Mock Test Paper - Series I: July, 2025

Date of Paper: 24th July, 2025

Time of Paper: 10 A.M. to 1 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.

PART I - Case Scenario based MCQs (30 Marks)

Case Scenario 1

SpeedX Automotive Pvt. Ltd. is a well-known manufacturer of automotive components focusing on producing high-quality fuel-efficient engine parts and transmission systems for both commercial and passenger vehicles. With a strong presence in the Indian market and an expanding footprint in Southeast Asia, SpeedX Automotive has established itself as a reliable supplier in the automotive industry. Headquartered in Pune, Maharashtra, the company is dedicated to meticulous cost management and strategic financial oversight, ensuring operational efficiency and profitability.

SpeedX Automotive Pvt. Ltd. allocates significant investments to direct costs, the lifeblood of their manufacturing process. The company spends ₹ 130,000 on purchasing direct materials, ensuring that the quality of raw materials meets their high standards. Direct labor, a critical component of their production, accounts for ₹ 90,000, reflecting their commitment to a skilled workforce. Additionally, direct expenses are managed at ₹ 30,000, covering various essential costs that directly impact their manufacturing operations.

Overhead costs are another crucial aspect of SpeedX Automotive's financial strategy. Factory overheads amount to ₹ 60,000, covering all indirect manufacturing expenses. Administration overheads are managed efficiently at ₹ 20,000. Selling and distribution overheads are maintained at ₹ 10,000, ensuring that products reach the market effectively. Quality control, vital for maintaining the company's reputation, is allocated ₹ 5,000, while ₹ 10,000 is dedicated to research and development, highlighting their focus on innovation.

Inventory management is key to SpeedX Automotive's financial health. The opening stock of raw materials stands at ₹ 50,000. The work-in-process inventory starts at ₹ 15,000 and is increased to ₹ 35,000, indicating a smooth production flow. For finished goods, the company maintains an opening stock worth ₹ 30,000, adjusted to a closing stock value of ₹ 25,000, showcasing their agile response to market demands.

Throughout the period, SpeedX Automotive's manufacturing expertise is evident as they successfully produce 4,000 units. Of these, 3,800 units are sold at a price of ₹ 100 per unit.

Additional Information:

During the period, the price of raw materials fluctuated. At the beginning of the period, the price was ₹ 10 per unit. Midway through the period, the price increased to ₹ 12 per unit. The company could only purchase 10,000 units at the lower price of ₹ 10 per unit. Raw material consumed was 14,000 units. Company follows FIFO method for inventory valuation.

Based on the above information, answer the following MCQs (1 to 5):

1. What is the value of closing stock of raw materials?
   (a) ₹ 35,000
   (b) ₹ 42,000
   (c) ₹ 40,000
   (d) ₹ 40,845
2. Calculate the cost of production.
   (a) ₹ 325,000
   (b) ₹ 315,000
   (c) ₹ 350,000
   (d) ₹ 370,000
3. What is the cost of goods sold?
   (a) ₹ 320,000
   (b) ₹ 335,000

(c) ₹ 325,000

(d) ₹ 345,000

4. Determine the cost of sales.

(a) ₹ 350,000

(b) ₹ 360,000

(c) ₹ 370,000

(d) ₹ 380,000

5. What is the cost per unit of goods sold if 3,800 units were sold?

(a) ₹ 91.11

(b) ₹ 94.74

(c) ₹ 84.21

(d) ₹ 97.45 **(5 x 2 Marks = 10 Marks)**

Case Scenario 2

Valley Ltd., a medium-sized manufacturing firm, is reviewing its operational strategy for Q2 of 2025 due to an anticipated rise in market demand for its signature product, 'X'—a pre-packaged consumer item. To maintain profitability and manage costs efficiently, the management team is preparing a detailed budget.

The following information are made available for this purpose:

(a) It expects to sell 50,000 bags of 'X' during the second quarter of 2025 at the selling price of ₹ 9 per bag.

(b) Each bag of 'X' requires 2.5 kgs. of a raw – material called 'Y' and 7.5 kgs. of raw – material called 'Z'.

(c) Stock levels are planned as follows:

Particulars	Beginning of Quarter	End of Quarter
Finished Bags of 'X' (Nos.)	15,000	11,000
Raw – Material 'Y' (Kgs.)	32,000	26,000
Raw – Material 'Z' (Kgs.)	57,000	47,000
Empty Bag (Nos.)	37,000	28,000

(d) 'Y' cost ₹ 1.20 per Kg., 'Z' costs 20 paise per Kg. and 'Empty Bag' costs 80 paise each.

(e) It requires 9 minutes of direct labour to produce and fill one bag of 'X'. Labour cost is ₹ 5 per hour.

(f) Variable manufacturing costs are ₹ 0.45 bag. Fixed manufacturing costs ₹ 30,000 per quarter.

(g) Variable selling and administration expenses are 5% of sales and fixed administration and selling expenses are ₹ 25,000 per quarter.

As part of the budgeting exercise, management is looking for clarity on production needs, raw material purchases, cost per unit, and profitability to support strategic decisions and investor confidence.

Based on above information, you are required to answer the following (MCQs 6 to 10):

6. The required production of "X" in second quarter will be:

   (a) 45,000 bags

   (b) 46,000 bags

   (c) 61,000 bags

   (d) 50,000 bags

7. What is the quantity to be purchased for 'Y', 'Z' and 'Empty bags'?

   (a) 1,41,000, 3,92,000 and 74,000

   (b) 1,15,000, 3,45,000 and 46,000

   (c) 1,30,800, 67,000 and 26,600

   (d) 1,09,000, 3,35,000 and 37,000

8. What is the cost of quantity purchased for 'Y', 'Z' and 'Empty bags'

   (a) 1,30,800, 67,000 and 29,600

   (b) 1,09,000, 3,35,000 and 37,000

   (c) 1,41,000, 3,92,000 and 74,000

   (d) 1,15,000, 3,45,000 and 46,000

9. What is the budgeted variable cost of producing one bag of 'X'.

   (a) ₹ 5.50

   (b) ₹ 4.75

(c) ₹ 6.50

(d) ₹ 6.05

10. What is the Budgeted Net Income for the Second Quarter

(a) ₹ 30,000

(b) ₹ 1,25,000

(c) ₹ 75,000

(d) ₹ 47,500 **(5 x 2 Marks = 10 Marks)**

11. The cost of production of 40 units in Process consisting of materials Rs 1,500; Labour ₹ 1,300 and Overhead ₹ 164. The normal waste is 5% of input.

(a) 40 units are transferred to next process @ ₹ 70 each

(b) 40 units are transferred to next process @ ₹ 74.10 each

(c) 38 units are transferred to next process @ ₹ 78 each

(d) 40 units are transferred to next process @ ₹ 78 each **(2 Marks)**

12. The loan department of a bank is responsible for several functions, including processing home loan applications, managing customer inquiries, and overseeing loan approvals. After careful analysis, it has been estimated that 30% of the department's total overhead costs such as legal advice, telephone expenses, staff salaries, etc. are directly related to the processing of home loan applications, though only 480 home loan applications are processed each month. The following information is given concerning the processing of a loan application:

Particulars	**(₹)**
Home Loan processors monthly salary:	
(16 employees @ ₹ 94,500 each)	15,12,000
Loan department overhead costs (monthly)	
Chief loan officer's salary	4,72,500
Telephone expenses	47,250
Depreciation Building	1,76,400
Legal advice	1,51,200
Advertising	2,52,000
Miscellaneous	40,950
Total overhead costs	11,40,300

COMPUTE processing cost per home loan application.

(a) ₹ 2,375.63

(b) ₹ 3,150.00

(c) ₹ 3,862.69

(d) ₹ 5,525.63 **(2 Marks)**

13. A company provides the following information:

- Standard price per unit of raw material = ₹ 5.50
- Actual quantity of raw materials purchased = 3,000 kg
- Standard quantity for actual production = 3,200 kg
- Material price variance (favourable) = ₹ 600

What is the actual price per unit of raw materials?

(a) ₹ 5.70

(b) ₹ 5.30

(c) ₹ 5.50

(d) ₹ 5.00 **(2 Marks)**

14. A company manufactures a product with a monthly demand of 2,000 units. Each unit costs ₹ 50 to produce, and the setup cost per batch is ₹ 3,000. The company incurs a storage cost of ₹ 2 per unit per month and applies an annual interest rate of 18% on capital tied up in inventory. The finished goods are stored for an average of 2 months before being sold.

Considering both storage cost and opportunity cost based on the average inventory holding period, what is the Economic Batch Quantity (EBQ)?

(a) 2,376 units

(b) 1,095 units

(c) 1,200 units

(d) 1,400 units **(2 Marks)**

15. A company prepares its monthly production budget using the following policy:

- 70% of the current month's sales are to be produced in the same month.

- The company maintains an opening finished goods inventory of 6,000 units for June.
- The desired closing inventory for June is 30% of July's forecasted sales.

The sales forecasts are as follows:

Month	Sales Forecast (Units)
May	20,000
June	24,000
July	30,000
August	18,000

What is the production budget for June?

(a) 25,200

(b) 28,200

(c) 27,000

(d) 19,800 **(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 Ltd. manufactures a product X which requires two raw materials A and B in a ratio of 1:4. The sales department has estimated a demand of 5,00,000 units for the product for the year. To produce one unit of finished product, 4 units of material A is required.

Stock position at the beginning of the year is as below:

Product- X 12,000 units

Material A 24,000 units

Material B 52,000 units

To place an order the company has to spend ₹ 15,000. The company is financing its working capital using a bank cash credit @13% p.a.

Product X is sold at ₹ 1,040 per unit. Material A and B are purchased at ₹ 150 and ₹ 200 respectively.

Required:

COMPUTE economic order quantity (EOQ):

(i) If purchase order for the both materials is placed separately.

(ii) If purchase order for the both materials is not placed separately.

(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) During the first half of the year, the company recorded fixed expenses of ₹ 13,50,000, total sales of ₹ 45,00,000, and a profit of ₹ 9,00,000. However, in the second half, the company incurred a loss of ₹ 4,50,000.

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

(i) Profit-volume ratio, break-even point and margin of safety for the first half year.

(ii) Expected sales volume for the second half year assuming that selling price and fixed expenses remained unchanged during the second half year.

(4 Marks)

2. ColdD Pvt. Ltd. is a well-established cold drink manufacturing company specializing in producing a variety of refreshing beverages. The company operates a modern production facility where advanced techniques and efficient processes are employed to ensure consistency, taste, and customer satisfaction. For this, the company's renowned product 'Pinaco' go through a meticulous two major process system, wherein, Process-I involves water purification, mixing & blending of essential ingredients and Process-II involves carbonation, chilling & filling the bottles. Later on, the product is transferred to the finished stock.

Following data is provided relating to the manufacturing process of product 'Pinaco' for the month of September:

Particulars	**Process - I (₹)**	**Process - II (₹)**
Opening stock	15,15,000	18,18,000
Direct materials	30,30,000	31,81,500
Direct wages	22,62,400	22,72,500
Factory overheads	21,21,000	9,09,000
Closing stock	7,47,400	9,09,000
Inter-process profit included in opening stock	--	3,03,000

The profit ratio on which output is transferred to next process is as follows:

Process	**Transferred to**	**Profit**
Process - I	Process - II	1/3 rd of cost
Process - II	Finished Stock	1/4th of cost

The opening and closing stock of finished stock are ₹ 45,45,000 (which includes ₹ 16,66,500 as Inter-process profit) and ₹ 22,72,500 respectively.

Stock in processes is valued at prime cost. Finished stock is valued at the price at which it is received from process II. Sales during the period are ₹ 2,82,80,000.

You are required to PREPARE the following accounts showing the profit element at each stage:

(a) Process- I Account

(b) Process- II Account

(c) Finished Stock Account **(14 Marks)**

3. (a) GreenChem Organics Ltd. is a company that processes agricultural waste to extract valuable chemical compounds used in the cosmetics and pharmaceutical industries.

The process yields:

- One main product (Active Bio-Extract - ABE)
- Two by-products:
  - Bio-Wax (BWX) – used in lip balms and creams
  - Bio-Fertiliser (BFT) – sold to organic farms

For the month of April 2025, the following production data and financial estimates are provided:

- Total joint processing cost up to separation point: ₹ 3,60,000

Particulars	**ABE (Main)**	**BWX (By-Product 1)**	**BFT (By-Product 2)**
Cost incurred after separation	–	₹ 62,000	₹ 45,000
Quantity produced (units)	6,000	2,200	3,000
Selling price per unit	₹ 150	₹ 55	₹ 40
Estimated net profit (% of sales)	–	25%	20%
Estimated selling expenses (% of sales)	15%	10%	10%

- There is no opening or closing inventory.

- The company allocates joint costs to by-products based on net realizable value (NRV).

PREPARE the following for the month of April 2025:

(i) Statement showing allocation of joint cost to BWX and BFT

(ii) Statement showing product-wise and overall profitability as well as profit per unit. **(5 Marks)**

(b) Following Profit & Loss Account is provided from the financial accounts of XYZ Pvt. Ltd. for the year ended 31st March:

Particulars	(₹)	Particulars	(₹)
To Opening Stock	-	By Sales (50,000 units)	1,87,50,000
" Materials	75,00,000	" Closing Stock:	
" Wages	37,50,000	Finished goods (3,075 units)	11,25,000
" Factory Overheads	33,75,000	Work-in-Process:	
" Admn. Overheads (production related)	19,50,000	Materials ₹ 2,25,000 Labour ₹ 1,50,000 Factory overheads ₹ 1,50,000	5,25,000
" Selling and Distribution Overheads	13,50,000		
" Goodwill written off	15,00,000		
" Interest on loan	1,50,000		
" **Net Profit**	8,25,000		
	2,04,00,000		2,04,00,000

In the costing records, factory overhead is charged at 120% of wages, administrative overhead at 20% of the factory cost, and selling and distribution overhead at ₹ 15 per unit sold.

You are required to PREPARE a:

(i) Statement to find out profit as per cost records.

(ii) Statement reconciling the profit as per cost records with the profit as per financial records. **(3 + 2 = 5 Marks)**

(c) The following are the emoluments and benefits received by Mr. A, an employee of XYZ Co.:

Particulars	
Basic pay	₹ 9,000 p.m.
Dearness allowance	₹ 1,800 p.m.
Bonus	20% of salary and D.A.
Other allowances	₹ 2,250 p.m.
Employer's contribution to P.F.	10% of salary and D.A.

Out of the total 2,160 annual working hours of Mr. A, 360 hours are classified as non-productive and are treated as normal idle time.

You are required to COMPUTE the effective hourly cost of employee 'A'. **(4 Marks)**

4. (a) Apex Electronics Ltd. is a leading Indian manufacturer of smart home devices. Until now, the company has produced all device components in-house. However, due to a temporary shortage of skilled labour, the company is exploring the possibility of outsourcing the production of some key components for its flagship product: the Smart Speaker.

The components under consideration are:

1. Voice Module
2. Control Panel
3. Power Adapter

The following data relates to the manufacturing of 5,000 units of each component:

Component	Voice Module	Control Panel	Power Adapter
Labour Hours per Unit	1.2	2	3.5
Machine Hours per Unit	0.8	0.6	0.3
Direct Labour (₹)	1,500	2,000	1,200
Direct Material (₹)	1,200	1,800	1,100
Variable Overhead (₹)	700	900	600
Fixed Overhead (₹)	600	750	550
Purchase Price from Supplier (per unit) (₹)	3,700	4,600	3,300

Additional details:

Labour availability for the upcoming month is limited to 4,000 hours.

The company must produce 4,000 units of each component in the next month.

Required

CALCULATE how many of each product should be made in-house and how many should be outsourced. **(6 Marks)**

(b) DISCUSS the accounting treatment of Idle time and overtime wages. **(4 Marks)**

(c) A 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.

(4 Marks)

5. (a) Chicago Manufacturing Co. (CMC) manufactures several product of varying levels of designs and models. It uses a single overhead recovery rate based on direct labour hours. The overheads incurred by the CMC in the half of the year are as under:

	₹
Machine operation expenses	10,12,500
Machine maintenance expenses	1,87,500
Salaries of technical staff	6,37,500
Wages and salaries of stores staff	2,62,500

During this period, CMC introduced activity based costing system and the following significant activities were identified:

— receiving materials and components

— set up of machines for production runs

— quality inspection

It is determined that:

— The machine operation and machine maintenance expenses should be apportioned between stores and production activity in 20:80 ratio.

— The technical staff salaries should be apportioned between machine maintenance, set up and quality inspection in 30:40:30 ratio.

The consumption of activities during the period under review are as under:

— Direct labour hours worked 40,000

— Direct wage rate ₹ 6 per hour

— Production set-ups 2,040

— Material and component consignments from received from suppliers 1,960

— Number of quality inspections carried out 1,280

The data relating to two product manufactured by the CMC during the period are as under:

	Product P	**Product Q**
Direct material costs (₹)	6,000	4,000
Direct labour hours	960	100
Direct material consignments received	48	52
Production runs	36	24
Number of quality inspections done	30	10
Quantity produced (units)	15,000	5,000

A potential customer has approached CMC for the supply of 24,000 units of a component K to be delivered in lots of 3,000 units per quarter. The job will involve an initial design cost of ₹ 60,000 and the manufacture will involve the following per quarter:

Direct material costs	₹ 12,000
Direct labour hours	300
Production runs	6
Inspections	24
Number of consignments of Direct materials to be received	20

CMC desires a mark up of 25% on cost.

Required:

(i) CALCULATE the cost of product P and Q based on the existing system of single overhead recovery rate.

(ii) DETERMINE the cost of product P and Q using activity based costing system.

(iii) COMPUTE the sales value per quarter of component K using activity based costing system. **(8 Marks)**

(b) You are required to DETERMINE 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. **(6 Marks)**

6. (a) EXPLAIN Responsibility Centre and its types in brief. **(5 Marks)**

(b) EXPLAIN Defectives unit and its treatment. Also EXPLAIN the process of Reclamation of loss from defective units. **(5 Marks)**

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

OR

(d) EXPLAIN Research and Development Expenses and its treatment of in costing. **(4 Marks)**