

Mock Test Paper - Series I: March 2025

Date of Paper: 15th March 2025

Time of Paper: 10 AM – 1 PM

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

Rinku Ltd is a manufacturing company which is producing bags of different varieties. The company is planning to establish a new plant in the neighboring country to produce the bags. New plant has a production capacity of 2,00,000 units per year. As per the studies, normal capacity utilization is 90% of the production capacity. The company will be able to sell the whole production after making price adjustments.

The following are the annual cost data on the basis of cost studies for the new plant in the neighboring country:

Material Cost	= ₹ 42,00,000 (100% variable)
Labour	= ₹ 40,00,000 (70% variable)
Factory Overheads	= ₹ 35,00,000 (60% variable)

Administrative Overheads = ₹ 10,00,000 (30% variable)

Bags are being produced and sold on steady basis. It is estimated that it costs ₹ 1 as inventory holding cost per bag per month and that the set up cost per run of bag manufacture is ₹ 1,000.

The production of the new plant will be sold only the sales agent in the neighboring country who will receive ₹ 5 per bag. There is no other selling expenses other than commission. Fixed cost are calculated on the basis of normal capacity utilization of the plant.

Assume 365 days in a year.

Being a cost manager of the company, you are required answer the following questions being asked by the management of the company:

1. What is the total variable cost of the bags being produced?
 - (a) ₹ 80,00,000
 - (b) ₹ 93,00,000
 - (c) ₹ 1,03,00,000
 - (d) ₹ 33,00,000
2. What is the total fixed cost of the bags being produced?
 - (a) ₹ 40,00,000
 - (b) ₹ 35,00,000
 - (c) ₹ 53,00,000
 - (d) ₹ 33,00,000
3. Calculate the break-even point if the sales price is ₹100 per bag?
 - (a) 65,159 bags
 - (b) 77,139 bags
 - (c) 93,000 bags
 - (d) 86,503 bags
4. Calculate the optimum run size and number of runs for bag manufacturing?
 - (a) 7,746 bags and 24 runs

- (b) 8,000 bags and 23 runs
- (c) 6,503 bags and 28 runs
- (d) 5,478 bags and 33 runs

5. What is the interval between two consecutive runs?

- (a) 11 days
- (b) 10 days
- (c) 15 days
- (d) 19 days

(5 x 2 = 10 Marks)

Case Scenario II

A company is working in manufacturing sector and uses labour-force, which consists of skilled, semi-skilled, and unskilled workers.

The rate of Labour per week for skilled worker is ₹ 120, for semi-skilled workers is ₹ 80 and for unskilled worker is ₹ 60.

It had planned the labour for a job that would take 60 weeks to be completed, ideally. Ratio of workers employed in skilled, semi-skilled, and unskilled would be 5:3:4. The management consultant who was employed to handle this job died in an accident. Board hired a new consultant to take over this job.

This new consultant had a different approach for doing this job. He thought that workers actually required would be in the ratio of 7:3:8. He changed the composition of labour-force and employed the workers in the new ratio.

Project was carried out successfully and it turned out that this change in Mix of labour-force saved the company ₹ 76,800 in the job but at the same time company also lost ₹ 1,29,600 due to poor productivity of the labourers.

As a result, management consultant was promoted and labour force was fired & was replaced with more experienced labour-force.

As the new management consultant was promoted, company found a new one to replace him. This 3rd management consultant was asked to understand and analyse the previous job done by the 2nd management consultant. Data in addition to above-given information was provided as follows:-

- Total time period taken for the job was 64 weeks.

- Net extra cost spent, in comparison to planned cost, was ₹ 1,04,000.
- Total number of weeks worked by all the type of labourers was 23,040 weeks.
- Skilled and semi-skilled labourers in reality charged ₹ 20 extra per week, whereas unskilled labourers were negotiated to charge ₹ 20 less per week, than what they had charged earlier.

Let say, you are the 3rd management consultant, and you have been given with all this information. Work out calculations and answer the following questions (MCQs 6 to 10) based on the information given above.

6. If the total of labour efficiency variance of skilled and semiskilled labourers is ₹ 1,29,600 (Favourable), what is the labour efficiency variance of unskilled labour?
 - (a) 1,82,400 (Adverse)
 - (b) 52,800 (Adverse)
 - (c) 1,29,600 (Adverse)
 - (d) 76,800 (Favourable)
7. What are the amounts that company saved & paid extra to labourers, respectively?
 - (a) 2,56,000 & 2,04,800
 - (b) 1,79,200 & 204,800
 - (c) 2,04,800 & 2,56,000
 - (d) 204,800 & 1,79,200
8. If in total 1,440 weeks were worked in addition to what was planned, how many extra/less workers were used in actual, compared to standard? (Answer in sequence of skilled, semi-skilled, & unskilled).
 - (a) -10, -30, -40
 - (b) -10, -30, +40
 - (c) +10, +30, -40
 - (d) +10, +30, +40
9. Calculate revised standard weeks for all 3 types of labour forces? (Answer in sequence of skilled, semi-skilled, & unskilled).

- (a) 9,400, 5,650, & 7,990
(b) 9,550, 6,280, & 7,210
(c) 8,520, 6,850, & 7,670
(d) 9,600, 5,760, & 7,680
10. If standard rates charged by skilled, semi-skilled, and unskilled were ₹ 120, ₹ 80, & ₹ 60, respectively, then which labour force performed worst, better, & best, due to change in labour composition?
- (a) Semi-skilled, skilled, & unskilled
(b) Skilled, semi-skilled, unskilled
(c) Unskilled, skilled, & semi-skilled
(d) Unskilled, semi-skilled, & skilled **(5 x 2 = 10 Marks)**
11. A manufacturing firm is presently producing and selling 10,000 units of a product at ₹ 500 per unit in the domestic market. The fixed cost per unit at the current level of operation is ₹ 150 and variable cost is ₹ 300 per unit. The firm has received an export order for supply of 5,000 units of the product at ₹ 400 per unit. After meeting the domestic demand, if the firm accepts the export offer, the profit of the firm is expected to:
- (a) decrease by ₹ 5,00,000.
(b) increase by ₹ 2,00,000.
(c) decrease by ₹ 3,00,000.
(d) increase by ₹ 5,00,000. **(2 Marks)**
12. A truck having a capacity of 5 tonnes of goods normally carries 80% of the load on the outward journey and 40% of the load on inward journey. The distance is 300 km for one side. It takes 2 days to complete the round trip. The truck is on the road for 310 days in a year. Which one of the following is the total tonne-km in a year?
- (a) 3,70,000
(b) 3,20,000
(c) 2,79,000
(d) 2,50,000 **(2 Marks)**

13. A company manufactures 5,000 units of a product per month. The cost of placing an order is ₹ 100. The purchase price of the raw material is ₹ 10 per kg. The re-order period is 4 to 8 weeks. The consumption of raw materials varies from 100 kg to 450 kg per week, the average consumption being 275 kg. The carrying cost of inventory is 20% per annum. What is Maximum level of stock?
- (a) 4,396 kg.
 - (b) 5,500 kg
 - (c) 6,210 kg
 - (d) 3,956 kg
- (2 Marks)**
14. Product Y yields two by-products A and B. The joint cost of manufacture is ₹ 2,00,000. Sales of A and B are ₹ 80,000 and ₹ 50,000 respectively. Manufacturing expenses after separation of A and B are ₹ 10,000 and ₹ 8,000 respectively while their respective estimated selling expenses on sales is 20% for both products. The estimated profit on sales of A and B is 25% and 30% respectively. What is the cost of product Y after adjusting joint cost apportioned to by-products A and B?
- (a) ₹ 1,50,000
 - (b) ₹ 1,49,000
 - (c) ₹ 1,82,000
 - (d) ₹ 1,20,000
- (2 Marks)**
15. The accountant for Brilliant Tools Ltd applies overhead based on machine hours. The budgeted overhead and machine hours for the year are ₹ 1,30,000 and 8,000 hours, respectively. The actual overhead and machine hours incurred were ₹ 1,37,500 and 10,000 hours.
- What is the amount of over/under absorbed overhead for the year?
- (a) Over absorbed by ₹ 25,000
 - (b) Under absorbed by ₹ 25,000
 - (c) Over a absorbed by ₹ 32,500
 - (d) Under absorbed by ₹ 32,500
- (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 company uses three raw materials A, B and C for a particular product for which the following data apply:

Raw Material	Usage per unit of product (Kg.)	Re-order Quantity (Kg.)	Price per Kg. (₹)	Delivery period (in weeks)			Re-order level (Kg.)	Minimum level (Kg.)
				Minimum	Average	Maximum		
A	10	10,000	0.10	1	2	3	8,000	?
B	4	5,000	0.30	3	4	5	4,750	?
C	6	10,000	0.15	2	3	4	?	2,000

Weekly production varies from 175 to 225 units, averaging 200 units of the said product.

WHAT would be the following quantities:

- (i) Minimum Stock of A?
 - (ii) Maximum Stock of B?
 - (iii) Re-order level of C?
 - (iv) Average stock level of A? **(5 Marks)**
- (b) S Travels has been promised a contract to run a tourist car on a 20 km. long route for a multinational firm. He buys a car costing ₹ 4,50,000. The annual cost of insurance and taxes are ₹ 7,500 and ₹ 1,800 respectively. He has to pay ₹ 2,500 per month for a garage where he keeps the car when it is not in use. The annual repair costs are estimated at ₹ 12,000. The car is estimated to have a life of 10 years at the end of which the scrap value is likely to be ₹ 50,000.
- He hires a driver who is to be paid ₹ 3,000 per month plus 10% of the takings as commission. Other incidental expenses are estimated at ₹ 2,000 per month.
- Petrol and oil will cost ₹ 220 per 100 kms. The car will make 4 round trips each day. Assuming that a profit of 15% on takings is desired and that the car will be on the road for 25 days on an average per month, WHAT should he charge per round-trip? **(5 Marks)**
- (c) PR Ltd. totally understands the importance of employee motivation and retention, thus, it has implemented a structured wage policy. The basic wage rate is set at

₹ 100 per hour along with Dearness Allowance (DA) of 50%, which is competitive within the industry. To encourage productivity and compensate for the demands of overtime, the company offers enhanced rates for hours worked beyond the standard schedule. The normal working days are from Monday to Saturday, and the worker would be paid overtime premium of-

75% of basic wage rate (inclusive of DA) for working before and after normal working hours, and

125% of basic wage rate (inclusive of DA) for working on Sundays.

Throughout the previous year, the following hours were worked-

Normal time	4,00,000 hours
Overtime before and after normal working hours	80,000 hours
Overtime on Sundays	20,000 hours
Total	5,00,000 hours

However, the hours recorded for job 'PR123' are as follows:

Normal time	4,000 hours
Overtime before and after normal working hours	400 hours
Overtime on Sundays	100 hours
Total	4,500 hours

You are required to CALCULATE the employee cost chargeable to job 'PR123' and the treatment of overtime premium:

- (i) where overtime is worked regularly throughout the year as a policy due to the workers' shortage.
- (ii) where overtime is worked irregularly to meet the requirements of production. **(4 Marks)**

2. (a) Electraunika Ltd. manufactures two types of cables- 'USB Type C Cable' and 'USB Lightning Cable'. As the market is currently dominated by 'USB Type C Cable', it is produced 3 times the 'USB Lightning Cable'.

The combined cost data of both the cables for the month of March is given below:

Particulars	(₹)
Direct Materials	2,06,25,000
Direct Wages	1,15,50,000
Production Overhead	66,00,000

Administration overhead (related to production)	33,00,000
Selling Cost	59,40,000

Cost bifurcation between both the cables is ascertained as follows:

- (i) Direct material cost per unit of 'USB Lightning Cable' was twice than that of 'USB Type C Cable'.
- (ii) Direct wages per unit for 'USB Lightning Cable' were $\frac{5}{3}$ times the rate of 'USB Type C Cable'.
- (iii) Production overhead, Administration overhead and selling cost per unit were at same rate for both the types of cable.

Other information:

- (i) 75,000 units of 'USB Lightning Cable' were produced.
- (ii) 90% of both the cables produced were sold.
- (iii) Selling Price was ₹ 385 per unit for 'USB Lightning Cable'.

You are required to PREPARE a cost sheet for 'USB Lightning Cable' showing per unit and Total Sales Value. **(8 Marks)**

- (b) DISCUSS the effect of overtime payment on productivity. **(4 Marks)**

- (c) DESCRIBE briefly, how joint costs upto the point of separation may be apportioned amongst the joint products under the following methods:

- (i) Market value after further processing
- (ii) Net realizable value method **(2 Marks)**

3. (a) PR Ltd., a leading chemical company specializing in the production of specialty chemicals and industrial products, manufactures Product X through two distinct processes – Process-I and Process-II. Known for its innovation in chemical manufacturing, the company uses advanced technologies and industry best practices to ensure high-quality production. The following information is provided from the books of account for the year:

Particulars	Process- I	Process- II
Raw materials used	1,50,000 units	--
Raw materials cost per unit	₹ 400	--
Actual Output	1,38,000 units	96,000 units
Output transferred to next process	$\frac{3}{4}$ th	--

Output sold	1/4 th	96,000 units
Normal loss (on inputs)	6%	10%
Direct wages	₹ 39,00,000	₹ 58,50,000
Direct Expenses	20% of Direct wages	15% of Direct wages
Manufacturing overheads	₹ 2,25,00,000 to be recovered as a percentage of direct wages	
Realisable value of scrap per unit	₹ 25	₹ 40
Selling price per unit of output	₹ 650	₹ 950

Management & Selling expenses of ₹ 1,27,50,000 are directly attributable to the Costing Profit & Loss Account.

You are required to PREPARE the following:

- (i) Process-I Account
- (ii) Process-II Account
- (iii) Abnormal Loss
- (iv) Abnormal Gain Account
- (v) Costing Profit & Loss Account **(10 Marks)**

- (b) AeBee Ltd. disclosed a net loss of ₹ 9,02,200 as per their cost accounts for the year ending 31st March. However, the financial accounts disclosed a net loss of ₹ 13,26,000 for the same period. On scrutiny of both the sets of accounts, following information was revealed-

Particulars	(₹)
(i) Depreciation charged in Financial Accounts	8,45,000
(ii) Factory Overheads under-absorbed in Cost Accounts	7,41,000
(iii) Depreciation charged in Cost Accounts	7,15,000
(iv) Interest on investments not included in Cost Accounts	3,12,000
(v) Administration Overheads over-absorbed in cost accounts	1,56,000
(vi) Income-tax provided	1,40,400
(vii) Dividend received	83,200
(viii) Stores adjustment (credit in financial books)	36,400

PREPARE a memorandum Reconciliation Account. **(4 Marks)**

4. (a) ChispyChip Ltd. manufactures 3 types of packed chips namely Crunchy Potato, Crispy Corn and Crumbly Banana and offers to sell them at wholesale price to the retailers. The following data is available for the current year:

	Crunchy Potato (₹)	Crispy corn (₹)	Crumbly Banana (₹)
Revenues	1,53,35,250	1,63,36,900	1,55,23,850
Cost of goods sold	1,12,70,000	1,27,37,400	1,18,45,000

The information regarding cost pool activities and their cost driver is also provided below:

Cost Pool Activity	Total Cost (₹)	Cost Driver
Placing of orders	17,94,000	No. of purchase orders
Physical delivery of goods	28,98,000	No. of deliveries
Stocking of goods on store shelves	19,87,200	Hours of shelf-stocking time
Supervising cost	13,80,000	Direct labour hours
Quality Inspections	9,03,900	No. of Inspections

Further, bifurcation of cost driver of the individual type of Chips is as follows:

Particulars	Crunchy Potato	Crispy corn	Crumbly Banana
Number of purchase orders placed	1,127	1,242	1,219
Number of deliveries made	2,185	2,668	2,392
Hours of shelf-stocking time	6,072	7,130	6,670
Direct Labour hours	19,159	19,435	18,906
Number of Inspections done	759	782	736

Due to banana being ripening in nature, it takes double the time during inspection than the other type of Chips.

You are required to CALCULATE the operating income and its percentage of the revenue for each product line:

- (i) if the company allocates all the support cost to product lines on the basis of cost of goods sold.
- (ii) if the company allocates all the support cost to product lines using an activity-based costing system. **(6 Marks)**

- (b) A company manufactures two products, X and Y, which are sold to retailers. These products are part of the company's core offerings and are crucial to meeting the demands of its retail partners. The company is anticipating a specific sales volume for each product in the upcoming quarter, which is expected to play a significant role in production planning, inventory management, and overall financial forecasting.

The budgeted sales volumes for the next quarter are as follows:

Product	Units
X	64,000
Y	1,12,000

The finished goods inventory is projected to rise by 2,000 units of Product X and fall by 4,000 units of Product Y by the end of the quarter.

Raw materials A and B are essential for the production of both products. The quantities needed of each raw material to produce one unit of the finished product, along with their purchase prices, are outlined in the table below:

	Raw Material A	Raw Material B
Product X	24 kg	12 kg
Product Y	12 kg	9 kg
Purchase price per kg	₹ 18.75	₹ 27.00
Budgeted opening inventory	1,80,000 kg	1,20,000 kg

The company intends to maintain a raw material inventory at the end of the quarter equivalent to 5% of the quarter's total raw material usage budget.

Additional information is provided relating to production of the products, X and Y:

- (i) Product X requires 16 minutes of direct labour, while Product Y requires 20 minutes of direct labour. Labour cost is ₹ 540 for 1 day of 9 hours.
- (ii) Variable manufacturing overhead of ₹ 8 per unit is same for both the products.
- (iii) Variable selling and administration expenses are 10% of sales.

You are required to:

- (i) PREPARE Production budget for the quarter(in units)
- (ii) PREPARE Raw material usage budget for the quarter (in kg)

- (iii) PREPARE Raw material purchase budget for the quarter(in kg and ₹)
- (iv) COMPUTE the budgeted variable cost to produce one unit of Product Y.

(2 + 2 + 2 + 2 = 8 Marks)

5. (a) RN Ltd. is a manufacturing company producing single product. The following information is available relating to current financial year:

Activity Level	100%
Sales and production (units)	4,400
	(₹)
Sales	88,00,000
Production costs:	
- Variable	35,20,000
- Fixed	8,80,000
Selling and distribution costs:	
- Variable	17,60,000
- Fixed	13,20,000

Fixed costs are incurred evenly throughout the year, and actual fixed costs are the same as budgeted. Thus, at 50% activity level, fixed production cost and fixed selling and distribution costs remains the same and other data/figures which are variable changes proportionately.

The normal level of activity for the year is 4,400 units.

There were no stock at the beginning of the year.

In the first quarter, 1,210 units were produced and 880 units were sold.

You are required to COMPUTE the profit for the quarter using-

- (i) Absorption costing
- (ii) Marginal costing. **(3 + 3 = 6 Marks)**

- (b) Arnav Ltd. has three production departments M, N and O and two service departments P and Q. The following particulars are available for the month of September, 2024:

	(₹)
Lease rental	35,000

Power & Fuel	4,20,000
Wages to factory supervisor	6,400
Electricity	5,600
Depreciation on machinery	16,100
Depreciation on building	18,000
Payroll expenses	21,000
Canteen expenses	28,000
ESI and Provident Fund Contribution	58,000

Followings are the further details available:

Particulars	M	N	O	P	Q
Floor space (square meter)	1,200	1,000	1,600	400	800
Light points (nos.)	42	52	32	18	16
Cost of machines (₹)	12,00,000	10,00,000	14,00,000	4,00,000	6,00,000
No. of employees (nos.)	48	52	45	15	25
Direct Wages (₹)	1,72,800	1,66,400	1,53,000	36,000	53,000
HP of Machines	150	180	120	-	-
Working hours (hours)	1,240	1,600	1,200	1,440	1,440

The expenses of service department are to be allocated in the following manner:

	M	N	O	P	Q
P	30%	35%	25%	-	10%
Q	40%	25%	20%	15%	-

You are required to CALCULATE the overhead absorption rate per hour in respect of the three production departments. **(8 Marks)**

6. (a) Standard costs, marginal costs are some of the types of cost which helps the management in decision making. DISCUSS any five types of costs categorised based on its use in Managerial Decision Making. **(5 Marks)**

- (b) Provide EXAMPLE(S) of the cost driver for the following cost pools:

Cost Pool
Quality Control
Research and Development
Machine Maintenance
Employee Training Costs
Customer Service

(5 Marks)

- (c) Besides having advantages of Budgetary Control System being a powerful instrument used by business entity for the control of their expenditure, it has certain limitations as well. ELABORATE any four limitations of Budgetary Control System.

(4 Marks)

OR

- (d) Cost control emphasis is on past and present, while cost reduction emphasis is on present and future. DISCUSS some more differences between Cost control and Cost reduction.

(4 Marks)