Nimeet Piti Cost Tutorials

Mock Test – Jan 25

Total Marks – 114

Maximum Marks to Attempt – 100

No. of Hours – 3 hours

Total No. of Printed Pages – 11

General Instructions to Candidates

1. The question paper comprises two parts, Part I and Part II
2. Part I comprises of Multiple Choice Questions (MCQ's)
3. Part II comprises of questions which require descriptive answers.
4. 15 minutes of reading time is allowed before the commencement of the paper

Instructions for Part II

1. Question paper comprises 6 questions. Answer Question No 1 which is compulsory and any 4 out of the 5 remaining questions.
2. Working notes should form part of the answer.
3. Answers to the questions are to be given only in English medium.

Part I

Case Based Scenario 1.

1. Litto ltd. is a manufacturing company which has as a machine shop cost centre that contains three machines of equal capacities. To operate these three machines nine operators are required i.e. three operators on each machine. Operators are paid ₹ 20 per hour. The factory works for fourty eight hours in a week which includes 4 hours set up time. The work is jointly done by operators. The operators are paid fully for the fourty eight hours. In additions they are paid a bonus of 10 per cent of productive time. Costs are reported for this company on the basis of thirteen four-weekly period

   - The company for the purpose of computing machine hour rate includes the direct wages of the operator and also recoups the factory overheads allocated to the machines. The following details of factory overheads applicable to the cost centre are available:
   - Depreciation 10% per annum on original cost of the machine. Original cost of each machine is ₹ 52,000.
   - Maintenance and repair per week per machine is ₹ 60.
   - Consumable stores per week per machine are ₹ 75.
   - Power: 20 units per hour per machine at the rate of 80 paise per unit. No power is used during the set-up hours.

   Apportionment to the cost centre: Rent per annum ₹ 5,400, Heat and Light per annum ₹ 9,720, foreman's salary per annum ₹ 12,960 and other miscellaneous expenditure per annum ₹ 18,000.

   i. What is the effective machine hour for four-week period?
      (a) 170 hours (b) 176 hours
      (c) 189 hours (d) 192 hours

   ii. What is the bonus charges and power expenses for four- week period?
      (a) ₹ 1,056 and ₹ 2,816 (b) ₹ 1,562 and ₹ 3,560
      (c) ₹ 1,240 and ₹ 3,325 (d) ₹ 860 and ₹ 2,450

   iii. What is the machine expenses for four-week period?
      (a) ₹ 10,000 (b) ₹ 17,914
      (c) ₹ 15,944 (d) ₹ 15,024

   iv. What is the machine hour rate?
      (a) ₹ 99.51 (b) ₹ 92.25
      (c) ₹ 105.22 (d) ₹ 86.90

(2 marks each)

Case Based Scenario 2.

A company manufactures a product with the following standard cost per unit:

- Direct Material: 5 kg @ ₹10 per kg
- Direct Labor: 2 hours @ ₹15 per hour
- Variable Overheads: 2 hours @ ₹8 per hour

The standard output is 1,000 units. The actual production was 900 units, with actual usage of 4,800 kg of material at ₹11 per kg, 1,850 labor hours at ₹16 per hour, and actual variable overheads of ₹14,800.

1. What is the material price variance?

   A) ₹ 4,800 favorable B) ₹ 4,800 unfavorable
   C) ₹ 5,000 favorable D) ₹ 5,000 unfavorable

2. What is the labor efficiency variance?

   A) ₹ 750 favorable B) ₹ 750 unfavorable
   C) ₹ 800 favorable D) ₹ 800 unfavorable

3. What is the variable overhead expenditure variance?

   A) ₹ 400 favorable B) ₹ 400 unfavorable
   C) no variance D) ₹ 3,00 unfavorable

4. What is the total variable cost variance?

   A) ₹10,800 favorable B) ₹11,100 unfavorable
   C) ₹11,100 favorable D) ₹10,800 unfavorable

(2 marks each)

3. 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)

4. 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)

5. A company has made a profit of ₹ 50,000 during the year 2008-09. If the selling price and marginal cost of the product are ₹ 15 and ₹ 12 per unit respectively, find out the amount of margin of safety.

(a) 2,00,000 (b) 2,50,000
(c) 12,500 (d) 5,00,000

(2 marks)

6. 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 (c) ₹ 1,50,000

(2 marks)

7. Hourly rate of wages guaranteed 0.50 paisa per hour.
Standard time for producing one dozen articles - 3 hours.
Actual time taken by the workers to produce 20 dozen articles - 48 hours.
Earnings under Rowan Will be:

(a) 28.8 (b) 30
(c) 26 (d) 29.4

(2 marks)

8. A hotel has 200 rooms (120 Deluxe rooms and 80 Premium rooms). The normal occupancy in summer is 80% and winter 60%. The period of summer and winter is taken as 8 months and 4 months respectively. Assume 30 days in each month. Room rent of Premium room will be double of Deluxe room. Hotel is expecting a profit of 20% on total revenue, total cost for the year is 2,66,11,200. Calculate the room rent to be charged for Premium room.

(a) ₹ 450 per room day (b) ₹ 900 per room day
(c) ₹ 380 per room day (d) ₹ 760 per room day

(2 marks)

9. A furniture company uses premium wood for sofas. The standard quantity of premium wood per sofa is 5 sq. ft. The standard price per sq. ft. of premium wood is ₹10. The actual production of sofas is 1,000 units. Premium wood actually used is 5,300 sq. ft. The actual purchase price of premium wood per sq. ft. is ₹10. What is the material cost variance?

(a) ₹3,000 (A) (b) ₹4,300 (A)

(c) ₹7,300 (A) (d) ₹5,300 (F)

(2 marks)

Part II

Question 1

(a) A skilled worker in XYZ Ltd. is paid a guaranteed wage rate of ₹ 30 per hour. The standard time per unit for a particular product is 4 hours. Mr. P, 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 alsey Incentive Scheme (50%)?

(5 marks)

(b) A Company manufactures one main product (M1) and two by-products B1 and B2. For the month of January 2013, following details are available:

Total Cost up to separation Point ₹ 2,12,400

	M1	B1	B2
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	20%	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 2013.

(5 marks)

(c) A manufacturing company disclosed a net loss of ₹ 3,47,000 as per their cost accounts for the year ended March 31,2014. The financial accounts however disclosed a net loss of ₹5,10,000 for the same period. The following information was revealed as a result of scrutiny of the figures of bot the sets of accounts.

	(₹)
Factory Overheads under-absorbed	40,000
Administration Overheads over-absorbed	60,000
Depreciation charged in Financial Accounts	3,25,000
Depreciation charged in Cost Accounts	2,75,000
Interest on investments not included in Cost Accounts	96,000
Income-tax provided	54,000
Interest on loan funds in Financial Accounts	2,45,000
Transfer fees (credit in financial books)	24,000
Stores adjustment (credit in financial books)	14,000
Dividend received	32,000

Prepare a reconciliation statement considering cost books as base.

(4 marks)

Question 2

(a) ABC Limited manufactures a product 'ZX' by using the process namely RT. For the month of May, 2014, the following data are available:

Process RT	**(₹)**
Material introduced (units)	16,000
Transfer to next process (units)	14,400
Work-in-progress:	
At the beginning of the month (units) (80% complete)	4,000
At the end of the month (units) (66.66%)	3,000
Cost records:	
WIP at the beginning of the month	
Material	₹ 30,000
Conversion cost	₹ 29,200
Cost during the month:	
Materials	₹ 1,20,000
Conversion cost	₹ 1,60,800

Normal spoiled units are 10% of good finished output transferred to next process.

Defects in these units are identified in their finished state. Material for the product is put in the process at the beginning of the cycle of operation, whereas labour and other indirect cost flow evenly over the year. It has no realizable value for spoiled units.

Required:

i) Statement of equivalent production (Average cost method)

ii) Statement of cost and distribution of cost

iii) Process accounts

(8 marks)

(b) A Mineral is transported from two mines - 'A' and 'B' and unloaded at plots in a Railway Station. Mine A is at a distance of 10km., and B is at a distance of 15km.from rail head plots. A fleet of lorries of 5 tonne carrying capacity is used for the transport of mineral from the mines. Records reveal that the lorries average a speed of 30 km. per hour, when running and regularly take 10 minutes to unload at the rail head. At mine 'A' loading time averages 30 minutes per load while at mine 'B' loading time averages 20 minutes per load.

Drivers 'wages, depreciation, insurance and taxes are found to cost ₹ 9 per hour operated. Fuel, oil, tyres, repairs and maintenance cost ₹ 1.20 per km.

Draw up a statement, showing the cost per tonne-kilometer of carrying mineral from each mine.

(6 marks)

<u>Question 3</u>

(a) The standard cost of a chemical mixture is as follows:

40% material A at ₹ 20 per kg.

60% material B at ₹ 30 per kg.

A standard loss of 10% of input is expected in production. The cost records for a period showed the following usage:

90 kg material A at a cost of ₹ 18 per kg.

110 kg material B at a cost of ₹ 34 per kg.

The quantity produced was 182 kg. of good product.

Calculate all material variances. **(6 marks)**

(b)

	(₹)
(i) Ascertain profit, when sales	2,00,000
Fixed Cost	40,000
BEP	1,60,000
(ii) Ascertain sales, when fixed cost	20,000
Profit	10,000
BEP	40,000

(4 marks)

(c) Blueberry Ltd. Is producing two products namely I - Phone and Tablet PC. Each unit of I-phone and Tablet PC takes 12 hours and 14 hours respectively for production. During the F/Y 2011-12 Blueberry produced 15,000 units of I - Phone and 10,000 units of Tablet PC. Budgeted machine hours were 3,10,000 hours. Actual hours were 3,00,000. You are required to compute various control ratios.

(4 marks)

Question 4

(a) The following details are available from the books of R Ltd. For the year ending 31st march 2020:

Particulars	Amount (₹)
Purchase of raw materials	84,00,000
Consumable materials	4,80, 000
Direct wages	60,00,000
Carriage inward	1,72,600
Wages to foreman and store keeper	8,40,000
Other indirect wages to factory staffs	1,35,000
Expenditure on research and development on new production technology	9,60,000
Salary to accountants	7,20,000
Employer's contribution to EPF & ESI	7,20,000
Cost of power & fuel	28,00,000
Production planning office expenses	12,60,000
Salary to delivery staffs	14,30,000
Income tax for the assessment year 2019-20	2,80,000
Fees to statutory auditor	1,80,000
Fees to cost auditor	80,000
Fees to independent directors	9,40,000
Donation to PM-national relief fund	1,10,000
Value of sales	2,82,60,000
Position of inventories as on 01-04-2019:	
Raw Material	6,20,000
W-I-P	7,84,000
Finished goods	14,40,000
Position of inventories as on 31-03-2020:	
Raw Material	4,60,000
W-I-P	6,64,000
Finished goods	9,80,000

From the above information PREPARE a cost sheet for the year ended 31st March 2020.

(10 marks)

(b) From the details given below, calculate:

(i) Re-ordering level

(ii) Maximum level

(iii) Minimum level

(iv) Danger level.

Re-ordering quantity is to be calculated on the basis of following information:

Cost of placing a purchase order is ₹ 20

Number of units to be purchased during the year is 5,000

Purchase price per unit inclusive of transportation cost is ₹ 50

Annual cost of storage per units is ₹ 5.

Details of lead time:

Average 10 days, Maximum 15 days, Minimum 6 days.

For emergency purchases 4 days.

Rate of consumption: Average: 15 units per day,

Maximum: 20 units per day.

(4 marks)

Question 5

(a) PQR manufacturers - a small scale enterprise produces a single product and has adopted a policy to recover the production overheads of the factory by adopting a single blanket rate based on machine hours. The budgeted production overheads of the factory are ₹ 10,08,000 and budgeted machine hours are 96,000.

For a period of first six months of the financial year 2013 - 2014, following information were extracted from the books:

Actual Production Overheads	₹ 6,79,000
Amount included in the production overheads:	
Paid as per court's order	₹ 45,000
Expenses of previous year booked in the current year	₹ 10,000
Paid to workers for strike period under an award	₹ 42,000
Obsolete stores written off	₹ 18,000

Production and sales data of the concern for the first six months are as under:

Production:	
Finished goods	: 22,000 units
Work-in-progress (50% complete in every respect)	: 16,000 units
Sale:	
Finished goods	: 18,000 units

The actual machine hours worked during the period were 48,000 hours. It is revealed from the analysis of information that ¼ of the under-absorption was due to defective production policies and the balance was attributable to increase in costs.

You are required:

(i) to determine the amount of under absorption of production overheads for the period,

(ii) to show the accounting treatment of under-absorption of production overheads, and to apportion the unabsorbed overheads over the items.

(6 marks)

(b) Family Store wants information about the profitability of individual product lines: Soft drinks, Fresh produce and Packaged food. Family store provides the following data for the year 20X7-X8 for each product line:

	Soft drinks	**Fresh produce**	**Packaged food**
Revenues	₹ 39,67,500	₹ 1,05,03,000	₹ 60,49,500
Cost of goods sold	₹ 30,00,000	₹75,00,000	₹ 45,00,000
Cost of bottles returned	₹ 60,000	-	-
Number of purchase orders placed	360	840	360
Number of deliveries received	300	2,190	660
Hours of shelf-stocking time	540	5,400	2,700
Items sold	1,26,000	11,04,000	3,06,000

Family store also provides the following information for the year 20X7-X8:

Activity	**Description of activity**	**Total Cost**	**Cost-allocation base**
Bottles returns	Returning of empty bottles	₹ 60,000	Direct tracing to soft drink line
Ordering	Placing of orders for purchases	₹ 7,80,000	1,560 purchase orders
Delivery	Physical delivery and receipt of goods	₹ 12,60,000	3,150 deliveries
Shelf stocking	Stocking of goods on store shelves and ongoing restocking	₹ 8,64,000	8,640 hours of shelf stocking time
Customer Support	Assistance provided to customers including check-out	₹ 15,36,000	15,36,000 items sold

Required:

(i) Family store currently allocates support cost (all cost other than cost of goods sold) to product lines on the basis of cost of goods sold of each product line. CALCULATE the operating income and operating income as a % of revenues for each product line.

(ii) If Family Store allocates support costs (all costs other than cost of goods sold) to product lines using and activity based costing system, CALCULATE the operating income and operating income as a % of revenues for each product line.

(8 marks)

Question 6 :

1. Indicate, for following items, whether to be shown in the Cost Accounts or Financial Accounts:
   (i) Preliminary expenses written off during the year
   (ii) Interest received on bank deposits
   (iii) Dividend, interest received on investments
   (iv) Salary for the proprietor at notional figure though not incurred
   (v) Charges in lieu of rent where premises are owned
   (vi) Rent receivables
   (vii) Loss on sale of Fixed Assets
   (viii) Interest on capital at notional figure though not incurred
   (ix) Goodwill written off
   (x) Notional Depreciation on the assets fully depreciated for which book value is Nil.

   (5 marks)

2. Distinguish between 'Bin Card' and 'Stores Ledger' **(4 marks)**
3. Mention and explain types of responsibility centres. (5 **marks)**