accordance with SA 705.

Alternatively, if the auditor is able to perform alternate audit procedures and can obtain sufficient and appropriate audit evidence to resolve the issue, then he can give an unmodified opinion.

(c) Inherent limitations of audit: The process of audit suffers from certain inbuilt limitations due to which an auditor cannot obtain an absolute assurance that financial statements are free from misstatement due to fraud or error. These fundamental limitations arise due to the following factors: -

(1) Nature of financial reporting: Preparation of financial statements involves making many judgments by management. These judgments may involve subjective decisions or a degree of uncertainty. Therefore, auditor may not be able to obtain absolute assurance that financial statements are free from material misstatements due to frauds or errors.

(2) Nature of Audit procedures: The auditor carries out his work by obtaining audit evidence through performance of audit procedures. However, there are *practical and legal* limitations on ability of auditor to obtain audit evidence. For example, an auditor does not test all transactions and balances. He forms his opinion only by testing samples. It is an example of *practical limitation* on auditor's ability to obtain audit evidence.

Management may not provide complete information as requested by auditor. There is no way by which auditor can force management to provide complete information as may be requested by auditor. In case he is not provided with required information, he can only report. It is an example of *legal limitation* on auditor's ability to obtain audit evidence. Further, fraud may involve sophisticated and carefully organized schemes.

(3) Not in nature of investigation: Audit is not an official investigation. Hence, auditor cannot obtain absolute assurance that financial statements are free from material misstatements due to frauds or errors.

(4) Timeliness of financial reporting and decrease in relevance of information over time: The relevance of information decreases over time and auditor cannot verify each and every matter. Therefore, a balance has to be struck between reliability of information and cost of obtaining it.

(5) Future events: Future events or conditions may affect an entity adversely. Adverse events may seriously affect ability of an entity to continue its business. The business may cease to exist in future due to change in market conditions, emergence of new business models or products or due to onset of some adverse events.

(d) Consider the factors that, in the auditor's professional judgment, are significant in directing the engagement team's efforts: The auditor needs to direct efforts of engagement team towards matters that in his professional judgment are significant. Preliminary identification of material classes of transactions, account balances and disclosures help auditor in establishing overall audit strategy. More energies need to be devoted to significant matters to obtain desired outcomes. Few examples are listed as under: -

(i) Volume of transactions which may determine whether it is more efficient for the auditor to rely on internal control.

(ii) Significant industry developments such as changes in industry regulations and new reporting requirements.

(iii) Significant changes in the financial reporting framework, such as changes in accounting standards.

(iv) Other significant relevant developments, such as changes in the legal environment affecting the entity.

3. (a) Nature of Audit Planning- A Continuous and iterative process: Planning includes the need to consider, prior to the auditor's identification and assessment of the risks of material misstatement, such matters as: -

1. The analytical procedures to be applied as risk assessment procedures.
2. Obtaining a general understanding of the legal and regulatory framework applicable to the entity and how the entity is complying with that framework.
3. The determination of materiality.
4. The involvement of experts.
5. The performance of other risk assessment procedures.

(b) As per SA 580, "Written Representations", the date of the written representations shall be as near as practicable to, but not after, the date of the auditor's report on the financial statements. The written representations shall be for all financial statements and period(s) referred to in the auditor's report.

Furthermore, because the auditor is concerned with events occurring up to the date of the auditor's report that may require adjustment to or disclosure in the financial statements, the written representations are dated as near as practicable to, but not after, the date of the auditor's report on the financial statements.

The written representations are for all periods referred to in the auditor's report because management needs to reaffirm that the written representations it previously made with respect to the prior periods remain appropriate.

Situations may arise where current management were not present during all periods referred to in the auditor's report. Such persons may assert that they are not in a position to provide some or all of the written representations because they were not in place during the period. This fact, however, does not diminish such persons' responsibilities for the financial statements as a whole. Accordingly, the requirement for the auditor to request from them written representations that cover the whole of the relevant period(s) still applies. In view of above, management is required to provide the written representation for all the periods even when current management were not present during all periods referred to in the auditor's report.

(c) Manual elements vs automated elements in entity's internal control: Manual elements in internal control may be more suitable in the following circumstances:

- Where judgment and discretion are required.
- Large, unusual or non-recurring transactions.
- Circumstances where errors are difficult to define, anticipate or predict.
- In changing circumstances that require a control response outside the scope of an existing automated control.
- In monitoring the effectiveness of automated controls.

(d) As per SA 610, "Using the Work of Internal Auditors", coordination between the external auditor and the internal audit function is effective when, for example;

(i) Discussions take place at appropriate intervals throughout the period.

(ii) The external auditor informs the internal audit function of significant matters that may affect the function.

(iii) The external auditor is advised of and has access to relevant reports of the internal audit function and is informed of any significant matters that come to the attention of the function when such matters may affect the work of the external auditor so that the external auditor is able to consider the implications of such matters for the audit engagement.

4. (a) The auditor may decide to select specific items from a population. In making this decision, factors that may be relevant include:

(i) the auditor's understanding of the entity,

(ii) the assessed risks of material misstatement, and

(iii) the characteristics of the population being tested.

Specific items selected may include:

- **High value or key items:** The auditor may decide to select specific items within a population because they are of high value, or exhibit some other characteristic.
- **All items over a certain amount:** The auditor may decide to

examine items whose recorded values exceed a certain amount so as to verify a large proportion of the total amount of a class of transactions or account balance.

- **Items to obtain information:** The auditor may examine items to obtain information about matters such as the nature of the entity or the nature of transactions.

(b) The principal auditor should perform procedures to obtain sufficient appropriate audit evidence, that the work of the other auditor is adequate for the principal auditor's purposes, in the context of the specific assignment. When using the work of another auditor, the principal auditor should ordinarily perform the following procedures:

(i) Advise the other auditor of the use that is to be made of the other auditor's work and report and make sufficient arrangements for co-ordination of their efforts at the planning stage of the audit. The principal auditor would inform the other auditor of matters such as are as requiring special consideration, procedures for the identification of inter -component transactions that may require disclosure and the time-table for completion of audit; and

(ii) advise the other auditor of the significant accounting, auditing and reporting requirements and obtain representation as to compliance with them.

(iii) The principal auditor might discuss with the other auditor the audit procedures applied or review a written summary of the other auditor's procedures and findings which may be in the form of a completed questionnaire or check-list. The principal auditor may also wish to visit the other auditor.

(c) As additional regulatory requirements, following disclosures shall be made where Loans or Advances in the nature of loans are granted to promoters, Directors, KMPs and the related parties (as defined under Companies Act, 2013,) either severally or jointly with any other person, that are:

(a) repayable on demand or

(b) without specifying any terms or period of repayment.

Type of Borrower	Amount of loan or advance in the nature of loan outstanding (₹ In Lakhs)	Percentage to the total Loans and Advances in the nature of loans (₹ in Lakhs)
X (Promoter)	15	**12.5%** =15/120 X 100
Y (Director)	25	**20.833%** =25/120 X 100
Z (KMP)	05	**4.167%** =5/120 X 100
A (Related Party)	10	**8.333%** =10/120 X 100

(d) Communicating key audit matters in the auditor's report is not:

(i) A substitute for disclosures in the financial statements that the applicable

Financial reporting framework requires management to make, or that are otherwise necessary to achieve fair presentation;

(ii) A substitute for the auditor expressing a modified opinion when required by the circumstances of a specific audit engagement in accordance with SA 705 (Revised);

(iii) A substitute for reporting in accordance with SA 570 when a material uncertainty exists relating to events or conditions that may cast significant doubt on an entity's ability to continue as a going concern; or

(iv) A separate opinion on individual matters

5. (a) **Shares issued at a discount:** According to Section 53 of the Companies Act, 2013,

(1) a company shall not issue shares at a discount, except in the case of an issue of sweat equity shares given under Section 54 of the Companies Act, 2013.

(2) any share issued by a company at a discounted price shall be void.

Notwithstanding anything contained in above sub-sections (1) and (2), a company may issue shares at a discount to its creditors when its debt is converted into shares in pursuance of any statutory resolution plan or debt restructuring scheme in accordance with any guidelines or directions or regulations specified by the Reserve Bank of India under the Reserve Bank of India Act, 1934 or the Banking (Regulation) Act, 1949.

(3) Where any company fails to comply with the provisions of this section, such company and every officer who is in default shall be liable to a penalty which may extend to an amount equal to the amount raised through the issue of shares at a discount or five lakh rupees, whichever is less, and the company shall also be liable to refund all monies received with interest at the rate of twelve per cent. per annum from the date of issue of such shares to the persons to whom such shares have been issued.

(b) Examples of costs that are not costs of an item of property, plant and equipment are:

(i) costs of opening a new facility or business, such as, inauguration costs;

(ii) costs of introducing a new product or service (including costs of advertising and promotional activities);

(iii) costs of conducting business in a new location or with a new class of customer (including costs of staff training); and

(iv) administration and other general overhead costs.

(c) Fundamental Principles:

(1) **Objectivity:** The principle of objectivity requires that a professional accountant shall not undertake a professional activity if a circumstance or relationship unduly influences the accountant's professional judgment regarding that activity. Objectivity principle will be violated in the given situation where a chartered accountant in practice accepted the appointment as an auditor of a firm in which his sister was a partner.

(2) **Confidentiality:** Confidentiality principle requires a professional accountant to respect the confidentiality of information acquired as a result of professional or business relationships. Confidentiality principle will be violated in the given situation where a chartered accountant in practice could not refuse his friends requested to seek some insider information about a client company of the chartered accountant.

(3) **Professional Competence and Due care:** A professional accountant shall comply with the principle of professional competence and due care, which requires an accountant to attain and maintain professional knowledge and skill at the level required to ensure that a client or employing organization receives competent professional service, based on current technical and professional standards and relevant legislation; and act diligently and in accordance with applicable technical and professional standards. Professional Competence and Due Care principle will be violated in the situation where a chartered accountant in practice failed to inform his client about the change in laws applicable to his client.

(d) Reporting requirements of a Nidhi Company under the CARO 2020: The auditor is required to report under clause (xii) of Paragraph 3 of CARO 2020:

(a) whether the Nidhi Company has complied with the Net Owned Funds to Deposits in the ratio of 1:20 to meet out the liability;

(b) whether the Nidhi Company is maintaining ten per cent. unencumbered term deposits as specified in the Nidhi Rules, 2014 to meet out the liability;

(c) whether there has been any default in payment of interest on deposits or repayment thereof for any period and if so, the details thereof.

6. (a) Engagement Performance: As per SA 220, for audits of financial statements of listed entities, and those other audit engagements, if any, for which the firm has determined that an engagement quality control review is required, the engagement partner shall:

(i) Determine that an engagement quality control reviewer has been appointed.

(ii) Discuss significant matters arising during the audit engagement, including those identified during the engagement quality control review, with the engagement quality control reviewer.

(iii) Not date the auditor's report until the completion of the engagement quality control review.

(iv) If differences of opinion arise within the engagement team, with those consulted or, where applicable, between the engagement partner and the engagement quality control reviewer, the engagement team shall follow the firm's policies and procedures for dealing with and resolving differences of opinion.

or

(a) **A contribution made towards the capital or the corpus of an NGO is known as corpus contribution**. The donors are generally required to specify whether the donation/grant given by him shall form part of the corpus of the NGO. Such contributions are generally given with reference to the total funds required by an NGO.

The objective of a contribution or grant towards a Revolving Fund is to rotate the amount by giving temporary loans from the fund to other NGO or beneficiaries for their projects and then recover the loan so as to give temporary loans again and so on. However, any interest earned from the beneficiary on such temporary loans from the revolving fund could be either added back to the fund or credited to the Income and Expenditure Account depending on restrictions laid down by the authority providing the contribution (for the revolving fund) or by the rules and regulations laid down by the concerned NGO in this regard.

(b) **Government Guaranteed Advances (In case of accounts overdue for more than 90 days):** Central Government. Guaranteed Advances, where the guarantee is not invoked/ repudiated would be classified as Standard Assets, but regarded as NPA for Income Recognition purpose.

The situation would be different if the advance is guaranteed by State Government, where advance is to be considered NPA if it remains overdue for more than 90 days for both Provisioning and Income recognition purposes.

Alternative Solution:

Government Guaranteed Advances (In case of accounts overdue for not more than 90 days):

Asset Classification: In case of advances guaranteed by both Central Government and State Government, they would be classified as Standard Advances in the following manner:

Classification of Advances	Particulars
Standard Regular	Accounts not overdue
Special Mention Accounts:	
1. SMA 0	Accounts showing stress signals
2. SMA 1	Accounts overdue between 31 to 60 days
3. SMA 2	Accounts overdue between 61 to 90 days

Income Recognition

Income would be recognised for all the accounts which are not overdue for more than 90 days, on accrual basis, in case of advances guaranteed by both Central Government and State Government.

(c) Documentation regarding misstatements identified during audit: The audit documentation shall include:

(i) The amount below which misstatements would be regarded as clearly trivial;

(ii) All misstatements accumulated during the audit and whether they have been corrected; and

(iii) The auditor's conclusion as to whether uncorrected misstatements are material, individually or in aggregate, and the basis for that conclusion.

(d) In the given situation, JK Ltd. has opened a new manufacturing unit and for that they want plant & machinery. They have taken the plant on lease for 11 years, which is approximately the estimated economic life of the asset. As per the agreement, JK Ltd. will bear the insurance and maintenance expenses of the asset.

Same will be considered as Finance Lease as per AS-19 since the lease term is for a major part of the economic life of the asset even if title is not transferred.

Status of Ownership: Ownership transfer option at the end of the lease period is with the lessee. Title may or may not be eventually transferred.

Accounting treatment: Finance lease is treated like loan arrangement. Hence, the asset ownership is considered of that of the lessee and thus appears on the balance sheet of the lessee.

Tax benefit: Lessee can claim both interest and depreciation expense as financial lease is treated like a loan.

ANSWERS OF MODEL TEST PAPER 1

INTERMEDIATE: GROUP – II

PAPER – 6: FINANCIAL MANAGEMENT & STRATEGIC MANAGEMENT

PAPER 6A : FINANCIAL MANAGEMENT

PART I

1. I. (b) ₹ 35,55,556

II. (c) ₹ 30,03,733

III. (a) ₹ 8,83,200

IV. (d) ₹ 4,83,200

V. (a) 16.09%

Working Note

Particulars	**(₹)**
Total Sales	₹ 200 lakhs
Credit Sales (80%)	₹ 160 lakhs
Receivables for 40 days	₹ 80 lakhs
Receivables for 120 days	₹ 80 lakhs
Average collection period [(40 x 0.5) + (120 × 0.5)]	80 days
Average level of Receivables (₹ 1,60,00,000 × 80/360)	₹ 35,55,556
Factoring Commission (₹ 35,55,556 × 2/100)	₹ 71,111
Factoring Reserve (₹ 35,55,556 × 10/100)	₹ 3,55,556
Amount available for advance {₹ 35,55,556 - (3,55,556 + 71,111)}	₹ 31,28,889
Factor will deduct his interest @ 18%: Interest = $\frac{₹31,28,889 \times 18 \times 80}{100 \times 360}$	₹ 1,25,156
Advance to be paid (₹ 31,28,889 – ₹ 1,25,156)	₹ 30,03,733

(i) Statement Showing Evaluation of Factoring Proposal

		₹
A.	**Annual Cost of Factoring to the Company:**	
	Factoring commission (₹ 71,111 × 360/80)	3,20,000
	Interest charges (₹ 1,25,156 × 360/80)	5,63,200
	Total	8,83,200
B.	**Company's Savings on taking Factoring Service:**	₹
	Cost of credit administration saved	2,40,000
	Bad Debts (₹ 160,00,000 x 1/100) avoided	1,60,000
	Total	4,00,000

C.	Net Cost to the company (A – B) (₹ 8,83,200 – ₹ 4,00,000)	4,83,200

Effective cost of factoring = $\frac{₹\ 4,83,200}{₹30,03,733} \times 100$ = 16.09%

2. B. ₹ 3,20,513; ₹ 8.33

$$\frac{(EBIT - I)(1 - t) - D_p}{N_1} = \frac{(EBIT - I)(1 - t) - D_p}{N_2}$$

$$\frac{(x - 0)(1 - 0.35)}{25,000} = \frac{(x - 1,00,000)(1 - 0.35) - 60,000}{10,000}$$

x = EBIT = ₹ 3,20,513

At EBIT of ₹ 3,20,513, EPS under both options will be the same i.e., ₹ 8.33 per share

3. D. 1.15

FL= % change in NP/%change in EBIT=6.9/6=1.15

4. C. 3 years

These deposits may be accepted for a period of six months to three years.

PART II

1. (a)

Particulars	(₹' in lakhs)
Net Profit	54
Less: Preference dividend	24
Earnings for equity shareholders	30
Earnings per share	30/2 = ₹ 15

Let, the dividend per share be D to get share price of ₹ 120.

$$P = \frac{D + \frac{r}{Ke}(E - D)}{K_e}$$

Where,

P = Market price per share.

E = Earnings per share = ₹ 15

D = Dividend per share

R = Return earned on investment = 22%

K_e = Cost of equity capital = 15%

$$120 = \frac{D + \frac{0.22}{0.15}(15 - D)}{0.15}$$

$$18 = \frac{0.15D + 3.3 - 0.22D}{0.15}$$

$$0.07D = 3.3 - 2.7$$

$$D = 8.57$$

$$\text{D/P ratio} = \frac{DPS}{EPS} \times 100 = \frac{8.57}{15} \times 100 = 57.13\%$$

So, the required dividend pay-out ratio will be = 57.13%

(b) Value of AN Ltd. = $\frac{NOI}{K_o} = \frac{₹\ 10,00,000}{20\%} =$ ₹ 50,00,000

(i) Return on Shares of Mr. R on AN Ltd.

Particulars	**Amount (₹)**
Value of the company	50,00,000
Market value of debt (50% x ₹ 50,00,000)	25,00,000
Market value of shares (50% x ₹ 50,00,000)	**25,00,000**
Particulars	**Amount (₹)**
Net operating income	10,00,000
Interest on debt (10% × ₹ 25,00,000)	2,50,000
Earnings available to shareholders	**7,50,000**
Return on 8% shares (8% × ₹ 7,50,000)	**60,000**

(ii) Implied required rate of return on equity of AN Ltd. $= \frac{₹\ 7,50,000}{₹\ 25,00,000}$ = **30%**

(c) **ANVY Ltd**

Balance Sheet as on 31st March, 2023

Liabilities	**₹**	**Assets**	**₹**
Equity share capital	2,00,000	Fixed assets	1,40,000
Current debt	60,000	Cash (balancing figure)	1,00,000
Long term debt	60,000	Inventory	80,000
	3,20,000		3,20,000

Working Notes

1. Total debt = 0.60 x Equity share capital = 0.60 × ₹ 2,00,000 = ₹ 1,20,000

   Further, Current debt to total debt = 0.50. So, current debt = 0.50 x ₹1,20,000 = ₹ 60,000,

   Long term debt = ₹1,20,000 - ₹60,000= ₹ 60,000

2. Fixed assets = 0.70 × Equity share Capital = 0.70 × ₹ 2,00,000 = ₹ 1,40,000

3. Total assets to turnover = 2.5 Times: Inventory turnover = 10 Times

Hence, Inventory /Total assets = 2.5/10=1/4, Total assets = ₹ 3,20,000

Therefore Inventory = ₹ 3,20,000/4 = ₹ 80,000

2. (a) Cash inflows after tax (CFAT)

Particular	₹
Current production (units per week)	5,000 units
New capacity (units per week)	15,000 units
Demand (units per week)	10,000 units
Increase in sales (units per week) A.	5,000 units
Contribution per unit (₹ 30,000 x 0.10) B.	3,000
Increase in contribution A x B x 56	84 crores
Less: Additional fixed cost	10 crores
Increase in profit	74 crores
Less: Tax @ 40%	29.6 crores
Profit after tax	44.4 crores

Tax shield due to depreciation

Year	Depreciation (₹ in Crore)	Tax Shield (₹ in Crore)	PV Factor @ 20%	Total Present Value (₹ in Crore)
1	25.00	10	0.83	8.33
2	18.75	7.5	0.69	5.18
3	14.06	5.62	0.58	3.26
4	10.55	4.22	0.48	2.03
5	7.91	3.16	0.40	1.27
Total				20.07

Tax shield on capital loss = (23.73-20.00) x 30% = ₹ 1.12 crores

Net Present Value (NPV)

Particulars	Year	Cash Flow (₹ in Crores)	PVAF @ 20%	Present Value (₹ in Crores)
Initial Investment	0	(100)	1	(100)
Working capital	0	(3)	1	(3)
Profit after tax	1-5	44.4	2.99	132.76
Salvage value	5	20	0.40	8.00
Tax shield on Depreciation	1-5			20.07
Tax shield on capital loss	5	1.12	0.40	0.45
Release of Working Capital	5	3	0.40	1.20
NPV				59.47

The company is advised to replace the old machine since the NPV of the new machine is positive.

(b) Cut-off Rate: It is the minimum rate which the management wishes to have from any project. Usually this is based upon the cost of capital. The management gains only if a project gives return of more than the cut - off rate. Therefore, the cut - off rate can be used as the discount rate or the opportunity cost rate.

3. (a) Working Note:

Let the rate of Interest on debenture be x

∴ Rate of Interest on loan = 1.4x

$$\therefore k_d \text{ on debentures} = \frac{Int\,(1-t) + \frac{RV - NP}{n}}{\frac{RV + NP}{2}}$$

$$= \frac{100x(1-0.30) + \frac{100-98}{4}}{\frac{100+98}{2}}$$

$$= \frac{70x + 0.5}{99}$$

∴ K_d on bank loan = 1.4 x (1 – 0.30) = 0.98x

$$K_e = \frac{EPS}{MPS} = \frac{1}{MPS/EPS} = \frac{1}{PE} = \frac{1}{4} = 0.25$$

K_e = 0.25

Computation of WACC

Capital	Amount	Weights	Cost	Product
Equity	20,00,000	0.2	0.25	0.05
Reserves	30,00,000	0.3	0.25	0.075
Debentures	30,00,000	0.3	(70x+0.5)/99	(21x+0.15)/99
Bank Loan	20,00,000	0.2	0.98x	0.196x
	1,00,00,000	1		0.125+0.196x $+\frac{21x+0.15}{99}$

WACC = 16%

$$\therefore 0.125 + 0.196x + \frac{21x + 0.15}{99} = 0.16$$

∴ 12.375+19.404x+21x+0.15 = (0.16)(99)

∴ 40.404x = 15.84 – 12.525

∴ 40.404x = 3.315

$\therefore$ x = $\frac{3.315}{40.404}$

$\therefore$ x = 8.20%

(i) Rate of interest on debenture = x = 8.20%

(ii) Rate of interest on Bank loan = 1.4x = (1.4)(8.20%) = 11.48%.

(b) In dividend price approach, cost of equity capital is computed by dividing the expected dividend by market price per share. This ratio expresses the cost of equity capital in relation to what yield the company should pay to attract investors. It is computed as:

$$K_e = \frac{D_1}{P_0}$$

Where,

K_e= Cost of equity

D = Expected dividend (also written as D_1)

P_0 = Market price of equity (ex- dividend)

4. (a) Limitations of Profit Maximisation objective of financial management.

(i) **The term profit is vague. It does not clarify what exactly it means.** It conveys a different meaning to different people. For example, profit may be in short term or long term period; it may be total profit or rate of profit etc.

(ii) **Profit maximisation has to be attempted with a realisation of risks involved.** There is a direct relationship between risk and profit. Many risky propositions yield high profit. Higher the risk, higher is the possibility of profits. If profit maximisation is the only goal, then risk factor is altogether ignored. This implies that finance manager will accept highly risky proposals also, if they give high profits. In practice, however, risk is very important consideration and has to be balanced with the profit objective.

(iii) **Profit maximisation as an objective does not take into account the time pattern of returns.** Proposal A may give a higher amount of profits as compared to proposal B, yet if the returns of proposal A begin to flow say 10 years later, proposal B may be preferred which may have lower overall profit but the returns flow is more early and quick.

(iv) **Profit maximisation as an objective is too narrow.** It fails to take into account the social considerations as also the obligations to various interests of workers, consumers, society, as well as ethical trade practices. If these factors are ignored, a company cannot survive for long. Profit maximization at the cost of social and moral obligations is a short sighted policy.

(b) Some common methods of venture capital financing are as follows:

(i) **Equity financing:** The venture capital undertakings generally require funds for a longer period but may not be able to provide returns to the investors during the initial stages. Therefore, the venture capital finance is generally provided by way of equity share capital. The equity contribution of venture capital firm does not exceed 49% of the total equity capital of venture capital undertakings so that the effective control and ownership remains with the entrepreneur.

(ii) **Conditional loan:** A conditional loan is repayable in the form of a royalty after the venture is able to generate sales. No interest is paid on such loans. In India venture capital financiers charge royalty ranging between 2 and 15 per cent; actual rate depends on other factors of the venture such as gestation period, cash flow patterns, risk and other factors of the enterprise. Some Venture capital financiers give a choice to the enterprise of paying a high rate of interest (which could be well above 20 per cent) instead of royalty on sales once it becomes commercially sound.

(iii) **Income note:** It is a hybrid security which combines the features of both conventional loan and conditional loan. The entrepreneur has to pay both interest and royalty on sales but at substantially low rates. IDBI's VCF provides funding equal to 80 – 87.50% of the projects cost for commercial application of indigenous technology.

(iv) **Participating debenture:** Such security carries charges in three phases — in the start-up phase no interest is charged, next stage a low rate of interest is charged up to a particular level of operation, after that, a high rate of interest is required to be paid.

(c) **Optimum Capital Structure:** The capital structure is said to be optimum when the firm has selected such a combination of equity and debt so that the wealth of firm is maximum. At this capital structure, the cost of capital is minimum and the market price per share i.e. value of the firm is maximum.

OR

Financial leverage indicates the use of funds with fixed cost like long term debts and preference share capital along with equity share capital which is known as trading on equity. The basic aim of financial leverage is to increase the earnings available to equity shareholders using fixed cost fund.

A firm is known to have a positive/favourable leverage when its earnings are more than the cost of debt. If earnings are equal to or less than cost of debt, it will be an negative/unfavourable leverage. When the quantity of fixed cost fund is relatively high in comparison to equity capital it is said that the firm is **''trading on equity".**

ANSWERS OF MODEL TEST PAPER 2

INTERMEDIATE: GROUP – II

PAPER – 6: FINANCIAL MANAGEMENT & STRATEGIC MANAGEMENT

PAPER 6A : FINANCIAL MANAGEMENT

PART I – Case Scenario based MCQs

1. 1. (d) 14.99%

B = retention ratio=0.6, r=return on equity=20%, DPS=D0=20 x 0.4= 8,

MPS = P0 = EPS x PE = 20 x 15=300

G = b.r =0.6 x 20% = 12%

D1 = D0(1+g) = 8 (1.12) = 8.96

Ke = D1/P0 + g = 8.96/300 + 0.12 = 14.99%

2. (c) 90.58

Price of debentures= PV of future cash flows for investor discounted at their yield

= 8 x PVAF(9.5%,10 years)+ 100 x PVF(9.5%, 10 years)

= 8 x 6.2788 + 100 x 0.4035

=50.2304 + 40.35

=90.58

3. (a) 7.64%

NP = 90.58 x 96% = 86.96, RV = 100, Interest = 8, t = 0.27, n = 10

$$Kd = \frac{Int(1-t)+(RV-NP)/n}{(RV+NP)/2}$$

$$= \frac{8(1-0.27)+(100-86.96)/10}{(100+86.96)/2}$$

= 7.64%

4. (b) 9.77%

$$Kp = \frac{PD+(RV-NP)/n}{(RV+NP)/2}$$

$$= \frac{100+(1100-1050)/10}{(1100+1050)/2}$$

= 9.77%

5. (a) 10.52%

	Existing	Total	Additional	
Equity Funds	1,60,00,000	2,00,00,000	40,00,000	

Preference Shares		24,00,000	24,00,000	
Debt		56,00,000	56,00,000	
	1,60,00,000	2,80,00,000	1,20,00,000	
Capital gearing =	0.4			
(PSC + Debt)/Equity =	0.4			
(Total Funds -Equity)/ Equity = 0.4				
(2.8 crores-Equity)/ equity = 0.4				
Equity =	2 crores			
Weighted avg cost of marginal capital		**Weights**	**Cost**	**W.C**
Equity Funds	40,00,000	0.333333333	14.99%	5.00%
Preference Shares	24,00,000	0.2	9.77%	1.952%
Debt	56,00,000	0.466666667	7.64%	3.565%
Total	**1,20,00,000**			**10.52%**

2. (a) 9.74%

$$K_d = \frac{I(1-t) + \frac{RV - NP}{n}}{\frac{RV + NP}{2}}$$

$$K_d = \left[\frac{10(0.7) + \frac{110-85}{10}}{97.5}\right]$$

= 9.50/97.5 = 9.74%

3. (c) 2.5

Margin of safety = (sales – BEP sales)/sales x 100

= 40%

Degree of operating leverage = 1/MOS

= 1/40% = 2.5

4. (a) 20%

$$\text{Payback Reciprocal} = \frac{\text{Average annual cash in flow}}{\text{Initial investment}}$$

$$= \frac{₹\ 4,000 \times 100}{₹\ 20,000} = 20\%$$

PART II – Descriptive Questions

1. (a) (i) Working Notes:

(i) Computation of Annual Cash Cost of Production	**(₹)**
Material consumed	12,00,000
Wages	9,60,000
Manufacturing expenses	12,00,000
Total cash cost of production	**33,60,000**
(ii) Computation of Annual Cash Cost of Sales:	**(₹)**
Total Cash cost of production as in (i) above	33,60,000
Administrative Expenses	3,60,000
Sales promotion expenses	1,20,000
Total cash cost of sales	**38,40,000**
Add: Gross Profit @ 20% on sales (25% on cost of sales)	9,60,000
Sales Value	**48,00,000**

Statement of Working Capital requirements (cash cost basis)

	(₹)	**(₹)**
A. Current Assets		
Inventory:		
- Raw materials $\left(\frac{₹\,12,00,000}{12\,months} \times 2\ months\right)$	2,00,000	
- Finished Goods $\left(\frac{₹\,33,60,000}{12\,months} \times 2\ months\right)$	5,60,000	
Receivables (Debtors) $\left(\frac{₹\,38,40,000}{12\,months} \times 3\ months\right)$	9,60,000	
Sales Promotion expenses paid in advance $\left(\frac{₹1,20,000}{12\,months} \times 1\ month\right)$	10,000	
Cash balance	1,00,000	18,30,000
Gross Working Capital		18,30,000

B. Current Liabilities:		
Payables:		
- Creditors for materials $\left(\frac{₹\,12,00,000}{12\text{months}} \times 2 \text{ months}\right)$	2,00,000	
Wages outstanding $\left(\frac{₹\,9,60,000}{12\text{months}} \times 1 \text{ month}\right)$	80,000	
Manufacturing expenses outstanding $\left(\frac{₹\,12,00,000}{12\text{months}} \times 1 \text{ month}\right)$	1,00,000	
Administrative expenses outstanding $\left(\frac{₹\,3,60,000}{12\text{months}} \times 1 \text{ month}\right)$	30,000	4,10,000
Net working capital (A - B)		14,20,000
Add: Safety margin @ 15%		2,13,000
Total Working Capital requirements		16,33,000

(b) (i) Calculation of market price per share

According to Miller – Modigliani (MM) Approach:

$$P_o = \frac{P_1 + D_1}{1 + K_e}$$

Where,

Existing market price (P_o) = ₹ 600

Expected dividend per share (D_1) = ₹ 40

Capitalization rate (k_e) = 0.20

Market price at year end (P_1) = ?

a. If expected dividends are declared, then

600=(P1+40)/(1+0.2)

600 x 1.2 = P1+40

P1 = 680

b. If expected dividends are not declared, then

600 = (P1+0)/(1 + 0.2)

600 x 1.2 = P1

P1= 720

(ii) Calculation of number of shares to be issued

	(a)	(b)
	Dividends are declared (₹ lakh)	**Dividends are not Declared (₹ lakh)**
Net income	1500	1500
Total dividends	(400)	-
Retained earnings	1100	1500
Investment budget	2000	2000
Amount to be raised by new issues	900	500
Relevant market price (₹ per share)	680	720
No. of new shares to be issued (in lakh) (₹ 900 ÷ 680; ₹ 500 ÷ 720)	1.3235	0.6944

(iii) Calculation of market value of the shares

	(a)	(b)
Particulars	**Dividends are declared**	**Dividends are not Declared**
Existing shares (in lakhs)	10.00	10.00
New shares (in lakhs)	1.3235	0.6944
Total shares (in lakhs)	11.3235	10.6944
Market price per share (₹)	680	720
Total market value of shares at the end of the year (₹ in lakh)	11.3235 × 680 = 7,700 (approx.)	10.6944 × 720 = 7,700 (approx.)

Hence, it is proved that the total market value of shares remains unchanged irrespective of whether dividends are declared, or not declared.

(c) Calculation of Cash Flow after Tax

	Year 1	Year 2	Year 3	Year 4	Year 5
Capacity	50%	65%	80%	100%	100%
Units	1,50,000	1,95,000	2,40,000	3,00,000	3,00,000
Contribution p.u.	360	360	360	360	360
(600 x 60%)					
Total Contribution	5,40,00,000	7,02,00,000	8,64,00,000	10,80,00,000	10,80,00,000
Less: Fixed Asset	2,00,00,000	3,50,00,000	5,00,00,000	5,00,00,000	5,00,00,000
Less: Depreciation (W.N.)	4,00,00,000	2,40,00,000	1,44,00,000	86,40,000	51,84,000

PBT	(60,00,000)	1,12,00,000	2,20,00,000	4,93,60,000	5,28,16,000
Less: Tax	(18,00,000)	33,60,000	66,00,000	1,48,08,000	1,58,44,800
PAT	(42,00,000)	78,40,000	1,54,00,000	3,45,52,000	3,69,71,200
Add: Depreciation	4,00,00,000	2,40,00,000	1,44,00,000	86,40,000	51,84,000
CFAT	3,58,00,000	3,18,40,000	2,98,00,000	4,31,92,000	4,21,55,200

Calculation of NPV

Year	Description	Cash Flow	PVF @12%	PV
0	Initial Investment	(10,00,00,000)	1	(10,00,00,000)
0	WC introduced	(1,50,00,000)	1	(1,50,00,000)
3	WC introduced	(2,00,00,000)	0.7118	(1,42,36,000)
1	CFAT	3,58,00,000	0.8929	3,19,65,820
2	CFAT	3,18,40,000	0.7972	2,53,82,848
3	CFAT	2,98,00,000	0.7118	2,12,11,640
4	CFAT	4,31,92,000	0.6355	2,74,48,516
5	CFAT	4,21,55,200	0.5674	2,39,18,860
5	WC released	3,50,00,000	0.5674	1,98,59,000
5	Scrap Sale	2,00,00,000	0.5674	1,13,48,000
	Net Present Value			**3,18,98,684**

Working Notes (W.N.)

Calculation of Depreciation

Year	Opening WDV	Depreciation	Closing WDV
1	10,00,00,000	4,00,00,000	6,00,00,000
2	6,00,00,000	2,40,00,000	3,60,00,000
3	3,60,00,000	1,44,00,000	2,16,00,000
4	2,16,00,000	86,40,000	1,29,60,000
5	1,29,60,000	51,84,000	77,76,000

2. (a) Income statement

Particulars		P	Q
		(₹)	(₹)
	Sales	50,00,000	48,00,000
(–)	Variable Cost	33,50,000	24,00,000
	Contribution	16,50,000	24,00,000
	Fixed Cost	8,25,000	16,00,000
	EBIT	8,25,000	8,00,000
(–)	Interest	5,50,000	6,00,000
	EBT	2,75,000	2,00,000

(–)	Tax	82,500	60,000
	EAT	1,92,500	1,40,000
(÷)	No. of Shares	1,00,000	70,000
	EPS	**₹ 1.93**	**₹ 2.00**

Working Note :

1. Financial Leverage = $\frac{EBIT}{EBT} = \frac{EBIT}{(EBIT - Int.)}$

Let the EBIT be X

	P	Q
	3 = X/(X – 5,50,000) 3(X – 5,50,000) = X 3X – 16,50,000 = X 2X = 16,50,000	4 = X/(X – 6,00,000) 4(X – 6,00,000) = X 4X – 24,00,000 = X 3X = 24,00,000
	X = 8,25,000	**X = 8,00,000**

2. Operating Leverage **=** Contribution/EBIT

Let the Contribution be X

	P	Q
	2 = X/8,25,000	3= X/8,00,000
	X = 16,50,000	**X = 24,00,000**

3. Sales

Let the Sales be 100

Sales – Variable Cost = Contribution

	P		Q
Contribution **=**	100 – 67	**=**	100 – 50
=	33	**=**	50
Sales **=**			
	P		**Q**
For 33	= 16,50,000	For 50	= 24,00,000
For 100	**= 50,00,000**	For 100	**= 48,00,000**

(b) Expected return on capital employed

Capital Employed = Debt + Equity

= (₹ 63,00,000 + ₹ 54,00,000) + (₹ 70,00,000 + ₹ 1,30,00,000)

= ₹ 3,17,00,000

Return on capital employed/ROI = $\left(\frac{EBIT}{\text{Capital employed}}\right)$ x 100

At present:

$$= \left(\frac{54,00,000}{3,17,00,000}\right) \times 100$$

= 17.03%

Now company expects 2% more as ROI

So, Expected ROI = 17.03% + 2%

= 19.03%

Proposed EBIT = Proposed Capital Employed x Return on capital employed

= (₹ 3,17,00,000 + ₹ 50,00,000) x 19.03% = ₹ 69,84,010

(i) Market Price per Share:

Particular	**Financial Options**	
	Option – I **12% term loan of ₹ 50,00,000**	**Option II** **1,00,000 equity shares @ ₹ 20 and 11% debentures of ₹ 30,00,000**
	(₹)	**(₹)**
EBIT	69,84,010	69,84,010
Less: Interest		
- 10% on old debentures	6,30,000	6,30,000
- 11% on new debentures	-	3,30,000
- 12% on old term loan	6,48,000	6,48,000
- 12% on new term loan	6,00,000	
Total Interest	18,78,000	16,08,000
EBT	51,06,010	53,76,010
Less Tax @ 30%	15,31,803	16,12,803
EAT	35,74,207	37,63,207
No. of equity shares	7,00,000	8,00,000
Earnings per share	**5.11**	**4.70**
P/E ratio	10	10
Market Price per Share = EPS x P/E ratio	**51.06**	**47.04**

(ii) Recommendation:

The option I is better and may be opted as both EPS and MPS are higher.

3. (a) Inventory Turnover = $\frac{\text{Inventory}}{\text{COGS}} \times 365$ = $\frac{38,60,000 \times 365}{76,40,000}$ = 184.41 days = 185 days (apx)

Receivables Turnover = $\frac{\text{Receivables}}{\text{Sales}} \times 365 = \frac{39,97,000 \times 365}{1,25,00,000}$ = 116.71 = 117 days (apx)

Equity to Reserves = 1

Reserves = 1 x 30,00,000 = 30,00,000

Projected profit = 30,00,000 - 18,00,000 = 12,00,000

Net Profit Margin = 15%

12,00,000/ Sales = 0.15

Sales = 80,00,000

Gross Profit = 80,00,000 x 50% = 40,00,000

COGS = 80,00,000 - 40,00,000 = 40,00,000

Projected Debtors Turnover = 100 days = $\frac{\text{Closing Receivables}}{\text{Sales}}$ x 365

$$100 = \frac{\text{Closing Receivables}}{80,00,000} \times 365$$

$$\text{Closing Receivables} = \frac{80,00,000 \times 100}{365} = 21,91,781$$

Projected Closing Inventory = 70% of opening inventory = 70% of 38,60,000 = 27,02,000

Projected Creditor Turnover= 100 days = $\frac{\text{Closing Creditors}}{\text{COGS}}$x365

Closing Creditors = $\frac{\text{COGS}}{365}$x100

Closing Creditor = $\frac{40,00,000}{365}$x100 = 10,95,890

Equity Share Capital + Reserves = 30,00,000 + 30,00,000 = 60,00,000

Long Term Debt to Equity = 0.5

$\frac{\text{LTD}}{60,00,000}$ = 0.5

Long Term Debt = 0.5 x 60,00,000

Long Term Debt = 30,00,000

(b) Financial Instruments in the International Market

Some of the various financial instruments dealt with in the international market are:

(a) Euro Bonds

(b) Foreign Bonds

(c) Fully Hedged Bonds

(d) Medium Term Notes

(e) Floating Rate Notes

(f) External Commercial Borrowings

(g) Foreign Currency Futures

(h) Foreign Currency Option

(i) Euro Commercial Papers.

4. (a) Inter-relationship between Investment, Financing and Dividend Decisions: The finance functions are divided into three major decisions, viz., investment, financing and dividend decisions. It is correct to say that these decisions are inter-related because the underlying objective of these three decisions is the same, i.e. maximisation of shareholders' wealth. Since investment, financing and dividend decisions are all interrelated, one has to consider the joint impact of these decisions on the market price of the company's shares and these decisions should also be solved jointly. The decision to invest in a new project needs the finance for the investment. The financing decision, in turn, is influenced by and influences dividend decision because retained earnings used in internal financing deprive shareholders of their dividends. An efficient financial management can ensure optimal joint decisions. This is possible by evaluating each decision in relation to its effect on the shareholders' wealth.

The above three decisions are briefly examined below in the light of their inter-relationship and to see how they can help in maximising the shareholders' wealth i.e. market price of the company's shares.

***Investment decision**:* The investment of long term funds is made after a careful assessment of the various projects through capital budgeting and uncertainty analysis. However, only that investment proposal is to be accepted which is expected to yield at least so much return as is adequate to meet its cost of financing. This have an influence on the profitability of the company and ultimately on its wealth.

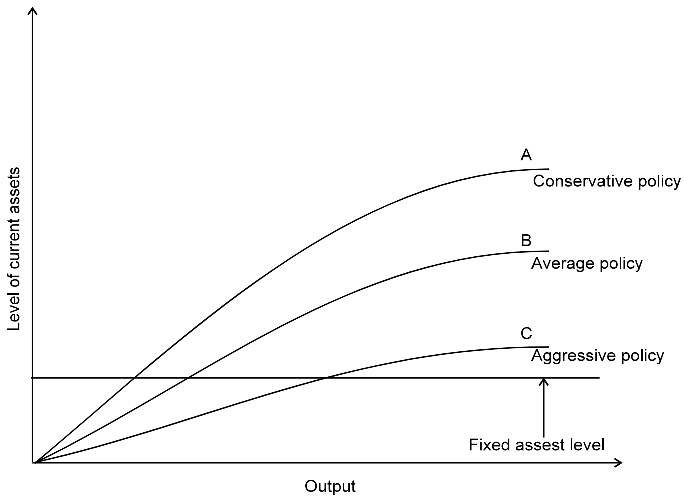
***Financing decision**:* Funds can be raised from various sources. Each source of funds involves different issues. The finance manager has to maintain a proper balance between long-term and short-term funds. With the total volume of long-term funds, he has to ensure a proper mix of loan funds and owner's funds. The optimum financing mix will increase return to equity shareholders and thus maximise their wealth.

***Dividend decision**:* The finance manager is also concerned with the decision to pay or declare dividend. He assists the top management in deciding as to what portion of the profit should be paid to the shareholders by way of dividends and what portion should be retained in the business. An optimal dividend pay-out ratio maximises shareholders' wealth.

The above discussion makes it clear that investment, financing and dividend decisions are interrelated and are to be taken jointly keeping in view their joint effect on the shareholders' wealth.

(b) Liquidity versus Profitability Issue in Management of Working Capital

Working capital management entails the control and monitoring of all components of working capital i.e. cash, marketable securities, debtors, creditors etc. Finance manager has to pay particular attention to the levels of current assets and their financing. To decide the level of financing of current assets, the risk return trade off must be taken into account. The level of current assets can be measured by creating a relationship between current assets and fixed assets. A firm may follow a conservative, aggressive or moderate policy.



A conservative policy means lower return and risk while an aggressive policy produces higher return and risk. The two important aims of the working capital management are profitability and solvency. A liquid firm has less risk of insolvency i.e. it will hardly experience a cash shortage or a stock out situation. However, there is a cost associated with maintaining a sound liquidity position. So, to have a higher profitability the firm may have to sacrifice solvency and maintain a relatively low level of current assets.

(c) Concept of Discounted Payback Period

Payback period is time taken to recover the original investment from project cash flows. It is also termed as break even period. The focus of the analysis is on liquidity aspect and it suffers from the limitation of ignoring time value of money and profitability. Discounted payback period considers present value of cash flows, discounted at company's cost of capital to estimate breakeven period i.e. it is that period in which future discounted cash flows equal the initial outflow. The shorter the period, better it is. It also ignores post discounted payback period cash flows.

OR

(c) **Concept of Indian Depository Receipts:** The concept of the depository receipt mechanism which is used to raise funds in foreign currency has been applied in the Indian capital market through the issue of Indian Depository Receipts (IDRs). Foreign companies can issue IDRs to raise funds from Indian market on the same lines as an Indian company uses ADRs/GDRs to raise foreign capital. The IDRs are listed and traded in India in the same way as other Indian securities are traded.

ANSWERS OF MODEL TEST PAPER 3

INTERMEDIATE: GROUP – II

PAPER – 6: FINANCIAL MANAGEMENT & STRATEGIC MANAGEMENT

PAPER 6A : FINANCIAL MANAGEMENT

PART I – Case Scenario based MCQs

1. 1. (c) Calculation of cost of capital

Capital	Weight	Cost	Product
Debt	0.3	10%	3.00%
Preference	0.2	11%	2.20%
Equity	0.5	15%	7.50%
	Ko=		**12.70%**

2. (a)

3. (c)

4. (d)

5. (a)

Calculation of CFAT

Year		1	2	3	4	5	6
A) No. of quick deliveries p.d.		10,000	12,000	13,800	15,180	15,939	15,939
B) No. of overnight deliveries p.d.		2,000	2,400	2,760	3,036	3,188	3,188
C) No. of quick deliveries p.a.		36,50,000	43,80,000	50,37,000	55,40,700	58,17,735	58,17,735
D) No. of overnight deliveries p.a.		7,30,000	8,76,000	10,07,400	11,08,140	11,63,547	11,63,547
E) Chargeable quick deliveries		18,25,000	21,90,000	25,18,500	27,70,350	29,08,868	29,08,868
F) No. of delivery partners	1.5x(A+B)/30	600	720	828	911	956	956
Revenue (in crores)							
From quick deliveries (QD)	(E x 40)	7.30	8.76	10.07	11.08	11.64	11.64
From QD seller commission	(C x 700 x 5%)	12.775	15.330	17.630	19.392	20.362	20.362
From Overnight delivery subscription	(B/2 x 5000)	0.500	0.600	0.690	0.759	0.797	0.797

From OD seller commission	(C x 750 x 7%)	3.83	4.60	5.29	5.82	6.11	6.11
Total Revenue		**24.41**	**29.29**	**33.68**	**37.05**	**38.90**	**38.90**
Cost (in crores)							
Advertising		7	8	10	0	0	0
IT and customer care		8	8	8	8	8	8
Delivery partner salary	(F x 15000)	0.90	1.08	1.24	1.37	1.43	1.43
Delivery partner commission	(C+D) x 20	8.76	10.51	12.09	13.30	13.96	13.96
Depreciation	on investment in year 0	6	6	6	6	6	
	on investment in year 2		4	4	4	4	4
	on investment in year 4				5	5	5
Total Cost		**30.66**	**37.59**	**41.33**	**37.66**	**38.40**	**32.40**
PBT		-6.25	-8.30	-7.65	-0.61	0.51	6.51
Less: Tax		1.56	2.08	1.91	0.15	-0.13	-1.63
PAT		-4.69	-6.23	-5.74	-0.46	0.38	4.88
Add: Depreciation		6.00	10.00	10.00	15.00	15.00	9.00
CFAT		**1.31**	**3.77**	**4.26**	**14.54**	**15.38**	**13.88**

Computation of NPV

Year	Particulars		Cash Flows (in crores)	PVF @ 12.7%	PV (in crores)
0	Investment		-30	1	-30
1	Investment		-20	0.887	-17.75
3	Investment		-25	0.699	-17.46
1	Operating CFAT		1.31	0.887	1.16
2	Operating CFAT		3.77	0.787	2.97
3	Operating CFAT		4.26	0.699	2.98
4	Operating CFAT		14.54	0.620	9.01
5	Operating CFAT		15.38	0.550	8.46
6	Operating CFAT		13.88	0.488	6.77
6	Sale Proceeds	(30+20+25)x2	150	0.488	73.21
	NPV				**39.35**

2. **(d)** FL=%change in NP/%change in EBIT=6.9/6=1.15

3. **(c)** Since IRR of projects of company is greater than its cost of capital, the company should retain all ist earnings i.e. DPR = 0. As per walter Po = [0 + (0.15/0.125)10]/0.125 = 96

4. **(d)** 180 days

PART II – Descriptive Questions

1. **(a)** Determination of specific costs

(i) Cost Debt (K_d) $= \dfrac{\text{Interest}(1-t)+\dfrac{(RV-NP)}{N}}{\dfrac{(RV+NP)}{2}} = \dfrac{₹11(1-0.35)+\dfrac{(₹100-₹96)}{10\,\text{years}}}{\dfrac{(₹100+₹96)}{2}}$

$= \dfrac{₹7.15+₹0.4}{₹98}$ = 0.077 or 7.70%

(ii) Cost of Preference Shares (K_p) = $\dfrac{PD+\dfrac{(RV-NP)}{N}}{\dfrac{(RV+NP)}{2}} = \dfrac{₹12+\dfrac{(₹100-₹95)}{10\,\text{years}}}{\dfrac{(₹100+₹95)}{2}}$

$= \dfrac{₹12+₹0.5}{₹97.5}$ = 0.1282 or 12.82%

(iii) Cost of Equity shares (K_e) = $\dfrac{D_1}{P_0}+G = \dfrac{₹2}{₹22-₹2}+0.07$ = 0.17 or 17%

> I – Interest, t – Tax, RV- Redeemable value, NP- Net proceeds, N- No. of years, PD- Preference dividend, D_1- Dividend at the end of the year, P_0- Price of share (net)

Using these specific costs we can calculate the book value and market value weights as follows:

(a) Weighted Average Cost of Capital (K_0) based on Book value weights

Source of capital	**Book value (BV)**	**Specific cost (k) (%)**	**Total costs [BV (×) k]**
Debentures	₹ 8,00,000	7.7	₹ 61,600
Preferences shares	2,00,000	12.8	25,600
Equity shares	10,00,000	17.0	1,70,000
	20,00,000		2,57,200
K_0 = ₹ 2,57,200/₹ 20,00,000 = 12.86 per cent			

(b) Weighted Average Cost of Capital (K_0) based on market value weights

Source of Capital	Market Value (MV)	Specific cost (k) (%)	Total costs [MV (×) k]
Debentures	₹ 8,80,000	7.7	₹ 67,760,
Preference shares	2,40,000	12.8	30,720
Equity shares	22,00,000	17.0	3,74,000
Total capital	33,20,000		4,72,480
K_0 = ₹ 4,72,480/₹ 33,20,000 = 14.23 per cent			

(b) Total Assets = ₹ 400 crores

Total Asset Turnover Ratio = 2.5

Hence, Total Sales = 400 × 2.5 = ₹ 1000 crores

Computation of Profits after Tax (PAT)

	(₹ in crores)
Sales	1000
Less: Variable operating cost @ 65%	650
Contribution	350
Less: Fixed cost (other than Interest)	80
EBIT	270
Less: Interest on debentures (15% × 200)	30
EBT	240
Less: Tax 40%	96
EAT	144

(i) Earnings per share

$$\therefore \text{ EPS} = \frac{₹ \text{ 144 crores}}{\text{10 crore equity shares}} = ₹\ 14.40$$

(ii) Operating Leverage

$$\text{Operating leverage} = \frac{\text{Contribution}}{\text{EBIT}} = \frac{350}{270} = 1.296$$

It indicates the choice of technology and fixed cost in cost structure. It is level specific. When firm operates beyond operating break-even level, then operating leverage is low. It indicates sensitivity of earnings before interest and tax (EBIT) to change in sales at a particular level.

(iii) Financial Leverage

$$\text{Financial Leverage} = \frac{\text{EBIT}}{\text{EBT}} = \frac{270}{240} = 1.125$$

The financial leverage is very comfortable since the debt service obligation is small vis-à-vis EBIT.

(iv) Combined Leverage

Combined Leverage = $\frac{\text{Contribution}}{\text{EBIT}} \times \frac{\text{EBIT}}{\text{EBT}}$ Or Operating Leverage x Financial Leverage

= 1.296 × 1.125 = 1.458

The combined leverage studies the choice of fixed cost in cost structure and choice of debt in capital structure. It studies how sensitive the change in EPS is vis-à-vis change in sales.

(c) Working notes:

1. Computation of Current Assets and Current Liabilities:

$$\frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{2.5}{1} \text{ or } \frac{\text{Current Assets}}{2.5} = \frac{\text{Current Liabilities}}{1} = \text{k (say)}$$

Or, Current Assets = 2.5 k and Current Liabilities = k

Or, Working capital = (Current Assets – Current Liabilities)

Or, ₹2,40,000 = k (2.5 – 1) = 1.5 k

Or, k = ₹1,60,000

∴ Current liabilities = ₹1,60,000

Current assets = ₹1,60,000 × 2.5 = ₹4,00,000

2. Computation of Inventories

$$\text{Liquid ratio} = \frac{\text{Liquid assets}}{\text{Current liabilities}}$$

$$\text{Or, } 1.5 = \frac{\text{Current assets - Inventories}}{₹1,60,000}$$

Or, 1.5 × ₹1,60,000 = ₹4,00,000 – Inventories

Or, Inventories = ₹1,60,000

3. Computation of Proprietary fund; Fixed assets; Capital and Trade payables

$$\text{Proprietary ratio} = \frac{\text{Fixed assets}}{\text{Proprietary fund}} = 0.75$$

∴ Fixed assets = 0.75 Proprietary fund

and Net working capital = 0.25 Proprietary fund

Or, ₹2,40,000/0.25 = Proprietary fund

Or, Proprietary fund = ₹9,60,000

and Fixed assets = 0.75 proprietary fund

= 0.75 × ₹9,60,000

= ₹7,20,000

Capital = Proprietary fund – Reserves & Surplus

= ₹9,60,000 – ₹1,60,000

= ₹8,00,000

Trade payables = (Current liabilities – Bank overdraft)

= (₹1,60,000 – ₹40,000)

= ₹1,20,000

Construction of Balance sheet

(Refer to working notes 1 to 3)

Balance Sheet as at 31st March, 2023

Liabilities	(₹)	Assets	(₹)
Capital	8,00,000	Fixed assets	7,20,000
Reserves & Surplus	1,60,000	Inventories	1,60,000
Bank overdraft	40,000	Current assets (other than inventories)	2,40,000
Trade Payables	1,20,000		
	11,20,000		11,20,000

2. (a)

Ascertainment of probable price of shares of Akash limited		
Particulars	**Plan (i) (If ₹ 4,00,000 is raised as debt) (₹)**	**Plan (ii) If ₹ 4,00,000 is raised by issuing equity shares (₹)**
Earnings Before Interest (EBIT) 20% on (14,00,000 +4,00,000)	3,60,000	3,60,000
Less: Interest on old debentures @ 10% on 4,00,000	40,000 3,20,000	40,000 3,20,000
Less: Interest on New debt @ 12% on ₹ 4,00,000	48,000	—–
Earnings Before Tax (After interest)	2,72,000	3,20,000
Less Tax @ 50%	1,36,000	1,60,000
Earnings for equity shareholders (EAIT)	1,36,000	1,60,000
Number of Equity Shares	30,000	40,000
Earnings per Share (EPS)	₹ 4.53	₹ 4.00

Price/ Earning Ratio	8	10
Probable Price Per Share (PE ratio x EPS)	₹ 36.24	₹ 40

Working Notes

		₹
1.	Calculation of Present Rate of Earnings	
	Equity Share capital (30,000x 10)	3,00,000
	10% Debentures $\left(40,000 \times \frac{100}{10}\right)$	4,00,000
	Reserves and Surplus	7,00,000
		14,00,000
	Earnings before interest and tax (EBIT) given	2,80,000
	Rate of Present Earnings = $\frac{2,80,000}{14,00,000} \times 100$	20%
2.	Number of Equity Shares to be issued in Plan	$\frac{4,00,000}{40} = 10,000$
	Thus, after the issue total number of shares	30,000+ 10,000 = 40,000
3.	Debt/Equity Ratio if ₹ 4,00,000 is raised as debt:	
	$\frac{8,00,000}{18,00,000} \times 100 = 44.44\%$	

As the debt equity ratio is more than 40% the P/E ratio shall be 8 in plan (i)

(b) In this case the company has paid dividend of ₹2 per share during the last year. The growth rate (g) is 5%. Then, the current year dividend (D_1) with the expected growth rate of 5% will be ₹ 2.10.

The share price is = $P_o = \frac{D_1}{K_e - g}$

$$= \frac{₹\,2.10}{0.155 - 0.05}$$

$$= ₹\ 20$$

In case the growth rate rises to 8% then the dividend for the current year. (D_1) would be ₹ 2.16 and market price would be-

$$= \frac{₹\ 2.16}{0.155 - 0.08}$$

$$= ₹\ 28.80$$

In case growth rate falls to 3% then the dividend for the current year (D_1) would be ₹ 2.06 and market price would be-

$$= \frac{₹\,2.06}{0.155 - 0.03}$$

= ₹16.48

So, the market price of the share is expected to vary in response to change in expected growth rate is dividends.

3. Statement showing Working Capital for each policy

(₹ in crores)

	Working Capital Policy		
	Conservative	Moderate	**Aggressive**
Current Assets: (i)	4.50	3.90	2.60
Fixed Assets: (ii)	2.60	2.60	2.60
Total Assets: (iii)	7.10	6.50	5.20
Current liabilities: (iv)	2.34	2.34	2.34
Net Worth: (v)=(iii)-(iv)	4.76	4.16	2.86
Total liabilities: (iv)+(v)	7.10	6.50	5.20
Estimated Sales: (vi)	12.30	11.50	10.00
EBIT: (vii)	1.23	1.15	1.00
(a) Net working capital position: (i)-(iv)	2.16	1.56	0.26
(b) Rate of return: (vii)/(iii)	17.3%	17.7%	19.2%
(c) Current ratio: (i)/(iv)	1.92	1.67	1.11

Statement Showing Effect of Alternative Financing Policy

(₹ in crores)

Financing Policy	**Conservative**	**Moderate**	**Aggressive**
Current Assets: (i)	3.90	3.90	3.90
Fixed Assets: (ii)	2.60	2.60	2.60
Total Assets: (iii)	6.50	6.50	6.50
Current Liabilities: (iv)	2.34	2.34	2.34
Short term Debt: (v)	0.54	1.00	1.50
Long term Debt: (vi)	1.12	0.66	0.16
Equity Capital	2.50	2.50	2.50
Total liabilities	6.50	6.50	6.50
Forecasted Sales	11.50	11.50	11.50
EBIT: (vii)	1.15	1.15	1.15
Less: Interest short-term debt : (viii)	0.06	0.12	0.18
	(12% of ₹ 0.54)	(12% of ₹ 1.00)	(12% of ₹ 1.50)
Long term debt : (ix)	0.18	0.11	0.03
	(16% of ₹ 1.12)	(16% of ₹ 0.66)	(16% of ₹ 0.16)

Earning before tax: (x)-(viii+ix)	0.91	0.92	0.94
Taxes @ 35%	0.32	0.32	0.33
Earning after tax: (xi)	0.59	0.60	0.61
(a) Net Working Capital Position: (i)-[(iv)+(v)]	1.02	0.56	0.06
(b) Rate of return on shareholders Equity capital:(xi)/Equity Capital	23.6%	24%	24.4%
(c) Current Ratio: [(i)/(iv)+(v)]	1.35%	1.17	1.02

4. (a) "The profit maximisation is not an operationally feasible criterion." This statement is true because Profit maximisation can be a short-term objective for any organisation and cannot be its sole objective. Profit maximization fails to serve as an operational criterion for maximizing the owner's economic welfare. It fails to provide an operationally feasible measure for ranking alternative courses of action in terms of their economic efficiency. It suffers from the following limitations:

(i) Vague term: The definition of the term profit is ambiguous. Does it mean short term or long term profit? Does it refer to profit before or after tax? Total profit or profit per share?

(ii) Timing of Return: The profit maximization objective does not make distinction between returns received in different time periods. It gives no consideration to the time value of money, and values benefits received today and benefits received after a period as the same.

(iii) It ignores the risk factor.

(iv) The term maximization is also vague.

(b) "Financing a business through borrowing is cheaper than using equity"

(i) Debt capital is cheaper than equity capital from the point of its cost and interest being deductible for income tax purpose, whereas no such deduction is allowed for dividends.

(ii) Issue of new equity dilutes existing control pattern while borrowing does not result in dilution of control.

(iii) In a period of rising prices, borrowing is advantageous. The fixed monetary outgo decreases in real terms as the price level increases.

(c) **Meaning of Weighted Average Cost of Capital (WACC):** The composite or overall cost of capital of a firm is the weighted average of the costs of the various sources of funds. Weights are taken to be in the proportion of each source of fund in the capital structure. While making financial decisions this overall or weighted cost is used. Each investment is financed from a pool of funds which represents the various sources from which funds have been raised. Any decision of investment, therefore, has to be made with reference to the overall cost of capital and not with reference to the cost of a specific source of fund used in the investment decision.

The weighted average cost of capital is calculated by:

(i) Calculating the cost of specific source of fund e.g. cost of debt, equity etc;

(ii) Multiplying the cost of each source by its proportion in capital structure; and

(iii) Adding the weighted component cost to get the firm's WACC represented by K_0.

$K_0 = K_1 W_1 + K_2 W_2 + \ldots\ldots\ldots$

Where,

K_1, K_2 are component costs and W_1, W_2 are weights.

OR

(c) Assumptions of Modigliani – Miller Theory

(a) Capital markets are perfect. All information is freely available and there is no transaction cost.

(b) All investors are rational.

(c) No existence of corporate taxes.

(d) Firms can be grouped into "equivalent risk classes" on the basis of their business risk.

ANSWERS OF MODEL TEST PAPER 4

INTERMEDIATE: GROUP – II

PAPER – 6: FINANCIAL MANAGEMENT & STRATEGIC MANAGEMENT

PAPER 6A : FINANCIAL MANAGEMENT

DIVISION A

1. (c) 18.65%, 16.58%

Ke under two approaches

Calculation of Ke (Using Gordon's Model)

Ke = $\frac{D1}{Po} + g$

Share Price has grown from 150 to 301 in 5 years,

$150 (1 + g)^5 = 301.$

$(1 + g)^5 = 2.01$

Therefore, g = 15%, (From Annuity table – Re 1 after 5 years becomes ₹ 2.01 at rate of 15%)

D1 = 8 + 15% of 8 = 9.2

Po = Average of 52 weeks High price in last 5 years

Po = (185 + 210 +252 +325 +280) / 5

= 252.40

Ke = 9.2 / 252.40 + 0.15

= 18.65%

Calculation of Ke (Using CAPM)

Ke = Rf + (Rm – Rf) X Beta

= 8 + (11 x 0.78)

= 16.58%

2. (a) 17.82%

Overall Ke for the company

Approach	Cost of Equity (k)	Weight (w)	K x w
Gordon's	18.65%	0.6	11.19%
CAPM	16.58%	0.4	6.63% **Total Ke = 17.82%**

3. (b) 12%

Intrinsic Value of Debentures today is ₹ 9,740

WN 1 – Calculation of the Pattern of Future Cash flows

YR	PRINCIPAL (I)	INTEREST (II) = Coupon Rate = 9.5% (7.5% + 2%)	PV OF (I + II) @ 10%	PV OF (I + II) @ 15%
1	1,500	997.50	2270.45	2171.74
2	1,500	855	1946.28	1780.72
3	1,500	712.5	1662.28	1454.75
4	1,500	570	1413.84	1183.53
5	1,500	427.50	1196.83	958.31
6	1,500	285	1007.59	771.70
7	1,500	142.50	842.86	617.48
			10340.13	8938.23

$$= 10\% + \frac{(10{,}340.13 - 9{,}740)}{(10{,}340.13 - 8{,}938.23)} \times 5\% = 12.14\% = 12\% \text{ (approx.)}$$

4. (c) 16.07%, ₹ 87,75,000

Ko = Wd x Kd + We x Ke

= 0.3 X 12 + 0.7 X 17.82

= 16.07%

Purchase Consideration using M-Cap method

= 1,30,000 eq shares x 45 MPS x 1.5X

= ₹ 87,75,000

5. (d) ₹ 66,58,997

It is to be paid equally over 5 years and first instalment is to be paid immediately at Yr 0

Discount rate will be the Ko calculated as above of the company and not 15% which is Ko of Prestige Limited

Year	Amount each year	PV @ 16.07%	PV (₹)
0	17,55,000	1.0000	17,55,000
1	17,55,000	0.8615	15,11,933
2	17,55,000	0.7423	13,02,737
3	17,55,000	0.6395	11,22,323
4	17,55,000	0.5510	9,67,005
	TOTAL PV		**66,58,997**

6. (d) 19.5%

Financial Leverage (FL) indicates % impact in EPS, if EBIT is affected by 12%

FL = Combined Leverage (CL) /Operating Leverage (OL)

CL = 6.5 (Measure of total risk)

OL = 1 / Margin of Safety

Margin of Safety (MOS) = $\frac{\text{Actual Sales} - \text{B.E Sales}}{\text{Actual Sales}}$

MOS = 20 lakhs – 15 lakhs / 20 lakhs = 0.25

Therefore, OL = 1 / 0.25 = 4

So, FL = 6.5 / 4 = 1.625

So % Change in EPS = 12 x 1.625 = 19.5%

7. (c) 1:2

Item	Cost	Weight	Product
Debt	8%	W	8W
Equity	11%	1 – W	11 – 11W
			WACC = 10

Wd = 1/3 and We = 2/3 Debt Equity Ratio = 1/2

8. (c) ₹ 350 Lakhs

Value of Equity = 30 Lakhs ÷ 15% = ₹ 200 Lakhs

Value of Debt = ₹ 150 Lakhs

Value of Firm = 200 Lakhs + 150 Lakhs = ₹ 350 Lakhs

DIVISION B – Descriptive Questions

1. (a) 1. Cost of Goods Sold = Sales – Gross Profit

= ₹ 7,20,000 – 25% x ₹ 7,20,000 = ₹ 5,40,000

2. Stock Turnover = $\frac{\text{Cost of Goods Sold}}{\text{Average Stock}} = \frac{₹\ 5,40,000}{\text{Average Stock}}$ = 5 times.

Average Stock = $\frac{₹\ 5,40,000}{5}$ = ₹ 1,08,000

3. Let Opening Stock be x.

Closing Stock is ₹ 30,000 more than Opening Stock.

Closing Stock = (x + 30,000)

Average Stock $= \frac{x + x + 30,000}{2} = 1,08,000.$

2x = 2,16,000 – 30,000

x $= \frac{1,86,000}{2}$ = 93,000 = Opening Stock.

Closing Stock = x + 30,000

= 93,000 + 30,000 = ₹ 1,23,000

4. Liquid Ratio $= \frac{\text{Liquid Assets}}{\text{Current Liabilities}} = \frac{\text{Liquid Assets}}{2,40,000} = 1.25.$

Liquid Assets = ₹ 3,00,000

5. Current Assets = Liquid Assets + Closing Stock

= ₹ 3,00,000 + ₹ 1,23,000 = ₹ 4,23,000

(b) Calculation of slab wise Overall Cost of Capital

(i)

Project Cost	**Capital Source**	**Weights (w)**	**Cost (k)**	**w x k (%)**
Upto 5 Lakhs	Debt	0.3	10	3
	Equity	0.7	12	8.4
			Ko	**11.4**
Above 5 lakhs upto 10 lakhs	Debt	0.3	12	3.6
	Equity	0.7	13.5	9.45
			Ko	**13.05**
Above 10 lakhs upto 20 lakhs	Debt	0.3	13	3.9
	Equity	0.7	15	10.5
			Ko	**14.4**
Above 20 lakhs	Debt	0.3	14	4.2
	Equity	0.7	16	11.2
			Ko	**15.4**

Cost of Raising funds for Project I

Total Capital	**Ko(%)**	**Total Cost (in ₹)**
5,00,000	11.40	57,000
5,00,000	13.05	65,250
5,00,000	14.40	72,000
15,00,000		**1,94,250**

Overall COC (%) = Total Cost (in ₹) / Total Capital

= 1,94,250/15,00,000 * 100

= 12.95 %

Cost of Raising funds for Project II

Total Capital	Ko(%)	Total Cost (in ₹)
5,00,000	11.4	57,000
5,00,000	13.05	65,250
10,00,000	14.4	1,44,000
6,00,000	15.4	92,400
26,00,000		**3,58,650**

Overall COC (%) = 358650 / 2600000 * 100 **= 13.79%**

(ii) If any project is expected to give an after-tax return of 13%, it can be accepted only if the maximum Overall COC (%) of that project equals 13% or less, as at 13%, project would be at break-even i.e earning 13% from the project and incurring 13% COC.

So, under that scenario, Project I can be taken as its COC is 12.95% whereas Project II can't be taken as its COC is 13.79%.

Maximum Value of the Project that can be taken at 13% is approx. (Using IRR technique Interpolation)

At 15 Lakhs Ko = 12.95%

At 26 Lakhs Ko = 13.79%

By interpolation, maximum value of Project at 13% will be

15 Lakhs + {(0.05 x 11)/0.84}

= 15.6548 lakhs

(c) Income Statement

$$\text{DFL} = \frac{\text{EBIT}}{\text{EBT}} = \frac{\text{EBT} + \text{Interest}}{\text{EBT}} = \frac{\text{EBT} + 2{,}000}{\text{EBT}} = \frac{2}{1}.$$

EBT + ₹ 2000 = 2 EBT.

EBT = ₹ 2,000

EBIT = EBT + Interest = ₹ 2000 + ₹ 2000 = ₹ 4,000.

Contribution $\frac{\text{Contribution}}{\text{EBIT}} = \frac{\text{Contribution}}{4{,}000} = \frac{3}{1}$

Sales $\frac{\text{Contribution}}{\text{PVR}} = \frac{12{,}000}{25\%}$	48,000
Less: Variable Cost Given = 75%	(36,000)
Contribution	12,000
Less: Fixed Cost(Contribution - EBIT = ₹ 12,000 – ₹ 4,000)	(8,000)

	EBIT	4,000
Less:	Interest	(2,000)
	EBT	2,000
Less:	Tax at 30%	(600)
	EAT	1,400

2. (a)

Particulars	Result
Current liabilities	1,56,000
Total Variable expenses = Purchases & Operating Expenses	1,56,000 ÷ 60 × 360 = 9,36,000
Variable expenses % of Sales	9,36,000 ÷ 12,00,000 × 100 = 78%

Particulars	Present	Proposed
1. Sales	1 Lakh ÷ 30 × 360 = 12,00,000	12 Lakhs + 1/3rd = 16,00,000
2. Variable Cost at 78%	9,36,000	12,48,000
3. Cash Discount	12 Lakh × 50% × 1% = 6,000	16 Lakh × 80% × 2% = 25,600
4. Bad debts	12 Lakh × 1.5% = 18,000	16 Lakh × 2% = 32,000
5. Profit before Tax	2,40,000	2,94,400
6. Tax @ 30%	72,000	88,320
7. Profit after Tax	1,68,000	2,06,080
8. Opportunity Cost of Invest. in Debtors	9,36,000 × 30/360 × 70% ×15% = 8,190	12,48,000 × 20/360 × 70% × 15% = 7,280
9**. Net Benefit**	**1,59,810**	**1,98,800**

Advise: Proposed policy should be adopted since the net benefit is increased by (₹ 1,98,800 - 1,59,810) = ₹ 38,990.

(b) (i) As per **Gordon's Model**, Price per share is computed using the formula:

$$P_0 = \frac{E_1(1-b)}{K_e - br}$$

Where,

P_0 = Price per share

E_1 = Earnings per share

Payout ratio = 45/180 = 25%

b = Retention ratio; (1 - b = Pay-out ratio) = 1-0.25 = 0.75

K_e = Cost of capital

r = IRR

br = Growth rate (g)

Applying the above formula, price per share

$$P_0 = \frac{180(1-0.75)}{0.17-0.75\times 0.2} = \frac{45}{0.02} = ₹\ 2{,}250$$

(ii) As per Walter's Model, Price per share is computed using the formula:

$$\text{Price } \mathbf{(P)} = \frac{D+\frac{r}{K_e}(E-D)}{K_e}$$

Where,

P = Market Price of the share.

E = Earnings per share.

D = Dividend per share.

K_e = Cost of equity/ rate of capitalization/ discount rate.

r = Internal rate of return/ return on investment

Applying the above formula, price per share

$$P = \frac{45+\frac{0.20}{0.17}(180-45)}{0.17}$$

$$\text{Or,}\quad P = \frac{45+158.82}{0.17} = ₹\ 1{,}200 \text{ (approx..)}$$

3. (a) Calculation of Present value of cash inflows (PVCI)

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Savings in cost due to Production Delays	-	3,50,000	3,50,000	3,50,000	3,50,000	3,50,000
Savings in Salaries	-	21,00,000	21,00,000	21,00,000	21,00,000	21,00,000
Reduction in lost sales	-	1,75,000	1,75,000	1,75,000	1,75,000	1,75,000
Gain due to timely billing	-	3,25,000	3,25,000	3,25,000	3,25,000	3,25,000
	-	29,50,000	29,50,000	29,50,000	29,50,000	29,50,000
Less:						
Salary of AI specialists	-	13,00,000	13,00,000	13,00,000	13,00,000	13,00,000
Annual Maint. & Op Cost	-	1,80,000	2,00,000	1,20,000	1,10,000	1,30,000
NPBDT	-	14,70,000	14,50,000	15,30,000	15,40,000	15,20,000
(-) Depreciation	-	9,20,000	5,52,000	3,31,200	1,98,720	1,19,232

NPBT	-	5,50,000	8,98,000	11,98,800	13,41,280	14,00,768
(-) Tax @ 25%	-	1,37,500	2,24,500	2,99,700	3,35,320	3,50,192
NPAT	-	4,12,500	6,73,500	8,99,100	10,05,960	10,50,576
(+) Depreciation	-	9,20,000	5,52,000	3,31,200	1,98,720	1,19,232
(+) Annual Maint. & Op Cost	-	1,80,000	2,00,000	1,20,000	1,10,000	1,30,000
Gross Cash Inflows	-	15,12,500	14,25,500	13,50,300	13,14,680	12,99,808
(-) Annual Maint. & Op Cost actually paid	1,80,000	2,00,000	1,20,000	1,10,000	1,30,000	-
Net Cash Inflows	-1,80,000	13,12,500	13,05,500	12,40,300	11,84,680	12,99,808
(+) Sale Value at the end of life	-	-	-	-	-	1,90,000
	-1,80,000	13,12,500	13,05,500	12,40,300	11,84,680	14,89,808
PV Factor @ 12%	1	0.8929	0.7`972	0.7118	0.6355	0.5674
PV of Cash Inflows	-1,80,000	11,71,875	10,40,737	8,82,821	7,52,886	8,45,357
Total PV of Cash Inflows	45,13,675					

Calculation of Present value of cash outflows (PVCO)

As mentioned in the question, 75% of the depreciable value will be paid at the beginning. Depreciable value means purchase price plus the installation cost.

	Year 0	Year 1
Purchase Price & Installation Cost	17,25,000	5,75,000
PV Factor @ 12%	1	0.8929
PVCO	17,25,000	5,13,418

(2) Total PVCO = 22,38,418

(3) PV of Tax on Capital Gains (Only asset in the block) - 5th Year end

Capital Gains = Sale Price (-) Closing WDV at 5th year

= 1,90,000 (-) 1,78,848

= 11,152

Tax @ 20% on above = 2230.40

PV = 2,230.40 x 0.5674 = 1,266

Net PVCI = PVCI - PV of Tax on Capital Gains

= 45,13,675 - 1,266 = 45,12,409

NPV = Net PVCI – PVCO

= 45,12,409 - 22,38,418

= 22,73,991

(II) PI = PVCI / PVCO = 45,12,409/ 22,38,418 = 2.0158

(III) ARR = Average NPAT / Initial Investment

= 8,08,327.2/23,00,000 x 100 = 35.145%

Note – ARR is calculated based on Initial Investment, similarly it can be calculated based on Average Investment

(b) Lintner's model has two parameters:

i. The target payout ratio,

ii. The spread at which current dividends adjust to the target.

4. (a) Normally it is considered that the trade credit does not carry any cost. However, it carries the following costs:

(i) **Price:** There is often a discount on the price that the firm undergoes when it uses trade credit, since it can take advantage of the discount only if it pays immediately. This discount can translate into a high implicit cost.

(ii) **Loss of goodwill:** If the credit is overstepped, suppliers may discriminate against delinquent customers if supplies become short. As with the effect of any loss of goodwill, it depends very much on the relative market strengths of the parties involved.

(iii) **Cost of managing:** Management of creditors involves administrative and accounting costs that would otherwise be incurred.

(iv) **Conditions:** Sometimes most of the suppliers insist that for availing the credit facility the order should be of some minimum size or even on regular basis.

(b) (i) **Fully Hedged Bonds:** In foreign bonds, the risk of currency fluctuations exists. Fully hedged bonds eliminate the risk by selling in forward markets the entire stream of principal and interest payments.

(ii) **Medium Term Notes (MTN):** Certain issuers need frequent financing through the Bond route including that of the Euro bond. However, it may be costly and ineffective to go in for frequent issues. Instead, investors can follow the MTN programme. Under this programme, several lots of bonds can be issued, all having different features e.g. different coupon rates, different currencies etc. The timing of each lot can be decided keeping in mind the future market opportunities. The entire documentation and various regulatory approvals can be taken at one point of time.

(iii) **Floating Rate Notes (FRN):** These are issued up to seven years maturity. Interest rates are adjusted to reflect the prevailing exchange rates. They provide cheaper money than foreign loans.

(iv) **Euro Commercial Papers (ECP):** ECPs are short term money market instruments. They have maturity period of less than one year. They are usually designated in US Dollars.

(c) DOL can never be between zero and one. It can be zero or less or it can be one or more.

When Sales is much higher than BEP sales, DOL will be slightly more than one. With decrease in sales, DOL will increase. At BEP, DOL will be infinite. When sales is slightly less than BEP, DOL will be negative infinite. With further reduction in sale, DOL will move towards zero. At zero sales, DOL will also be zero.

OR

The finance executive of an organisation plays an important role in the company's goals, policies, and financial success. His responsibilities include:

(a) **Financial analysis and planning:** Determining the proper amount of funds to employ in the firm, i.e. designating the size of the firm and its rate of growth.

(b) **Investment decisions:** The efficient allocation of funds to specific assets.

(c) **Financing and capital structure decisions:** Raising funds on favourable terms as possible i.e. determining the composition of liabilities.

(d) **Management of financial resources** (such as working capital).

(e) **Risk management:** Protecting assets.

ANSWERS OF MODEL TEST PAPER 5

INTERMEDIATE: GROUP – II

PAPER – 6: FINANCIAL MANAGEMENT & STRATEGIC MANAGEMENT

PAPER 6A : FINANCIAL MANAGEMENT

Suggested Answers/ Hints

PART I – Case Scenario based MCQs

1. **(d)**

2. **(b)**

Particulars	Computation	Result
Sales	100 × 5,00,000	5,00,00,000
Less Variable cost	100 × 4,50,000	4,50,00,000
Contribution		**50,00,000**
Less Fixed cost		25,00,000
EBIT		**25,00,000**
Less Interest	15% × 40,00,000	6,00,000
EBT		**19,00,000**

Operating leverage = Contribution ÷ EBIT = 50 Lakhs ÷ 25 Lakhs = 2 times

Operating leverage = % Change in EBIT ÷ % Change in Sales i.e. if sales increase by 10%, EBIT increase by 20%.

Financial leverage = EBIT ÷ EBT = 25 Lakhs ÷ 19 Lakhs = 1.315 times

Combined leverage = Operating leverage × Financial leverage = 2 × 1.315 = 2.63 times

3. **(b)**

Particulars	Weights	Cost in %	Weights × Cost
Share Capital	40,00,000	5 + 1.9 × (10 – 5) = 14.5	5,80,000
Reserves & Surplus	25,00,000	14.5	3,62,500
Preference Share Capital	12,00,000	12	1,44,000
15% Debentures	20,00,000	15 × (1 – 25%) = 11.25	2,25,000
Total	**97,00,000**	**Total Cost**	**13,11,500**

Discount rate = WACC = 13,11,500 ÷ 97,00,000 × 100 = 13.52%

4. (b)

Particulars	Computation	Result
Savings in Tea cost	200 Employees × 200 days × 3 times × ₹ 10	12,00,000
Less: Annual maintenance		(25,000)
Less: Cost of Electricity	500 units × ₹ 24 per unit × 12 months	(1,44,000)
Less: Consumables		(8,00,000)
Less: Depreciation	5,00,000 ÷ 5 years	(1,00,000)
Profit before tax		**1,31,000**
Less: Tax	1,31,000 × 25%	32,750
Profit after tax		**98,250**
Add: Depreciation		1,00,000
Cash flow after tax	98,250 + 1,00,000	**1,98,250**

5. (b)

Year	Particulars	Cash flow	PVF@13.52%	PV
0	Initial investment	5,00,000	1	(5,00,000)
1 to 5	Savings	1,98,250	3.473	6,88,522
	Net present value			**1,88,522**

6. (b) ROCE = EBIT / Total Capital Employed

Total Capital Employed = Total Assets – Current Liabilities

= 50 lakhs – 10 lakhs

= 40 lakhs

EBIT = 40 lakhs x 15%

= 6 lakhs

Now, OL of 3.5 = Contribution / EBIT

Therefore Contribution = 6 Lakhs X 3.5 = 21 lakhs

Sales = **Contribution / PV Ratio = 21 lakhs / 0.7 = 30 lakhs**

7. (d) Calculation: Cost of Debt = (Interest Payment/ Market Price of Bond)

= (8,000 / 95,000) = 8.42%

8. (d) Cost of equity will increase. As the company increases its debt ratio, the financial risk increases, which typically leads to an increase in the cost of equity as equity investors demand a higher return for the additional risk.

PART II – Descriptive Questions

1. (a) **Let the EBIT at the Indifference Point level be E**

Particulars	Alternative 1	Alternative 2
Description	**Fully Equity of 84 Lakhs**	**Debt = 56 Lakhs, Equity = 28 Lakhs**
EBIT	E	E
Less: Interest at 12% of ₹ 56 Lakhs	Nil	6.72
EBT	E	E – 6.72
Less: Tax at 30%	0.3 E	0.3 E – 2.016
EAT	0.7 E	0.7 E – 4.704
Less: Preference Dividend	Nil	Nil
Residual Earnings	0.7 E	0.7 E – 4.704
No. of Equity Shares (Face Value ₹ 10)	8.4 Lakh Shares	2.8 Lakh Shares
EPS = $\frac{\text{Residual Earnings}}{\text{No. of Equity Shares}}$	$\frac{0.7\text{ E}}{8.4\text{ Lakh Shares}}$	$\frac{0.7\text{ E} - 4.704}{2.8\text{ Lakh Shares}}$

For indifference between the above alternatives, EPS should be equal.

So, $\frac{0.7\text{ E}}{8.4\text{ Lakh Shares}} = \frac{0.7\text{ E} - 4.704}{2.8\text{ Lakh Shares}}$

On cross multiplication and simplification, 2.1 E – 14.112 = 0.7 E. So, 1.4 E = 14.112

So, E = $\frac{14.112}{1.4}$ = 10.08

So, for same EPS, required EBIT = ₹ 10.08 Lakhs. EPS at that level = ₹ 0.84

Note: Presentation of solution may differ.

(b) **Computation of PV of Future Cash Flows**

Year	Nature	Cash Flow	DF @ 12%	DCF
1	Dividends (₹ 100 × 20%)	20	0.893	17.86
2	Dividends (₹ 100 × 20%)	20	0.797	15.94
3	Dividends (₹ 100 × 20%)	20	0.712	14.24
4	Dividends (₹ 100 × 20%)	20	0.636	12.72
5	Dividends (₹ 100 × 1.2 × 20%)	24	0.567	13.61
6	Dividends (₹ 100 × 1.2 × 20%)	24	0.507	12.17
7	Dividends (₹ 100 × 1.2 × 20%)	24	0.452	10.85
7	Net Sale Proceeds (₹ 900 × 1.2 – 5%)	1,026	0.452	463.75

	Present Value of Cash Inflows			561.14
0	Less: Initial Investment (₹ 500 + 5%)	525	1	525.00
	Net Present Value			36.14

Note: At the end of Year 4, Anand will have 1.2 Share i.e. 1 Bought Share + 1/5th Bonus Share.

(c) i. No of Eq. Shares (before buyback) = Total Earnings (before buyback)/EPS

= 18,00,000/(270/18)

= 1,20,000 shares

ii. Buyback price = 270 + 10% premium = 297

iii. No of Eq. shares (after buyback) = 1,20,000 (-) 20,000 = 1,00,000 shares

iv. Total Book Value of Equity (after buyback) = 1,00,000 X 193.20 = 1,93,20,000

Now,

Total BV of Eq. (after buyback) = Total BV of Eq.(before buyback) (-) Amt of buyback

1,93,20,000 = x (-) (20,000 X 297)

Therefore x = Total BV (before buyback)

= 2,52,60,000

BV per share (before buyback) = 2,52,60,000 / 1,20,000

= 210.50 per share

2. (a) Evaluation of Factoring Proposal -

	PARTICULARS	**₹**	**₹**
(A)	**Savings (Benefit) to the firm**		
	Administration Cost	45,000	45,000
	Bad Debts Cost (On Recourse basis) In House – 75 lakhs X 1% Factoring – 75 lakhs X 0.5% **Net Savings in bad debts cost**	(75 lakhs X 0.5%)	37,500
	Cost of Carrying Debtors Cost	**(WN – 1)**	1,06,750
	TOTAL		**1,89,250**
(B)	**Cost to the Firm:**		

	Factor Commission [Annual credit Sales × % of Commission]	75 lakhs X 1.5%	1,12,500
	Interest Cost on Net advances	**(See WN – 1)**	53,100
	TOTAL		**1,65,600**
(C)	**Net Benefits to the Firm (A – B)**		**23,650**

Advice: Since the savings to the firm exceed the cost due to factoring, the proposal is acceptable.

WN-1 : Calculation of Savings in Interest Cost of Carrying Debtors

(I) In house Management:

Interest Cost = Credit Sales X Avg Collection Period / 360 X Interest (%) p.a

= 75,00,000 x 60/360 x 10%

= 1,25,000

(II) If Factoring services availed: If factoring services are availed, then Sukrut Limited must raise the funds blocked in receivables to the extent which is not funded by the factor (i.e amount of factor reserve **(+)** amount of factor commission for 30 days **(+)** 20% of net advances)

Calculation of Net Advances to the firm -

Debtors = 75 lakhs x 30/360 = 6,25,000

(-) Factor Reserve = 10% of above = (62,500)

(-) Factor Commission = 1.5% of Debtors = (9,375)

Net Advance = 5,53,125

Advance from Factor = 5,53,125 x 80% = 4,42,500

Int cost on Advance from Factor = 4,42,500 x 12% = 53,100

Now, the amount that is not funded by the factor (6,25,000 - 4,42,500) needs to be funded by Sukrut Limited from overdraft facility at 10%

Therefore, Int cost on Overdraft (Cost of carrying debtors) = **1,82,500 x 10% = 18,250**

Net Savings in Interest Cost of Carrying Debtors = 1,25,000 (-) 18,250 = 1,06,750

(b) Level of investment depends on the various factors listed below:

(a) Nature of Industry: Construction companies, breweries etc. requires large investment in working capital due long gestation period.

(b) Types of products: Consumer durable has large inventory as compared to perishable products.

(c) **Manufacturing Vs Trading Vs Service:** A manufacturing entity has to maintain three levels of inventory i.e. raw material, work-in-process and finished goods whereas a trading and a service entity has to maintain inventory only in the form of trading stock and consumables respectively.

(d) **Volume of sales:** Where the sales are high, there is a possibility of high receivables as well.

(e) **Credit policy:** An entity whose credit policy is liberal has not only high level of receivables but may require more capital to fund raw material purchases as that will depend on credit period allowed by suppliers.

3. (a) WN-1 : Calculation of Cost of Debt (Kd)

Approximation Method = $\frac{\text{Int (1-t)+(RV – NP)/N}}{\text{(RV + NP) / 2}}$

RV = 100 + 10% = 110, NP = 105 - 4% = 100.8

$= \frac{10\ (1-\ 0.25)+(110 - 100.8)/10}{(110 + 100.8) / 2} = 7.99\%$

YTM Method:

CMP (Po) (-) Floatation Cost = {Int(1-t) × PVAF (r%,10years)} + {RV × PVIF (r%,10^{th} Year)}

105 - 4% = {10 (1 – 0.25) × PVAF (r%,10 years)} + {110 × PVIF (r%,10^{th} year)}

Using trial and error method, NPV at 5% & 10%

Year	Cash flows	Disc Factor @ 5%	PV (₹)	Disc Factor @ 10%	PV (₹)
0	-100.8	1	-100.8	1	-100.8
1 to 10	7.5	7.7217	57.91275	6.1446	46.0845
10	110	0.6139	67.529	0.3855	42.405
			24.64175		**-12.3105**

IRR = $5+\frac{24.64175}{24.64175-(-12.3105)} \text{X } (10-5) =$ **8.33%**

Therefore overall cost of debt (Kd) = (7.99 + 8.33) / 2 = 8.16%

WN-2 : Calculation of Cost of Preference (Kp)

Approximation Method = $\frac{\text{Pref. Div.+(RV – NP)/N}}{\text{(RV + NP) / 2}}$

RV = 100 NP = 115 - 2% = 112.7

$= \frac{12 +(100 - 112.7)/10}{(100 + 112.7) / 2} =$ **10.09%**

YTM Method:

CMP (Po) (-) Floatation Cost = {Pref Div × PVAF (r%,10years)} + {RV × PVIF (r%,10^{th} Year)}

115 - 2% = {12 × PVAF (r%,10 years)} + {100 × PVIF (r%,10^{th} year)}

Using trial and error method, NPV at 5% & 10%

Year	Cash flows	Disc Factor @ 5%	PV (₹)	Disc Factor @ 10%	PV (₹)
0	-112.7	1	-112.7	1	-112.7
1 to 10	12	7.7217	92.6604	6.1446	73.7352
10	100	0.6139	61.39	0.3855	38.55
			41.3504		**-0.4148**

$$IRR = 5 + \frac{41.3504}{41.3504 - (-0.4148)} X\ (10-5) = \mathbf{9.95\%}$$

Therefore, overall cost of debt (Kp) = (10.09 + 9.95) / 2 = 10.02%

WN-3 : Calculation of Cost of equity (Ke)

Ke = {D1 / (Po - Floatation)} + G

= {2+9% / 27 – 4.5} + 0.09

= 18.69%

Calculation of WACC using market value weights

Source of Capital	Working	Market Value	Weights	Cost (K)	WACC (Ko)
		(₹)	**(A)**	**(B)**	**(A x B)**
Equity	27 x 150000	40,50,000	0.7377	18.69	13.7877
Reserves	Included in equity	-	-	-	-
Preference	115 x 7500	8,62,500	0.1571	10.02	1.5741
Debentures	105 x 5500	5,77,500	0.1052	8.16	0.8584
		54,90,000	**1**		**16.22%**

WACC (Ko) = 16.22%

(b) Change in Reserve & Surplus = ₹ 25, 00,000 – ₹ 20,00,000 = ₹ 5,00,000

So, Net profit = ₹ 5, 00,000

(i) Net Profit Ratio = 8%

$\therefore$ Sales = $\frac{5,00,000}{8\%}$ =₹ 62,50,000

(ii) Cost of Goods sold

= Sales – Gross profit Margin

= ₹ 62, 50,000 – 20% of ₹ 62, 50,000

= ₹ 50, 00,000

(iii) Fixed Assets $= \frac{₹\,30,00,000}{40\%} = ₹\,75,00,000$

(iv) Stock $= \frac{\text{Cost of Goods Sold}}{\text{STR}} = \frac{50,00,000}{4} = ₹\,12,50,000$

(v) Debtors $= \frac{62,50,000}{360} \times 90 = ₹\,15,62,500$

(vi) Cash Equivalent $= \frac{50,00,000}{12} \times 1.5 = ₹\,6,25,000$

Balance Sheet as on 31st March 2024

Liabilities	(₹)	Assets	(₹)
Share Capital	50,00,000	Fixed Assets	75,00,000
Reserve and Surplus	25,00,000	Sundry Debtors	15,62,500
Long-term loan	30,00,000	Closing Stock	12,50,000
Sundry Creditors (Balancing Figure)	4,37,500	Cash in hand	6,25,000
	1,09,37,500		1,09,37,500

4. (a) Though in a sole proprietorship firm, partnership etc., owners participate in management but in corporates, owners are not active in management so, there is a separation between owner/ shareholders and managers. In theory managers should act in the best interest of shareholders however in reality, managers may try to maximise their individual goal like salary, perks etc., so there is a **principal agent relationship between managers and owners, which is known as Agency Problem**. In a nutshell, Agency Problem is the chances that managers may place personal goals ahead of the goal of owners. Agency Problem leads to Agency Cost. Agency cost is the additional cost borne by the shareholders to monitor the manager and control their behaviour so as to maximise shareholders wealth. Generally, Agency Costs are of four types (i) monitoring (ii) bonding (iii) opportunity (iv) structuring.

Addressing the agency problem

The agency problem arises if manager's interests are not aligned to the interests of the debt lender and equity investors. The agency problem of debt lender would be addressed by imposing negative covenants i.e. the managers cannot borrow beyond a point. This is one of the most important concepts of modern day finance and the application of this would be applied in the Credit Risk Management of Bank, Fund Raising, Valuing distressed companies.

Agency problem between the managers and shareholders can be addressed if the interests of the managers are aligned to the interests of the share- holders. It is easier said than done.

However, following efforts have been made to address these issues:

- Managerial compensation is linked to profit of the company to some extent and also with the long term objectives of the company.
- Employee is also designed to address the issue with the underlying assumption that maximisation of the stock price is the objective of the investors.
- Effecting monitoring can be done.

(b) **(i)** **Sales and Lease Back:** Under this type of lease, the owner of an asset sells the asset to a party (the buyer), who in turn leases back the same asset to the owner in consideration of a lease rentals. Under this arrangement, the asset is not physically exchanged but it all happen in records only. The main advantage of this method is that the lessee can satisfy himself completely regarding the quality of an asset and after possession of the asset convert the sale into a lease agreement.

Under this transaction, the seller assumes the role of lessee (as the same asset which he has sold came back to him in the form of lease) and the buyer assumes the role of a lessor (as asset purchased by him was leased back to the seller). So, the seller gets the agreed selling price and the buyer gets the lease rentals.

(ii) **Leveraged Lease:** Under this lease, a third party is involved besides lessor and the lessee. The lessor borrows a part of the purchase cost (say 80%) of the asset from the third party i.e., lender and asset so purchased is held as security against the loan. The lender is paid off from the lease rentals directly by the lessee and the surplus after meeting the claims of the lender goes to the lessor. The lessor is entitled to claim depreciation allowance.

(iii) **Sales-aid Lease:** Under this lease contract, the lessor enters into a tie up with a manufacturer for marketing the latter's product through his own leasing operations, it is called a sales-aid lease. In consideration of the aid in sales, the manufacturer may grant either credit or a commission to the lessor. Thus, the lessor earns from both sources i.e. From lessee as well as the manufacturer.

(iv) **Close-ended and Open-ended Leases:** In the close-ended lease, the assets get transferred to the lessor at the end of lease, the risk of obsolescence, residual value etc., remain with the lessor being the legal owner of the asset. In the open-ended lease, the lessee has the option of purchasing the asset at the end of the lease period.

(c) The basic objective of financial management is to design an appropriate capital structure which can provide the highest wealth, i.e., highest MPS, which in turn depends on EPS.

Given a level of EBIT, EPS will be different under different financing mix depending upon the extent of debt financing. The effect of leverage on the EPS emerges because of the existence of fixed financial charge i.e., interest on debt, financial fixed dividend on preference share capital. The effect of fixed financial charge on the EPS depends upon the relationship between the rate of return on assets and the rate of fixed charge. If the rate of return on assets is higher than the cost of financing, then the increasing use of fixed charge financing (i.e., debt and preference share capital) will result in increase in the EPS. This situation is also known as favourable financial leverage or Trading on Equity. On the other hand, if the rate of return on assets is less than the cost of financing, then the effect may be negative and, therefore, the increasing use of debt and preference share capital may reduce the EPS of the firm.

The fixed financial charge financing may further be analysed with reference to the choice between the debt financing and the issue of preference shares. Theoretically, the choice is tilted in favour of debt financing for two reasons: (i) the explicit cost of debt financing i.e., the rate of interest payable on debt instruments or loans is generally lower than the rate of fixed dividend payable on preference shares, and (ii) interest on debt financing is tax-deductible and therefore the real cost (after-tax) is lower than the cost of preference share capital.

OR

(c) When the cost of 'fixed cost fund' is less than the return on investment, financial leverage will help to increase return on equity and EPS. The firm will also benefit from the saving of tax on interest on debts etc. However, when cost of debt will be more than the return it will affect return of equity and EPS unfavourably and as a result firm can be under financial distress. Therefore, financial leverage is also known as "**double edged sword".**

Effect on EPS and ROE:

When, ROI > Interest – Favourable – Advantage

When, ROI < Interest – Unfavourable – Disadvantage

When, ROI = Interest – Neutral – Neither advantage nor disadvantage

ANSWERS OF MODEL TEST PAPER 6

INTERMEDIATE: GROUP – II

PAPER – 6: FINANCIAL MANAGEMENT & STRATEGIC MANAGEMENT

PAPER 6A : FINANCIAL MANAGEMENT

Suggested Answers/ Hints

PART I – Case Scenario based MCQs

1. **(c) ₹ 0.72**

Computation of EPS under financial plan I: Equity Financing

	(₹)
EBIT	37,50,000.00
Interest	-
EBT	37,50,000.00
Less: Taxes 40%	(15,00,000.00)
PAT	22,50,000.00
No. of equity shares	31,25,000.00
EPS	0.72

2. **(b) ₹ 0.90**

Computation of EPS under financial plan II: Debt – Equity Mix

	(₹)
EBIT	37,50,000.00
Less: Interest	(14,06,250.00)
EBT	23,43,750.00
Less: Taxes 40%	(9,37,500.00)
PAT	14,06,250.00
No. of equity shares	15,62,500.00
EPS	0.90

3. **(a) ₹ 0.44**

Computation of EPS under financial plan III: Preference Shares – Equity Mix

	(₹)
EBIT	37,50,000.00
Less: Interest	-

EBT	37,50,000.00
Less: Taxes (40%)	(15,00,000.00)
PAT	22,50,000.00
Less: Pref. dividend	(15,62,500.00)
PAT for equity shareholders	6,87,500.00
No. of Equity shares	15,62,500.00
EPS	0.44

4. (a) ₹ 28,12,500

EBIT – EPS Indifference Point- Plan I and Plan II:

$$\frac{(\text{EBIT})\times(1\text{-}T_C)}{N_1}=\frac{(\text{EBIT}-\text{Interest})\times(1-T_C)}{N_2}$$

$$\frac{\text{EBIT}(1-0.40)}{31,25,000}=\frac{(\text{EBIT}-14,06,250)\times(1-0.40)}{15,62,500}$$

0.6EBIT = 1.2 EBIT – 16,87,500

= ₹ 28,12,500

5. (d) ₹ 52,08,333.33

EBIT – EPS Indifference Point: Plan I and Plan III

$$\frac{\text{EBIT}(1-T_c)}{N_1}=\frac{\text{EBIT}(1-T_c)-\text{Pref. Div.}}{N_2}$$

$$\frac{\text{EBIT}(1-0.4)}{31,25,000}=\frac{\text{EBIT}(1-0.4)-15,62,500}{15,62,500}$$

0.6EBIT = 1.2EBIT – 31,25,000

EBIT = ₹ 52,08,333.33

6. (b) 30%

The formula for Degree of Combined Leverage (DCL) is:

DCL=DOL×DFL

DCL=2×3=6

The percentage change in EPS is:

% Δ EPS = DCL × % Δ Sales

% Δ EPS = 6 × 5% = 30%

7. (c) 3.79

Initial Investment = Annual Cost Savings × PVAF

Annual cost savings = ₹ 1,80,000

PVAF (10%, 5 years) = 3.79

Initial Investment = 1,80,000 × 3.79 = 6,82,200

Payback Period = Initial Investment/ Annual Cost Savings

= 6,82,200/1,80,000

= 3.79 years

8. (c) **Remains unchanged because value depends on earnings and investment policy.**

(Explanation: M&M's theory suggests that dividend policy has no impact on shareholder wealth in a perfect market.)

PART II – Descriptive Questions

1. (a) **Statement showing Computation of Combined leverage**

	₹
Sales	2,00,000
Less: Variable costs (50%)	1,00,000
Contribution	1,00,000
Less: Fixed operating costs	40,000
EBIT	60,000
Less: Interest	10,000
Taxable Income (PBT)	50,000

Combined leverage $= \frac{C}{PBT} = \frac{1,00,000}{50,000} = 2$

The combined leverage of '2' indicates that with every increase of ₹ 1 in sales, the taxable income will increase by ₹ 2 (i.e. 1×2). This can be verified by the following computations when the sales increase by 10%

	₹
Sales	2,20,000
Less: variable costs (50%)	1,10,000
Contribution	1,10,000
Less: Fixed operating costs	40,000
EBIT	70,000
Less: Interest	10,000
Taxable Income (PBT)	60,000

It is clear from the above computation that on account of increase in sales by 10%, the profit before tax has increased by 20%.

(b) (i) Computation of Weighted Average Cost of Capital based on existing capital structure

Source of Capital	Existing Capital structure (₹)	Weights (a)	After tax cost of capital (%) (b)	WACC (%) (a) × (b)
Equity share capital (W.N.1)	10,00,000	0.250	10.000	2.500
12% Preference share capital	15,00,000	0.375	12.000	4.500
10% Debentures (W.N.2)	15,00,000	0.375	6.500	2.438
Total	40,00,000	1.000		9.438

Working Notes:

1. Cost of Equity Capital:

$$K_e = \frac{\text{Expected dividend}(D_1)}{\text{Current Market Price}(P_0)} + \text{Growth}(g)$$

$$= \frac{₹\,5}{₹\,100} + 0.05$$

= 10%

2. Cost of 10% Debentures

$$K_d = \frac{\text{Interest}(1-t)}{\text{Net proceeds}}$$

$$= \frac{₹\,1,50,000\,(1-0.35)}{₹\,15,00,000}$$

= 0.065 or 6.5%

(ii) Computation of Weighted Average Cost of Capital based on new capital structure

Source of Capital	New Capital structure (₹)	Weights (a)	After tax cost of capital (%) (b)	WACC (%) (a) x (b)
Equity share capital (W.N.3)	10,00,000	0.222	12.777	2.836
12% Preference share capital	15,00,000	0.334	12.000	4.000
10% Debentures (W.N.2)	15,00,000	0.333	6.500	2.165

12% Debentures (W.N.4)	5,00,000	0.111	7.800	0.866
Total	45,00,000	1.000		9.867

Working Notes:

3. Cost of Equity Capital:

$$K_e = \frac{₹\,7}{₹\,90} + 0.05$$

= 12.777%

4. Cost of 12% Debentures

$$K_d = \frac{₹\,60,000\,(1-0.35)}{₹\,5,00,000}$$

= 0.078 or 7.8%

(c) Fair Value of Company = Present Value all future cash flows discounted at the expected Rate of return of acquiring company.

WN 1 – Calculation of Cash flows **₹ in Lakhs**

YEAR	**1**	**2**	**3**	**4**	**5**	**6**
Contribution (40% on sales)	10	12	14.4	20.16	28.22	35.28
(-) Fixed Cost	-12	-12	-10	-10	-10	-10
NPBT (A)	-2	0	4.4	10.16	18.22	25.28
(-) Losses Set Off	0	0	-2(Setoff)	0	0	0
Taxable Income	0	0	2.4	10.16	18.22	25.28
(-) Tax @ 25% **(B)**	0	0	0.6	2.54	4.55	6.32
Cash Flow (A – B)	**-2**	**0**	**3.8**	**7.62**	**13.66**	**18.96**
PV OF CASH FLOWS @ 15%	-1.740	0	2.50	4.35	6.79	8.19

Total PV of cash flows (yr 1 to 6) = 20.08 lakhs

(+) PV of cash flow at terminal value (end of Year 6) = $\frac{18.96 + 10\%}{0.15 - 0.10}$

= 417.12 Lakhs

Therefore, PV of above = 417.12 X PV factor (15%, 6th Year) = 180.20 lakhs

Total fair value of Aryayash limited = 20.08 + 180.20 = 200.28 Lakhs

Note – 1. Discounting rate should be the desired rate of acquiring company i.e. of Vyom Limited

2. Terminal value of cash flows means the cash flows at that point from where it would grow at constant rate. Here it assumed that from 7th year, Cash flows/NPAT will grow at a constant rate and not sales

2. (a) Working Note:

1. Current Liabilities and Current Assets:

Let Current Liabilities be x

Given Current ratio	= 2.5
Current Assets	= 2.5x
Working Capital	= 2.5x- x =1.5x
or x	= 1,20,000/1.5 = 80,000
So Current Liabilities	= 80,000
And Current Assets	= 80,000 x 2.5 = 2,00,000

2. Closing Stock

Given, Quick Ratio = 1.3

$$\frac{\text{CurrentAssets - Closing Stock}}{\text{CurrentLiabilities - Bank Overdraft}} = 1.3$$

$$\frac{2,00,000 - \text{Closing Stock}}{80,000 - 15,000} = 1.3$$

or Closing Stock = 2,00,000-84,500 =1,15,500

Opening Stock = 1,15,000 x 100/110 =1,05,000

3. Debtors

Given Debtors Velocity = 40 days

$$\frac{\text{Debtors}}{\text{Sales}} \text{ x } 365 = 40$$

$$\text{Debtors} = \frac{7,30,000\text{x}40}{365} = 80,000$$

4. Gross Profit = 7,30,000 x 10/100 = 73,000

5. Proprietary Fund:

Proprietary Ratio = 0.6

$$\frac{\text{Fixed Assets}}{\text{Proprietary Fund}} = 0.6$$

$$\frac{\text{Working Capital}}{\text{Proprietary Fund}} \quad 0.4$$

$$\text{Proprietary Fund} = \frac{1,20,000}{0.4} = 3,00,000$$

Fixed Assets = 3,00,000 x 0.6 = 1,80,000

Net Profit = 10% of Proprietary Fund = 30,000

M/s Anya Co Ltd.

Trading and Profit and loss Account for the year ended 31 March 2024

Particulars	**Amount in ₹**	**Particulars**	**Amount in ₹**
To Opening Stock	1,05,000	By Sales	7,30,000
To Purchase (Balancing Fig.)	6,67,500	By Closing Stock	1,15,500
To Gross Profit	73,000		
	8,45,500		**8,45,500**
To Operating Expenses (Balancing Figure)	43,000	By Gross Profit	73,000
To Net Profit	30,000		
	73,000		**73,000**

Balance Sheet as on 31 March 2024

Liabilities	**Amount in ₹**	**Assets**	**Amount in ₹**
Share Capital	2,50,000	Fixed Assets	1,80,000
Reserves & Surplus (Opening bal. + current profit)	50,000		
Current Liabilities		*Current Assets*	
Bank Overdraft	15,000	Stock	1,15,500
Other Current Liabilities	65,000	Debtors	80,000
		Other Current Assets	4,500
	3,80,000		**3,80,000**

(b) As per Dividend discount model, the price of share is calculated as follows:

$$P = \frac{D_1}{(1+K_e)^1} + \frac{D_2}{(1+K_e)^2} + \frac{D_3}{(1+K_e)^3} + \frac{D_4}{(1+K_e)^4} + \frac{D_5}{(K_e - g)} \times \frac{1}{(1+K_e)^4}$$

Where,

P = Price per share

K_e = Required rate of return on equity

g = Growth rate

Calculation PV of Dividends

Year	Dividend per share	PVF @ 15%	PV
1	4.4	0.870	3.828
2	4.84	0.756	3.660
3	5.324	0.658	3.503
4	5.856	0.572	3.350
Total			14.341

PV of Terminal Value = $\frac{₹5.856\text{x}1.05}{(0.15-0.05)^1} \times \frac{1}{(1+0.15)^4}$ = 61.488 x .572 = 35.171

Intrinsic value of share = PV of Dividends + PV of terminal value

= 14.341 + 35.171 = ₹ 49.512

3. 1. In-House Management of Receivables (With Dynamic Discounting)

Particulars:

1. **Cash Discount Cost:**
   - Revised discount rate: 2.5%
   - 60% of customers avail discount.
   - **Cost of Discount:** ₹ 90,00,000 × 60% × 2.5% = ₹ 1,35,000
2. **Bad Debts (Reduced to 0.8% due to dynamic discounting):**
   - ₹ 90,00,000 × 0.8% = ₹ 72,000
3. **Administration Cost:** ₹ 1,20,000
4. **Cost of Financing Receivables:**
   - **Working Note 1 (Average Collection Period):** (10 days × 60%) + (60 days × 40%) = 30 days
   - **Working Note 2 (Average Receivables):** ₹ 90,00,000 × (30/360) = ₹ 7,50,000
   - **Working Note 3 (Cost of Financing):**
     - Cost of Bank Funds: ₹ 7,50,000 × 1/2 × 15% = ₹ 56,250
     - Cost of Owned Funds: ₹ 7,50,000 × 1/2 × 14% = ₹ 52,500
     - **Total Cost of Financing Receivables:** ₹ 1,08,750

Total Cost with In-House Receivables Management and Dynamic Discounting:

Particulars	Amount (₹)
Cash Discount (₹ 90,00,000 × 60% × 2.5%)	1,35,000
Bad Debts (₹ 90,00,000 × 0.8%)	72,000
Admin Cost	1,20,000

Cost of Financing Receivables	1,08,750
Total Cost (In-House with Dynamic Discounting):	**4,35,750**

2. **Factoring Firm's Offer:**

   Particulars:

   1. **Factoring Commission:** ₹ 90,00,000 × 4% = ₹ 3,60,000
   2. **Interest Charges on Receivables:** Factor Reserve: 12%, so financing on 88% of receivables. Interest for 25 days: (₹ 90,00,000-3,60,000) × 88% × 15% × (25/360) = ₹ 79,200
   3. **Cost of Owned Funds (Receivables not factored):** ₹ 13,96,800 × 14% × (25/360) = ₹ 13580

   Owned Funds: (₹ 90,00,000-3,60,000) × 12% + 3,60,000 = ₹ 13,96,800

   Total Cost with Factoring Firm:

Particulars	Amount (₹)
Factoring Commission (₹ 90,00,000 × 4%)	3,60,000
Interest Charges on Receivables	79,200
Cost of Owned Funds	13,580
Total Cost with Factoring:	**4,52,780**

3. **Impact of Extending Credit Period:**

   If Zomo Ltd. extends the credit period to 75 days:

   - **Sales increase:** 10% of ₹ 120,00,000 = ₹ 12,00,000

     New total turnover = ₹ 120,00,000 + ₹ 12,00,000 = ₹ 1,32,00,000

     Credit Sales (75%) = ₹ 99,00,000
   - **Increased Bad Debts (1.5%):** ₹ 99,00,000 × 1.5% = ₹ 1,48,500
   - **Late Payment Penalty:** Customers delaying beyond 60 days (40%): ₹ 99,00,000 × 40% × 5% = ₹ 1,98,000

   A. **Cash Discount Cost:**
      - **Discount rate:** 2% (since there's no mention of dynamic discounting in this case)
      - **Percentage of customers availing discount:** 60%
      - **Calculation:** ₹ 99,00,000 × 60% × 2% = ₹ 1,18,800

   B. **Bad Debts (Increased to 1.5%):**
      - **Calculation:** ₹ 99,00,000 × 1.5% = ₹ 1,48,500

   C. **Administration Costs (Remains the same):**
      - The administration cost stays fixed at ₹ 1,20,000, as no change in admin structure is mentioned.

D. **Cost of Financing Receivables (Based on the new extended credit period):**

- **Working Note 1 (Average Collection Period):** Credit period has been extended to 75 days for customers who don't take the discount (40% of customers).
  - **Revised Average Collection Period:** (10 days × 60%) + (75 days × 40%) = 36 days
- **Working Note 2 (Average Receivables):** ₹ 99,00,000 × (36/360) = ₹ 9,90,000
- **Working Note 3 (Cost of Financing Receivables):**
  - **Cost of Bank Funds (15%):** ₹ 9,90,000× 1/2 × 15% = ₹ 74,250
  - **Cost of Owned Funds (14%):** ₹ 9,90,000 × 1/2 × 14% = ₹ 69,300
  - **Total Cost of Financing Receivables:** ₹ 74,250 + ₹ 69,300 = ₹ 1,43,550

Revised Bad Debts after Penalty:

- **Bad debts before penalty:** ₹ 1,48,500
- **Penalty earned:** ₹ 1,98,000
- **Net effect on bad debts:** ₹ 1,48,500 - ₹ 1,98,000 = (-₹ 49,500) (Zomo Ltd. would effectively earn ₹ 49,500 from penalties, reducing bad debt cost.)

4. **Total Cost Calculation:**

Now, summing up all the components:

Particulars	**Amount (₹)**
Cash Discount (₹ 99,00,000 × 60% × 2%)	1,18,800
Net Bad Debts after Penalty (–₹ 49,500)	-49,500
Administration Costs	1,20,000
Cost of Financing Receivables	1,43,550
Total Cost (In-House with Extended Credit Period)	**₹ 3,32,850**

5. **Final Decision:**

Option	**Total Cost (₹)**
In-House with Dynamic Discounting	4,35,750
Factoring Firm’s Offer	4,52,780
In-House with Extended Credit Period	**3,32,850**

Recommendation: Zomo Ltd. should **extend the credit period** and continue in-house management. This option will not only reduce costs (due to lower bad debts offset by penalties) but also increase sales by 10%. Factoring is the least beneficial due to its high commission charges, and dynamic discounting offers only marginal savings compared to the credit extension option.

4. (a) The financing of current assets involves a trade off between risk and return. A firm can choose from short or long term sources of finance. Short term financing is less expensive than long term financing but at the same time, short term financing involves greater risk than long term financing.

Depending on the mix of short term and long term financing, the approach followed by a company may be referred as matching approach, conservative approach and aggressive approach.

In matching approach, long-term finance is used to finance fixed assets and permanent current assets and short term financing to finance temporary or variable current assets. Under the conservative plan, the firm finances its permanent assets and also a part of temporary current assets with long term financing and hence less risk of facing the problem of shortage of funds.

An aggressive policy is said to be followed by the firm when it uses more short term financing than warranted by the matching plan and finances a part of its permanent current assets with short term financing.

(b) Over-capitalization and its Causes and Consequences

It is a situation where a firm has more capital than it needs or in other words assets are worth less than its issued share capital, and earnings are insufficient to pay dividend and interest.

Causes of Over Capitalization

Over-capitalisation arises due to following reasons:

(i) Raising more money through issue of shares or debentures than company can employ profitably.

(ii) Borrowing huge amount at higher rate than rate at which company can earn.

(iii) Excessive payment for the acquisition of fictitious assets such as goodwill etc.

(iv) Improper provision for depreciation, replacement of assets and distribution of dividends at a higher rate.

(v) Wrong estimation of earnings and capitalization.

Consequences of Over-Capitalisation

Over-capitalisation results in the following consequences:

(i) Considerable reduction in the rate of dividend and interest payments.

(ii) Reduction in the market price of shares.

(iii) Resorting to “window dressing”.

(iv) Some companies may opt for reorganization. However, sometimes the matter gets worse and the company may go into liquidation.

(c) “The profit maximisation is not an operationally feasible criterion.” This statement is true because Profit maximisation can be a short-term objective for any organisation and cannot be its sole objective. Profit maximization fails to serve as an operational criterion for maximizing the owner's economic welfare. It fails to provide an operationally feasible measure for ranking alternative courses of action in terms of their economic efficiency. It suffers from the following limitations:

(i) Vague term: The definition of the term profit is ambiguous. Does it mean short term or long term profit? Does it refer to profit before or after tax? Total profit or profit per share?

(ii) Timing of Return: The profit maximization objective does not make distinction between returns received in different time periods. It gives no consideration to the time value of money, and values benefits received today and benefits received after a period as the same.

(iii) It ignores the risk factor.

(iv) The term maximization is also vague.

OR

(c) **Modified Internal Rate of Return (MIRR):** There are several limitations attached with the concept of the conventional Internal Rate of Return. The MIRR addresses some of these deficiencies. For example, it eliminates multiple IRR rates; it addresses the reinvestment rate issue and produces results, which are consistent with the Net Present Value method.

Under this method, all cash flows, apart from the initial investment, are brought to the terminal value using an appropriate discount rate (usually the cost of capital). This results in a single stream of cash inflow in the terminal year. The MIRR is obtained by assuming a single outflow in the zeroth year and the terminal cash inflow as mentioned above. The discount rate which equates the present value of the terminal cash inflow to the zeroth year outflow is called the MIRR.

ANSWERS OF MODEL TEST PAPER 7

INTERMEDIATE: GROUP – II

PAPER – 6: FINANCIAL MANAGEMENT & STRATEGIC MANAGEMENT

PAPER 6A : FINANCIAL MANAGEMENT

Suggested Answers/ Hints

PART I – Case Scenario based MCQs

1. **(b)** Ke $= \frac{D1}{P0} + g$

$$= \frac{2}{20} + 0.05 = 15\%$$

2. **(b)** $K_d = \frac{I(1-t) + \frac{(RV-NP)}{n}}{\frac{(RV+NP)}{2}} = \frac{9(1-0.35) + \frac{(100-102.90)}{10}}{\frac{(100+102.90)}{2}} = 5.48\%$

3. **(a)** $K_p = \frac{PD + \frac{(RV-NP)}{n}}{\frac{(RV+NP)}{2}}$

$$K_p = \frac{11 + \left(\frac{100-102.82}{10}\right)}{\left(\frac{100+102.82}{2}\right)} = 10.57\%$$

4. **(a)** **Calculation of WACC using market value weights**

Source of capital	Market Value	Weights	After tax cost of capital	WACC (K_o)
	(₹)	(a)	(b)	(c) = (a)×(b)
Debentures (₹ 105 per debenture)	2,88,750	0.1672	0.0548	0.0092
Preference shares (₹ 106 per preference share)	2,38,500	0.1381	0.1057	0.0146
Equity shares (₹ 24)	12,00,000	0.6947	0.1500	0.1042
	17,27,250	1.00		0.1280

WACC (K_o) = 12.80%

5. **(a)** Current Market Price $= \dfrac{D_1}{Ke - g}$

$$= \frac{2}{0.10 - 0.05} = ₹\ 40 \text{ per share}$$

6. **(c)** DFL $= \dfrac{EBIT}{EBT}$

DFL = 4,00,000/3,00,000 = 1.33

Interest Coverage Ratio $= \dfrac{EBIT}{\text{Interest Expense}}$

= 4,00,000/1,00,000 = 4

Operating Profit Margin $= \dfrac{Sales}{EBIT} x100$

Operating Profit Margin = (4,00,000/16,00,000) × 100 = 25%

7. **(c)** COGS = Sales x (1−Gross Profit Margin)

COGS = 6,00,000 x (1−0.20) = 6,00,000 x 0.80 = 4,80,000

The velocity of stock is 3 months.

stock turnovers per year (12/3) = 4

Stock Turnover Ratio = COGS / Average Stock

Average Stock = 4,80,000/4 = 1,20,000

Average Stock = (Opening Stock + Closing Stock)/2

Closing Stock = 1,50,000

8. **(d)** 1, 2 and 3

PART II – Descriptive Questions

1. (a) Balance Sheets of Alpha Limited

Liabilities	₹		***Assets***	₹	
	31 March 2023	***31 March 2024***		***31 March 2023***	***31 March 2024***
Equity share capital (₹ 10 each fully paid)	20,00,000	20,00,000	Fixed Assets (₹18,90,000– ₹90,000)	18,00,000	15,39,000
Reserve and Surplus (balancing)	1,30,000	1,30,000	Long term investment	–	2,96,600
Profit & Loss A/c (15% of sales)	2,70,000	6,15,600	**Current Assets** (₹ 10,00,000)		

Current Liabilities			Stock	4,00,000	5,20,000
Bank Overdraft	1,00,000	–	Sundry Debtors	3,00,000	4,95,000
Creditors	3,00,000	4,15,000	Cash at Bank (Balancing)	3,00,000	3,10,000
Total	**28,00,000**	**31,60,600**	**Total**	**28,00,000**	**31,60,600**

Calculation for 31st March, 2023

(i) Calculation of Current Liabilities

Suppose that Current Liabilities = x, then current assets will be 2.5 x

Working capital = Current Assets – Current Liabilities

6,00,000 = 2.5x – x

x = 6,00,000 / 1.5 = ₹ 4,00,000 (C.L.)

Other Current Liabilities = Current Liabilities – Bank Overdraft

(Creditors) = 4,00,000 – 1,00,000 = ₹ 3,00,000

Current Assets = 2.5 x 4,00,000 = ₹ 10,00,000

(ii) Liquid Ratio $= \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$

1.5 $= \frac{\text{Liquid Assets}}{4{,}00{,}000}$

Liquid assets = ₹6,00,000

Liquid assets = Current Assets – Stock

6,00,000 = 10,00,000 – Stock

So, Stock = ₹ 4,00,000

(iii) Calculation of fixed assets: Fixed assets to proprietary fund is 0.75, working capital is therefore 0.25 of proprietary fund. So,

Fixed Assets = 6,00,000 / 0.25 x 0.75 = ₹ 18,00,000

(iv) Sales = (14,40,000 / 80) × 100 = ₹ 18,00,000

(v) Debtors $= \frac{2}{12}$ x Sales

2 / 12 × 18,00,000 = ₹ 3,00,000

(vi) Net profit = 15% of ₹18,00,000 = ₹ 2,70,000

Calculation for the year 31st March, 2024

(vii) Sales = 18,00,000 + (18,00,000 × 0.2) = 21,60,000

(viii) Calculation of fixed assets

	₹		₹
To Opening balance	18,00,000	By Banks (Sale)	90,000
		By Loss on sales of Fixed asset	90,000
		By P & L (Dep.) (5% as in previous year)	81,000
	________	By Balance b/d	15,39,000
Total	18,00,000		18,00,000

(ix) Net profit for the year 2011, 16% × 21,60,000 = ₹ 3,45,600

Total Profit = 2,70,000 + 3,45,600 = ₹ 6,15,600

(b) EBIT = ₹ 3,00,000

Less: Interest = ₹ 10,00,000 × 10% = ₹ 1,00,000

Earnings available to equity shareholders = ₹ 2,00,000

Equity capitalization rate = 12.5%

Market value of equity = $\frac{₹\ 2,00,000}{12.5\%}$ = ₹ 16,00,000

Market value of debt = ₹ 10,00,000

Market value of the firm = ₹ 26,00,000

Overall cost of capital = $\frac{₹\ 3,00,000 \times\ 100}{₹\ 26,00,000}$ = 11.54%

(c) (i) Increase in taxable income if sales increase by 6%.

Combined Leverage= $\frac{\text{Contribution}}{\text{EBT}} = \frac{₹\ 1,40,000}{₹\ 35,000} = 4$

If the sales increases by 6%, EBT will increase by 24%. (4 × 6%)

(ii) Increase in EBIT if sales increase by 10%.

Operating Leverage= $\frac{\text{Contribution}}{\text{Earnings before interest and tax}} = \frac{₹1,40,000}{₹\ 40,000} = 3.5$

If sales increases by 10%, EBIT will increase by (3.5× 10) 35%.

(iii) Increase in taxable income if EBIT increase by 6%.

Financial Leverage = $\frac{\text{Earnings before interest and tax(EBIT)}}{\text{EBT}} = \frac{₹\ 40,000}{₹35,000}$

=1.14

If EBIT increases by 6%, EBT will increase by 6.8%. (1.14 × 6%)

2. (a) Problem mentions that the company has applied to the Private Bank for financing its working capital needs. Ideally, banks would not finance for Depreciation cost being a non-cash cost and it would also not finance the profit for you. So, problem needs to be solved using Cash Cost Basis.

Estimation of working capital required (cash cost basis)

	Particulars		Amount
	A) Current Assets		
	A1) Stock of RM	15,84,960 x 30/360	1,32,080.00
	A2) Stock of WIP	(From Cost Statement)	4,77,360.00
	A3) Stock of FG	(From Cost Statement)	2,37,500.00
	A4) Debtors	32,74,686 x 45/360	4,09,335.75
	A5) Cash & Cash Equivalents	(Given)	1,25,000.00
	Gross Working Capital		**13,81,275.75**
Less:	**B) Current Liabilites**		
	B1) Creditors	17,17,040 x 30/360	1,43,086.67
	B2) Lag in Wages Payment	9,20,400 x 15/360	38,350.00
	Excess of Current Assets Over Current Liabilites	(A) - (B)	**11,99,839.08**
Add:	Safety Margin @ 15% Of Net Working Capital		2,11,736.31
	Net Working Capital		**14,11,575.39**

WN -1: Calculation of Profit

Profit = 25% of total cost i.e 20% of sales price

= {(31,200-2,500) x 150} x 20% = Rs. 8,61,000

WN – 2:

	Completed Units	WIP Units
	31,200	9,360
Raw Mat. Consumed	12,48,000	3,36,960
Direct Wages	7,80,000	1,40,400
Overheads	9,36,000	1,68,480
	29,64,000	6,45,840
Gross Factory Cost	**36,09,840**	

Add: Op WIP	-
Less: Cl. WIP **(At Prime Cost)**	4,77,360
Cost of Production	**31,32,480**
Add: Op FG Stock	-
Less: Cl. FG Stock	2,37,500
Cash Cost of Goods Sold	**28,94,980**
Add: Selling & Distribution Expenses (Bal. Figure)	3,79,706
Cost Of Sales	**32,74,686**
Profit*	8,61,000
Sales	**41,35,686**

*It is assumed that profit is unchanged

WN 3 - Calculation of WIP stock (units) and WIP stock amount

WIP UNITS = 30% of FG produced units i.e 30% of 31,200 units

= 9,360 units

WIP amount (at prime cost)

Raw materials = 9,360 x 40 x 90% = 3,36,960

Direct wages = 9,360 x 25 x 60% = 1,40,400

WN 4 - Calculation of purchases from suppliers

Raw Materials Consumed = OP RM Stock + Purchases - Closing RM Stock

15,84,960 = 0 + Purchases – 1,32,080

Purchases = 17,17,040

WN 5 – Calculation of safety margin

Safety Margin = 15% Of Net Working Capital Needs

Excess Of CA Less CL	85	11,99,839.08
Safety Margin	15	2,11,736.31
Net Working Capital	100	1411575.388

(b) EPS = ROE x BVPS (WN 1)

EPS = 0.15 x 125 = ₹ 18.75

Growth = ROE x Retention Ratio

= 0.15 x 0.65

= 9.75%

D1 = Do (1 + g)

= (18.75 x 35%)(1 + 0.0975)

= ₹ 7.20

Intrinsic Value of share today - Gordon's Formula

$$Po = \frac{D_1}{Ke - g}$$

$$= \frac{7.20}{0.20 - 0.0975}$$

Po = ₹ 70.24

Intrinsic Value of share today - Walter's Model

$$Po = \frac{D + \frac{r}{K_e}(E - D)}{K_e}$$

Here D = Do assuming it would remain constant through infinity

$$Po = \frac{6.5625 + \frac{0.15}{0.20}(18.75 - 6.5625)}{0.20}$$

Po = ₹ 78.51

WN 1 - Relationship between ROE-EPS-BVPS

$$ROE = \frac{\text{Earnings for Equity Shareholders}}{\text{Equity shareholders funds}}$$

If we divide the numerator and denominator with "**No of equity shares**"

$$ROE = \frac{\text{Earnings for Equity Shareholders} \ / \ \text{No of equity shares}}{\text{Equity shareholders funds} \ / \ \text{No of equity shares}}$$

Therefore, ROE = EPS / BVPS

3. Calculation of NPV (Amount in crores)

Year	1	2	3	4	5	6	7	8	9	10
EBT	2.000	2.500	4.000	4.750	6.000	6.400	6.150	5.250	3.800	2.900
Add: Interest	0.195	0.195	0.195	0.252	0.252	0.252	0.252	0.252	0.252	0.252
Add: Allocated Common Cost	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125
Project Profit Before Tax	2.320	2.820	4.320	5.127	6.377	6.777	6.527	5.627	4.177	3.277
Less: Tax	-	-	-	1.154	1.435	1.525	1.469	1.266	0.940	0.737
Profit After Tax	2.320	2.820	4.320	3.973	4.942	5.252	5.058	4.361	3.237	2.539
Add: Depreciation	2.410	2.410	2.410	2.410	2.410	2.410	2.410	2.410	2.410	-
Cash Inflows	4.730	5.230	6.730	6.383	7.352	7.662	7.468	6.771	5.647	2.539

Add: Release Of Working Capital	-	-	-	-	-	-	-	-	-	5.000
Add: Net Cash Inflow from sale of asset (Net Of Tax) (WN-3)	-	-	-	-	-	-	-	-	-	3.471
Total Cash Inflows	4.730	5.230	6.730	6.383	7.352	7.662	7.468	6.771	5.647	11.010
DF @ 15%	0.870	0.756	0.658	0.572	0.497	0.432	0.376	0.327	0.284	0.247
PV Cash Inflow	4.113	3.955	4.425	3.650	3.655	3.312	2.808	2.213	1.605	2.722

TOTAL PV CI = 32.458 Crores

(-) TOTAL PVCO = 30.000 Crores (Initial Outlay + Working Capital)

NPV = 2.458 Crores

ADVISE - Since NPV is positive, company should go for the project.

Notes - 1. Allocated common costs are to be excluded from cash inflows

2. Dividend distribution are deemed irrelevant for cash flow analysis
3. Discounting rate = MCLR + premium = 12 + 3 = 15%
4. Interest exp is to be excluded from the cash inflows as it is already getting covered in the discounting rate above
5. Professional fees paid for project report and R&D costs being sunk costs are irrelevant for decision making

WN 1 – Calculation of applicable taxes each year

For the first 3 years, tax will be zero and for the next 7 years tax rate applicable would 22.5% (30 x 0.75) as balance tax will be paid in Australia, so it will have no relevance under India perspective calculations.

WN – 2 Calculation of interest expense each year

Since post tax interest rate is given in the question, firstly it needs to be converted to pre-tax rate. However, for the first 3 years of the project, post-tax and pre-tax rate would be same owing to zero taxes

Interest Expense (first 3 years) = 3,00,00,000 X 6.5% = 19,50,000 or 0.195 crores

Interest Expense (next 7 years) = 3,00,00,000 x 8.39% = 25,17,000 or 0.2517 crores

$$\text{Pre-tax Interest Rate} = \frac{\text{Post tax Rate}}{1 - \text{India Tax Rate}}$$

= 6.5 / (1 - 0.225)

= 8.39%

WN 3 – CALCULATION OF CAPITAL GAINS INCOME IN YEAR 10

Cost of Asset remaining in the block at the beginning of Year 10

= 3,31,00,000 (2,41,00,000 + 90,00,000)

(+) New Asset purchased during the year = 0

(-) Sale Value of the Asset = 3,50,00,000

Capital Gains Income before tax = 19,00,000

(-) Capital Gains tax = 19,00,000 x 15% = 2,85,000

Net Cash Inflow after tax = 3,50,00,000- 2,85,000

= 3,47,15,000

B) Current Payback Period = 4 + 1.927 /7.352

= 4.262 years

Target Payback Period = 3.5 years

Some key measures to reduce your Payback period are as follows (Only illustrative):

i. Emphasizing on reduction of operational costs

ii. Improving marketing thereby resulting into higher sales

iii. Incorporate product-led growth strategies

iv. Judicious efforts in bringing down the overall cost of capital thereby reducing the discounting rate and in turn better Payback period.

v. Leveraging out the presence of the fixed cost

4. (a)

Particulars	Factoring	Forfaiting
A) Meaning	**Factoring** involves sales of receivables to the financial institution called factor in exchange for immediate cash payment	**Forfaiting** is a form of export financing where the exporter sells the rights to trade receivables to a forfaiter and receives instant cash
B) Recourse or non-recourse	May be on Recourse or Non-recourse basis	Always non-recourse
C) Amount paid	Firms are generally paid 80% to 90% upfront	100% on the value of exported goods is paid
D) Type of receivables	Receivables may either domestic or international	Receivables are international
E) Cost	Factoring cost in the form of factor commission or fees is to be borne by the seller	Overseas Buyer bears the forfaiting cost, if any

F) **Secondary market**	Factoring does not involve a secondary market for the receivables, meaning that the transaction is complete once the receivables are sold to the factor.	Forfaiting has a secondary market where the receivables can be traded, enhancing liquidity and providing additional opportunities for investors

(b) Some of the tasks that demonstrate the importance of good financial management

- Taking care not to over invest in fixed assets
- Balancing cash-outflows with cash-inflows
- Ensuring that there is a sufficient level of working capital
- Setting sales revenue targets that will deliver growth
- Increasing the Gross profit by setting the correct pricing for products or services
- Controlling the level of general and administration expenses by finding more cost-efficient ways of running the day-to-day business operations
- Tax Planning that will minimize the taxes a business has to pay

(c) A drop lock is an arrangement whereby the interest rate on a floating-rate note becomes fixed if it falls to a specified level. Above that level the rate floats based on a benchmark market rate, typically with a semi-annual reset. In other words, drop lock bonds marry the attributes of both floating-rate securities and fixed-rate securities. The drop lock effectively sets a floor on the rate and a guaranteed minimum return to

Or

(c) Advantage to the Company - Stock dividends are suitable in the situation of cash crunch and deficiency faced by the company and suitable when restrictions are imposed by lenders to pay the cash dividend

Advantage to the investor – Improves liquidity in the hands of the investors as bonus shares leads to breaking down of higher priced shares into lower priced shares and hence give a choice to shareholders to sell some of the lower priced shares and get some liquidity

ANSWERS OF MODEL TEST PAPER 8

INTERMEDIATE: GROUP – II

PAPER – 6: FINANCIAL MANAGEMENT & STRATEGIC MANAGEMENT

PAPER 6A : FINANCIAL MANAGEMENT

Suggested Answers/ Hints

PART I – Case Scenario based MCQs

1. **i.** **(D)** **₹ 3.3779**

ii. **(B)** **₹ 8.3655**

iii. **(A)** **₹ 72.28**

iv. **(C)** **₹ 45.79**

v. **(B)** **₹ 54.33**

Intrinsic Value = Sum of PV of Expected Dividends + PV of Share Price at the end of the period

The following steps are required:

A. Determine PV of expected dividends to be received in the next four years.

B. Determine PV share at the end of 4th Year.

C. Add the values of A and B above.

(A)

Year	$D_1 = D_0(1+g)$	PV Discount Factor @ 12%	PV in ₹
1	2(1+14%) =2.28	0.893	2.0364
2	2.28(1+14%) =2.5992	0.797	2.0715
3	2.5992(1+14%) =2.9631	0.712	2.1097
4	2.9631(1+14%) =**3.3779**	0.636	2.1483
(A) Total PV of Expected Dividend			₹ **8.3655**

$$P_4 = \frac{D_5}{K_e - g} = \frac{D_4(1+g)}{K_e - g} = \frac{3.3779(1+7\%)}{12\% - 7\%} = \text{₹ } \mathbf{72.28}$$

(B) PV of share at the end of 4th Year = ₹ 72.28 x 0.636 =**₹ 45.97**

(C) Market Price of shares = ₹ 8.3655 + ₹ 45.97=**₹ 54.33**

2. **(B)** **6.16%**

To calculate WACC, we use the formula:

WACC = (E/V) × Re + (D/V) × Rd × (1 - Tc)

Let V be the total value of the firm, then Debt is equal to 1.5/(1+1.5) times the value of the firm and Equity is equal to 1/(1+1.5) times the value of the firm.

So, D/V = 1.5/(1+1.5) = 0.6 and E/V = 1/(1+1.5) = 0.4

WACC = 0.4 × 10% + 0.6 × 6% × (1 - 40%) = 4% + 2.16% = 6.16%

Therefore, the company's weighted average cost of capital is 6.16%.

3. (A) 1.11

EBIT = 3,00,000 x (3-1) – 3,50,000 = 2,50,000,

PBT = 2,50,000 – 25,000 – 2,25,000

FL = 2,50,000/2,25,000 = 1.11

4. (C) both automatic and approval route

PART II – Descriptive Questions

1. (a) Calculation of Cost of Preference Shares (K_p)

Preference Dividend (PD) = 0.12 x 40,000 x 100 = 4,80,000

Floatation Cost = 40,000 x 2 = ₹ 80,000

Net Proceeds (NP) = 42,00,000 – 80,000 = 41,20,000

Redemption Value (RV)= 40,000 x 110 = 44,00,000

Cost of Redeemable Preference Shares = $\dfrac{PD + (RV - NP)/N}{\dfrac{RV + NP}{2}}$

$$K_p = \frac{4,80,000 + (44,00,000 - 41,20,000)/10}{\dfrac{44,00,000 + 41,20,000}{2}}$$

$$= \frac{4,80,000 + (2,80,000)/10}{85,20,000/2}$$

$$= \frac{4,80,000 + 28,000}{42,60,000} = \frac{5,08,000}{42,60,000}$$

$$= 0.1192$$

$$K_p = 11.92\%$$

(**Note:** K_p may be computed alternatively by taking the RV and NP for one unit of preference shares. Final figure would remain unchanged).

(b) Calculation of Net Cash flow

Contribution = (3.00 – 1.75) × 50,000 = ₹ 62,500

Fixed costs = 40,000 – [(1,25,000 – 30,000)/5] = ₹ 21,000

Year	Capital (₹)	Contribution (₹)	Fixed costs (₹)	Adverts (₹)	Net cash flow (₹)
0	(1,00,000)	-	-	-	(1,00,000)
1	(25,000)	62,500	(21,000)	(10,000)	6,500
2	-	62,500	(21,000)	(15,000)	26,500
3	-	62,500	(21,000)	-	41,500

4	-	62,500	(21,000)	-	41,500
5	30,000	62,500	(21,000)	-	71,500

Calculation of Net Present Value

Year	Net cash flow (₹)	10% discount factor	Present value (₹)
0	(1,00,000)	1.000	(1,00,000)
1	6,500	0.909	5,909
2	26,500	0.826	21,889
3	41,500	0.751	31,167
4	41,500	0.683	28,345
5	71,500	0.621	44,402
		NPV	31,712

The net present value of the project is ₹ 31,712.

(c)

	(₹)
Sales	24,00,000
Less: Variable cost	12,00,000
Contribution	12,00,000
Less: Fixed cost	10,00,000
EBIT	2,00,000
Less: Interest	1,00,000
EBT	1,00,000
Less: Tax (50%)	50,000
EAT	50,000
No. of equity shares	10,000
EPS	5

(a) Operating Leverage $= \frac{₹12,00,000}{₹2,00,000} = 6 \text{ times}$

(b) Financial Leverage $= \frac{₹2,00,000}{₹1,00,000} = 2 \text{ times}$

(c) Combined Leverage = OL × FL = 6 × 2 = 12 times.

(d) ROI $= \frac{₹50,000}{₹10,00,000} \times 100 = 5\%$

Here ROI is calculated as ROE i.e. $\frac{\text{EAT - Pref.Dividend}}{\text{Equity shareholders' fund}}$

(e) Operating Leverage = 6

$$6 = \frac{\Delta\, \text{EBIT}}{0.25}$$

$$\Delta \text{ EBIT} = \frac{6 \times 1}{4} = 1.5$$

Increase in EBIT = ₹ 2,00,000 × 1.5

= ₹ 3,00,000

New EBIT = ₹ 5,00,000

2. Working Notes:

1. **Raw Material Storage Period (R)**

$$= \frac{\text{Average Stock of Raw Material}}{\text{Annual Consumption of Raw Material}} \times 365$$

$$= \frac{\frac{₹\,45,000 + ₹\,65,356}{2}}{₹\,3,79,644} \times 365$$

= 53 days.

Annual Consumption of Raw Material = Opening Stock + Purchases-Closing Stock

= ₹ 45,000 + ₹ 4,00,000 – ₹ 65,356

= ₹ 3,79,644

2. **Work-in-Progress (WIP) Conversion Period (W)**

$$\text{WIP Conversion Period} = \frac{\text{Average Stock of WIP}}{\text{Annual Cost of Production}} \times 365$$

$$= \frac{\frac{₹\,35,000 + ₹\,51,300}{2}}{₹\,7,50,000} \times 365$$

= 21 days

3. **Finished Stock Storage Period (F)**

$$= \frac{\text{Average Stock of Finished Goods}}{\text{Cost of Goods Sold}} \times 365$$

$$= \frac{₹\,65,178}{₹\,9,15,000} \times 365 = 26 \text{ days.}$$

$$\text{Average Stock} = \frac{₹\,60,181 + ₹\,70,175}{2}$$

= ₹ 65,178.

4. **Debtors Collection Period (D)**

$$= \frac{\text{Average Debtors}}{\text{Annual Credit Sales}} \times 365$$

$$= \frac{₹\,1,23,561.50}{₹\,11,00,000} \times 365$$

= 41 days

Average debtors = $\frac{₹1,12,123 + ₹1,35,000}{2} = ₹1,23,561.50$

5. **Creditors Payment Period (C)**

$= \frac{\text{Average Creditors}}{\text{Annual Net Credit Purchases}} \times 365$

$= \frac{\left(\frac{₹50,079 + ₹70,469}{2}\right)}{₹4,00,000} \times 365$

= 55 days

(i) Operating Cycle Period

= R + W + F+ D - C

= 53 + 21 + 26 + 41 - 55

= 86 days

(ii) Number of Operating Cycles in the Year

$= \frac{365}{\text{Operating Cycle Period}} = \frac{365}{86} = 4.244$

(iii) Amount of Working Capital Required

$= \frac{\text{Annual Operating Cost}}{\text{Number of Operating Cycles}} = \frac{₹\ 9,50,000}{4.244} = ₹\ 2,\ 23,845.42$

3. (a) Plan I = Raising Debt of ₹ 2.5 lakh + Equity of ₹ 22.5 lakh

Plan II = Raising Debt of ₹ 10 lakh + Equity of ₹ 15 lakh

Plan III = Raising Debt of ₹ 15 lakh + Equity of ₹ 10 lakh

Calculation of Earnings per share (EPS):

Particulars	**FINANCIAL PLANS**		
	Plan I	**Plan II**	**Plan III**
	₹	**₹**	**₹**
Expected EBIT	5,00,000	5,00,000	5,00,000
Less: Interest [(a)]	(25,000)	(1,37,500)	(2,37,500)
Earnings before taxes	4,75,000	3,62,500	2,62,500
Less: Taxes @ 50%	(2,37,500)	(1,81,250)	(1,31,250)
Earnings after taxes (EAT)	2,37,500	1,81,250	1,31,250
Number of shares [(b)]	15,000	10,000	8,000
Earnings per share (EPS)	15.83	18.13	16.41

Financing Plan II (i.e. Raising debt of ₹ 10 lakh and issue of equity share capital of ₹ 15 lakh) is the option which maximises the earnings per share.

Working Notes:

(a) Calculation of interest on Debt

Plan		₹	₹
I	(₹ 2,50,000 ´ 10%)		25,000
II	(₹ 2,50,000 ´ 10%)	25,000	
	(₹ 7,50,000 ´ 15%)	1,12,500	1,37,500
III	(₹ 2,50,000 ´ 10%)	25,000	
	(₹ 7,50,000 ´ 15%)	1,12,500	
	(₹ 5,00,000 ´ 20%)	1,00,000	2,37,500

(b) Number of equity shares to be issued

Plan I $= \dfrac{₹\ 22,50,000}{₹\ 150\ \text{(Market price of share)}}$ = 15,000 shares

Plan II $= \dfrac{₹\ 15,00,000}{₹\ 150} = 10,000$ shares

Plan III $= \dfrac{₹\ 10,00,000}{₹\ 125} = 8,000$ shares

(b)

Ratios	Navya Ltd.	Industry Norms
1. Current Ratio = $\dfrac{\text{Current Assets}}{\text{Current Liabilities}}$	$\dfrac{₹52,80,000}{₹19,80,000} = 2.67$	2.50
2 Receivable Turnover Ratio $= \dfrac{\text{Sales}}{\text{Debtors}}$	$\dfrac{₹1,10,00,000}{₹11,00,000} = 10.0$	8.00
3. Inventory turnover ratio = $\dfrac{\text{Sales}}{\text{Stock}}$	$\dfrac{₹1,10,00,000}{₹33,00,000} = 3.33$	9.00
4. Total Asset Turnover ratio $= \dfrac{\text{Sales}}{\text{Total Assets}}$	$\dfrac{₹1,10,00,000}{₹77,00,000} = 1.43$	2.00
5 Net Profit Ratio = $\dfrac{\text{Net Profit}}{\text{Sales}}$	$\dfrac{₹2,31,000}{₹1,10,00,000} = 2.10\%$	3.50%
6. Return on Total Asset $= \dfrac{\text{EBIT}}{\text{Total Assets}}$	$\dfrac{₹5,54,000}{₹77,00,000} = 7.19\%$	7%

7. Return on Net worth = $\frac{\text{Net Profit}}{\text{Net Worth}}$		$\frac{₹2,31,000}{₹48,00,000} = 4.81\%$	10.5%
8. $\frac{\text{Total Debt}}{\text{Total Assets}}$		$\frac{₹29,00,000}{₹77,00,000} = 37.66\%$	60%

Comments:

1. The position of Navya Ltd. is better than the industry norm with respect to Current Ratio and Receivables Turnover Ratio.
2. However, the Inventory turnover ratio and Total Asset Turnover ratio is poor comparing to industry norm indicating that company is inefficient to utilize its inventory and assets.
3. The firm also has its net profit ratio and return on net worth ratio much lower than the industry norm.
4. Total debt to total assets ratio is lower that the industry standard which suggests that the firm is less levered by debt and more by equity resulting in less risky company.

4. (a) Inter-relationship between Investment, Financing and Dividend Decisions: The finance functions are divided into three major decisions, viz., investment, financing and dividend decisions. It is correct to say that these decisions are inter-related because the underlying objective of these three decisions is the same, i.e. maximisation of shareholders' wealth. Since investment, financing and dividend decisions are all interrelated, one has to consider the joint impact of these decisions on the market price of the company's shares and these decisions should also be solved jointly. The decision to invest in a new project needs the finance for the investment. The financing decision, in turn, is influenced by and influences dividend decision because retained earnings used in internal financing deprive shareholders of their dividends. An efficient financial management can ensure optimal joint decisions. This is possible by evaluating each decision in relation to its effect on the shareholders' wealth.

The above three decisions are briefly examined below in the light of their inter-relationship and to see how they can help in maximising the shareholders' wealth i.e. market price of the company's shares.

***Investment decision**:* The investment of long term funds is made after a careful assessment of the various projects through capital budgeting and uncertainty analysis. However, only that investment proposal is to be accepted which is expected to yield at least so much return as is adequate to meet its cost of financing. This have an influence on the profitability of the company and ultimately on its wealth.

***Financing decision**:* Funds can be raised from various sources. Each source of funds involves different issues. The finance manager has to maintain a proper balance between long-term and short-term funds. With the total volume of long-term funds, he has to ensure a proper mix of loan funds and owner's funds. The optimum financing mix will increase return to equity shareholders and thus maximise their wealth.

Dividend decision*:* The finance manager is also concerned with the decision to pay or declare dividend. He assists the top management in deciding as to what portion of the profit should be paid to the shareholders by way of dividends and what portion should be retained in the business. An optimal dividend pay-out ratio maximises shareholders' wealth.

The above discussion makes it clear that investment, financing and dividend decisions are interrelated and are to be taken jointly keeping in view their joint effect on the shareholders' wealth.

(b) The financing of current assets involves a trade off between risk and return. A firm can choose from short or long term sources of finance. Short term financing is less expensive than long term financing but at the same time, short term financing involves greater risk than long term financing.

Depending on the mix of short term and long term financing, the approach followed by a company may be referred as matching approach, conservative approach and aggressive approach.

In matching approach, long-term finance is used to finance fixed assets and permanent current assets and short term financing to finance temporary or variable current assets. Under the conservative plan, the firm finances its permanent assets and also a part of temporary current assets with long term financing and hence less risk of facing the problem of shortage of funds.

An aggressive policy is said to be followed by the firm when it uses more short term financing than warranted by the matching plan and finances a part of its permanent current assets with short term financing.

(c) **Optimum Capital Structure:** The capital structure is said to be optimum when the firm has selected such a combination of equity and debt so that the wealth of firm is maximum. At this capital structure, the cost of capital is minimum and the market price per share is maximum.

Or

(c) In dividend price approach, cost of equity capital is computed by dividing the current dividend by average market price per share. This ratio expresses the cost of equity capital in relation to what yield the company should pay to attract investors. It is computed as:

$$K_e = \frac{D_1}{P_0}$$

Where,

D_1 = Dividend per share in period 1

P_0 = Market price per share today

ANSWERS OF MODEL TEST PAPER 1

PAPER 6B: STRATEGIC MANAGEMENT

PART I

1. (A)	**(i)**	**(a)**	**(ii)**	**(b)**	**(iii)**	**(c)**	**(iv)**	**(b)**	**(v)**	**(c)**
(B)	**(i)**	**(c)**	**(ii)**	**(b)**	**(iii)**	**(b)**				

PART II

1. (a) Swati operates at the functional level of management, specifically as the marketing manager at a software company. Functional managers like Swati oversee specific departments or functions within an organization, such as marketing, finance, or operations. Their primary responsibilities include implementing corporate strategies and policies within their area of expertise and ensuring that daily operations are conducted efficiently and effectively.

In Swati's case, as a marketing manager, her role involves developing and executing marketing strategies for the company's products. This includes leading a team of marketing professionals, collaborating with product development and sales teams, and analyzing market trends and customer feedback to refine strategies. By working closely with these teams, Swati ensures that the company's products are effectively promoted in the market and that marketing efforts align with overall business goals.

Functional managers like Swati play a critical role in the organization by bridging the gap between corporate strategy and daily operations. They are responsible for translating high-level strategic goals into actionable plans for their departments and ensuring that these plans are executed effectively. Additionally, they are often key decision-makers within their areas of responsibility, making strategic choices that impact on the company's success. Overall, Swati's role as a marketing manager exemplifies the importance of functional managers in driving the success of their organizations.

(b) The PESTLE framework can help ABC Corp assess the external factors affecting its decision to expand into a new country by considering the following aspects:

- **Political Factors**: These include the stability of the government, government policies on foreign investment, trade agreements, and regulatory frameworks. By analyzing these factors, ABC Corp can assess the political risks associated with entering the new market.
- **Economic Factors**: Economic factors such as GDP growth rate, inflation rate, exchange rates, and economic stability can impact ABC Corp's decision. By analyzing these factors, the company can

understand the economic environment of the new market and its potential impact on business operations.

- **Social Factors**: Social factors such as cultural norms, demographics, and lifestyle trends can influence consumer behavior and demand for ABC Corp's products. Understanding these factors can help the company tailor its marketing strategies to the new market.
- **Technological Factors**: Technological factors such as infrastructure, technological advancements, and the level of technology adoption in the new market can impact ABC Corp's operations. By assessing these factors, the company can determine the technological requirements for entering the new market.
- **Legal Factors**: Legal factors such as laws and regulations related to foreign investment, intellectual property rights, and labor laws can impact ABC Corp's decision. By analyzing these factors, the company can ensure compliance with legal requirements in the new market.
- **Environmental Factors**: Environmental factors such as climate change, environmental regulations, and sustainability practices can impact ABC Corp's operations and reputation. By considering these factors, the company can assess the environmental risks and opportunities in the new market.

Overall, the PESTLE framework can provide ABC Corp with a comprehensive analysis of the external factors that could impact its decision to expand into a new country, helping the company make informed and strategic decisions.

(c) To help the small manufacturing company navigate its digital transformation successfully, we would recommend the following strategy:

1. **Begin at the top:** The leadership team should be united and committed to the digital transformation. They should communicate a clear vision for the future of the company and lead by example.
2. **Ensure that the change is necessary and desired:** Before implementing any changes, the company should assess its current state and identify areas where digital transformation can add value. It's important to involve employees in this process to ensure their buy-in.
3. **Reduce disruption:** Employee perceptions of change can vary, so it's important to minimize disruption. This can be done by communicating early and often about the changes, providing training and support for employees, and empowering change agents within the organization.

4. **Encourage communication:** Create channels for employees to ask questions and provide feedback. Encourage collaboration between departments to share ideas and innovations. Effective communication can help alleviate fears and keep everyone aligned.

5. **Recognize that change is the norm:** Digital transformation is not a one-time project but an ongoing process. The company should be prepared to adapt to new technologies and market conditions continuously.

By following these best practices, the small manufacturing company can successfully navigate its digital transformation and position itself for future growth and success.

2. **(a)** The retail company can develop a strategic approach that is both proactive and reactive to address the challenge of increasing competition from online retailers. To achieve this, the company can:

- **Proactive Strategy:** The company can proactively analyze market trends and customer preferences to identify opportunities for growth. For example, it can invest in market research to understand what customers value in a retail experience and tailor its offerings to meet those needs. This proactive approach can help the company stay ahead of competitors and attract new customers.

- **Reactive Strategy:** In addition to proactive measures, the company should also be prepared to react to changes in the market environment. For example, if a competitor launches a new online shopping platform, the company should quickly assess the impact on its business and develop a response. This reactive strategy can help the company adapt to changing market conditions and maintain its competitiveness.

By combining proactive and reactive strategies, the retail company can develop a comprehensive approach to addressing the challenge of increasing competition from online retailers. This approach will allow the company to capitalize on opportunities for growth while also mitigating risks and responding to threats in the market.

(b) To target tech-savvy consumers for the new smartphone model, the tech company can develop a marketing strategy based on customer behavior. Consumer behaviour may be influenced by a number of things. These elements can be categorised into the following conceptual domains:

- **External Influences:** Utilize online platforms and tech forums to generate buzz around the new smartphone. Partner with tech influencers and bloggers to review the product and create awareness among tech-savvy consumers.

- **Internal Influences:** Appeal to the desire for innovation and advanced features among tech-savvy consumers. Highlight the unique selling points of the new smartphone, such as its cutting-edge technology, performance, and design.

- **Decision Making:** Recognize that tech-savvy consumers are early adopters who value functionality and performance. Provide detailed specifications and comparisons with other smartphones to help them make an informed decision.
- **Post-decision Processes:** Offer excellent customer service and support to address any technical issues or concerns. Encourage customers to provide feedback and reviews to build credibility and trust among tech-savvy consumers.

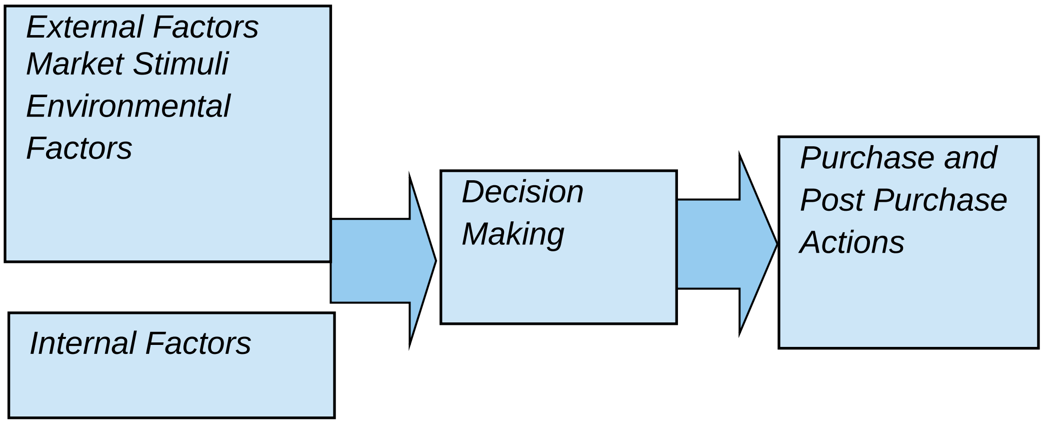


Figure: Process of consumer behaviour

By understanding the behavior of tech-savvy consumers and aligning the marketing strategy with their preferences, the tech company can effectively promote the new smartphone and attract this demographic.

3. (a) To study the market position of rival companies in the energy drink segment, the strategic manager can use **strategic group mapping.** This tool helps identify strategic groups, which consist of rival firms with similar competitive approaches and positions in the market. The procedure for implementing strategic group mapping effectively is as follows:

1. **Identify the competitive characteristics** that differentiate firms in the industry typical variables that are price/quality range (high, medium, low); geographic coverage (local, regional, national, global); degree of vertical integration (none, partial, full); product-line breadth (wide, narrow); use of distribution channels (one, some, all); and degree of service offered (no-frills, limited, full).
2. **Plot the firms on a two-variable map** using pairs of these differentiating characteristics.

3. **Assign firms that fall in about the same strategy space** to the same strategic group.

4. **Draw circles around each strategic group** making the circles proportional to the size of the group's respective share of total industry sales revenues.

By following these steps, the strategic manager can gain valuable insights into the competitive landscape of the energy drink segment and identify potential positioning strategies for the new line of energy drinks targeted at health-conscious consumers.

(b) A workable action plan for turnaround of the textile mill would involve:

- **Stage One – Assessment of current problems**: In the first step, assess the current problems and get to the root causes and the extent of damage.
- **Stage Two – Analyze the situation and develop a strategic plan:** Identify major problems and opportunities, develop a strategic plan with specific goals and detailed functional actions after analyzing strengths and weaknesses in the areas of competitive position.
- **Stage Three – Implementing an emergency action plan**: If the organization is in a critical stage, an appropriate action plan must be developed to stop the bleeding and enable the organization to survive.
- **Stage Four – Restructuring the business**: If the core business is irreparably damaged, then the outlook for the entire organization may be bleak. Efforts to be made to position the organization for rapid improvement.
- **Stage Five – Returning to normal**: In the final stage of turnaround strategy process, the organization should begin to show signs of profitability, return on investments and enhancing economic value-added.

4. (a) Strategic performance measures are essential for organizations for several reasons:

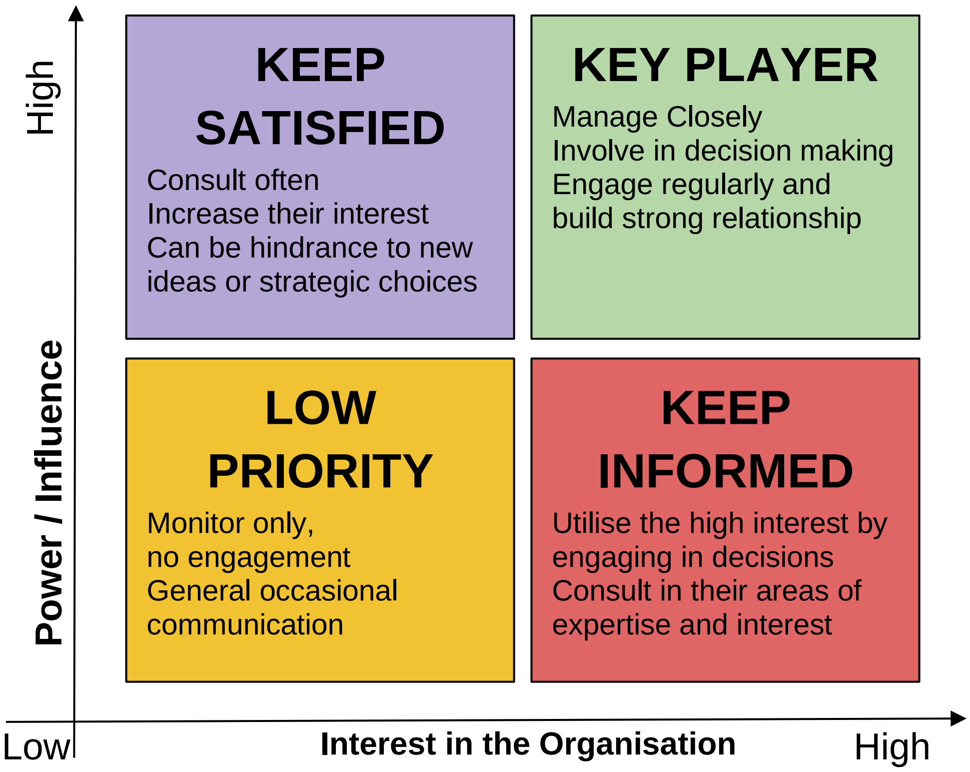
♦ **Goal Alignment:** Strategic performance measures help organizations align their strategies with their goals and objectives, ensuring that they are on track to achieve their desired outcomes.

♦ **Resource Allocation:** Strategic performance measures provide organizations with the information they need to make informed decisions about resource allocation, enabling them to prioritize their efforts and allocate resources to the areas that will have the greatest impact on their performance.

- **Continuous Improvement:** Strategic performance measures provide organizations with a framework for continuous improvement, enabling them to track their progress and make adjustments to improve their performance over time.
- **External Accountability:** Strategic performance measures help organizations demonstrate accountability to stakeholders, including shareholders, customers, and regulatory bodies, by providing a clear and transparent picture of their performance.

(b) Mendelow's Matrix can be used effectively to analyze and manage stakeholders through a grid-based approach by the following steps:

1. **Identify Stakeholders:** Begin by identifying all relevant stakeholders for your project or organization. This includes individuals, groups, or organizations that may be impacted by or have an impact on your activities.
2. **Assess Power and Interest:** For each stakeholder, assess their power to influence your project or organization and their level of interest in its success. Power can be assessed based on factors such as authority, resources, and expertise, while interest can be gauged by their level of involvement, expectations, and potential benefits or risks.
3. **Plot Stakeholders on the Grid:** Create a grid with Power on one axis and Interest on the other. Plot each stakeholder on the grid based on your assessment. Stakeholders with high power and high interest are placed in the "Key Players" quadrant, those with high power but low interest are in the "Keep Satisfied" quadrant, those with low power but high interest are in the "Keep Informed" quadrant, and those with low power and low interest are in the "Low Priority" quadrant.



4. **Develop Strategies for each Quadrant:** Based on the placement of stakeholders in the grid, develop specific strategies for managing each quadrant:

    - **Key Players:** Fully engage with these stakeholders, seek their input, and keep them informed. They are crucial for the success of your project, so their needs and expectations should be a top priority.
    - **Keep Satisfied:** These stakeholders have significant power but may not be as interested in your project. Keep them satisfied by providing regular updates and addressing any concerns they may have to prevent them from becoming detractors.
    - **Keep Informed:** While these stakeholders may not have much power, they are highly interested in your project. Keep them informed to ensure they remain supportive and to leverage their insights and feedback.
    - **Low Priority:** These stakeholders have low power and interest. Monitor them for any changes but allocate minimal resources to managing their expectations.

5. **Monitor and Adapt:** Continuously monitor the power and interest of stakeholders and adjust your strategies accordingly. Stakeholders may move between quadrants based on changing circumstances, so it's important to remain flexible and responsive.

By using Mendelow's Matrix as a grid-based tool, you can effectively analyze and manage stakeholders by tailoring your engagement strategies to their specific needs and expectations, ultimately increasing the likelihood of project success.

OR

The following are the principal points of distinction between concentric diversification and conglomerate diversification:

(i) Concentric diversification occurs when a firm adds related products or markets. On the other hand, conglomerate diversification occurs when a firm diversifies into areas that are unrelated to its current line of business.

(ii) In concentric diversification, the new business is linked to the existing businesses through process, technology or marketing. In conglomerate diversification, no such linkages exist; the new business/product is disjointed from the existing businesses/ products.

(iii) The most common reasons for pursuing concentric diversification are that opportunities in a firm’s existing line of business are available. However, common reasons for pursuing a conglomerate growth strategy are that opportunities in a firm's current line of business are limited or opportunities outside are highly lucrative.

ANSWERS OF MODEL TEST PAPER 2

PAPER 6B: STRATEGIC MANAGEMENT

PART I - Case Scenario based MCQs

1. (A)	**(i)**	**(b)**	**(ii)**	**(c)**	**(iii)**	**(b)**	**(iv)**	**(b)**	**(v)**	**(b)**
(B)	**(i)**	**(c)**	**(ii)**	**(b)**	**(iii)**	**(b)**				

PART II - Descriptive Questions

1. (a) The retail chain is employing a strategy that combines both proactive and reactive elements. Monitoring consumer trends and adjusting product offerings accordingly demonstrates a proactive approach to anticipate and meet customer needs. On the other hand, maintaining a flexible supply chain to respond quickly to changes in demand reflects a reactive strategy to address unforeseen shifts in the market.

This combination allows the retail chain to both anticipate future trends and react effectively to immediate market changes, making its strategy partly proactive and partly reactive. This dual strategy of proactive trend monitoring and reactive supply chain flexibility enables the retail chain to anticipate market shifts and adapt to them effectively, ensuring its competitiveness and customer satisfaction.

(b) PQR Ltd. has planned to implement the Strategic Business Unit (SBU) structure. Very large organisations, particularly those running into several products, or operating at distant geographical locations that are extremely diverse in terms of environmental factors, can be better managed by creating strategic business units. SBU structure becomes imperative in an organisation with increase in number, size and diversity.

The attributes of an SBU and the benefits a firm may derive by using the SBU Structure are as follows:

- A scientific method of grouping the businesses of a multi – business corporation which helps the firm in strategic planning.
- An improvement over the territorial grouping of businesses and strategic planning based on territorial units.
- Strategic planning for SBU is distinct from rest of businesses. Products/ businesses within an SBU receive same strategic planning treatment and priorities.
- Each SBU will have its own distinct set of competitors and its own distinct strategy.
- The CEO of SBU will be responsible for strategic planning for SBU and its profit performance.

- Products/businesses that are related from the standpoint of function are assembled together as a distinct SBU.
- Unrelated products/ businesses in any group are separated into separate SBUs.
- Grouping the businesses on SBU lines helps in strategic planning by removing the vagueness and confusion.
- Each SBU is a separate business and will be distinct from one another on the basis of mission, objectives etc.

(c) Competition from new sustainable fashion brands falls under the "Threat of New Entrants" category of Porter’s Five Forces Model for Competitive Analysis. These new entrants pose a threat to existing sustainable clothing retailers like *GreenThrift Inc.* by increasing competition and potentially eroding market share. The emergence of these brands, focusing on using organic and recycled materials along with ethical manufacturing practices, aligns with the values of environmentally conscious consumers, making them strong competitors in the sustainable fashion market.

2. (a) Each organization has to build its competitive advantage over the competitors in the business warfare in order to win. This can be done only by following the process of strategic management. Strategic Management is very important for the survival and growth of business organizations in dynamic business environments. Other major benefits of strategic management are as follows:

- Strategic management helps organizations to be more proactive rather than reactive in dealing with its future. It facilitates to work within vagaries of environment and remains adaptable with the turbulence or uncertain future. Therefore, they are able to control their own destiny in a better way.
- It provides better guidance to entire organization on the crucial point – what it is trying to do. Also provides frameworks for all major business decisions of an enterprise such as on businesses, products, markets, organizational structures, etc.
- It facilitates to prepare the organization to face the future and act as pathfinder to various business opportunities. Organizations are able to identify the available opportunities and identify ways and means as how to reach them.
- It serves as a corporate defence mechanism against mistakes and pitfalls. It helps organizations to avoid costly mistakes in product market choices or investments.

- ♦ Over a period of time strategic management helps organization to evolve certain core competencies and competitive advantages that assist in the fight for survival and growth.

(b) To maintain a competitive edge in the face of increased competition, *Reshuffle Corp* can differentiate its products in several ways:

- **Tangible and Intangible Aspects:** *Reshuffle Corp* can focus on the tangible aspects of its products, such as using high-quality materials and innovative designs to create furniture that is both functional and aesthetically pleasing. Additionally, they can emphasize the intangible aspects of their products, such as excellent customer service and a strong brand reputation for reliability and durability.

- **Pricing Strategies:** While market prices are often dictated by competition, *Reshuffle Corp* can work on cost optimization to maintain profitability. They can also consider offering value-added services, such as free installation or extended warranties, to justify a higher price point.

- **Product Features:** By continually optimizing their product features based on customer feedback and market trends, *Reshuffle Corp* can ensure that their products deliver maximum satisfaction to their target customers. This may include features that enhance functionality, design, quality, and overall user experience.

- **Product Centric Approach:** *Reshuffle Corp* should keep their products at the center of their strategic activities, ensuring that all business processes, from production to sales and marketing, are aligned to meet customer needs and expectations.

- **Product Life Cycle Management:** *Reshuffle Corp* should be aware of the life cycle of their products and plan for reinvention or replacement accordingly. They can introduce new product lines or upgrade existing ones to keep up with changing customer preferences and market trends.

3. (a) SWOT Analysis for *EasyLife Corporation's* New Smart Home Devices Venture:

Strengths	**Weaknesses**
• Strong brand reputation in consumer electronics. • Established distribution network. • Access to technological expertise for product development.	• Limited experience in the smart home devices market. • May require additional investments in research and development.

• Financial resources to support product launch and marketing.	• Potential challenges in integrating a new product line with existing offerings. • Lack of established customer base for smart home devices.
Opportunities • Growing market for smart home devices due to increasing consumer interest in home automation. • Possibility of partnering with existing smart home platform providers. • Potential to leverage brand loyalty from existing customers. • Ability to differentiate through innovative features and design.	**Threats** • Intense competition from established players in the smart home devices market. • Rapid technological advancements lead to short product life cycles. • Potential for cybersecurity threats in connected devices. • Economic factors impacting consumer spending on discretionary items.

The SWOT analysis highlights that while *EasyLife Corporation* has several strengths that can support the launch of a new smart home devices line, there are also significant weaknesses and threats to consider. To maximize the chances of success, *EasyLife Corporation* should focus on leveraging its brand reputation and distribution network while carefully addressing the weaknesses and threats identified. Additionally, staying informed about technological developments and consumer trends will be essential for maintaining competitiveness in the dynamic smart home devices market.

(b) The concept of forward and backward linkages between strategy formulation and implementation in strategic management highlights the interconnected nature of these two phases and their impact on the overall strategic decision-making process of an organization.

Forward Linkages: Forward linkages refer to the impact of strategy formulation on strategy implementation. When an organization formulates a new strategy or revises an existing one, it sets the direction for the organization's future actions. For example, if a company decides to expand its product line to target a new market segment, this decision will require changes in the organization's structure, resources allocation, and possibly its leadership style. These changes are necessary to align the organization's operations with the new strategic direction. Thus, the formulation of strategies has forward linkages with their implementation, as it sets the stage for how the strategy will be executed.

Backward Linkages: Backward linkages, on the other hand, refer to the impact of implementation on strategy formulation. As an organization implements its strategies, it gains valuable insights and feedback from the implementation process. This feedback can influence future strategic decisions. For example, if a company faces unexpected challenges or discovers new opportunities during the implementation of a strategy, it may need to reevaluate its strategic choices. Similarly, past strategic actions and their outcomes can also influence the formulation of future strategies. Over time, these incremental changes in strategy and implementation take the organization from its current state to where it aims to be, reflecting the dynamic nature of strategic management.

In conclusion, the forward and backward linkages between strategy formulation and implementation highlight the iterative and interconnected nature of strategic management. By understanding and leveraging these linkages, organizations can enhance their strategic decision-making process and improve their overall performance.

4. **(a)** Strategic Performance Measures (SPM) are metrics used by organizations to evaluate and track the effectiveness of their strategies in achieving strategic goals and objectives. SPM provides a framework for measuring the performance of key areas critical to the success of the organization's strategy. These measures help in assessing whether the organization is progressing towards its desired outcomes and allow for adjustments to be made to improve performance.

Types of Strategic Performance Measures

There are various types of strategic performance measures, including:

- **Financial Measures**: Financial measures, such as revenue growth, return on investment (ROI), and profit margins, provide an understanding of the organization's financial performance and its ability to generate profit.
- **Customer Satisfaction Measures**: Customer measures, such as customer satisfaction, customer retention, and customer loyalty, provide insight into the organization's ability to meet customer needs and provide high-quality products and services.
- **Market Measures**: Market measures, such as market share, customer acquisition, and customer referrals, provide information about the organization's competitiveness in the marketplace and its ability to attract and retain customers.
- **Employee Measures**: Employee measures, such as employee satisfaction, turnover rate, and employee engagement, provide insight into the organization's ability to attract and retain talented employees and create a positive work environment.

- ♦ **Innovation Measures:** Innovation measures, such as research and development (R&D) spending, patent applications, and new product launches, provide insight into the organization's ability to innovate and create new products and services that meet customer needs.
- ♦ **Environmental Measures:** Environmental measures, such as energy consumption, waste reduction, and carbon emissions, provide insight into the organization's impact on the environment and its efforts to operate in a sustainable manner.

(b) The strategy adopted by *StarTech Solutions* is Focused differentiation. This strategy involves targeting a specific segment of the market with unique products or services that are perceived as valuable by customers in that segment. By specializing in serving unique, high-end clients, *StarTech* is able to differentiate itself from competitors and create a competitive advantage.

Advantages of Focused Differentiation:

- **Strong Customer Loyalty:** By catering to a specific niche market, *StarTech* can build strong relationships with its customers, leading to higher customer loyalty and retention.
- **Higher Profit Margins:** Serving a niche market allows *StarTech* to command higher prices for its specialized products or services, leading to higher profit margins.
- **Reduced Competition:** By focusing on a niche market that other firms are not targeting, *StarTech* faces less competition, allowing it to establish itself as a leader in that segment.
- **Better Resource Allocation:** Focusing on a specific market segment allows *StarTech* to allocate its resources more efficiently, concentrating on areas that will provide the greatest return on investment.

Disadvantages of Focused Differentiation:

- **Limited Market Size:** The niche market that StarTech is targeting may be limited in size, restricting the company's potential for growth.
- **Risk of Market Changes:** Changes in the market or customer preferences could impact on the demand for *StarTech's* specialized products or services, leading to potential revenue loss.
- **Higher Costs:** Serving a niche market may require specialized resources and expertise, leading to higher costs of operation.
- **Imitation by Competitors:** If *StarTech's* success in the niche market attracts competitors, they may attempt to imitate its strategy, eroding its competitive advantage.

Overall, the focused differentiation strategy adopted by *StarTech Solutions* has allowed it to differentiate itself in a competitive industry and build a strong position in the market. However, the company must be aware of the potential challenges and risks associated with this strategy and continue to innovate and adapt to maintain its competitive edge.

OR

Strategic alliances are formed if they provide an advantage to all the parties in the alliance. These advantages can be broadly categorised as follows:

(i) **Organizational:** Strategic alliances may be formed to learn necessary skills and obtain certain capabilities from the strategic partner. Strategic partners may also help to enhance productive capacity, provide a distribution system, or extend supply chain. A strategic partner may provide a good or service that complements each other, thereby creating a synergy. If one partner is relatively new or untried in a certain industry, having a strategic partner who is well-known and respected will help add legitimacy and creditability to the venture.

(ii) **Economic:** Alliances can reduce costs and risks by distributing them across the members of the alliance. Partners can obtain greater economies of scale in an alliance, as production volume increase, causing the cost per unit to decline. Finally, partners can take advantage of co-specialization, where specializations are bundled together, creating additional value.

(iii) **Strategic:** Organizations may join to cooperate instead of compete. Alliances may also create vertical integration where partners are part of supply chain. Strategic alliances may also be useful to create a competitive advantage by the pooling of resources and skills. This may also help with future business opportunities and the development of new products and technologies. Strategic alliances may also be used to get access to new technologies or to pursue joint research and development.

(iv) **Political:** Sometimes there is need to form a strategic alliance with a local foreign business to gain entry into a foreign market either because of local prejudices or legal barriers to entry. Forming strategic alliances with politically-influential partners may also help improve overall influence and position.

ANSWERS OF MODEL TEST PAPER 3

PAPER 6B: STRATEGIC MANAGEMENT

PART I

1. (A)	**(i)**	**(c)**	**(ii)**	**(c)**	**(iii)**	**(d)**	**(iv)**	**(b)**	**(v)**	**(a)**
1. (B)	**(i)**	**(c)**	**(ii)**	**(b)**	**(iii)**	**(d)**				

PART II

1. **(a)** In this scenario, the most appropriate strategic approach to help Dharam Veer Singh formulate a robust and coherent business roadmap aligned with his vision for sustainable growth would be to focus on values or a value system. Emphasizing values such as quality, integrity, and sustainability can guide decision-making and attract like-minded investors and clients. By embedding these values into the company's culture and operations, Dharam can differentiate his business in the market, ensuring long-term success and structural longevity in construction projects. This value-driven strategy will also help in building a strong brand reputation and fostering trust among stakeholders.

(b) Considering Porter's generic strategies, there are three different bases: cost leadership, differentiation, and focus. Ravi and Arjun are contemplating pricing for their product.

Ravi is trying to have a low price and high volume, thereby aiming for cost leadership. Cost leadership emphasizes producing standardized products at a very low per unit cost for consumers who are price sensitive.

Arjun desires to create perceived value for the product and charge higher prices. He is trying to adopt differentiation. Differentiation is aimed at producing products and services considered unique industry-wide and directed at consumers who are relatively price insensitive.

(c) XYZ Corporation is shifting to a network structure. This is a newer and more radical organizational design, sometimes referred to as a "non-structure" because it virtually eliminates in-house business functions and outsources many of them. An organization structured in this way is often called a virtual organization, composed of a series of project groups or collaborations linked by constantly changing, non-hierarchical, cobweb-like networks.

The network structure becomes most useful when a firm's environment is unstable and expected to remain so. Under such conditions, there is a strong need for innovation and quick response. Instead of having salaried employees, the company may contract with individuals for specific projects or periods. Long-term contracts with suppliers and distributors replace services the company might otherwise provide through vertical integration. This structure provides increased flexibility and adaptability to cope with rapid technological change and shifting patterns of international trade and competition.

2. **(a)** Four specific criteria of sustainable competitive advantage that firms can use to determine those capabilities that are core competencies. Capabilities that are valuable, rare, costly to imitate, and non-substitutable are core competencies.

   i. **Valuable:** Valuable capabilities are the ones that allow the firm to exploit opportunities or avert the threats in its external environment. A firm created value for customers by effectively using capabilities to exploit opportunities. Finance companies build a valuable competence in financial services. In addition, to make such competencies as financial services highly successful requires placing the right people in the right jobs. Human capital is important in creating value for customers.

   ii. **Rare:** Core competencies are very rare capabilities and very few of the competitors possess these. Capabilities possessed by many rivals are unlikely to be sources of competitive advantage for any one of them. Competitive advantage results only when firms develop and exploit valuable capabilities that differ from those shared with competitors.

   iii. **Costly to imitate:** Costly to imitate means such capabilities that competing firms are unable to develop easily.

   iv. **Non-substitutable:** Capabilities that do not have strategic equivalents are called non-substitutable capabilities. This final criterion for a capability to be a source of competitive advantage is that there must be no strategically equivalent valuable resources that are themselves either not rare or imitable.

   (b) XYZ Electronics has opted to implement a Stability strategy. Stability strategies are designed to safeguard the existing interests and strengths of a business. This involves pursuing established and tested objectives, continuing on the chosen path, and maintaining operational efficiency. A stability strategy is pursued when a firm continues to serve the same or similar markets and deals in the same products and services. Although few functional changes are made in the products or markets, it is not a 'do nothing' strategy. This strategy is typical for mature business organizations. Additionally, some small organizations frequently use stability as a strategic focus to maintain a comfortable market or profit position.

   Major reasons for a Stability strategy include:

   - A product has reached the maturity stage of the product life cycle.
   - The staff feels comfortable with the status quo as it involves fewer changes and less risk.
   - It is opted for when the environment in which an organization operates is relatively stable.

- Expansion may be perceived as threatening and not advisable.
- After rapid expansion, a firm might want to stabilize and consolidate itself.

3. (a) Yummy foods are proactive in its approach. On the other hand, Tasty Food is reactive. Proactive strategy is planned strategy whereas reactive strategy is adaptive reaction to changing circumstances. A company's strategy is typically a blend of proactive actions on the part of managers to improve the company's market position and financial performance and reactions to unanticipated developments and fresh market conditions.

If organisational resources permit, it is better to be proactive rather than reactive. Being proactive in aspects such as introducing new products will give you advantage in the mind of customers.

At the same time, crafting a strategy involves stitching together a proactive/intended strategy and then adapting first one piece and then another as circumstances surrounding the company's situation change or better options emerge-a reactive/adaptive strategy. This aspect can be accomplished by Yummy Foods.

(b) Change management is essential during digital transformation to ensure the success of the process. Here are some key strategies to navigate change effectively:

- **Specify the digital transformation's aims and objectives:** Clearly defining the intended outcomes and objectives helps ensure everyone is aligned and working towards the same goals.
- **Always communicate:** Regular and transparent communication is crucial to help people understand the goals of digital transformation and how it will impact various stakeholders, including employees, clients, and other parties.
- **Be ready for resistance:** Change, even if beneficial, can be met with resistance. Having a strategy in place to address resistance is important for overcoming challenges and ensuring a smooth transition.
- **Implement changes gradually:** Instead of making all changes at once, gradual implementation allows individuals to adapt to new ways of doing things without feeling overwhelmed by too much change simultaneously.
- **Offer assistance and training:** Providing support, guidance, and training for employees is crucial as they navigate new procedures, software applications, and other aspects of digital transformation.

In conclusion, meticulous planning and effective change management are vital for the successful completion of digital transformation projects. Without proper change management, these efforts are more likely to fail, and organizations can enhance the integration of new digital systems by anticipating and managing the necessary changes.

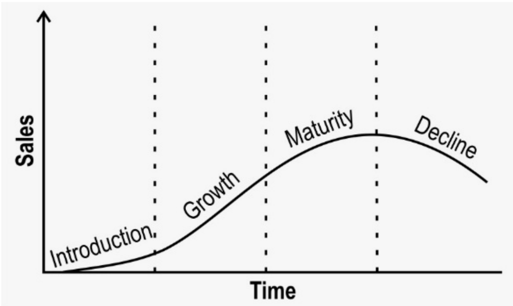
4. (a) Product Life Cycle is an important concept in strategic choice and S-shaped curve which exhibits the relationship of sales with respect of time for a product that passes through the four successive stages.

The first stage of PLC is the introduction stage in which competition is almost negligible, prices are relatively high and markets are limited. The growth in sales is also at a lower rate.

The second stage of PLC is the growth stage, in which the demand expands rapidly, prices fall, competition increases, and market expands.

The third stage of PLC is the maturity stage, where in the competition gets tough and market gets stabilized. Profit comes down because of stiff competition.

The fourth stage is the declining stage of PLC, in which the sales and profits fall down sharply due to some new products replacing the existing product.



Product Life Cycle

PLC can be used to diagnose a portfolio of products (or businesses) in order to establish the stage at which each of them exists. Particular attention is to be paid on the businesses that are in the declining stage. Depending on the diagnosis, appropriate strategic choices can be made. For instance, expansion may be a feasible alternative for businesses in the introductory and growth stages. Mature businesses may be used as sources of cash for investment in other businesses which need resources. A combination of strategies like selective harvesting, retrenchment, etc. may be adopted for declining businesses. In this way, a balanced portfolio of businesses may be built up by exercising a strategic choice based on the PLC concept.

(b) The business environment consists of both the macro environment and the micro environment. Following are the differences between the two:

- The micro environment refers to the forces that are very close to the company and affect its ability to do routine functions. Macro environment refers to all forces that are part of the larger periphery and distantly affect organization and micro environment.
- Micro environment includes the company itself, its suppliers, marketing intermediaries, customer markets and competitors. Whereas macro environment includes demography, economy, natural forces, technology, politics, legal and socio-cultural.

- The elements of micro environment are specific to the said business and affects it's working on short term basis. The elements of macro environment are general environment and affect the working of all the firms in an industry.

OR

Differences between Operational Control and Management Control are as under:

(i) The thrust of operational control is on individual tasks or transactions as against total or more aggregative management functions. When compared with operational, management control is more inclusive and more aggregative, in the sense of embracing the integrated activities of a complete department, division or even entire organization, instead or mere narrowly circumscribed activities of sub-units. For example, procuring specific items for inventory is a matter of operational control, in contrast to inventory management as a whole.

(ii) Many of the control systems in organizations are operational and mechanistic in nature. A set of standards, plans and instructions are formulated. On the other hand, the basic purpose of management control is the achievement of enterprise goals – short range and long range – in an effective and efficient manner.

ANSWERS OF MODEL TEST PAPER 4

PAPER 6B: STRATEGIC MANAGEMENT

PART I

1. (A) **(i)** **(b)** **(ii)** **(d)** **(iii)** **(c)** **(iv)** **(c)** **(v)** **(b)**

1. (B) **(i)** **(c)** **(ii)** **(c)** **(iii)** **(c)**

PART II

1. (a) The HealthPlus brand of wellness supplements may have the following vision and mission:

Vision: Vision implies the blueprint of the company's future position. It describes where the organization wants to land. Mr. Arun should aim to position "HealthPlus" as India's leading wellness supplements brand. It may have the vision to be India's largest wellness supplements company that enhances health, promotes extraordinary well-being, and brings happiness to people.

Mission: Mission delineates the firm's business, its goals, and ways to reach the goals. It explains the reason for the existence of the firm in society. It is designed to help potential shareholders and investors understand the purpose of the company. Mr. Arun may identify the mission in the following lines:

- To be in the business of wellness supplements to enhance the lives of people and give them the confidence to lead a healthy life.
- To protect health by providing supplements that counteract harmful elements in the environment.
- To produce wellness supplements using natural ingredients in an environmentally sustainable manner.

(b) GreenGardens should conduct a SWOT analysis to strategically plan for future growth. This analysis will help them understand their internal strengths and weaknesses, as well as external opportunities and threats.

SWOT Analysis Grid for GreenGardens:

Strengths	**Weaknesses**
High-quality, pesticide-free produce	Limited distribution channels
Strong brand reputation for organic products	Small scale of operations
Dedicated and knowledgeable workforce	Limited marketing and sales reach
Opportunities	**Threats**
Rising demand for organic products	Unpredictable weather conditions
Potential to expand into new markets	Intense competition from larger farms

Increased consumer awareness of health and sustainability	Regulatory changes affecting organic farming

By systematically evaluating these areas, GreenGardens can leverage its strengths, address its weaknesses, capitalize on opportunities, and mitigate threats. This strategic planning will guide them toward sustainable growth and success in the organic farming industry.

(c) FreshDelight is employing a **market development strategy** to expand its market presence. This approach involves introducing their existing organic fruit juices to new markets, specifically targeting countries where the demand for organic products is on the rise. To achieve this, FreshDelight is launching targeted marketing campaigns and partnering with local distributors to effectively introduce their products to these new regions. Additionally, they are adapting their product packaging and marketing messages to align with local preferences and regulations, ensuring their offerings resonate with the new customer base. By entering these emerging markets, FreshDelight aims to increase its customer base and drive sales growth, leveraging the growing popularity of organic products.

2. (a) A workable action plan for turnaround of the textile mill would involve:

- **Stage One – Assessment of current problems**: In the first step, assess the current problems and get to the root causes and the extent of damage.
- **Stage Two – Analyze the situation and develop a strategic plan:** Identify major problems and opportunities, develop a strategic plan with specific goals and detailed functional actions after analyzing strengths and weaknesses in the areas of competitive position.
- **Stage Three – Implementing an emergency action plan**: If the organization is in a critical stage, an appropriate action plan must be developed to stop the bleeding and enable the organization to survive.
- **Stage Four – Restructuring the business**: If the core business is irreparably damaged, then the outlook for the entire organization may be bleak. Efforts to be made to position the organization for rapid improvement.
- **Stage Five – Returning to normal**: In the final stage of turnaround strategy process, the organization should begin to show signs of profitability, return on investments and enhancing economic value-added.

(b) In matrix structure, functional and product forms are combined simultaneously at the same level of the organization. Employees have two superiors, a product / project manager and a functional manager.

The “home” department - that is, engineering, manufacturing, or marketing - is usually functional and is reasonably permanent. People from these functional units are often assigned temporarily to one or more product units or projects.

The product units / projects are usually temporary and act like divisions in that they are differentiated on a product-market basis. The matrix structure may be very appropriate when organizations conclude that neither functional nor divisional forms, even when combined with horizontal linking mechanisms like strategic business units, are right for the implementation of their strategies. Matrix structure was developed to combine the stability of the functional structure with flexibility of the product form. It is very useful when the external environment (especially its technological and market aspects) is very complex and changeable.

A matrix structure is most complex of all designs because it depends upon both vertical and horizontal flows of authority and communication. It may result in higher overhead costs due to more management positions.

The matrix structure is often found in an organization when the following three conditions exist:

1. Ideas need to be cross-fertilized across projects or products;
2. Resources are scarce; and
3. Abilities to process information and to make decisions need to be improved.

3. (a) Competitive landscape is a business analysis which identifies competitors, either direct or indirect. Competitive landscape is about identifying and understanding the competitors and at the same time, it permits the comprehension of their vision, mission, core values, niche market, strengths and weaknesses.

An in-depth investigation and analysis of a firm’s competition allows it to assess the competitors’ strengths and weaknesses in the marketplace and helps it to choose and implement effective strategies that will improve its competitive advantage.

Steps to understand the competitive landscape for building competitive advantage are:

(i) **Identify the competitor:** The first step to understanding the competitive landscape is to identify the competitors in the firm’s industry and have actual data about their respective market share.

(ii) **Understand the competitors:** Once the competitors have been identified, the strategist can use market research report, internet, newspapers, social media, industry reports, and various other sources to understand the products and services offered by them in different markets.

(iii) **Determine the strengths of the competitors:** What are the strengths of the competitors? What do they do well? Do they offer great products? Do they utilize marketing in a way that comparatively reaches out to more consumers? Why do customers give them their business?

(iv) **Determine the weaknesses of the competitors:** Weaknesses (and strengths) can be identified by going through consumer reports and reviews appearing in various media. After all, consumers are often willing to give their opinions, especially when the products or services are either great or very poor.

(v) **Put all of the information together:** At this stage, the strategist should put together all information about competitors and draw inference about what they are not offering and what the firm can do to fill in the gaps. The strategist can also know the areas which need to be strengthened by the firm.

(b) The role of Chief Executive Officer pertains to corporate level.

The corporate level of management consists of the Chief Executive Officer (CEO) and other top-level executives. These individuals occupy the apex of decision making within the organization.

The role of Chief Executive Officer is to:

1. oversee the development of strategies for the whole organization;
2. defining the mission and goals of the organization;
3. determining what businesses, it should be in;
4. allocating resources among the different businesses;
5. formulating, and implementing strategies that span individual businesses;
6. providing leadership for the organization;
7. ensuring that the corporate and business level strategies which company pursues are consistent with maximizing shareholders wealth; and
8. managing the divestment and acquisition process.

4. (a) Buyers of an industry's products or services can sometimes exert considerable pressure on existing firms to secure lower prices or better services. This is evident in situations where buyers enjoy a superior position than the seller of the product. This leverage is particularly evident when:

(i) Buyers have full knowledge of the sources of products and their substitutes.

(ii) They spend a lot of money on the industry's products, i.e., they are big buyers.

(iii) The industry's product is not perceived as critical to the buyer's needs and buyers are more concentrated than firms supplying the product. They can easily switch to the substitutes available.

(b) According to C.K. Prahalad and Gary Hamel, major core competencies are identified in three areas - competitor differentiation, customer value, and application to other markets.

- **Competitor differentiation:** The company can consider having a core competence if the competence is unique and it is difficult for competitors to imitate. This can provide a company an edge compared to competitors. It allows the company to provide better products or services to market with no fear that competitors can copy it.
- **Customer value:** When purchasing a product or service it has to deliver a fundamental benefit for the end customer in order to be a core competence. It will include all the skills needed to provide fundamental benefits. The service or the product has to have real impact on the customer as the reason to choose to purchase them. If customer has chosen the company without this impact, then competence is not a core competence.
- **Application of competencies to other markets:** Core competence must be applicable to the whole organization; it cannot be only one particular skill or specified area of expertise. Therefore, although some special capability would be essential or crucial for the success of business activity, it will not be considered as core competence, if it is not fundamental from the whole organization's point of view. Thus, a core competence is a unique set of skills and expertise, which will be used throughout the organisation to open up potential markets to be exploited.

OR

Organizations should consider the following factors when choosing strategic performance measures:

1. **Relevance:** The measure should be relevant to the organization's goals and objectives, providing actionable and meaningful information. This ensures that the performance measures are directly aligned with what the organization aims to achieve, and that the information obtained can drive improvements and strategic decisions.
2. **Data Availability:** The measure should be based on data that is readily available and can be collected and analyzed in a timely manner. This is important to ensure that the organization can efficiently gather and utilize data without significant delays or obstacles.
3. **Data Quality:** The measure should be based on high-quality data that is accurate and reliable. Accurate and reliable data are crucial

for making informed decisions and assessing the true performance of the organization.

4. **Data Timeliness:** The measure should be based on data that is current and up-to-date. Timely data allows organizations to make informed decisions quickly, enabling them to respond promptly to changes and emerging challenges.

These factors are important because they provide a framework for organizations to assess the success of their strategies, identify areas for improvement, and make informed decisions about resource allocation and strategic adjustments. Effective strategic performance measures should be relevant, meaningful, easy to understand, and regularly reviewed and updated to ensure their continued alignment with the organization's goals and objectives.

ANSWERS OF MODEL TEST PAPER 5

PAPER 6B: STRATEGIC MANAGEMENT

PART I

1. (A)	**(i)**	**(c)**	**(ii)**	**(b)**	**(iii)**	**(c)**	**(iv)**	**(a)**	**(v)**	**(c)**
1. (B)	**(i)**	**(a)**	**(ii)**	**(c)**	**(iii)**	**(a)**				

PART II

1. (a) The collaboration between TechNova, a software development firm, and ElectroWave, an electronics and hardware manufacturing company, represents a **co-generic merger**. This type of external growth strategy involves the merger of companies from related but non-competing industries, allowing them to leverage complementary strengths and diversify their product offerings.

TechNova specializes in creating cutting-edge software, while ElectroWave focuses on manufacturing advanced electronic devices. By joining forces, they can combine their expertise to design innovative laptops and smartphones, creating products that neither company could have developed as effectively on their own. This strategic partnership allows them to enter new markets, enhance their competitive advantage, and explore synergies between software and hardware.

The co-generic merger provides significant opportunities for both companies to capitalize on shared technologies, streamline their operations, and expand their customer base. It is a strategic move that enables them to diversify while maintaining a strong focus on their core competencies, ultimately helping them to grow and compete more effectively in the global market.

(b) Vikram Patel is facing declining sales due to a significant shift of customers toward online platforms. Although he employs strategic management tools, they cannot always overcome every obstacle or guarantee success. The limitations of strategic management in Vikram's situation include:

- The environment in which strategies are developed is highly complex and unpredictable. The entry of online bookstores, a new type of competitor, introduced a different dynamic to the book retail industry. These online platforms, with their extensive reach and pricing power, have dominated the market, posing a formidable challenge to traditional bookstores.
- Another limitation of strategic management is the difficulty in forecasting future developments. Despite his strategic management efforts, Vikram Patel did not anticipate the extent to which online bookstores would impact his sales.
- While strategic management is a time-consuming process, it is crucial for Vikram to continue managing strategically. These

challenging times demand increased effort and adaptability on his part.

- Strategic management can be costly. Vikram Patel might consider hiring experts to understand customer preferences better and adjust his strategies to offer more personalized services. These customized offerings could be difficult for online stores to replicate, giving him a competitive edge.
- The bookstores owned by Vikram Patel are much smaller in scale compared to online stores. This makes it challenging for him to predict how online platforms will manoeuvre strategically.

(c) The scenario being referred to is the organizational culture at *Orion Tech Solutions Pvt. Ltd.* A strong culture encourages effective strategy execution when there is alignment and drives performance even when there is minimal alignment. A culture rooted in values, practices, and behavioural norms that align with the requirements for successful strategy execution energizes employees across the organization to perform their roles in a manner that supports the strategy. Orion's culture, built around principles such as listening to customers, encouraging employees to take pride in their work, and providing a high degree of decision-making autonomy, is highly conducive to successfully executing a strategy focused on delivering superior software solutions.

A strong strategy-supportive culture at Orion makes employees feel genuinely better about their jobs, work environment, and the organization's goals. It motivates them to embrace the challenge of realizing the company’s vision, perform their duties competently and enthusiastically, and collaborate effectively with others.

2. (a) As industry’s Key Success Factors (KSFs) are those things that most affect industry members’ ability to prosper in the marketplace – the particular strategy elements, product attributes, resources, competencies, competitive capabilities and business outcomes that spell the difference between profit & loss and ultimately, between competitive success or failure. KSFs by their very nature are so important that all firms in the industry must pay close attention to them. They are the prerequisites for industry success, or, to put it in another way, KSFs are the rules that shape whether a company will be financially and competitively successful.

(b) Channels represent the **distribution system** through which organizations distribute their products or provide services to customers. They play a pivotal role in reaching target markets, maximizing sales, and establishing competitive advantages.

Channel analysis is important when the business strategy is to scale up and expand beyond the current geographies and markets. When a business plans to grow to newer markets, they need to develop or leverage existing channels to get to new customers. Thus, analysis of channels that suit one’s products and customers is of utmost importance.

There are typically three channels that should be considered: sales channel, product channel and service channel.

- **The sales channel** - These are the intermediaries involved in selling the product through each channel and ultimately to the end user. The key question is: Who needs to sell to whom for your product to be sold to your end user? **For example**, many fashion designers use agencies to sell their products to retail organizations, so that consumers can access them.
- **The product channel** - The product channel focuses on the series of intermediaries who physically handle the product on its path from its producer to the end user. This is true of Australia Post, who delivers and distributes many online purchases between the seller and purchaser when using eBay and other online stores.
- **The service channel** - The service channel refers to the entities that provide necessary services to support the product, as it moves through the sales channel and after purchase by the end user. The service channel is an important consideration for products that are complex in terms of installation or customer assistance. **For example**, a Bosch dishwasher may be sold in a Bosch showroom, and then once sold it is installed by a Bosch contracted plumber.

3. (a) A strategic vision serves as a roadmap for a company's future, detailing the specifics of technology, customer focus, geographic and product markets, and the capabilities the organization aims to develop. It answers the critical question, "Where are we going?" and provides a compelling rationale for the chosen direction, ensuring it aligns with the company's long-term objectives.

A strategic vision outlines the organization's aspirations, offering a broad, panoramic view of where it aims to be. It provides a clear direction, charts a strategic path for future endeavors, and helps in shaping the organizational identity.

Essentials of a strategic vision

- The entrepreneurial challenge in developing a strategic vision is **to think creatively about how to prepare a company for the future.**
- Forming a strategic vision is **an exercise in intelligent entrepreneurship**.
- A well-articulated strategic vision **creates enthusiasm among the members of the organization.**
- The best-worded vision statement **clearly illuminates the direction** in which organization is headed.

(b) The strategy in question is the **growth/expansion** strategy.

The Growth/Expansion strategy involves redefining the business, expanding its scope, and significantly increasing investments. This dynamic and vigorous approach is synonymous with promise and success. It entails a substantial reformulation of goals, major initiatives, and strategic moves, including investments, exploration into new products, technologies, and markets, and innovative decision-making. While promising growth, this strategy navigates the enterprise through relatively unknown and risky paths, rich with potential but also pitfalls.

Major Reasons for Adopting Growth/Expansion Strategy:

- It may become imperative when environment demands increase in pace of activity.
- Strategists may feel more satisfied with the prospects of growth from expansion; chief executives may take pride in presiding over organizations perceived to be growth-oriented.
- Expansion may lead to greater control over the market vis-a-vis competitors.
- Advantages from the experience curve and scale of operations may accrue.
- Expansion also includes intensifying, diversifying, acquiring and merging businesses.

4. (a) **Implementation or execution** is an operations-oriented, activity aimed at shaping the performance of core business activities in a strategy-supportive manner. In most situations, strategy-execution process includes the following principal aspects:

- ♦ **Developing budgets** that steer ample resources into those activities that are critical to strategic success.
- ♦ **Staffing the organization with the needed skills and expertise**, consciously building and strengthening strategy-supportive competencies and competitive capabilities and organizing the work effort.
- ♦ **Ensuring that policies and operating procedures facilitate** rather than impede effective execution.
- ♦ **Using the best-known practices to perform core business activities** and pushing for continuous improvement.
- ♦ **Installing information and operating systems** that enable company personnel to better carry out their strategic roles day in and day out.
- ♦ **Motivating people to pursue the target objectives energetically.**
- ♦ **Creating culture and climate conducive** to successful strategy implementation and execution.
- ♦ **Exerting the internal leadership** needed to drive implementation forward and keep improving strategy execution.

(b) The PESTLE framework assists in analyzing the macro-environment by systematically evaluating six external factors that impact an organization's operations and strategy.

1. **Political Factors:** This includes government policies, regulations, political stability, and taxation. Understanding these factors helps organizations anticipate regulatory changes and government interventions that could affect their business environment.
2. **Economic Factors:** This involves assessing economic conditions such as interest rates, inflation, exchange rates, and economic growth. These factors influence business costs, consumer purchasing power, and overall market conditions.
3. **Social Factors:** This examines demographic trends, lifestyle changes, cultural norms, and consumer attitudes. Insights into social factors help businesses align their products and services with evolving consumer preferences and societal trends.
4. **Technological Factors:** This includes technological advancements, innovation rates, and technological infrastructure. These factors impact production processes, product development, and competitive positioning.
5. **Legal Factors:** This involves understanding business laws, employment regulations, health and safety standards, and compliance requirements. Legal factors are crucial for ensuring regulatory compliance and avoiding legal risks.
6. **Environmental Factors:** This covers ecological issues, sustainability practices, and environmental regulations. Awareness of environmental factors helps businesses adapt to climate change and meet sustainability goals.

   By analyzing these factors, the PESTLE framework provides a comprehensive understanding of the macro-environment, helping organizations anticipate changes, adapt strategies, and make informed decisions.

OR

A tool to identify the market positions of rival companies by grouping them into like positions is ***strategic group mapping.*** A strategic group consists of those rival firms which have similar competitive approaches and positions in the market.

The **procedure for constructing a strategic group map** and deciding which firms belong in which strategic group are as follows:

1. **Identify the competitive characteristics** that differentiate firms in the industry typical variables that are price/quality range (high, medium, low); geographic coverage (local, regional, national, global); degree of vertical integration (none, partial, full); product-line breadth (wide, narrow); use of distribution channels (one, some, all); and degree of service offered (no-frills, limited, full).

2. **Plot the firms on a two-variable map** using pairs of these differentiating characteristics.
3. **Assign firms that fall in about the same strategy space** to the same strategic group.
4. **Draw circles around each strategic group** making the circles proportional to the size of the group's respective share of total industry sales revenues.

ANSWERS OF MODEL TEST PAPER 6

PAPER 6B: STRATEGIC MANAGEMENT

PART I

1. (A) (i) (a) (ii) (b) (iii) (c) (iv) (b) (v) (d)

1. (B) (i) (c) (ii) (c) (iii) (b)

PART II

1. (a) According to Mendelow's Matrix, environmentally conscious consumers who influence industry standards fall into the **Key Players** quadrant. These stakeholders possess both high power and high interest, making them crucial to the success of *Chic Threads'* sustainability-focused initiatives. Their high interest stems from their alignment with the brand's ethical and eco-friendly values, while their high power arises from their ability to shape market trends, advocate for sustainable practices, and impact on the brand's reputation through their purchasing decisions and influence within the industry.

As Key Players, these consumers require active engagement. *Chic Threads* must focus on satisfying their expectations by providing regular updates on sustainability efforts, maintaining transparent communication, and incorporating their feedback to ensure continued support. The brand should actively involve these stakeholders in its decision-making processes by seeking their input on product design and sustainability measures. Additionally, building strong relationships through targeted marketing campaigns, collaborations, and awareness initiatives will further solidify their trust and advocacy. Effectively managing this stakeholder group is vital, as their support and satisfaction directly contribute to the success of the brand's eco-friendly clothing line.

(b) To target tech-savvy consumers for the new smartphone model, the tech company can develop a marketing strategy based on customer behavior. Consumer behaviour may be influenced by a number of things. These elements can be categorised into the following conceptual domains:

- **External Influences:** Utilize online platforms and tech forums to generate buzz around the new smartphone. Partner with tech influencers and bloggers to review the product and create awareness among tech-savvy consumers.
- **Internal Influences:** Appeal to the desire for innovation and advanced features among tech-savvy consumers. Highlight the unique selling points of the new smartphone, such as its cutting-edge technology, performance, and design.
- **Decision Making:** Recognize that tech-savvy consumers are early adopters who value functionality and performance. Provide detailed specifications and comparisons with other smartphones to help them make an informed decision.

- **Post-decision Processes:** Offer excellent customer service and support to address any technical issues or concerns. Encourage customers to provide feedback and reviews to build credibility and trust among tech-savvy consumers.

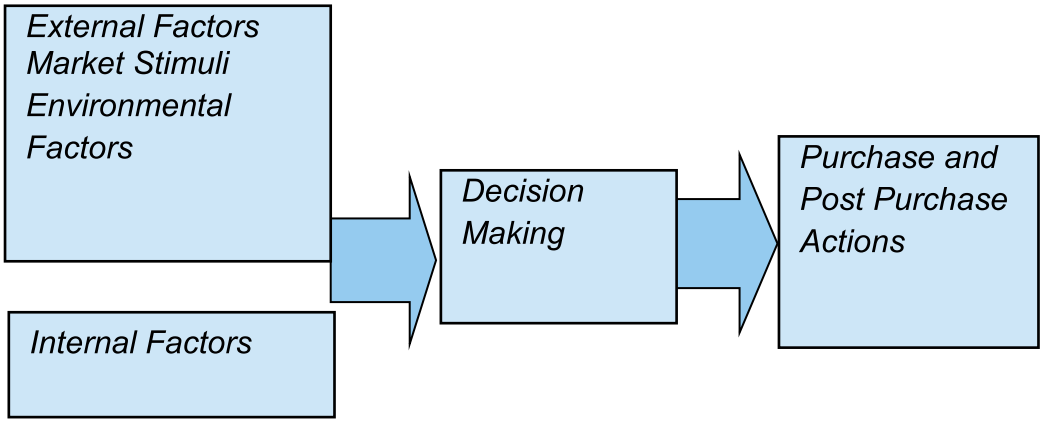


Figure: Process of consumer behaviour

By understanding the behavior of tech-savvy consumers and aligning the marketing strategy with their preferences, the tech company can effectively promote the new smartphone and attract this demographic.

(c) Strategic Performance Measures (SPM) are metrics organizations use to evaluate and track the effectiveness of their strategies in achieving their goals and objectives. SPM provides a framework for monitoring key areas critical to the organization's success, ensuring progress toward desired outcomes and enabling timely adjustments to improve performance. For *GreenEdge Solutions*, various types of SPM can be utilized:

- **Financial Measures:** Metrics like revenue growth, return on investment (ROI), and profit margins help evaluate the company's financial health and profitability.
- **Customer Satisfaction Measures:** Assessments of customer satisfaction, retention, and loyalty indicate how well the company meets customer needs.
- **Market Measures:** Market share, customer acquisition, and referral rates reflect competitiveness and market position.
- **Employee Measures:** Employee satisfaction, engagement, and turnover rate help track workplace culture and talent retention.
- **Innovation Measures:** R&D spending, patent filings, and new product launches gauge the company's innovation capabilities.
- **Environmental Measures:** Monitoring energy consumption, waste reduction, and carbon emissions ensures the company aligns with sustainability goals.

Using these measures, *GreenEdge Solutions* can systematically assess its strategy and make informed decisions to drive sustainable growth and success.

2. **(a)** *Connect Group* has to make strategic changes for its survival. The changes in the environmental forces often require businesses to make modifications in their existing strategies and bring out new strategies. Strategic change is a complex process that involves a corporate strategy focused on new markets, products, services and new ways of doing business. Unless companies embrace change, they are likely to freeze and unless companies prepare to deal with sudden, unpredictable, discontinuous, and radical change, they are likely to be extinct.

Three steps for initiating strategic change are:

(i) **Recognise the need for change** – The first step is to diagnose the which facets of the present corporate culture are strategy supportive and which are not.

(ii) **Create a shared vision to manage change** – Objectives of both individuals and organisation should coincide. There should be no conflict between them. This is possible only if the management and the organisation members follow a shared vision.

(iii) **Institutionalise the change** – This is an action stage which requires the implementation of the changed strategy. Creating and sustaining a different attitude towards change is essential to ensure that the firm does not slip back into old ways of doing things.

(b) The term '**strategic management'** refers to the managerial process of developing a strategic vision, setting objectives, crafting a strategy, implementing and evaluating the strategy, and initiating corrective adjustments were deemed appropriate.

The presence of strategic management cannot counter all hindrances and always achieve success as there are limitations attached to strategic management. These can be explained in the following lines:

♦ **The environment is highly complex and turbulent.** It is difficult to understand the complex environment and exactly pinpoint how it will shape up in future. The organisational estimate about its future shape may awfully go wrong and jeopardise all strategic plans. The environment affects as the organisationhas to deal with suppliers, customers, governments and other external factors.

♦ **Strategic management is a time-consuming process.** Organisations spend a lot of time preparing, communicating the strategies that may impede daily operations and negatively impact on routine business.

♦ **Strategic management is a costly process.** Strategic management adds a lot of expenses to an organization. Expert strategic planners need to be engaged, efforts are made for analysis of external and internal environments devise strategies and properly implement. These can be really costly for organisations with limited resources particularly when small and medium organisation create strategies to compete.

- **Competition is unpredictable.** In a competitive scenario, where all organisations are trying to move strategically, it is difficult to clearly estimate the competitive responses to the strategies.

3. **(a)** Yes, *Easy Access* and its rivals get advantage by this move. The new bureaucratic process is making it more complicated for organizations to start up and enter the *Easy Access* market, increasing barriers to entry and thereby reducing the threat of new entrants. New entrants can reduce an industry's profitability, because they add new production capacity, leading to increase in supply of the product, sometimes even at a lower price and can substantially erode existing firm's market share position. However, New entrants are always a powerful source of competition. The new capacity and product range they bring in throws up a new competitive pressure. The bigger the new entrant, the more severe the competitive effect. New entrants also place a limit on prices and affect the profitability of existing players, which is known as Price War.

(b) There are several basis of differentiation, major being: Product, Pricing and Organization.

Product: Innovative products that meet customer needs can be an area where a company has an advantage over competitors. However, the pursuit of a new product offering can be costly – research and development, as well as production and marketing costs can all add to the cost of production and distribution. The payoff, however, can be great as customers' flocks are among the first to have the new product.

Pricing: It fluctuates based on its supply and demand and may also be influenced by the customer's ideal value for a product. Companies that differentiate based on product price can either determine to offer the lowest price or can attempt to establish superiority through higher prices.

Organisation: Organisational differentiation is yet another form of differentiation. Maximizing the power of a brand or using the specific advantages that an organization possesses can be instrumental to a company's success. Location advantage, name recognition and customer loyalty can all provide additional ways for a company to differentiate itself from the competition.

4. **(a)** *Leatherite Ltd.* is currently manufacturing footwears for males and females and its top management has decided to expand its business by manufacturing leather bags for males and females. Both the products are similar in nature within the same industry. The strategic diversification that the top management of *Leatherite Ltd.* has opted for is concentric in nature. They were in business manufacturing leather footwear and now they will manufacture leather bags as well. They will be able to use existing infrastructure and distribution channels.

Concentric diversification amounts to related diversification.

In concentric diversification, the new business is linked to the existing businesses through process, technology or marketing. The new product is a spin-off from the existing facilities and products/processes. This means that in concentric diversification too, there are benefits of synergy with the current operations.

(b) According to C.K. Prahalad and Gary Hamel, major core competencies are identified in three areas - competitor differentiation, customer value, and application to other markets.

- **Competitor differentiation:** The company can consider having a core competence if the competence is unique and it is difficult for competitors to imitate. This can provide a company an edge compared to competitors. It allows the company to provide better products or services to market with no fear that competitors can copy it.

- **Customer value:** When purchasing a product or service it has to deliver a fundamental benefit for the end customer in order to be a core competence. It will include all the skills needed to provide fundamental benefits. The service or the product has to have real impact on the customer as the reason to choose to purchase them. If customer has chosen the company without this impact, then competence is not a core competence.

- **Application of competencies to other markets:** Core competence must be applicable to the whole organization; it cannot be only one particular skill or specified area of expertise. Therefore, although some special capability would be essential or crucial for the success of business activity, it will not be considered as core competence, if it is not fundamental from the whole organization's point of view. Thus, a core competence is a unique set of skills and expertise, which will be used throughout the organisation to open up potential markets to be exploited.

OR

Strategic planning	Operational planning
Strategic planning shapes the organisation and its resources.	Operational planning deals with current deployment of resources.
Strategic planning assesses the impact of environmental variables.	Operational planning develops tactics rather than strategy.
Strategic planning takes a holistic view of the organisation.	Operational planning projects current operations into the future.

Strategic planning develops overall objectives and strategies.	Operational planning makes modifications to the business functions but not fundamental changes.
Strategic planning is concerned with the long-term success of the organisation.	Operational planning is concerned with the short-term success of the organisation.
Strategic planning is a senior management responsibility.	Operational planning is the responsibility of functional managers.

ANSWERS OF MODEL TEST PAPER 7

PAPER 6B: STRATEGIC MANAGEMENT

PART I

1. (A)	**(i)**	**(c)**	**(ii)**	**(c)**	**(iii)**	**(d)**	**(iv)**	**(b)**	**(v)**	**(d)**
1. (B)	**(i)**	**(a)**	**(ii)**	**(c)**	**(iii)**	**(b)**				

PART II

1. (a) The scenario being referred to is culture in *Jupiter Electronics*. Strong culture promotes good strategy execution when there's fit and impels execution when there's negligible fit. A culture grounded in values, practices, and behavioral norms that match what is needed for good strategy execution helps energize people throughout the organization to do their jobs in a strategy-supportive manner. A culture built around such business principles as listening to customers, encouraging employees to take pride in their work, and giving employees a high degree of decision-making responsibility. This is very conducive to successful execution of a strategy of delivering superior customer service.

A strong strategy-supportive culture makes employees feel genuinely better about their jobs and work environment and the merits of what the company is trying to accomplish. Employees are stimulated to take on the challenge of realizing the organizational vision, do their jobs competently and with enthusiasm, and collaborate with others.

(b) To maintain a competitive edge in the face of increased competition, *Reshuffle Corp* can differentiate its products in several ways:

- **Tangible and Intangible Aspects:** *Reshuffle Corp* can focus on the tangible aspects of its products, such as using high-quality materials and innovative designs to create furniture that is both functional and aesthetically pleasing. Additionally, they can emphasize the intangible aspects of their products, such as excellent customer service and a strong brand reputation for reliability and durability.
- **Pricing Strategies:** While market prices are often dictated by competition, *Reshuffle Corp* can work on cost optimization to maintain profitability. They can also consider offering value-added services, such as free installation or extended warranties, to justify a higher price point.
- **Product Features:** By continually optimizing their product features based on customer feedback and market trends, *Reshuffle Corp* can ensure that their products deliver maximum satisfaction to their target customers. This may include features that enhance functionality, design, quality, and overall user experience.
- **Product Centric Approach:** *Reshuffle Corp* should keep their products at the center of their strategic activities, ensuring that all

business processes, from production to sales and marketing, are aligned to meet customer needs and expectations.

- **Product Life Cycle Management:** *Reshuffle Corp* should be aware of the life cycle of their products and plan for reinvention or replacement accordingly. They can introduce new product lines or upgrade existing ones to keep up with changing customer preferences and market trends.

(c) By concentrating primarily on the market for consultancy services in environmental management, the firm is pursuing a **focus strategy**. Its provision of audit services, which rival firms do not offer, highlights a **differentiation strategy** within this specific market niche. Therefore, the firm is following a **focused differentiation strategy**.

A focused differentiation strategy involves offering unique features that cater to the specific needs of a narrow market segment. As with the focused low-cost strategy, narrow markets can be defined differently depending on the context. For instance, some firms using this strategy focus on a particular sales channel, such as exclusively selling online, while others may target specific demographic groups. Firms that compete on uniqueness while addressing the needs of a narrow market exemplify the **focused differentiation strategy**.

2. (a) As industry's Key Success Factors (KSFs) are those things that most affect industry members' ability to prosper in the marketplace – the particular strategy elements, product attributes, resources, competencies, competitive capabilities and business outcomes that spell the difference between profit & loss and ultimately, between competitive success or failure. KSFs by their very nature are so important that all firms in the industry must pay close attention to them. They are the prerequisites for industry success, or, to put it in another way, KSFs are the rules that shape whether a company will be financially and competitively successful.

(b) SBU is a part of a large business organization that is treated separately for strategic management purposes. The concept of SBU is helpful in creating an SBU organizational structure. It is a separate part of large business serving product markets with readily identifiable competitors. It is created by adding another level of management in a divisional structure after the divisions have been grouped under a divisional top management authority based on the common strategic interests.

Very large organisations, particularly those running into several products, or operating at distant geographical locations that are extremely diverse in terms of environmental factors, can be better managed by creating strategic business units. SBU structure becomes imperative in an organisation with increase in number, size and diversity. SBUs helps such organisations by:

- Establishing coordination between divisions having common strategic interest.

- Facilitate strategic management and control.
- Determine accountability at the level of distinct business units.
- Allow strategic planning to be done at the most relevant level within the total enterprise.
- Make the task of strategic review by top executives more objective and more effective.
- Help to allocate resources to areas with better opportunities.

3. (a) Capabilities that are valuable, rare, costly to imitate, and non-substitutable are core competencies. A small chemist shop has a local presence and functions within a limited geographical area. Still, it can build its own competencies to gain competitive advantage. Rohit Patel can build competencies in the areas of:

(i) Developing personal and cordial relations with the customers.

(ii) Providing home delivery with no additional cost.

(iii) Developing a system of speedy delivery that can be difficult to match by online sellers. Being in the central part of the city, he can create a network to supply at wider locations in the city.

(iv) Having extended working hours for convenience of buyers.

(v) Providing easy credit or a system of monthly payments to the patients consuming regular medicines.

(b) The vision describes a future identity while the Mission serves as an on-going and time-independent guide.

The vision statement can galvanize the people to achieve defined objectives, even if they are stretch objectives, provided the vision is specific, measurable, achievable, and relevant and time bound. A mission statement provides a path to realize the vision in line with its values. These statements have a direct bearing on the bottom line and success of the organization.

A mission statement defines the purpose or broader goal for being in existence or in the business and can remain the same for decades if crafted well while a vision statement is more specific in terms of both the future state and the time frame. Vision describes what will be achieved if the organization is successful.

4. (a) Vikram Patel is facing declining sales due to a significant shift of customers toward online platforms. Although he employs strategic management tools, they cannot always overcome every obstacle or guarantee success. The limitations of strategic management in Vikram's situation include:

- The environment in which strategies are developed is highly complex and unpredictable. The entry of online bookstores, a new type of competitor, introduced a different dynamic to the book retail industry. These online platforms, with their extensive reach and pricing power, have dominated the market, posing a formidable challenge to traditional bookstores.

- Another limitation of strategic management is the difficulty in forecasting future developments. Despite his strategic management efforts, Vikram Patel did not anticipate the extent to which online bookstores would impact his sales.
- While strategic management is a time-consuming process, it is crucial for Vikram to continue managing strategically. These challenging times demand increased effort and adaptability on his part.
- Strategic management can be costly. Vikram Patel might consider hiring experts to understand customer preferences better and adjust his strategies to offer more personalized services. These customized offerings could be difficult for online stores to replicate, giving him a competitive edge.
- The bookstores owned by Vikram Patel are much smaller in scale compared to online stores. This makes it challenging for him to predict how online platforms will manoeuvre strategically.

(b) In the BCG growth-share matrix portfolio of investments are represented in two-dimensional space. The vertical axis represents market growth rate, and the horizontal axis represents relative market share. The strategic implications for various business types under BCG in the corporate portfolio are:

Stars are products or businesses that are growing rapidly and are the best opportunity for expansion. *Stars may follow the Build* strategy. They need heavy investments to maintain their position and finance their rapid growth potential.

Cash Cows are low-growth, high market share businesses or products. They generate cash and have low costs. They are established, successful, and need less investment to maintain their market share. *A strategic alternative advocated for cash cows is Harvest.*

Question Marks are low market share businesses in high-growth markets. *A strategic option for them is Hold for which t*hey need heavy investments. Question marks if left unattended are capable of becoming cash traps.

Dogs are low-growth, low-share businesses and products. *The relevant strategy is Divest.* Dogs may generate enough cash to maintain themselves, but do not have much future. Dogs should be minimized by means of divestment or liquidation.

OR

Strategic alliances are formed if they provide an advantage to all the parties in the alliance. These advantages can be broadly categorised as follows:

(i) **Organizational:** Strategic alliances may be formed to learn necessary skills and obtain certain capabilities from the strategic partner. Strategic partners may also help to enhance productive capacity, provide a distribution system, or extend supply chain. A strategic partner may provide a good or service that complements each other, thereby creating a synergy. If one partner is relatively new or untried in a certain industry, having a strategic partner who is well-known and respected will help add legitimacy and creditability to the venture.

(ii) **Economic:** Alliances can reduce costs and risks by distributing them across the members of the alliance. Partners can obtain greater economies of scale in an alliance, as production volume increases, causing the cost per unit to decline. Finally, partners can take advantage of co-specialization, where specializations are bundled together, creating additional value.

(iii) **Strategic:** Organizations may join to cooperate instead of competing. Alliances may also create vertical integration where partners are part of the supply chain. Strategic alliances may also be useful to create a competitive advantage by the pooling of resources and skills. This may also help with future business opportunities and the development of new products and technologies. Strategic alliances may also be used to get access to new technologies or to pursue joint research and development.

(iv) **Political:** Sometimes there is need to form a strategic alliance with a local foreign business to gain entry into a foreign market either because of local prejudices or legal barriers to entry. Forming strategic alliances with politically influential partners may also help improve overall influence and position.

ANSWERS OF MODEL TEST PAPER 8

PAPER 6B: STRATEGIC MANAGEMENT

PART I

1. (A) **(i)** **(b)** **(ii)** **(a)** **(iii)** **(d)** **(iv)** **(b)** **(v)** **(a)**

1. (B) **(i)** **(b)** **(ii)** **(a)** **(iii)** **(d)**

PART II

1. **(a)** The Matrix Relationship is the most effective structure for Tech Innovators Inc. to achieve its vision of leadership in AI technologies. This structure promotes cross-functional collaboration, essential for managing complex AI projects and fostering innovation. By integrating expertise from various departments into temporary, task-based teams, the Matrix Relationship supports dynamic project management and aligns well with the company's strategic goals for advancing AI technologies. Despite its complexity, this approach provides the flexibility and collaboration necessary for a leading-edge AI and ML focus.

Relationship	Benefits	Drawbacks	Suitability for AI Leadership
Functional and Divisional	Specialization, clear management of functions and products.	Potential for departmental isolation, limited collaboration.	Less effective for cross-functional AI projects.
Horizontal	Open communication, encourages innovation and fast idea sharing.	Hard to scale, unclear roles and responsibilities.	Suitable for startups, less for large AI initiatives.
Matrix	Facilitates cross-functional collaboration, flexible resource management for complex projects.	Complex reporting structures, potential conflicts.	Ideal for managing diverse, innovative AI projects.

(b) The competitive rivalry will be a significant force in case of company of Rajiv Arya as all the rivals are similar in sizes and are manufacturing similar products. It is difficult for any single manufacturer to dominate the market. Large number of patents will make it difficult for new entrants to break into the market. Further, as there are a large number of small suppliers the power that suppliers can exert will also be low.

There is no information relating to substitutes and bargaining power of customers in the information given in scenario. However, a domestic vacuum cleaner will directly compete with other options such as house maids. Availability of house maids at low cost can significantly disturb the sales of products.

Further, as the products are similar customers can easily shift from one company to another. This will only enhance competitive rivalry.

(c) PQR Ltd. has planned to implement the Strategic Business Unit (SBU) structure. Very large organisations, particularly those running into several products, or operating at distant geographical locations that are extremely diverse in terms of environmental factors, can be better managed by creating strategic business units. SBU structure becomes imperative in an organisation with increase in number, size and diversity.

The attributes of an SBU and the benefits a firm may derive by using the SBU Structure are as follows:

- ♦ A scientific method of grouping the businesses of a multi – business corporation which helps the firm in strategic planning.
- ♦ An improvement over the territorial grouping of businesses and strategic planning based on territorial units.
- ♦ Strategic planning for SBU is distinct from rest of businesses. Products/ businesses within an SBU receive same strategic planning treatment and priorities.
- ♦ Each SBU will have its own distinct set of competitors and its own distinct strategy.
- ♦ The CEO of SBU will be responsible for strategic planning for SBU and its profit performance.
- ♦ Products/businesses that are related from the standpoint of function are assembled together as a distinct SBU.
- ♦ Unrelated products/ businesses in any group are separated into separate SBUs.
- ♦ Grouping the businesses on SBU lines helps in strategic planning by removing the vagueness and confusion.
- ♦ Each SBU is a separate business and will be distinct from one another on the basis of mission, objectives etc.

2. (a) Strategic management involves developing the company's vision, environmental scanning, strategy formulation, implementation, evaluation and control. It emphasizes the monitoring and evaluation of external opportunities and threats in the light of a company's strengths and weaknesses and designing strategies for survival and growth. It helps in the creation of a competitive advantage to outperform the competitors and also guides the company successfully through all changes in the environment.

The major benefits of strategic management are:

- Strategic management gives directions to the company to move ahead. It defines the goals and mission.
- It helps organisations to be proactive instead of reactive in shaping their future.
- It provides frameworks for all major decisions of an enterprise such as decisions on businesses, products, markets, manufacturing facilities, investments and organisational structure. It provides better guidance to the entire organisation on the crucial point - what it is trying to do.
- It helps organisations to identify the available opportunities and identify ways and means to achieve them.
- It serves as a corporate defence mechanism against mistakes and pitfalls.
- It helps to enhance the longevity of the business.
- It helps the organisation to develop certain core competencies and competitive advantages that would facilitate survival and growth.

(b) The company went through the following stages of the product life cycle (PLC):

Introduction stage: Initially, the company faced slow sales growth, limited markets, and high prices, which are characteristic of the introduction stage. During this stage, competition is almost negligible, and customers have limited knowledge about the product.

Growth stage: Over time, the demand for the product expanded rapidly, prices fell, and competition increased. These are typical features of the growth stage in the PLC. In this stage, the product gains market acceptance, and customers become more aware of the product's benefits and show interest in purchasing it.

3. (a) A strategic alliance is a relationship between two or more businesses that enables each to achieve certain strategic objectives which neither would be able to achieve on its own. The strategic partners maintain their status as independent and separate entities, share the benefits and control over the partnership, and continue to make contributions to the alliance until it is terminated. The advantages of strategic alliance can be broadly categorised as follows:

(a) **Organizational:** Strategic alliance helps to learn necessary skills and obtain certain capabilities from strategic partners. Strategic partners may also help to enhance productive capacity, provide a distribution system, or extend supply chain.

(b) **Economic:** There can be reduction in costs and risks by distributing them across the members of the alliance. Greater economies of scale can be obtained in an alliance, as production volume can increase, causing the cost per unit to decline. The partners can also take advantage of co-specialization, creating additional value.

(c) **Strategic:** Rivals can join together to cooperate instead of competing. Strategic alliances may also be useful to create a competitive advantage by the pooling of resources and skills. This may also help with future business opportunities and the development of new products and technologies. Strategic alliances may also be used to get access to new technologies or to pursue joint research and development.

(d) **Political:** Sometimes strategic alliances are formed with a local foreign business to gain entry into a foreign market either because of local prejudices or legal barriers to entry.

(b) Strategic performance measures are essential for organizations for several reasons:

- **Goal Alignment:** Strategic performance measures help organizations align their strategies with their goals and objectives, ensuring that they are on track to achieve their desired outcomes.

- **Resource Allocation:** Strategic performance measures provide organizations with the information they need to make informed decisions about resource allocation, enabling them to prioritize their efforts and allocate resources to the areas that will have the greatest impact on their performance.

- **Continuous Improvement:** Strategic performance measures provide organizations with a framework for continuous improvement, enabling them to track their progress and make adjustments to improve their performance over time.

- **External Accountability:** Strategic performance measures help organizations demonstrate accountability to stakeholders, including shareholders, customers, and regulatory bodies, by providing a clear and transparent picture of their performance.

4. (a) The following are the principal points of distinction between concentric diversification and conglomerate diversification:

(i) Concentric diversification occurs when a firm adds related products or markets. On the other hand, conglomerate diversification occurs when a firm diversifies into areas that are unrelated to its current line of business.

(ii) In concentric diversification, the new business is linked to the existing businesses through process, technology or marketing. In conglomerate diversification, no such linkages exist; the new business/product is disjointed from the existing businesses/ products.

(iii) The most common reasons for pursuing concentric diversification are that opportunities in a firm's existing line of business are available. However, common reasons for pursuing a conglomerate growth strategy are that opportunities in a firm's current line of business are limited or opportunities outside are highly lucrative.

(b) Channels represent the **distribution system** through which organizations distribute their products or provide services to customers. They play a pivotal role in reaching target markets, maximizing sales, and establishing competitive advantages.

Channel analysis is important when the business strategy is to scale up and expand beyond the current geographies and markets. When a business plans to grow to newer markets, they need to develop or leverage existing channels to get to new customers. Thus, analysis of channels that suit one's products and customers is of utmost importance.

There are typically three channels that should be considered: sales channel, product channel and service channel.

- **The sales channel** - These are the intermediaries involved in selling the product through each channel and ultimately to the end user. The key question is: Who needs to sell to whom for your product to be sold to your end user? **For example**, many fashion designers use agencies to sell their products to retail organizations, so that consumers can access them.
- **The product channel** - The product channel focuses on the series of intermediaries who physically handle the product on its path from its producer to the end user. This is true of Australia Post, who delivers and distributes many online purchases between the seller and purchaser when using eBay and other online stores.
- **The service channel** - The service channel refers to the entities that provide necessary services to support the product, as it moves through the sales channel and after purchase by the end user. The service channel is an important consideration for products that are complex in terms of installation or customer assistance. **For example**, a Bosch dishwasher may be sold in a Bosch showroom, and then once sold it is installed by a Bosch contracted plumber.

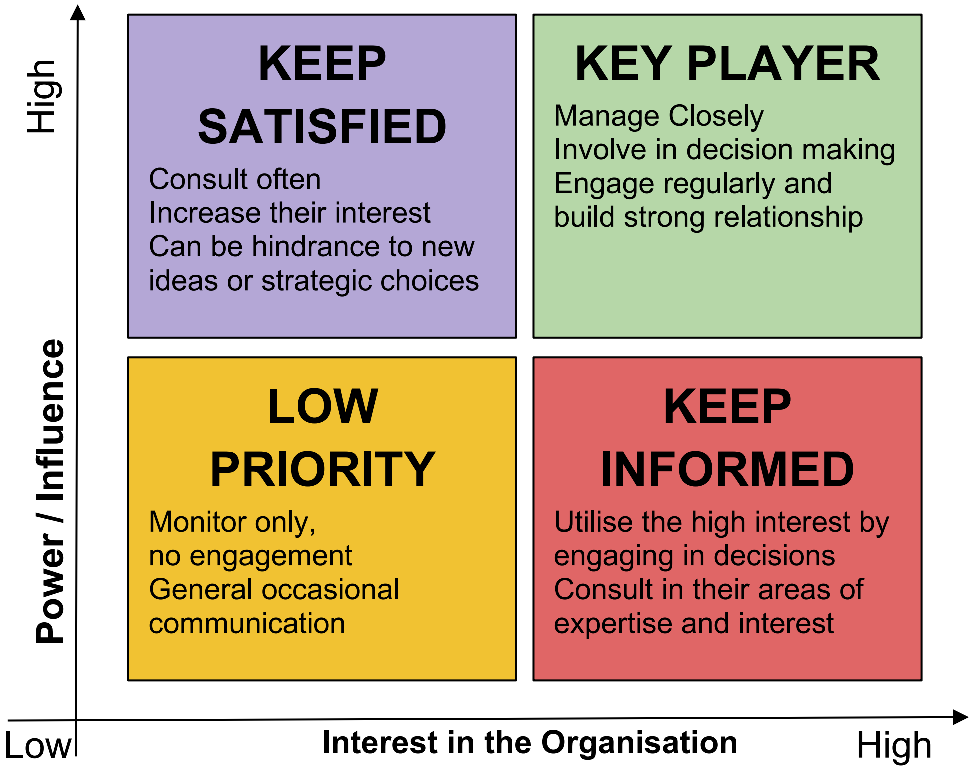
OR

Mendelow's Matrix can be used effectively to analyze and manage stakeholders through a grid-based approach by the following steps:

1. **Identify Stakeholders:** Begin by identifying all relevant stakeholders for your project or organization. This includes individuals, groups, or organizations that may be impacted by or have an impact on your activities.
2. **Assess Power and Interest:** For each stakeholder, assess their power to influence your project or organization and their level of

interest in its success. Power can be assessed based on factors such as authority, resources, and expertise, while interest can be gauged by their level of involvement, expectations, and potential benefits or risks.

3. **Plot Stakeholders on the Grid:** Create a grid with Power on one axis and Interest on the other. Plot each stakeholder on the grid based on your assessment. Stakeholders with high power and high interest are placed in the "Key Players" quadrant, those with high power but low interest are in the "Keep Satisfied" quadrant, those with low power but high interest are in the "Keep Informed" quadrant, and those with low power and low interest are in the "Low Priority" quadrant.



4. **Develop Strategies for each Quadrant:** Based on the placement of stakeholders in the grid, develop specific strategies for managing each quadrant:

- **Key Players:** Fully engage with these stakeholders, seek their input, and keep them informed. They are crucial for the success of your project, so their needs and expectations should be a top priority.
- **Keep Satisfied:** These stakeholders have significant power but may not be as interested in your project. Keep them satisfied by providing regular updates and addressing any concerns they may have to prevent them from becoming detractors.

- **Keep Informed:** While these stakeholders may not have much power, they are highly interested in your project. Keep them informed to ensure they remain supportive and to leverage their insights and feedback.
- **Low Priority:** These stakeholders have low power and interest. Monitor them for any changes but allocate minimal resources to managing their expectations.

5. **Monitor and Adapt:** Continuously monitor the power and interest of stakeholders and adjust your strategies accordingly. Stakeholders may move between quadrants based on changing circumstances, so it's important to remain flexible and responsive.

   By using Mendelow's Matrix as a grid-based tool, you can effectively analyze and manage stakeholders by tailoring your engagement strategies to their specific needs and expectations, ultimately increasing the likelihood of project success.