Mock Test Paper - Series II: December, 2025

Date of Paper: 12th December, 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.

Case Scenario I

Bharat Pharma Ltd was established three years ago by a group of biotechnology researchers to commercialize a new therapeutic drug they had created. The production technology required for this drug is highly sophisticated and capital-intensive. As a result, the company incurs very high fixed manufacturing costs.

This situation is a major concern for Dr. Kavita Rao, the company's CEO. She recently organised a meeting of all senior managers to discuss profitability. Dr. Rao demonstrated how the average cost per unit decreases as production increases, due to the company's heavy fixed-cost base.

She explained:

"It is evident that as we move closer to the plant's maximum production capacity of 90,000 vials, the average cost per vial continues to fall. Producing and selling as near to that capacity as possible must improve our profitability."

The data she presented are shown below:

Production Volume (vials)	50,000	60,000	75,000	90,000
Average Cost per Unit (₹)	3,400	3,050	2,700	2,466.66

Current annual sales and production: 78,000 vials Selling price per vial: ₹ 3,900

(Average cost is defined as total fixed + variable cost divided by number of units produced.)

You are a member of the management accounting team. Soon after the meeting, you are contacted by Arun Mehta, the Marketing Director. He wants to understand how profitability changes with production.

Arun then informs you about a discussion he had with Dr. Rao. She again emphasized pushing production closer to the capacity of 90,000 vials.

Arun has the opportunity to secure an export order for 8,000 additional vials, but due to strong competition, the customer will pay only ₹ 2,550 per vial.

Dr. Rao believes the price is below cost and wants to reject it.

However, she says she would be willing to sell at ₹ 2,500 per vial, but only if the order is increased to 20,000 vials.

Based on the above facts, you are required to answer the following questions (MCQ 1 to 5):

1. What are the total fixed costs of Bharat Pharma Ltd?
   (a) ₹ 6.5 crore
   (b) ₹ 8.4 crore
   (c) ₹ 10.5 crore
   (d) ₹ 12.3 crore
2. What is the profit at the current sales volume of 78,000 vials?
   (a) ₹ 4.2 crore
   (b) ₹ 7.1 crore
   (c) ₹ 9.78 crore
   (d) ₹ 11.3 crore
3. What is the break-even point (units) and margin of safety (as a percentage)?
   (a) 25,450 units and 52.25%
   (b) 32,900 units and 60%

(c) 40,385 units and 48.22%

(d) 50,200 units and 40%

4. What is the change in profit if the company accepts the order for 8,000 vials at ₹ 2,550?

(a) Increase of ₹ 82 lakh

(b) Increase of ₹ 1 crore

(c) Increase of ₹ 2.1 crore

(d) No change in profit

5. What is the change in profit if the company accepts the order for 20,000 vials at ₹ 2,500?

(a) Increase of ₹ 1.68 crore

(b) Increase of ₹ 0.32 crore

(c) Increase of ₹ 2.8 crore

(d) Decrease of ₹ 1.1 crore **(5 x 2 Marks)**

Case Scenario II

The Greenfield Recreation Club, a well-known community hub in the city, has been operating for over 25 years. Besides sports facilities and hobby classes, the club runs a dedicated public library for its members. Over the years, the library has grown into a quiet learning space where adults, students, and retirees gather for reading, research, and social interaction.

Recently, the club noticed a steady rise in library usage, especially after it introduced digital reading corners and weekend storytelling sessions for kids. As a result, the committee has decided to review the financial performance of the library to ensure it remains sustainable while continuing to serve the community.

To support the library, the club follows a long-standing policy of offering an annual subsidy of up to ₹ 6 per club member, drawn from the general funds. This subsidy can cover maintenance, utilities, and book purchases when necessary. However, with rising costs and increasing expectations, the club now wants to re-evaluate whether this subsidy is sufficient and whether the library is being managed efficiently.

The management provides the following operational details for the current year:

- The club has 4,800 active members, out of which 1,200 have opted for the library membership.

- Each library member pays a monthly fee of ₹ 110, which supports routine expenses.
- To encourage timely book returns, the library imposes a fine of ₹ 2 per book per day.
- On average, 450 books are returned late per month, each delayed by around 6 days.
- Due to increasing member engagement, late returns have slowly increased, indicating heavy circulation of books.

The library's book collection includes:

- 60,000 old books, requiring routine repairs, dusting, rebinding, and pest control.
- These activities cost about ₹ 15 per book per year.
- To stay updated with current releases and replace damaged copies, the library purchases 1,000 new books annually at a cost of ₹ 320 per book.

To manage daily operations smoothly, the library employs:

- 1 Librarian earning ₹ 12,000 per month
- 3 Assistant Librarians, each earning ₹ 8,000 per month
- 1 Clerk earning ₹ 5,000 per month

These employees handle catalogue management, member services, issuing and returning books, event coordination, and stock upkeep.

You are required to answer the following questions (MCQ 6 to 10):

6. What is the Cost incurred per library member per month (excluding cost of new books)
   (a) ₹ 96.67
   (b) ₹ 55.00
   (c) ₹ 61.25
   (d) ₹ 73.75
7. What is the Cost incurred per club member per month (excluding cost of new books)
   (a) ₹ 96.67
   (b) ₹ 24.17
   (c) ₹ 52.25
   (d) ₹ 13.75

8. Calculate the Net income earned by the library per year.

   (a) ₹ 7,65,200

   (b) ₹ 6,42,600

   (c) ₹ 4,86,200

   (d) ₹ 2,56,800

9. How many extra books are currently being purchased per year?

   (a) 0 books (no excess; purchase is within limit)

   (b) 350 books

   (c) 198 books

   (d) 220 books

10. Calculate the amount of more subsidy required:

   (a) ₹ 63,360

   (b) ₹ 42,600

   (c) ₹ 86,200

   (d) ₹ 21,500 **(5 x 2 Marks)**

11. A manufacturing unit has budgeted standard hours of 15,000 for May 2025. During the month, the capacity utilisation ratio was 85%, while the efficiency ratio stood at 110%. The factory reported smooth operations with no major downtime.

   The standard hours allowed for May 2025 was:

   (a) 14,025

   (b) 13,200

   (c) 15,750

   (d) 12,900 **(2 Marks)**

12. The cost of placing each purchase order is ₹ 20, and the company plans to purchase 5,000 units during the year at a purchase price of ₹ 50 per unit, inclusive of transportation charges. The annual storage cost per unit is ₹ 5. The lead time varies, with an average of 10 days, a maximum of 15 days, and a minimum of 5 days. The rate of consumption also fluctuates, with an average usage of 15 units per day and a maximum usage of 20 units per day. The maximum stock level is*:*

   (a) 450 units

(b) 300 units

(c) 375 units

(d) 500 units **(2 Marks)**

13. A worker receives the following monthly earnings:

Basic Pay: ₹ 12,000 per month

Dearness Allowance (D.A.): ₹ 4,000 per month

Fringe Benefits: ₹ 1,500 per month

There are 305 working days in a year, of which 25 days are paid holidays. Assume 8 working hours per day.

What is the employee hour rate?

(a) ₹ 93.75 per hour

(b) ₹ 85.50 per hour

(c) ₹ 97.25 per hour

(d) ₹ 102.00 per hour **(2 Marks)**

14. A company manufactures Product A and Product B and uses Activity-Based Costing.

The following activity data relates to the current month:

Activity	Cost (₹)	Cost Driver	Total Driver Units	Product A	Product B
Machine Setup	60,000	Number of setups	120 setups	30 setups	90 setups
Quality Inspection	40,000	Number of inspections	200 inspections	50 inspections	150 inspections

What is the total overhead cost assigned to Product A under ABC?

(a) ₹ 35,000

(b) ₹ 25,000

(c) ₹ 30,000

(d) ₹ 40,000 **(2 Marks)**

15. The following details are available for a job work:

Material issued ₹ 60,000; return to stores ₹ 8,000

Dept A labour: 80 hrs @ ₹ 180/hr; OH rate = 120% of labour

Dept B labour: 50 hrs @ ₹ 150/hr; OH rate = ₹200 per labour hour

Total job cost is:

(a) ₹ 1,04,600

(b) ₹ 1,06,800

(c) ₹ 1,12,400

(d) ₹ 1,01,180 **(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 manufacturing company disclosed a net loss of ₹ 6,40,000 as per their cost accounts for the year ended 31st March, 2025. However, the financial accounts showed a net profit of ₹ 45,000 for the same period.

Upon scrutiny of both sets of accounts, the following differences were identified:

Particulars	Amount (in ₹)
(i) Transfer fee received	23,000
(ii) Interest on investment received	3,00,000
(iii) Goodwill written-off	38,000
(iv) **Depreciation**	
– Charged in Financial books	5,00,000
– Recovered in Cost books	6,00,000
(v) **Opening stock of raw material**	
– Cost books	4,50,000
– Financial books	4,82,000
(vi) **Closing stock of finished goods**	
– Cost books	12,80,000

– Financial books	13,56,000
(vii) Notional rent of own premises recorded in Cost accounts	3,20,000
(viii) **Factory overheads** – Cost books	2,50,000
– Financial books	1,94,000
(ix) Income-tax provided	1,20,000

You are required to PREPARE Memorandum Reconciliation Account.

(5 Marks)

(b) A machine shop cost centre 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 forty 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 the each machine is ₹ 52,000.
- Maintenance and repairs 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.
- 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.

Required:

(i) CALCULATE the cost of running one machine for a four week period.

(ii) CALCULATE machine hour rate. **(5 Marks)**

(c) A Company manufactures a special product which requires a component 'Alpha'. The following particulars are collected for the year 2022-23:

(i)	Annual demand of Alpha	8,000 units
(ii)	Cost of placing an order	₹ 200 per order
(iii)	Cost per unit of Alpha	₹ 400
(iv)	Carrying cost p.a.	20%

The company has been offered a quantity discount of 4% on the purchase of 'Alpha' provided the order size is 4,000 components at a time.

Required:

(i) COMPUTE the economic order quantity

(ii) STATE whether the quantity discount offer can be accepted. **(4 Marks)**

2. (a) Seema Ltd. is known for its two-stage production process, which is as follows:

Process A: Raw wool is converted into premium woollen thread.

Process B: Woollen threads are further refined to create luxurious woollen garments.

Following data is given for the quarter ended March 2025:

Particulars	Process A	Process B
Opening work-in-progress	2,000 units	Nil
– Material	₹ 4,50,000	—
– Labour & Overheads	₹ 1,44,000	—
Costs incurred during the quarter:		
– Material	₹ 18,00,000	₹ 6,87,500
– Labour & Overheads	₹ 5,70,000	—
– Other material	—	₹ 30,25,000
Units of production:		
Received in process	8,000 units	5,500 units
Completed units	7,000 units	5,500 units
Completed units transferred to next process	5,500 units	—
Completed units sold in the market	1,500 units	5,500 units

Closing work-in-progress	1,500 units	Nil
Normal loss in process	10% of the total input (including opening WIP)	Nil

Additional Information:

- Normal loss units are sold at a realizable value of ₹ 90 per unit.
- Any loss beyond normal loss is considered 100% complete in respect of material and labour & overheads.
- In the market, woollen garments and remaining woollen threads were sold at 20% markup on the cost price.

Degree of Completion: Process A

Particulars	Material	Labour & Overheads
Opening work-in-progress	100%	50%
Closing work-in-progress	100%	60%

Using Weighted Average Method, you are required to PREPARE:

(i) Statement of equivalent production of Process A.

(ii) Statement showing cost for each element of Process A.

(iii) Statement of distribution of cost of Process A.

(iv) Statement showing sale proceeds of each of the product woollen thread and woollen garments along-with total sale proceeds of Seema Ltd. during the specified period. **(8 Marks)**

(b) Rivaan Industries manufactures and sells wooden study tables. The demand for these tables has been steadily increasing due to the company's strong distribution network and reputation for durable products. Despite the rising market potential, the company continues to rely on its long-established wage practices. At present, Rivaan Industries pays wages under a piece–rate system, with a standard piece rate of ₹ 18 per table produced.

The company policy for payment under the piece-rate system is as follows:

- For efficiency less than 100%:

  Workers are paid 80% of the standard piece rate

- For efficiency equal to or more than 100%:

  Workers are paid 125% of the standard piece rate

The standard output per hour is 3 tables.

Each worker works 9 hours per day from Monday to Friday and 4 hours on Saturday.

A total of 132 workers are currently eligible for this wage plan.

However, the cutting and finishing machines used in production were purchased many years ago and now limit workers' efficiency. As a result, workers have demanded a shift to a time-rate wage system at ₹ 65 per hour, along with incentives under the Halsey Premium Plan (50% sharing of time saved).

To evaluate the financial impact, the management has prepared the following estimated production levels for January 2026 under three different scenarios:

Production Estimates (January 2026)

Scenario	Worst Case	Optimal Case	Best Case
Production (units)	36,900	73,800	1,10,700

In addition, the company is assessing a potential *Technology Upgrade Case* involving partial automation, which may influence both output levels and worker productivity.

Required:

(a) COMPUTE the Total wages, and Average wages per worker per month, for all three scenarios (Worst, Optimal, Best Case) under each of the following wage systems:

(i) Current piece–rate wage system (based on differential piece rates)

(ii) Workers' proposed system: Time-rate wages @ ₹ 65 per hour + Halsey Premium (50%)

(b) Mr. R, one of the workers, produced 900 tables in December 2025. If he produces the same number of tables in January 2026, COMPUTE:

- His earnings under the current piece-rate system
- His earnings under the proposed time-rate + Halsey incentive system
- The difference in his earnings

Based on your computation, SHOULD Mr. R support the workers' demand?

(Assume 4 working weeks in a month.) **(6 Marks)**

3. (a) Kantur Ltd. is a medium-sized manufacturer of precision components used in the automobile aftermarket. The factory runs a single production line where two product variants (Product A and Product B) are made from the same raw material and by the same grade of direct labour. Management is preparing the master budget for the next period and wants the material purchases and direct wages budgets prepared so that procurement and staffing decisions can be finalised.

Below is an extract from the company's budget working papers (all figures are for the whole budget period unless stated otherwise):

Production & material data

Particulars	Product A	Product B
Budgeted sales (units)	2,100	2,700
Budgeted material consumption per product (kg)	6.00	2.50
Budgeted material cost	₹ 14 per kg (for both products)	
Standard hours allowed per product	6.0	5.0
Budgeted basic wage rate	₹ 9 per hour (for all direct workers)	

Labour / working-time assumptions

- Overtime premium is 60% of the basic wage rate and is payable for any hours worked over 40 hours in a 5-day week.
- There are 48 direct workers available in the budget period.
- The target productivity (efficiency) ratio for productive hours actually used in manufacturing is 85%. In addition, non-productive downtime (set-up, maintenance, unavoidable delays) is budgeted at 15% of the productive hours worked.
- The budget period contains thirteen 5-day weeks and production and it is anticipated that sales and production will occur evenly throughout the whole period.

Opening and desired closing stocks

- Expected opening stocks at the start of the budget period: Product A 600 units; Product B 1,000 units; Raw material 2,800 kg.

- Target closing stocks (expressed in terms of anticipated activity during the budget period):
    - Product A — 18 days' sales
    - Product B — 22 days' sales
    - Raw material — 12 days' consumption

Other assumptions

- Production is planned to meet budgeted sales and to build up / run down stocks to the closing targets stated above.
- Sales and production occur evenly over the budget period (i.e., the daily demand pattern is smooth).

Required

PREPARE the following budgets for the next period showing quantities and values:

1. Material purchases budget.
2. Wages budget for direct workers **(9 Marks)**

(b) Phoenix Manufacturing Ltd. has grown significantly and now operates through several specialised departments. The management wants to assign each department as an appropriate responsibility centre:

1. The Assembly Department works with fixed input–output norms. Standard labour hours and material quantities are established for each unit, and any deviation is analysed as variance.
2. The Corporate R&D Lab focuses on product innovation. Its output cannot be measured financially, and its performance is evaluated based only on the annual budget allocated.
3. The West Zone Sales Department is responsible for achieving sales targets and generating revenue. It does not control production costs, but it incurs selling expenses such as sales commission.
4. The Global Operations Division has authority over revenue, cost, and investment decisions, and its performance is evaluated based on ROI.

Required:

IDENTIFY the type of responsibility centre for each of the four departments above and SHOW the reason for your classification. **(5 Marks)**

4. (a) XYZ Ltd. manufactures four types of products namely P, Q, R and S.

The details for the month of April 2025 are as follows:

Particulars	P	Q	R	S
Actual Production & Sales (in units)	7,000	17,500	45,000	1,60,000
Direct Material Cost (in ₹)	3,50,000	4,75,000	5,80,000	9,60,000
Direct Wages (in ₹)	1,05,000	1,40,000	1,70,000	2,65,000
Selling price per unit (in ₹)	120.00	75.00	38.00	15.00

Additional Information:

If the company limits manufacturing to just one type of product, the monthly production will be as follows:

Product	**:**	**Quantity**
P	:	60,000 units
Q	:	75,000 units
R	:	1,00,000 units
S	:	3,00,000 units

Additional Information

- Factory overhead expenditure for the month is ₹ 10,00,000. Total available hours are 3,00,000 hours.
- Factory overhead expenses need to be allocated to each product based on the number of units, which could have been produced in a month when single product production was in operation.
- Administration cost (relating to production) has been allocated to each product on appropriate basis.
- Selling and distribution cost of ₹ 5,60,000 needs to be allocated among the products P, Q, R and S in the ratio of 1 : 2 : 3 : 4 respectively.
- The company requires a profit margin @ 20% on sales.
- There is no opening & closing inventory.

You are required to SHOW for each product :

(i) Prime Cost

(ii) Works Cost

(iii) Cost of Goods Sold

(iv) Cost of Sales

(v) Profit earned and Sales for the month **(9 Marks)**

(b) Vihan Retail Co. has decided to expand the size of its store. It wants information about the profitability of its individual product lines: Pineapple, Orange, and Litchi. The company provides the following data for the year 2024 for each product line:

Particulars	Pineapple	Orange	Litchi
Revenues (₹)	79,350	2,10,060	1,20,990
Cost of goods sold (₹)	60,000	1,50,000	90,000
Cost of bottles returned (₹)	1,200	0	0
Number of purchase orders placed	36	84	36
Number of deliveries received	30	219	66
Hours of shelf stocking time	54	540	270
Items sold	12,600	1,10,400	30,600

Vihan Retail Co. also provides the following information for the year 2024:

Activity	Description of Activity	Total Costs (₹)	Cost Allocation Basis
Bottle returns	Returning of empty bottles to the store	1,200	Direct tracing to product line
Ordering	Placing of orders of purchases	15,600	156 purchase orders
Delivery	Physical delivery and the receipts of merchandise	25,200	315 deliveries
Self- stocking	Stocking of merchandise on store shelves and ongoing restocking	17,280	864 hours of time
Customer support	Assistance provided to customers including bagging and checkout	30,720	1,53,600 items sold

Required

If Vihan Retail Co. allocates store support costs (all costs other than the cost of goods sold) to the product lines on the basis of ABC system, CALCULATE the operating income and operating income as the percentage of revenue of each product line. **(5 Marks)**

5. (a) Astra Components Pvt. Ltd. is a Tier-2 supplier to the electrical vehicle (EV) industry. The company manufactures a single machined housing component in a single cost centre. Management uses standard costing for control and performance measurement.

The Standard Cost Card for the component is as follows:

Standard — Unit cost (₹)

- Direct material: 6.00 kg @ 5.00 per kg = 30.00
- Direct labour: 2.50 hours @ 4.50 per hour = 11.25
- Factory overhead: 2.00 per labour hour = 5.00
- Total standard manufacturing cost per unit = ₹ 46.25

Budget & actual production activity for the month of June 2025:

- Production scheduled (required completion) for the month: 50,000 units.
- Actual completed units during the month: 51,200 units (no opening or closing WIP).
- Purchases of direct material during the month: 3,20,000 kg at ₹ 5.20 per kg.
- Actual material used in production: 2,96,000 kg.
- Actual direct labour hours worked: 125,000 hours; total labour cost incurred: ₹ 6,40,000.
- Actual total factory overhead incurred during the month: ₹ 2,80,000.
- Sales during the month: 50,000 units.

Selling price policy: Selling price is to be fixed so as to allow a mark-up of 25% on the selling price (i.e., profit = 25% of selling price).

Incentive scheme: The company operates a labour bonus scheme — employees are paid a bonus equal to 60% of the standard direct labour rate for each standard

direct labour hour saved (i.e., for hours saved compared to standard hours allowed for actual output).

Required: Using the above data, prepare calculations and reports for June, 2025 as follows:

(i) CALCULATE all material variances based on actual material consumption.

(ii) CALCULATE the labour variances (rate and efficiency) and compute the total factory overhead variance.

(iii) PREPARE an Income Statement for June 2025 showing the actual gross margin

(iv) COMPUTE if any bonus is payable under the incentive scheme

(11 Marks)

(b) Star study centre provides coaching classes to school students. The study centre has taken an auditorium of 250 seat capacity on rent of ₹ 3,75,000 per month. It has also hired some renowned teachers for taking classes. A teacher takes ₹ 3,000 per hour. The study centre has decided to conduct a batch of 2-hour per day for 3 days a week for 4 months.

(i) CALCULATE the total cost per batch.

(ii) COMPUTE the minimum fee to be charged per student in a batch, if the centre operates at 60% capacity.

(iii) DETERMINE the fee per student if the study centre desires to earn a profit of 50% and study centre operates at 50% capacity. **(3 Marks)**

6. (a) Divit Electronics manufactures three types of home appliances. The management notes that the plant has an installed capacity of 50,000 units per product per year. Because of preventive maintenance, setup time, holidays, and training sessions, the plant can only produce 45,000 units per product annually. Over the past year, the average output per product was 42,000 units, while unexpected machine breakdowns reduced actual output to 40,500 units.

DEFINE AND IDENTIFY the installed, practical, normal, and actual capacities for the plant. EXPLAIN the role of practical capacity in determining overhead absorption rates. **(5 Marks)**

(b) DISCUSS the remedial steps to be taken to minimize the labour turnover.

(5 Marks)

(c) MENTION the circumstances under which following types of method of apportioning joint costs can be used.

1. Net Realisable Value (NRV) at Split-off Point Method
2. Technical Estimates
3. Market value at the point of separation
4. Market value after further processing **(4 Marks)**

OR

(c) EXPLAIN the suitability for flexible budget. **(4 Marks)**