Intermediate Course: Group – II **(Mock Test Paper – Series : 2)**
DATE: 18.10.2024 **MAXIMUM MARKS: 100** **TIMING: 3¼ Hours**

COST AND MANAGEMENT ACCOUNTING

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.

TOTAL MARKS: 30 MARKS

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.

Q. 1 to Q. 5:
Case Scenario

XYZ Manufacturing Pvt. Ltd. is a prominent company in the electric appliances industry, known for producing a diverse range of high-quality products. The company has built a reputation for reliability and innovation in the manufacturing of household appliances, including fans, mixers, and heaters. XYZ Manufacturing Pvt. Ltd. is dedicated to delivering products that meet the needs of its customers while adhering to the highest standards of quality and performance.

The company operates a state-of-the-art factory that is fully equipped with advanced machinery and technology to ensure efficient and consistent production. The factory operates 25 days a month, running multiple shifts to meet the growing demand for its products. The company have spare capacity to additional orders. Each product type—fans, mixers, and heaters—undergoes a meticulous manufacturing process that includes assembly, quality testing, and packaging.

Cost Category	Amount (Rs.)
Fixed Costs (per month)	
Factory Rent	Rs. 3,00,000
Depreciation	Rs. 2,00,000
Administrative Expenses	Rs. 1,00,000
Salaries	Rs. 4,00,000
Total Fixed Costs	Rs. 10,00,000
Number of units produced per month (Note: Last month there was an additional special order of 2000 units which resulted in higher production)	10,000 units
Selling price per unit	Rs. 1,500

Additional Info: Raw Materials include Copper, Plastic, and Other Materials. The per unit cost of Copper is Rs. 80 more than the cost of Plastic, while the cost of Other Materials is twice that of Plastic. And the total Raw Material Cost per unit is Rs. 210 more than the combined cost of Copper & Plastic.

The Labour Hour Rate is Rs. 100 per hour. The total labour hours used in the last month were 36,000 Hours. The Utilities Cost per unit is Rs. 100, and the Packaging Cost per unit is Rs. 50. Being a finance manager of the company, you are required to answer the following:

1. Calculate the contribution margin per unit.
   (a) Rs. 550
   (b) Rs. 600
   (c) Rs. 650
   (d) Rs. 700

2. Determine the break-even point in sales revenue.
   (a) Rs. 31,28,593
   (b) Rs. 25,85,153
   (c) Rs. 27,27,025
   (d) Rs. 27,05,983

3. If the company wants to achieve a target profit of Rs. 5,00,000, what should be the sales volume (in units)?
   (a) 2,000 units
   (b) 2,727 units
   (c) 2,750 units
   (d) 3,000 units

4. What would be the impact on the break-even point if the variable cost per unit increases by 10%?
   (a) 2,178 units
   (b) 2,198 units
   (c) 2,248 units
   (d) 2,258 units

5. Calculate the margin of safety in percentage if the company sells 4,000 units if the variable cost per unit increases by 10%
   (a) 44.85%
   (b) 42.55%
   (c) 45.05%
   (d) 45.75%

MCQ [5 MCQ of 2 Marks Each : Total 10 Marks]

Q. 6 to Q. 10:
Case Scenario

The board of the J Ltd. has been appraised by the General Manager (HR) that the employee attrition rate in the company has increased. The following facts has been presented by the GM(HR):

(1) Training period of the new recruits is 50,000 hours. During this period their productivity is 60% of the experienced workers. Time required by an experienced worker is 10 hours per unit.
(2) 20% of the output during training period was defective. Cost of rectification of a defective unit was Rs. 25.
(3) Potential productive hours lost due to delay in recruitment were 1,00,000 hours.
(4) Selling price per unit is Rs. 180 and P/V ratio is 20%.
(5) Settlement cost of the workers leaving the organization was Rs. 1,83,480.
(6) Recruitment cost was Rs. 1,56,340
(7) Training cost was Rs. 1,13,180

You being an associate finance to GM(HR), has been asked the following questions:

6. How much quantity of output is lost due to labour turnover?
   (a) 10,000 units
   (b) 8,000 units
   (c) 12,000 units
   (d) 12,600 units

7. How much loss in the form of contribution, the company incurred due to labour turnover?
   (a) Rs. 4,32,000
   (b) Rs. 4,20,000
   (c) Rs. 4,36,000
   (d) Rs. 4,28,000

8. What is the cost repairing of defective units?
   (a) Rs. 75,000
   (b) Rs. 15,000
   (c) Rs. 50,000
   (d) Rs. 25,000

9. Calculate the profit lost by the company due to increased labour turnover.
   (a) Rs. 7,50,000
   (b) Rs. 15,00,000
   (c) Rs. 5,00,000
   (d) Rs. 9,00,000

10. How much quantity of output is lost due to inexperience of the new worker?
   (a) 1,000 units
   (b) 2,600 units
   (c) 2,000 units
   (d) 12,600 units

MCQ [5 MCQ of 2 Marks Each : Total 10 Marks]

11. Which of these is not an objective of Cost Accounting?
   (a) Ascertainment of Cost
   (b) Determination of Selling Price
   (c) Cost Control and Cost reduction
   (d) Assisting Shareholders in decision making

(2 Marks)

12. Fixed cost is a cost:
   (a) Which changes in total in proportion to changes in output
   (b) which is partly fixed and partly variable in relation to output
   (c) Which do not change in total during a given period despise changes in output
   (d) which remains same for each unit of output

(2 Marks)

13. Calculate the prime cost from the following information:

Direct material purchased	: Rs. 1,00,000
Direct material consumed	: Rs. 90,000
Direct labour	: Rs. 60,000
Direct expenses	: Rs. 20,000
Manufacturing overheads	: Rs. 30,000

   (a) Rs. 1,80,000
   (b) Rs. 2,00,000
   (c) Rs. 1,70,000
   (d) Rs. 2,10,000

(2 Marks)

14. Re-order level is calculated as:
   (a) Maximum consumption x Maximum re-order period
   (b) Minimum consumption x Minimum re-order period
   (c) 1/2 of (Minimum + Maximum consumption)
   (d) Maximum level - Minimum level

(2 Marks)

15. A company makes a single product and incurs fixed costs of Rs. 30,000 per annum. Variable cost per unit is Rs. 5 and each unit sells for Rs. 15. Annual sales demand is 7,000 units. The breakeven point is:
(a) 2,000 units
(b) 3,000 units
(c) 4,000 units
(d) 6,000 units

(2 Marks)

PART – II - DESCRIPTIVE QUESTIONS

QUESTIONS NO. 1 IS COMPULSORY
ATTEMPT ANY FOUR QUESTIONS THE REMAINING FIVE QUESTIONS

TOTAL MARKS: 70 MARKS

Question 1:

(a) A company has the following three alternative proposals for conveyance facilities for its sales personnel who has to do substantial traveling, approximately 20,000 kilometers yearly:
(i) Purchasing and maintaining its own fleet of cars. The average cost of a car is Rs. 7,20,000
(ii) Allow the Executive to use their own car and reimburse the expenses @ Rs. 12 per kilometer and also bear insurance costs.
(iii) Hire cars from an agency at Rs. 2,16,000 per year per car. The company will have to bear costs of petrol, taxes and tyres.

The following further details are available:

Petrol	Rs. 7.20 per km.
Tyre	Rs. 0.144 per km.
Taxes	Rs. 960 per car per annum
Repairs and maintenance	Rs. 0.24 per km.
Insurance	Rs. 1,440 per car per annum
Life of the car	5 years with annual mileage of 20,000 km.
Resale value	Rs. 96,000 at the end of the fifth year.

WORK OUT the relative costs of three proposals and rank them.

(5 Marks)

(b) A manufacturing process yields the following products out of the raw materials introduced in the process:

Main Product X	60% of Raw Materials
By-Product Y	15% of Raw Materials
By Product Z	20% of Raw Materials
Wastage	5% of Raw Materials

Other information is as follows:
a. Total Cost: Raw Materials 1,000 units of Rs. 9,200; Labour Rs. 8,200; Overheads Rs. 12,000
b. One unit of product z requires ½ the raw materials required for one unit of product Y, one unit of product X requires 1½ times the raw materials required for product Y.
c. Product X required double the time needed for production of one unit of Y.
d. Product Z requires ½ the time required for the production of one unit of product Y.
e. Overheads are to be apportioned in the ratio of 6:1:1.

You are required to CALCULATE the total and per unit of cost of each of the products.

(5 Marks)

(c) A company produces a product 'AB' by using two raw materials - 'Material Ae' and 'Material Be' in the ratio of 5:3.

A sales volume of 50,000 kgs is estimated for the month of December by the managers expecting the trend will continue for entire year. The ratio of input and output is 8:5.

Other Information about Raw Material Ae is as follows:

Purchase Price	Rs. 150 per kg
Re-order period	2 to 3 days
Carrying Cost	12%

Note: Material Ae is perishable in nature and if not used within 3.5 days of purchase it becomes obsolete.

To place an order for material 'Ae', the company has to incur an administrative cost of Rs. 375 per order. At present, material 'Ae' is purchased in a lot of 7,500 kgs. to avail the discount on purchase. Company works for 25 days in a month and production is carried out evenly.

You are required to CALCULATE:

(i) Economic Order Quantity (EOQ) for Material Ae;

(ii) Maximum stock level for Material Ae.

(4 Marks)

Question 2:

(a) A manufacturing company has disclosed net loss of ₹ 48,700 as per their cost accounting records for the year ended 31st March, 2024. However their financial accounting records disclosed net profit of ₹ 30,400 for the same period. A scrutiny of data of both the sets of books of accounts revealed the following informations:

		₹
(i)	Factory overheads under absorbed	30,500
(ii)	Administrative overheads over absorbed	65,000
(iii)	Depreciation charged in financial accounts	2,25,000
(iv)	Depreciation charged in cost accounts	2,70,000
(v)	Income-tax provision	52,400
(vi)	Transfer fee (credited in financial accounts)	10,200
(vii)	Obsolescence loss charged in financial accounts	20,700
(viii)	Notional rent of own premises charged in cost accounts	49,000
(ix)	Value of opening stock:	
	(a) in cost accounts	1,38,000
	(b) in financial accounts	1,15,000
(x)	Value of closing stock:	
	(a) in cost accounts	1,22,000
	(b) in financial accounts	1,12,500

PREPARE a Memorandum Reconciliation Account by taking costing loss as base.

(7 Marks)

(b) A company manufactures one main product (MN) and two by-products AB and PQ. For the month of January 2024, following details are available:

Total Cost upto separation Point ₹ 2,12,400

	MN	AB	PQ
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	30%	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 2024.

(7 Marks)

Question 3:

(a) XYZ Ltd. is manufacturer of medicines. It carries on production operation in two processes. The material first passes through Process I, where Medicine 'X' is produced. Following data are given for the month October, 2022:

Opening work-in-progress quantity (Material 100% and conversion 50% complete)	(in Liter)	12,000
Material input quantity	(in Liter)	60,000
Work completed quantity	(in Liter)	40,000
Closing work-in-progress quantity (Material 100% and conversion 80% complete)	(in Liter)	15,000
Opening work-in-progress cost		
Material cost	(in Rs.)	1,75,000
Processing cost	(in Rs.)	1,40,000
Material input cost	(in Rs.)	7,70,000
Processing cost	(in Rs.)	8,35,000

Normal process loss is 15% of material input. It has no realizable value.
Any quantity of Medicine 'X' can be sold for Rs. 42.50 per Liter. Alternatively, it can be transferred to Process II for further processing and then sold as Medicine 'XYZ' for Rs. 50 per Liter. Further materials are added in Process II, which yield 1.25 Liter of Medicine 'XYZ' for every Liter of Medicine 'X' of Process I. Out of the 40,000 Liter of work completed in Process I, 10,000 Liter are sold as Medicine 'X' and 30,000 Liter are passed through Process II for sale as Medicine 'XYZ'.
The monthly costs incurred in Process II (other than the cost of Medicine 'X') are:

Input	30,000 Liter of Medicine 'X'
Materials Cost	Rs. 2,75,000
Processing Costs	Rs. 2,50,000

You are required to:
(i) PREPARE Statement of Equivalent production and determine the cost per Liter of Medicine 'X' in Process I, using the weighted average cost method.
(ii) Company is mulling over the option to sell the 30,000 Liter of Medicine ' X' at Process-I without processing it further in Process-II. WILL IT BE beneficial for the company over the current pattern of processing 30,000 Liter in process-II?

(7 Marks)

(b) The following information pertains to A Limited for the year 1st April 2021 to 31st March 2022

Particulars	**Amount (Rs.)**
Sales	50,00,000
Direct labour	10,50,000
Administrative overheads (relating to production activity)	1,50,000
Selling expenses	2,50,000

	As on 1st April 2021 (Amount in Rs.)	**As on 31st March 2022 (Amount in Rs.)**
Raw materials	5,00,000	6,30,000

Finished goods	9,80,000	10,50,000
Work in Progress	6,00,000	8,00,000

Additional Information:

- Direct labour would be 175% of works overheads.
- Cost of goods sold would be Rs. 6,900 per unit
- Selling expenses would be Rs. 500 per unit.

You are required to PREPARE a cost sheet for the year ended 31st March, 2022 showing:

(i) Value of material purchased
(ii) Prime cost
(iii) Works cost
(iv) Cost of production
(v) Cost of goods sold
(vi) Cost of Sales
(vii) Profit earned
(viii) Profit as a percentage of sales

(7 Marks)

Question 4:

(a) A work-shop has 8 identical machines operated by 6 operators. The machine cannot work without an operator wholly engaged on it. The original cost of all the 8 machines works out to Rs. 64,00,000. The following particulars are furnished for a six months' period:

Normal available hours per operator	1,248
Absenteeism (without pay) hours per operator	18
Leave (with pay) hours per operator	20
Normal unavoidable idle time-hours per operator	10
Production bonus estimated	10% on wages
Power consumed	Rs. 80,500
Supervision and Indirect Labour	Rs. 33,000
Lighting and Electricity	Rs. 12,000
Average rate of wages per day of 8 hours per operator	Rs. 200
The following particulars are given for a year: Insurance	 Rs. 7,20,000
Sundry work Expenses	Rs. 1,00,000
Management Expenses allocated	Rs. 10,00,000
Depreciation	10% on the original cost

Repairs and Maintenance (including consumables): 5% of the value of all the machines. Prepare a statement showing the comprehensive machine hour rate for the machine shop.

(6 Marks)

(b) SMD Limited manufactures four products namely A, B, C and D using the same production and process facilities. The company has been following conventional method of costing and wishes to shift to activity-based costing system.
The data pertaining to four products are:

Product	Units produced	Material per unit (Rs.)	Labour hours per unit	Machine hours per unit
A	1,500	140	1	3
B	2,500	90	3	2
C	10,000	180	2	6
D	6,000	150	1.5	4

The following activity volumes are associated to the production process for the relevant period -

	Number of Inspections	Number of Material Movements	Number of set-ups
A	200	15	100
B	250	20	125
C	900	100	600
D	650	85	400

The cost data also states that:

- Direct Labour cost: Rs. 60 per hour
- Machine hour rate: Rs. 280 per hour
- Production overheads are absorbed on machine hour basis.
- For activity-based costing, a thorough, analysis of the production process revealed that:

Costs relating to set-ups and inspection bears the equal percentage while costs relating to machinery accounts for 20% of the production overhead.
Costs relating to material handling stands at 50% of costs relating to machinery.
You are required to:

(i) Prepare a statement showing the unit costs and total costs of each product using the absorption costing method.

(ii) Prepare a statement showing the unit costs and total costs of each product using activity - based costing system.

(8 Marks)

Question 5:

(a) Khushi Ltd. is currently operating at 75% of its capacity. In the past two years, the levels of operations were 55% and 65% respectively. Presently, the production is 75,000 units. The company is planning for 85% capacity level during 2021-22. The cost details are as follows:

	55%	65%	75%
	(Rs.)	(Rs.)	(Rs.)
Direct Materials	11,00,000	13,00,000	15,00,000
Direct Labour	5,50,000	6,50,000	7,50,000
Factory Overheads	3,10,000	3,30,000	3,50,000
Selling Overheads	3,20,000	3,60,000	4,00,000
Administrative Overheads	1,60,000	1,60,000	1,60,000
	24,40,000	28,00,000	31,60,000

Profit is estimated @ 20% on sales.
The following increases in costs are expected during the year:

	In percentage
Direct Materials	8
Direct Labour	5
Variable Factory Overheads	5
Variable Selling Overheads	8
Fixed Factory Overheads	10
Fixed Selling Overheads	15
Administrative Overheads	10

PREPARE flexible budget for the period 2021-22 at 85% level of capacity. Also ascertain profit and contribution.

(7 Marks)

(b) Anju Limited produces a product 'Pect' which is sold in a 10 Kg. packet. The standard cost card per packet of 'Pect' are as follows:

	₹
Direct materials 10 kg @ ₹45 per kg	450
Direct labour 8 hours @ ₹50 per hour	400
Variable Overhead 8 hours @ ₹10 per hour	80
Fixed Overhead	200
	1,130

Budgeted output for the third quarter of a year was 10,000 Kg. Actual output is 9,000 Kg.
Actual cost for this quarter are as follows :

	₹
Direct Materials 8,900 Kg @ ₹46 per Kg.	4,09,400
Direct Labour 7,000 hours @ ₹52 per hour	3,64,000
Variable Overhead incurred	72,500
Fixed Overhead incurred	1,92,000

You are required to CALCULATE:
(i) Material Usage Variance
(ii) Material Price Variance
(iii) Material Cost Variance
(iv) Labour Efficiency Variance
(v) Labour Rate Variance
(vi) Labour Cost Variance
(vii) Variable Overhead Cost Variance
(viii) Fixed Overhead Cost Variance

(7 Marks)

Question 6:

(a) LIST OUT five purely financial expenses that are included only in Financial Accounts.

(5 Marks)

(b) BRIEF the treatment of following while calculating purchase cost of material: Trade Discount, Cash Discount, Penalty, Insurance charges, Commission paid.

(5 Marks)

(c) LIST OUT cost unit examples of following service industry:
Hospital, Electricity Supply service, Cinema, Canteen, Hotels

(4 Marks)

OR

(c) EXPLAIN the treatment of following items in cost sheet.
(i) Credit for Recoveries
(ii) Packing Cost (primary)
(iii) Joint Products and By-Products
(iv) Quality Control Cost

(4 Marks)

__**__