PART – II

1. (a) Tesco Cycles Ltd. uses about 3,60,000 cycle locks per annum and the usage is fairly constant at 30,000 per month. The cycle lock costs ₹ 240 each at wholesale rates and carrying cost is estimated to be 10% of the annual average inventory value. The cost to place an order is ₹ 1200. It takes 45 days to receive delivery from the date of order. In order to avoid any kind of disruption in assembly line, safety stock of 6,500 cycle locks is always maintained by Tesco Cycles Ltd. 5

(Assume 360 days in a year).

Compute :

(i) E.O.Q.

(ii) The re-order level.

(iii) The company has been offered a quantity discount of 2% on the purchase of cycle locks provided the order size is 30,000 units at a time. Advise whether quantity discount offer can be accepted ?

(b) A company produces two products, A and B, through a joint production process. The total joint production cost incurred is as under : 5

Material	-	₹20,000
Labour	-	₹10,000
Variable Overheads	-	₹ 6,000
Fixed Overheads	-	₹ 24,000

Product A and B can be sold for ₹ 20 per unit and ₹15 per unit respectively at split off point. The produced quantities are Product A - 2,000 units and Product B - 4,000 units.

(i) You are required to calculate the joint production cost allocation for each product using the :

(a) Physical unit method.

(b) Contribution margin method.

(ii) Product B can be further processed by incurring expenditure of ₹12,000. Loss in further processing is 2%. It can be sold @ ₹18 per unit. Explain the impact on profitability if Product B is further processed.

(c) Following data is available for XYZ Ltd. for the month of February 2024 : 4

Standard working hours	8 hours per day of 6 days per week
No. of weeks in the month	4
Maximum capacity	150 employees
Actual working	125 employees
Actual usage of Budgeted Capacity Ratio	86%
Efficiency Ratio	110 %

You are required to calculate the following :

(i) Actual Hours worked.

(ii) Standard Hours for actual output.

(iii) Activity Ratio.

(iv) Standard Capacity Usage Ratio.

(a) Luxury Designer Pvt. Ltd. is a manufacturing company, which manufactures readymade designer shirts. It has four customers: two wholesale category customers and two retail category customers. It has developed the following Activity-Based Costing system : 8

Activity	Cost Driver Rate (₹)
Order Processing	1,260 per purchase order
Customer Visits	1,500 per customer visit
Regular Delivery	30 per delivery Km. travelled
Expedited Delivery	4,490 per expedited delivery

List selling price per shirt is ₹ 1,000 and average cost per shirt is ₹ 600. CEO of Luxury Designer Pvt. Ltd. wants to evaluate the profitability of each of the four customers for the year 2023, to explore opportunities for increasing profitability of his Company in the next year 2024. The following data in context of four customers are available for 2023 :

	Wholesale Customers		Retail Customers	
	WC-1	WC-2	RC-1	RC-2
Number of Purchase orders	50	65	224	245
Number of Customer visits	10	13	25	22
Regular Deliveries	46	52	175	198
Kilometers travelled per delivery	20	15	10	25
Expedited Deliveries	5	16	50	62
Average Number of Shirts per order	215	110	18	15
Average Selling Price per Shirt	₹ 700	₹ 800	₹ 900	₹ 950

You are required to :

Calculate the customer-level operating income and operating income as a % of revenues in 2023 and rank them on the basis of relative profitability.

(b) Star Airlines operates a single aircraft of 180 seats capacity between city 'ND' and 'GA'. The average normal occupancy is estimated at 70% per flight. The average one-way fare is ₹12,500 from city 'ND' to 'GA'. The costs of operation of the flight as collected by an expert analyst are : 6

Fuel cost (Variable) per flight from 'ND' to 'GA'	₹ 2,28,000 per flight
Food served on flight from 'ND' to 'GA' (no charge to passenger)	₹ 270 per passenger
Commission paid to Travel Agents (All ticket booking through agents)	7.5% of fare
Fixed costs :	
Lease & landing charges per flight 'ND' to 'GA'	₹ 9,12,000
Salaries of flight crew per flight 'ND' to 'GA'	₹ 90,000

Note : Assume that fuel costs are unaffected by the actual number of passengers on a flight.

You are required to :

(i) Calculate the net operating income that Star Airlines makes per flight from 'ND' to 'GA'.

(ii) Star Airlines expects that its occupancy will increase to 144 passengers per flight if the fare is reduced to ₹ 11,670. Advise whether this proposal should be implemented or not.

3. (a) A factory is currently working at 60% capacity and produces 12,000 units of a product. Management is thinking to increase the working capacity either to 70% or 90% level. It is estimated that at both the levels, it will be able to sell all the produced units. The other details are as under : 7

- At 70% capacity, the cost of raw materials increases by 4% and the selling price falls by 3%.
- At 90% capacity, the cost of raw materials increases by 5% and selling price falls by 4%.
- At 60% capacity, the product cost is ₹ 360 per unit and it is sold at ₹ 400 per unit.
- The unit cost of ₹ 360 consists of the following :

Material	- ₹ 200
Labour	- ₹ 60
Factory overhead	- ₹ 60 (50% fixed)
Administrative & Selling overhead	- ₹ 40 (60% fixed)

- Additional advertising cost of ₹ 20,000 is to be incurred for selling the product above 80% capacity.

You are required to :

(i) Calculate the profits of the company when the factory works at 60%, 70% and 90% capacity level.

(ii) Offer your comments regarding increase in the capacity based on profit calculated.

(b) S.K. Manufacturing Co. Ltd. showed a net profit of ₹ 5,40,400 as per their cost accounts for the year ended 31.03.2024. However, the financial books disclosed a net profit of ₹ 2,60,500 for the same period. The following information was revealed as a result of scrutiny of the figures of both the sets of books: 7

	₹
Factory overheads under absorbed	84,800
Administrative overheads over absorbed	24,000
Interest paid on bank borrowings	50,000
Interest & Dividend received	65,200
Notional rent of own premises charged in cost accounts	60,000
Losses on the sales of fixed assets and investments	48,000
Donations and subscriptions	18,800
Overvaluation of closing stock of finished goods in Cost accounts	1,25,000
Store adjustments (credited in financial books)	7,500
Depreciation over charged in cost accounts	40,000
Income tax provided	1,50,000

You are required to :

(i) Prepare a reconciliation statement taking net profit as per cost accounts as base.

(ii) State when is the reconciliation statement of Cost and Financial accounts not required ?

4. (a) Meta Company Ltd. is engaged in the production of product 'Trio' which passes through two different processes – Process P and Process Q. Other information obtained from books of account for the year is as follows :

Particulars	Process P	Process Q
Raw material used	10,000	--
Raw material cost per unit	₹ 80	--
Direct wages	₹ 52,000	₹ 78,000
Direct Expenses	₹ 8,600	₹ 11,100
Selling price per unit of output	₹ 130	₹ 190

Production overheads of ₹ 3,00,000 are recovered as percentage of direct wages.

Actual output of the two processes was :

P – 9,200 units and Q-6,400 units. 3/4th of the output of Process P was passed on to the Process Q and the balance was sold. The entire output of process Q was sold.

Management & Selling expenses during the year were ₹1,70,000. These are not allocable to the processes.

The normal loss of the two processes, calculated on the input of every process was :

Process P - 6% and Process Q -10%

The Loss of Process P was sold at ₹ 5 per unit and that of Q at ₹ 8 per unit. Assume that Process P and Process Q are not the responsibility centres.

You are required to prepare :

(i) Process P Account

(ii) Process Q Account

(iii) Abnormal Loss and Abnormal Gain Account

(iv) Costing Profit & Loss Account.

(b) The cost variance report was being discussed at a review meeting where in Cost Accountant of the company reported under-absorption of production overheads. 6

The following information was available from the cost records of the company at the end of financial year 2023-24 :

- Actual production overheads incurred were ₹ 4,50,000 which included ₹ 42,000 on account of 'written off' obsolete stores.
- 18,000 units were produced during the year out of which 10,000 units were sold and 8,000 units of finished goods were in stock.
- There were also 5,000 units in progress which may be reckoned as 40% complete.
- The actual machine hours worked during the period were 43,000.

ABC Ltd. absorbs the production overheads at a predetermined rate of ₹ 8 per machine hour.

On investigation, it has been found that 20% of the under-absorption of production overheads was due to defective planning and the rest was attributable to normal increase in costs of indirect materials and indirect labour.

You are required to :

(i) Calculate the amount of under-absorption of production overheads during the year 2023-24; and

(ii) Show the treatment of under-absorption of production overheads in cost accounts.

5. (a) Super Ltd, a manufacturing company is facing the problem of high labour turnover in the factory. Before analysing the causes and taking remedial steps, the management of the company wants to ascertain the profit lost for the year 2022-23 on account of labour turnover. For this purpose, it has given you the following information : 6

(i) Sales for the last year 2022-23 was ₹ 2,16,80,000 and P/V ratio was 15%.

(ii) The total number of actual hours worked by the direct labour force was 5,00,000 hours. The actual direct labour hours included 60,000 hours attributable to training new recruits, out of which 40% of the hours were unproductive.

(iii) Due to delays by the Personnel Department in filling vacancies on account of labour turnover, 95,000 potential productive hours (excluding unproductive training hours) were lost.

(iv) 1,500 units of the output produced during training period were defective. Cost of rectification of defective units was ₹ 40 per unit.

(v) Settlement cost of the workers leaving the organization was ₹ 2,37,880.

(vi) Recruitment and Selection cost was ₹ 1,40,000.

(vii) Cost of Training and Induction was ₹ 1,61,950.

Assuming that the potential production lost as a consequence of labour turnover could have been sold at prevailing prices, find the profit lost for the year 2022-23 on account of labour turnover.

(b) The following information is given by PQR Ltd : 4

Year	Sales (₹)	Profit/(Loss) (₹)
2022-23	1,80,00,000	(3,80,000)
2023-24	2,40,00,000	11,20,000

You are required to :

(i) Calculate the Break even sales.

(ii) In 2024-25, it is estimated that the variable cost will go up by 5% and fixed cost will reduce by ₹ 4,80,000. Selling price will remain same. Calculate the sales volume to earn a profit of ₹ 15,00,000.

(c) Discuss Feedback Control and Feedforward Control system of budgetary control. 4

6. (a) Distinguish between cost control and cost reduction. 5

(b) Distinguish between Waste and Scrap. Discuss the treatment of normal and abnormal scrap in Cost Accounts. 5

(c) Describe Unit Costing and Batch Costing. Give three examples of industries for each method where these are used. 4

OR

(c) Describe briefly idle time and explain the treatment of idle time in cost accounts in following situations : 4

(i) The setting up time for the machine in case of Direct Worker Mr. A.

(ii) Normal break time for lunch in case of Indirect Worker Mr. B.

(iii) Time lost due to breakdown of machine in case of Worker Mr. C.
