Mock Test Paper - Series I: March, 2024

Date of Paper: 12 March, 2024

Time of Paper: 2 P.M. to 5 P.M.

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. 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 Department On 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)**