Intermediate Course: Group – I **(Mock Test Paper – Series : 1)**
DATE: 31.08.2024 **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

Nancy 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

JBD textiles Ltd. has been a major player in the textile industry, producing high- quality polyester mix cotton fabric. The production process is complex and involves multiple stages, including spinning, weaving, quality control, and packaging. The company has been facing challenges in controlling costs and maintaining profitability, mainly due to fluctuating material costs and labor inefficiencies.

To address these challenges, the company's management has decided to implement a standard costing system to better manage costs, set benchmarks, and identify variances. The goal is to gain better control over production costs, improve budgeting accuracy, and enhance decision-making.

JBD textiles Ltd. had prepared the following estimation for the month of April:

	Quantity/Time	Rate (Rs.)	Amount (Rs.)
Cotton	8,000 m	50.00	4,00,000
Polyester	6,000 m	40.00	2,40,000
Skilled labour	1,000 hours	37.50	37,500
Unskilled labour	800 hours	22.00	17,600

Normal loss was expected to be 10% of total input materials and an idle labour time of 5% of expected labour hours was also estimated.

At the end of the month the following information has been collected from the cost accounting department:

The company has produced 14,800 m finished product by using the followings:

	Quantity/Time	Rate (Rs.)	Amount (Rs.)
Cotton	9,000 m	48.00	4,32,000
Polyester	6,500 m	37.00	2,40,500
Skilled labour	1,200 hours	35.50	42,600
Unskilled labour	860 hours	23.00	19,780

On the basis of analysis of standard costing system, company's management wants to take actions like supplier negotiation, process optimisation, employee training, etc.

Being the cost manager of the company, you are required to answer the following five requirements of the management:

6. Compute Material mix variance and Material Yield Variance
   (a) Rs. 1430 (A) & 43,200 (F)
   (b) Rs. 1430 (F) & 43,200 (F)
   (c) Rs. 24,000 (A) & 37,500 (F)
   (d) Rs. 19,300 (A) & 37,500 (F)

7. Compute Material Price Variance for supplier negotiation
   (a) Rs. 18,000 (A)
   (b) Rs. 43,200 (F)
   (c) Rs. 37,500 (A)
   (d) Rs. 37,500 (F)

8. Compute Material Cost Variance
   (a) Rs. 32,500 (F)
   (b) Rs. 24,500 (A)
   (c) Rs. 79,270 (F)
   (d) Rs. 79,270 (A)

9. Compute Labour Efficiency Variance and Labour Yield Variance.
   (a) Rs. 940 (A) & 1,140 (A)
   (b) Rs. 2,424 (A) & 1,556 (A)
   (c) Rs. 2,424 (A) & 1,556 (A)
   (d) Rs. 940 (A) & 1,140 (F)

10. Compute Labour Cost Variance.
   (a) Rs. 884 (A)
   (b) Rs. 1,556 (F)
   (c) Rs. 884 (F)
   (d) Rs. 1,556 (A)

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

11. 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:
   (a) Rs. 32,00,0000
   (b) Rs. 34,00,000
   (c) Rs. 30,00,000
   (d) Rs. 36,00,000

(2 Marks)

12. 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)

13. Continuous stock taking is a part of
    (a) Annual Stock Taking
    (b) Perpetual Inventory
    (c) ABC Analysis
    (d) Bin Cards

(2 Marks)

14. A FMCG company has an annual demand of 50,000 units for its specific product whose setting up cost per batch is Rs. 10,000 and carrying cost per unit per month is Rs. 1. What is the Economic Batch Quantity?
    (a) 7,071 units
    (b) 10,000 units
    (c) 12,641 units
    (d) 9,129 units

(2 Marks)

15. A truck carrying 10 tons of goods over 200 kilometres per day for 26 days in a month. The ton kms applicable is -
    (a) 52,000
    (b) 20,000
    (c) 5200
    (d) 260

(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) Hercules cycles Ltd. used about 3,60,000 cycle locks per annum and the usage is fairly constant at 30,000 per month. The cycle lock costs Rs. 240 each at wholesale rate and carrying cost is estimated to be 10% of the annual average inventory value. The cost to place an order is Rs. 1200. It takes 45 days to receive delivery from the date of order. In order to avoid any kind of disruption in assembly line, safety stock of 6,500 cycle locks is always maintained by Hercules Cycles Ltd.
(Assume 360 days in a year). Compute:
(i) E.O.Q.
(ii) The re-order level.
(iii) The company has been offered a quantity discount of 2% on the purchase of cycle locks provided the order size is 30,000 units at a time. Advise whether quantity discount offer can be accepted?

(6 Marks)

(b) The cost variance report was being discussed at a review meeting where in Cost Accountant of the company reported under-absorption of production overheads.
The following information was available from the cost records of the company at the end of financial year 2023-24:

- Actual production overheads incurred were Rs. 4,50,000 which included Rs. 42,000 on account of 'written off obsolete stores.
- 18,000 units were produced during the year out of which 10,000 units were sold and 8,000 units of finished goods were in stock.
- There were also 5,000 units in progress which may be reckoned as 40% complete.
- The actual machine hours worked during the period were 43,000.

ABC Ltd. absorbs the production overheads at a predetermined rate of Rs. 8 per machine hour.

On investigation, it has been found that 20% of the under-absorption of production overheads was due to defective planning and the rest was attributable to normal increase in costs of indirect materials and indirect labour.

You are required to:

(i) Calculate the amount of under-absorption of production overheads during the year 2023-24; and

(ii) Show the treatment of under-absorption of production overheads in cost accounts.

(8 Marks)

Question 2:

AB Ltd produces a single product V2 and sells it at a fixed price of Rs. 2,050 per unit. The production and sales data for first quarter of the year 2023-24 are as follows:

	April	**May**	**June**
Sales in units	4,200	4,500	5,200
Production in units	4,600	4,400	5,500

Actual/budget information for each month was as follows:

Direct materials	4 kilograms at Rs. 120 per kilogram
Direct labour	6 hours at Rs. 60 per hour
Variable production overheads	150% of direct labour
Fixed production overheads	Rs. 5,00,000
Fixed selling overheads	Rs. 95,000

There was no opening inventory at the start of the quarter. Fixed production overheads are budgeted at Rs. 60,00,000 per annum and are absorbed into products based on a budgeted normal output of 60,000 units per annum.

Required:

(i) Prepare a profit statement for each of the three months using absorption costing principles.

(ii) Prepare a profit statement for each of the three months using marginal costing principles.

(iii) Present a reconciliation of the profit or loss figures given in your answer to (i) and (ii).

(14 Marks)

Question 3:

(a) A mini-bus, having a capacity of 32 passengers, operates between two places - 'A' and 'B'. The distance between the place 'A' and place 'B' is 30 km. The bus makes 10 round trips in a day for 25 days in a month. On an average, the occupancy ratio is 70% and is expected throughout the year.

The details of other expenses are as under:

	Amount (Rs.)
Insurance	15,600 Per annum
Garage Rent	2,400 Per quarter
Road Tax	5,000 Per annum
Repairs	4,800 Per quarter
Salary of operating staff	7,200 Per month
Tyres and Tubes	3,600 Per quarter
Diesel: (one litre is consumed for every 5 km)	13 Per litre
Oil and Sundries	22 Per 100 km run
Depreciation	68,000 Per annum

Passenger tax @ 22% on total taking is to be levied and bus operator requires a profit of 25% on total taking.

PREPARE operating cost statement on the annual basis and find out the cost per passenger kilometer and one way fare per passenger.

(8 Marks)

(b) Super Ltd, a manufacturing company is facing the problem of high labour turnover in the factory. Before analysing the causes and taking remedial steps, the management of the company wants to ascertain the profit lost for the year 2022-23 on account of labour turnover. For this purpose, it has given you the following information:

(i) Sales for the last year 2022-23 was Rs. 2,16,80,000 and P/V ratio was 15%.

(ii) The total number of actual hours worked by the direct labour force was 5,00,000 hours. The actual direct labour hours included 60,000 hours attributable to training new recruits, out of which 40% of the hours were unproductive.

(iii) Due to delays by the Personnel Department in filling vacancies on account of labour turnover, 95,000 potential productive hours (excluding unproductive training hours) were lost.

(iv) 1,500 units of the output produced during training period were defective. Cost of rectification of defective units was Rs. 40 per unit.

(v) Settlement cost of the workers leaving the organization was Rs. 2,37,880.

(vi) Recruitment and Selection cost was Rs. 1,40,000.

(vii) Cost of Training and Induction was Rs. 1,61,950.

Assuming that the potential production lost as a consequence of labour turnover could have been sold at prevailing prices, find the profit lost for the year 2022-23 on account of labour turnover.

(6 Marks)

Question 4:

(a) Following information relate to a manufacturing concern for the year ended 31st March, 2023:

	(Rs.)
Raw Material (opening)	2,28,000
Raw Material (closing)	3,05,000
Purchases of Raw Material	43,50,000
Freight Inwards	1,20,000
Direct wages paid	12,56,000
Direct wages-outstanding at the end of the year	1,50,000
Factory Overheads	20% of prime cost
Work-in-progress (opening)	1,92,500
Work-in-progress (closing)	1,40,700
Administrative Overheads (related to production)	1,73,000
Distribution Expenses	Rs. 16 per unit
Finished Stock (opening)- 1,320 Units	6,08,500
Sale of scrap of material	7,000

The firm produced 14,350 units of output during the year. The stock of finished goods at the end of the year is valued at cost of production. The firm sold 14,903 units at a price of Rs.579 per unit during the year.

PREPARE cost sheet of the firm.

(8 Marks)

(b) A factory is currently working at 60% capacity and produces 12,000 units of a product. Management is thinking to increase the working capacity either to 70% or 90% level. It is estimated that at both the levels, it will be able to sell all the produced units. The other details are as under:

- At 70% capacity, the cost of raw materials increases by 4% and the selling price falls by 3%.
- At 90% capacity, the cost of raw materials increases by 5% and selling price falls by 4%.
- At 60% capacity, the product cost is Rs. 360 per unit and it is sold at Rs. 400 per unit.
- The unit cost of 360 consists of the following:

Material	Rs. 200
Labour	Rs. 60
Factory overhead	Rs. 60 (50 % fixed)
Administrative & Selling overhead	Rs. 40 (60 % fixed)

- Additional advertising cost of Rs. 20,000 is to be incurred for selling the product above 80% capacity.

You are required to:

(i) Calculate the profits of the company when the factory works at 60%, 70% and 90% capacity level.

(ii) Offer your comments regarding increase in the capacity based on profit calculated.

(6 Marks)

Question 5:

(a) Anju Limited has collected the following data for its two activities. It calculates activity cost rates based on cost driver capacity.

Activity	Cost Driver	Capacity	Cost (Rs.)
Power	Kilowatt hours	60,000 kilowatt hours	60,00,000
Quality Inspections	Number of Inspections	10,000 Inspections	90,00,000

The company makes three products A, B and C. For the year ended March 31, 20XX, the following consumption of cost drivers was reported:

Product	Kilowatt hours	Quality Inspections
A	10,000	3,500
B	20,000	2,500
C	15,000	3,000

Required:

(i) PREPARE a statement showing cost allocation to each product from each activity.

(ii) CALCULATE the cost of unused capacity for each activity.

(8 Marks)

(b) S.K. Manufacturing Co. Ltd. showed a net profit of Rs. 5,40,400 as per their cost accounts for the year ended 31.03.2004. However, the financial books disclosed a net profit of Rs. 2,60,500 for the same period. The following information was revealed as a result of scrutiny of the figures of both the sets of books:

	Rs.
Factory overheads under absorbed	84,800
Administrative overheads over absorbed	24,000
Interest paid on bank borrowings	50,000
Interest & Divided received	65,200
Notional rent of own premises charged in cost accounts	60,000
Losses on the sales of fixed assets and investments	48,000
Donations and subscriptions	18,800
Overvaluation of closing stock of finished goods in Cost accounts	1,25,000
Store adjustments (credited in financial books)	7,500
Depreciation over charged in cost accounts	40,000
Income tax provided	1,50,000

You are required to:

(i) Prepare a reconciliation statement taking net profit as per cost accounts as base.

(ii) State when is the reconciliation statement of Cost and Financial accounts not required?

(6 Marks)

Question 6:

(a) WORK OUT a Cost Estimate for the following job based on overhead calculated on above basis.

Direct Material:	25 kg @ Rs. 17.20/kg
	15 kg @ Rs. 21.00/kg
Direct labour: (On the basis of hourly rate	Machine shop 30 hours
For machine shop and assembly shop)	Assembly shop 42 hours

(5 Marks)

(b) Distinguish between cost control and cost reduction.

(5 Marks)

(c) Discuss cost classification based on nature and controllability.

(4 Marks)

OR

(c) Anju Ltd. is engaged in production of butter. While producing butter buttermilk is also produced. Buttermilk is identified as by-product of butter. What is the TREATMENT of buttermilk in the cost accounts of Anju Ltd.

(4 Marks)

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