

Intermediate Course: Group – II**(Mock Test Paper : 1)****DATE: 01.08.2024****MAXIMUM MARKS: 100****TIMING: 3¼ Hours****PAPER 4 : 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**

Manav 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 Rs. 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 Rs. 20 per litre.

All raw materials are added at the commencement of the process.

The cost per equivalent unit is Rs. 660 for the month made up as follows:

Raw Material Rs. 300 Labour Rs. 200 Overheads Rs. 160

The company uses FIFO method to value work-in-process and finished goods.

The following information are required for managerial decisions:

1. 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
2. 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.
3. Value of raw material added to the process during the month is:
 - (a) Rs. 10,10,000
 - (b) Rs. 10,33,600
 - (c) Rs. 10,18,400
 - (d) Rs. 10,20,000

4. Value of labour and overhead in closing Work-in-process are:
- (a) Rs. 4,000 & Rs. 1,600 respectively
 - (b) Rs. 20,000 & Rs. 16,000 respectively
 - (c) Rs. 16,000 & Rs. 9,000 respectively
 - (d) Rs. 13,200 & Rs. 6,600 respectively
5. Value of output transferred to finished goods is:
- (a) Rs. 22,57,200
 - (b) Rs. 20,06,400
 - (c) Rs. 22,44,000
 - (d) Rs. 19,27,200

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

Q. 6 to Q. 10 :

CASE SCENARIO

Naresh Ltd. is producing a single product and may expand into product diversification in next one to two years. Naresh 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 Rs. 50,00,000
- (ii) Power consumed 13,000 Kwh @ Rs. 8 per Kwh to run the machines for production.
- (iii) Diesels consumed 2,000 litres @ Rs. 93 per litre to run power generator used as alternative or backup for power cuts.
- (iv) Wages & salary paid – Rs. 6,40,00,000
- (v) Gratuity & leave encashment paid – Rs. 64,20,000
- (vi) Hiring charges paid for HEMM- Rs. 30,00,000. HEMM are directly used in production.
- (vii) Hiring charges paid for cars used for official purpose – Rs. 66,000
- (viii) Reimbursement of diesel cost for the cars – Rs. 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) – Rs. 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 Rs. 8,000 and Rs. 18,000 per month respectively.
- (xii) TA/ DA and hotel bill paid for sales manager- Rs. 36,000
- (xiii) The company has 1,800 employees works for 26 days in a month.

You are asked to calculate the followings:

6. What is the amount of prime cost incurred during the last month:
- (a) Rs. 7,54,20,000
 - (b) Rs. 7,57,10,000
 - (c) Rs. 7,56,06,000
 - (d) Rs. 7,87,10,000
7. What is the total and per shift cost of production for last month:
- (a) Rs. 7,87,10,000 and Rs. 336.37 respectively
 - (b) Rs. 7,87,10,000 and Rs. 1,681.84 respectively
 - (c) Rs. 7,87,28,000 and Rs. 1,682.22 respectively
 - (d) Rs. 7,87,28,000 and Rs. 336.44 respectively

8. What is the value of administrative cost incurred during the last month:
- Rs. 92,400
 - Rs. 88,000
 - Rs. 1,48,400
 - Rs. 1,44,000
9. What is the value of selling and distribution cost and total cost of sales:
- Rs. 36,000 & Rs. 7,88,76,400 respectively
 - Rs. 56,000 & Rs. 7,88,76,400 respectively
 - Rs. 36,000 & Rs. 7,88,72,000 respectively
 - Rs. 56,000 & Rs. 7,88,72,000 respectively
10. What is the value EMS and OMS for the last month:
- Rs. 1,504.70 & 5 tonnes respectively
 - Rs. 1,367.52 & 5 tonnes respectively
 - Rs. 1,504.70 & 4.37 tonnes respectively
 - Rs. 1,367.52 & 4.37 tonnes respectively

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

11. 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 Rs. 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
- Rs. 50
 - Rs. 25.50
 - Rs. 50.50
 - Rs. 25.25

(2 Marks)

12. The following extract is taken from the overhead budget of X:

Budgeted activity	50%	75%
Budgeted overhead (Rs.)	30,00,000	40,00,000

What would be the budgeted overhead for 60% level of activity:

- Rs. 32,00,0000
- Rs. 34,00,000
- Rs. 30,00,000
- Rs. 36,00,000

(2 Marks)

13. Which of the following statements relating to Zero Based Budgeting (ZBB) is false:
- It is a method of budgeting whereby all activities are re-evaluated each time a budget is formulated.
 - ZBB attempts to eliminate unnecessary expenditure being retained in budgets.
 - It is probably the least time consuming and least costly approach to budgeting.
 - It requires that budgets are built up from scratch.

(2 Marks)

14. Based on the data below, what is the amount of the overhead under-/over-absorbed?
 Budgeted overhead – Rs. 5,25,000
 Budgeted machine hours - 17,500
 Actual machine hours - 17,040
 Actual overheads - Rs. 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)

15. A customer has been ordering 80,000 caps during the year. It is estimated that it costs Rs. 1 as inventory holding cost per cap per month and that the set up cost per run of cap manufacture is Rs. 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

QUESTIONS NO. 1 IS COMPULSORY

ATTEMPT ANY FOUR QUESTIONS THE REMAINING FIVE QUESTIONS

TOTAL MARKS: 70 MARKS

Question 1:

- (a) Anmol Limited has furnished the following information for the months from 1st January to 30th April, 2023:

	January	February	March	April
Number of Working days	25	24	26	25
Production (in units) per working day	50	55	60	52
Raw Material Purchases (% by weights to total of 4 months)	21%	26%	30%	23%
Purchase price of raw material (per kg)	Rs. 10	Rs. 12	Rs. 13	Rs. 11

Quantity of raw material per unit of product: 4 kg.

Opening stock of raw material on 1st January: 6,020 kg. (Cost Rs. 63,210)

Closing stock of raw material on 30th April: 5,100 kg.

All the purchases of material are made at the start of each month.

Required:

- (i) Calculate the consumption of raw materials (in kgs) month-by- month and in total.
 (ii) Calculate the month-wise quantity and value of raw materials purchased.
 (iii) Prepare the priced stores ledger for each month using the FIFO method.

(7 Marks)

- (b) Chaman 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	Rs. 19.20 per km.
Engine oil	Rs. 4,200 for every 13,000 km.
Repair and maintenance	Rs. 36,000 for every 10,000 km.
Driver's salary	Rs. 24,000 per truck per month

Cleaner's salary	Rs. 15,000 per truck per month
Supervision and other general expenses	Rs. 14,000 per month
Cost of loading of goods	Rs. 180 per Metric Ton (MT)

All four trucks were purchased for Rs. 120 lakhs with an estimated life of 7,20,000 km.

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.

(4 Marks)

Question 2:

(a) The following information is available from the cost records of a company for the month of July, 2022:

(1)	Material purchased	22,000 pieces	Rs. 9,00,000
(2)	Material consumed	21,000 pieces	
(3)	Actual wages paid for	5,150 hours	Rs. 2,57,500
(4)	Fixed Factory overhead incurred		Rs. 4,60,000
(5)	Fixed Factory overhead budgeted		Rs. 4,20,000
(6)	Units produced	1,900	
(7)	Standard rates and prices are:		
	Direct material	Rs. 45 per piece	
	Standard input	10 pieces per unit	
	Direct labour rate	Rs. 60 per hour	
	Standard requirement	2.5 hours per unit	
	Overheads	Rs. 80 per labour hour	

You are required to CALCULATE the following variances:

- (i) Material price variance
- (ii) Material usage variance
- (iii) Labour rate variance
- (iv) Labour efficiency variance
- (v) Fixed overhead expenditure variance
- (vi) Fixed overhead efficiency variance
- (vii) Fixed overhead capacity variance

(7 Marks)

(b) A factory can produce 1,80,000 units per annum at its 60% capacity. The estimated costs of production are as under:

Direct material	Rs.300 per unit
Direct employee cost	Rs.160 per unit
Indirect expenses:	
- Fixed	Rs.32,50,000 per annum

- Variable	Rs.50 per unit
- Semi- variable	Rs. 20,000 per month up to 50% capacity and Rs. 2,500 for every 20% increase in the capacity or part thereof.

If production program of the factory is as indicated below and the management desires to ensure a profit of Rs.1,00,00,000 for the year, DETERMINE the average selling price at which each unit should be quoted:

First three months of the year- 50% of capacity;

Remaining nine months of the year- 75% of capacity.

(7 Marks)

Question 3:

(a) What are the important ledgers to be maintained under non-integrated accounting system in the Cost Accounting?

(2 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 Rs.)	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 Rs. 1/-

You are required to calculate the wages of each worker under:

- Guaranteed hourly rate basis
- Piece work earning basis, but guaranteed at 75% of basic pay (Guaranteed hourly rate if his earnings are less than 50% of basic pay.)
- Premium bonus basis where the worker received bonus based on Rowan scheme.

(5 Marks)

(c) ANI Limited is a trader of a Product Z. It has decided to analyse the profitability of its five new customers. It buys Z article at Rs. 5,400 per unit and sells to retail customers at a listed price of Rs.6,480 per unit. The data pertaining to five customers are:

	Customers				
	A	B	C	D	E
Units sold	4,500	6,000	9,500	7,500	12,750
Listed Selling Price	Rs.6,480	Rs.6,480	Rs.6,480	Rs.6,480	Rs.6,480
Actual Selling Price	Rs.6,480	Rs.6,372	Rs.5,940	Rs.6,264	Rs.5,832
Number of Purchase orders	15	25	30	25	30
Number of Customer visits	2	3	6	2	3
Number of deliveries	10	30	60	40	20
Kilometers travelled per delivery	20	6	5	10	30
Number of expedited deliveries	0	0	0	0	1

Its five activities and their cost drivers are:

Activity	Cost Driver Rate
Order taking	Rs.4,500 per purchase order
Customer visits	Rs.3,600 per customer visit
Deliveries	Rs.7.50 per delivery Km travelled
Product handling	Rs.22.50 per case sold
Expedited deliveries	Rs.13,500 per expedited delivery

Required:

- COMPUTE the customer-level operating income of each of five retail customers (A, B, C, D and E).
- STATE the factors ANI Limited should consider in deciding whether to drop a customer.

(7 Marks)

Question 4:

- (a)** Arnav Ltd. operates in beverages industry where it manufactures soft- drink in three sizes of Large (3 litres), Medium (1.5 litres) and Small (600 ml) bottles. The products are processed in batches. The 5,000 litres capacity processing plant consumes electricity of 90 Kilowatts per hour and a batch takes 1 hour 45 minutes to complete. Only symmetric size of products can be processed at a time. The machine set-up takes 15 minutes to get ready for next batch processing. During the set-up power consumption is only 20%.

- The current price of Large, Medium and Small are Rs. 150, Rs. 90 and Rs. 50 respectively.
- To produce a litre of beverage, 14 litres of raw material-W and 25 ml of Material-C are required which costs Rs. 0.50 and Rs. 1,000 per litre respectively.
- 20 direct workers are required. The workers are paid Rs. 880 for 8 hours shift of work.
- The average packing cost per bottle is Rs. 3
- Power cost is Rs. 7 per Kilowatt -hour (Kwh)
- Other variable cost is Rs. 30,000 per batch (Setup Cost)
- Fixed cost (Administration and marketing) is Rs. 4,90,00,000.
- The holding cost is Rs. 1 per bottle per annum.

The marketing team has surveyed the following demand (bottle) of the product:

Large	Medium	Small
3,00,000	7,50,000	20,00,000

You are required to CALCULATE profit/ loss per batch and also COMPUTE Economic Batch Quantity (EBQ). *For simplicity of calculation small fractions has been ignored.

(7 Marks)

- (b)** The analysis of cost sheet of A Ltd. for the last financial year has revealed the following information for it's product R:

Elements of Cost	Variable Cost portion	Fixed Cost
Direct Material	30% of cost of goods sold	--
Direct Labour	15% of cost of goods sold	--
Factory Overhead	10% of cost of goods sold	Rs. 2,30,000
General & Administration Overhead	2% of cost of goods sold	Rs. 71,000
Selling & Distribution Overhead	4% of cost of sales	Rs. 68,000

Last year 5,000 units were sold at Rs.185 per unit.

You being an associate to cost controller of the A Ltd., CALCULATE :

- (i) Break-even Sales (in rupees),
- (ii) Profit earned during last year,
- (iii) Margin of safety (in %) and
- (iv) the profit if the sales were 10% less than the actual sales.

(7 Marks)

Question 5:

- (a) ABC Company produces a Product 'X' that passes through three processes: R, S and T. Three types of raw materials, viz., J, K, and L are used in the ratio of 40:40:20 in process R. The output of each process is transferred to next process. Process loss is 10% of total input in each process. At the stage of output in process T, a by-product 'Z' is emerging and the ratio of the main product 'X' to the by-product 'Z' is 80:20. The selling price of product 'X' is Rs. 60 per kg.

The company produced 14,580 kgs of product 'X'

Material price : Material J @ Rs. 15 per kg; Material K @ Rs. 9 per kg.

Material L @ Rs. 7 per kg Process costs are as follows:

Process	Variable cost per kg (Rs.)	Fixed cost of Input (Rs.)
R	5.00	42,000
S	4.50	5,000
T	3.40	4,800

The by-product 'Z' cannot be processed further and can be sold at Rs. 30 per kg at the split-off stage. There is no realizable value of process losses at any stage.

Required:

Present a statement showing the apportionment of joint costs on the basis of the sales value of product 'X' and by-product 'Z' at the split-off point and the profitability of product 'X' and by-product 'Z'.

(7 Marks)

- (b) PQR Limited manufactures three products - Product X, Product Y and Product Z. The output for the current year is 2,50,000 units of Product X, 2,80,000 units of Product Y and 3,20,000 units of Product Z respectively.

Selling price of Product X is 1.25 times of Product Z whereas Product Y can be sold at double the price at which product Z can be sold. Product Z can be sold at a profit of 20% on its marginal cost.

Other information are as follows:

	Product X	Product Y	Product Z
Direct Material Cost (Per unit)	Rs. 20	Rs. 20	Rs. 20
Direct Wages Cost (per unit)	Rs. 16	Rs. 24	Rs. 16

Raw material used for manufacturing all the three products is the same. Direct Wages are paid @ Rs. 4 per labour hour, Total overhead cost of the company is Rs. 52,80,000 for the year, out of which Rs. 1 per labour hour is variable and the rest is fixed.

In the next year it is expected that sales of product X and product Z will increase by 12% and 15% respectively and sale of product Y will decline by 5%. The total overhead cost of the company for the next year is estimated at Rs. 55,08,000. The variable cost of Rs. 1 per labour hour remains unchanged.

It is anticipated that all other costs will remain same for the next year and there is opening and closing stock. Selling Price per unit of each product will remain unchanged in the next year.

Required:

Prepare a budget showing the current position and the position for the next year clearly indicating the total product-wise contribution and profit for the company as a whole.

(7 Marks)

Question 6:

- (a) DISCUSS the essentials of good Cost Accounting System. **(5 Marks)**
- (b) STATE Direct Expenses with examples. **(5 Marks)**
- (c) EXPLAIN the difference between product cost and period cost. **(4 Marks)**

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