MODEL TEST PAPER 8

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.

1. The purchase committee of A Ltd. has been entrusted to review the material procurement policy of the company. The chief marketing manager has appraised the committee that the company at present produces a single product X by using two raw materials A and B in the ratio of 3:2. Material A is perishable in nature and has to be used within 10 days from Goods received note (GRN) date otherwise material becomes obsolete. Material B is durable in nature and can be used even after one year. Material A is purchased from the local market within 1 to 2 days of placing order. Material B, on the other hand, is purchased from neighbouring state and it takes 2 to 4 days to receive the material in the store.

   The purchase price of per kilogram of raw material A and B is ₹30 and ₹44 respectively exclusive of taxes. To place an order, the company has to incur an administrative cost of ₹1,200. Carrying cost for Material A and B is 15% and 5% respectively. At present material A is purchased in a lot of 15,000 kg. to avail 10% discount on market price. GST applicable for both the materials is 18% and the input tax credit is availed.

   The sales department has provided an estimate that the company could sell 30,000 kg. in January 2024 and also projected the same trend for the entire year.

   The ratio of input and output is 5:3. Company works for 25 days in a month and production is carried out evenly.

   The following queries/ calculations to be kept ready for purchase committees' reference:

(i) For the month of January 2024, what would be the quantity of the materials to be requisitioned for both material A and B:

(a) 9,000 kg & 6,000 kg respectively

(b) 18,000 kg & 12,000 kg respectively

(c) 27,000 kg & 18,000 kg respectively

(d) 30,000 kg & 20,000 kg respectively.

(ii) The economic order quantity (EOQ) for both the material A & B:

(a) 13,856 kg & 16,181 kg respectively

(b) 16,197 kg & 17,327 kg respectively

(c) 16,181 kg & 17,165 kg respectively

(d) 13,197 kg & 17,165 kg respectively

(iii) What would the maximum stock level for material A:

(a) 18,200 kg.

(b) 12,000 kg.

(c) 16,000 kg.

(d) 16,200 kg.

(iv) Calculate saving/ loss in purchase of Material A if the purchase order quantity is equal to EOQ.

(a) Profit of ₹ 3,21,201.

(b) Loss of ₹ 3,21,201.

(c) Profit of ₹ 2,52,500.

(d) Loss of ₹ 2,52,500.

(v) What would the minimum stock level for material A:

(a) 1,800 kg.

(b) 1,200 kg.

(c) 600 kg.

(d) 2,400 kg. **(5 x 2 = 10 Marks)**

2. During half year ending inter departmental review meeting of P Ltd., cost variance report was discussed and the performance of the departments were assessed. The following figures were presented.

For a period of first six months of the financial year, following information were extracted from the books:

Actual production overheads	₹ 34,08,000
The above amount is inclusive of the following payments made:	
Paid as per court's order	₹ 4,50,000

Expenses of previous year booked in current year	₹ 1,00,000
Paid to workers for strike period under an award	₹ 4,20,000
Obsolete stores written off	₹ 36,000

Production and sales data for the six months are as under:

Production:	
Finished goods	1,10,000 units
Works-in-progress	
(50% complete in every respect)	80,000 units
Sale:	
Finished goods	90,000 units

Machine worked during the period was 3,000 hours.

At the of preparation of revenue budget, it was estimated that a total of ₹50,40,000 would be required for budgeted machine hours of 6,000 as production overheads for the entire year.

During the meeting, a data analytic report revealed that 40% of the over/under-absorption was due to defective production policies and the balance was attributable to increase in costs.

You were also present at the meeting; the chairperson of the meeting has asked you to be ready with the followings for the performance appraisal of the departmental heads:

(i) How much was the budgeted machine hour rate used to recover overhead?

(a) ₹ 760

(b) ₹ 820

(c) ₹ 780

(d) ₹ 840

(ii) How much amount of production overhead has been recovered (absorbed) upto the end of half year end?

(a) ₹ 25,20,000

(b) ₹ 34,08,000

(c) ₹ 24,00,000

(d) ₹ 24,60,000

(iii) What is the amount of overhead under/ over absorbed?

(a) 1,18,000 over-absorbed

(b) 1,18,000 under- absorbed

(c) 18,000 over-absorbed

(d) 18,000 under-absorbed

(iv) What is the supplementary rate for apportionment of over absorbed overheads over WIP, Finished goods and Cost of sales?

(a) ₹ 0.315 per unit

(b) ₹ 0.472 per unit

(c) ₹ 0.787 per unit

(d) ₹ 1 per unit

(v) What is the amount of over absorbed overhead apportioned to Work in Progress?

(a) ₹ 9,440

(b) ₹ 42,480

(c) ₹ 18,880

(d) ₹ 70,800 **(5 x 2 = 10 Marks)**

3. The following details are given to you:

Raw materials consumed	2,40,000
Factory overheads	3/4 of direct wages
Quality control cost and research and development cost	20% of factory cost
Cost of production	7,50,000

The amount of direct wages will be:

(a) 2,50,000

(b) 2,20,000

(c) 2,00,000

(d) 3,00,000 **(2 Marks)**

4. A hotel having 200 rooms of which 80% are normally occupied in summer 60% in Autumn and 25% in winter. Period of summer, autumn and winter be taken as 4 months each and normal days in a month be assumed to be 30. The total occupied room days will be

(a) 39,200 Room days

(b) 39,600 Room days

(c) 39,000 Room days

(d) 38,000 Room days **(2 Marks)**

5. The following figures are extracted from the books of a company:

Budgeted overheads ₹20,000 (Fixed ₹12,000, Variable ₹8,000)

Budgeted output 2,500 units

Actual Overheads ₹21,800 (Fixed ₹11,800, Variable ₹10,000)

Actual output 3,000

Variable Overheads and fixed overheads cost variance will be:

(a) 400 (A) and 2600 (F)

(b) 400 (A) and 200 (F)

(c) 2,000 (A) and 200 (F)

(d) 2,000 (F) and 200 (A) **(2 Marks)**

6. In a particular process 28,000 units are introduced during a period. 5% of input is normal loss. Closing work in progress 60% complete is 2,600 units. 24,000 completed units are transferred to next process. Equivalent production for the period is:

   (a) 25,040 units

   (b) 28,000 units

   (c) 25,560 units

   (d) 24,000 units **(2 Marks)**

7. If final sales are ₹ 50,000 and separable costs are ₹ 35,000, then net realizable value will be

   (a) 15,000

   (b) 85,000

   (c) 35,000

   (d) 50,000 **(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) Interio Ltd. manufactures quality furniture to customers' order. It has three production departments A, B and C which have overhead absorption rates (per direct labour hour) of ₹12.86, ₹12.40 and ₹14.03 respectively.

   Two pieces of furniture are to be manufactured for customer. Direct costs are as follows:

	Job -XYZ	Job- MNO
Direct material (₹)	15,400	10,800
Direct labour		
Dept.-A @ ₹ 76/ hour	20 hours	16 hours
Dept.-B @ ₹ 70/ hour	12 hours	10 hours
Dept.-C @ ₹ 68/ hour	10 hours	14 hours

   The firm quotes prices to customers that reflect a required profit of 25% on selling price. CALCULATE the total cost and selling price of each job.

   (5 Marks)

(b) From the following data CALCULATE (i) Administration cost, (ii) Selling cost and (iii) Distribution cost:

		Amount (₹)
(i)	Rent paid for factory building	96,000
(ii)	Salary paid to office staffs	8,20,000
(iii)	Fees paid to auditors	92,000
(iv)	Salary paid to sales manager	8,00,000
(v)	Vehicle hire charges paid for directors attending general meeting	10,200
(vi)	Wages paid to workers engaged in storing goods at sales depot	7,200
(vii)	Travelling allowance paid to sales staffs	9,600
(viii)	Cost paid for secondary packing	8,200
(ix)	Electricity bill paid for sales office	1,800
(x)	Depreciation on goods delivery vehicles	13,000
(xi)	Bonus paid to sales staffs for achieving targets	96,000
(xii)	Fees paid to independent directors	1,02,000

(5 Marks)

(c) CALCULATE the labour turnover rate by applying:

(i) Separation method

(ii) Replacement method

(iii) Flux method

Number of workers on payroll

At the beginning of the month 1,900

At the end of the month 2,250

During the month 29 workers left, 85 workers were discharged and 480 workers were recruited. Of these 90 workers were recruited in the vacancies of those separated, while the rest were engaged due to expansion. **(4 Marks)**

2. (a) Aviation Ltd. manufactures a range of products and the data below refer to one product which goes through one process only. The company operates a thirteen four-weekly reporting system for process and product costs and the data given below relate to period 2011.

There was no opening work-in-progress stock.

50,000 units of materials input at ₹ 2.94 per unit entered the process.

Further direct materials added	1,38,300
Direct wages incurred	65,550
Production overhead	74,700
Normal loss is 3% of input.	

Closing work-in-progress was 8,000 units but these were incomplete, having reached the following percentages of completion for each of the elements of cost listed.

	%
Direct materials added	75
Direct wages	50
Production overhead	25

2700 units were scrapped after a quality control check when the units were at the following degrees of completion.

	%
Direct materials added	66.67% or 66.⅔%
Direct wages	33.⅓ or 33.33%
Production overhead	16⅔% or 16.67%

Units scrapped, regardless of the degree of completion, are sold for ₹ 1 each and it is company policy to credit the process account with the scrap value of normal loss units.

You are required to PREPARE the Period 2023 accounts for the: (i) process account; and (ii) abnormal gain or loss. **(8 Marks)**

(b) The following standards have been set to manufacture a product:

Direct materials:	₹
2 units of P at ₹ 4 per unit	8.00
3 units of Q at ₹ 3 per unit	9.00
15 units of R at ₹ 1 per unit	15.00
	32.00
Direct labour 3 hours @ ₹ 8 per hour	24.00
Total standard prime cost	56.00

The company manufactured and sold 6,000 units of the product during the year.

Direct material costs were as follows:

12,500 units of P at ₹ 4.40 per unit

18,000 units of Q at ₹ 2.80 per unit

88,500 units of R at ₹ 1.20 per unit

The company worked 17,500 direct labour hours during the year. For 2,500 of theses hours the company paid at ₹ 12 per hour while for the remaining the wages were paid at the standard rate.

CALCULATE material price, usage variances, labour rate, and efficiency variances. **(6 Marks)**

3. (a) Tetra Automobiles assembles and sells motor vehicles. It uses an actual costing system, in which unit cost are calculated on a monthly basis. Data relating to May and June 2011 are

	May	June
	Units	*Units*
Beginning Inventory	0	35
Production	240	260
Sales	205	260
Variable-cost:	₹	₹
Manufacturing Costs per Unit Produced	40,000	40,000
Distribution cost per unit sold	4,000	4,000
Fixed-cost:		
Manufacturing Costs	32,00,000	32,00,000
Marketing Costs	6,00,000	6,00,000
The selling price per motor vehicle is	59,000	59,000

Required

(i) PRESENT income statement for Tetra Automobiles in May and June under:

(a) Marginal Costing

(b) Absorption Costing

(ii) EXPLAIN the differences between (a) and (b) **(6 + 2 Marks)**

(b) EXPLAIN the difference in Profit under Marginal and Absorption costing in different circumstances. **(4 Marks)**

(c) LIST the Financial expenses which are not included in cost. **(2 Marks)**

4. (a) As on 31st March,2023 the following balances existed in a firm's Cost Ledger :

	Dr.	*Cr.*
	₹	₹
Stores Ledger Control A/c	3,00,000	
Work-in-Progress Control A/c	1,20,000	
Finished Stock Ledger Control A/c	2,50,000	
Manufacturing Overhead Control A/c		10,000
Cost Ledger Control A/c		6,60,000
	6,70,000	6,70,000

During the next three months the following items arose:

	₹
Finished product (at cost)	2,10,000
Manufacturing overhead incurred	90,000
Raw materials purchased	1,23,000
Factory Wages	50,000
Indirect Labour	21,000
Cost of Sales	1,85,000
Material issued to production	1,27,000
Sales returned at Cost	5,000
Material returned to suppliers	3,000
Manufacturing overhead charged to production	77,000

You are required to PASS Journal Entries. **(5 Marks)**

(b) BABYSOFT is a global brand created by Bio-organic Ltd. The company manufactures three range of beauty soaps i.e. BABYSOFT- Gold, BABYSOFT- Pearl, and BABYSOFT- Diamond. The budgeted costs and production for the month of December, 2023 are as follows:

	BABYSOFT- Gold		**BABYSOFT- Pearl**		**BABYSOFT- Diamond**	
Production of soaps (Units)	**4,000**		**3,000**		**2,000**	
Resources per Unit:	**Quantity**	**Rate**	**Quantity**	**Rate**	**Quantity**	**Rate**
- Essential Oils	60 ml	₹ 200 / 100 ml	55 ml	₹ 300 / 100 ml	65 ml	₹ 300 / 100 ml
- Cocoa Butter	20 g	₹ 200 / 100 g	20 g	₹ 200 / 100 g	20 g	₹ 200 / 100 g
- Filtered Water	30 ml	₹ 15 / 100 ml	30 ml	₹ 15 / 100 ml	30 ml	₹ 15 / 100 ml
- Chemicals	10 g	₹ 30 / 100 g	12 g	₹ 50 / 100 g	15 g	₹ 60 / 100 g
- Direct Labour	30 minutes	₹ 10 / hour	40 minutes	₹ 10 / hour	60 minutes	₹ 10 / hour

Bio-organic Ltd. followed an Absorption Costing System and absorbed its production overheads, to its products using direct labour hour rate, which were budgeted at ₹ 1,98,000.

Now, Bio-organic Ltd. is considering to adopt an Activity Based Costing system. For this, additional information regarding budgeted overheads and their cost drivers is provided below:

Particulars	(₹)	Cost drivers
Forklifting cost	58,000	Weight of material lifted

Supervising cost	60,000	Direct labour hours
Utilities	80,000	Number of Machine operations

The number of machine operators per unit of production are 5, 5, and 6 for BABYSOFT- Gold, BABYSOFT- Pearl, and BABYSOFT- Diamond respectively.

(Consider (i) Mass of 1 litre of Essential Oils and Filtered Water equivalent to .8 kg and 1 kg respectively (ii) Mass of output product is equivalent to the mass of input materials taken together.)

You are requested 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 product costs of each product using the ABC approach **(9 Marks)**

5. (a) A department of ABC Ltd. attains sales of ₹9,60,000 at 80% of its normal capacity. Its expenses are given below:

	₹	*Selling Costs :*	
Office salaries	1,10,000	Salaries	6% of sales
General expenses	2% of sales	Travelling expenses	5% of sales
Depreciation	6,200	Sales office	2% of sales
Rent and rates	9,750	General expenses	1% of sales
Distribution costs:			
Wages	2% of sales		
Rent	1% of sales		
Other expenses	6% of sales		

DRAW up Flexible Administration, Selling and Distribution Costs Budget, operating at 90 per cent, 100 per cent and 110 per cent of normal capacity. **(8 Marks)**

(b) Akruti Health Center consists of 20 beds. Health centre remains open for 300 days in a year. For the year ended 31st March 2023, the health centre was occupied at full capacity for 200 days and at 80% of the capacity for the remaining days.

Below are the details of the expenditure:

Rent for the premises	₹ 15,000/- per month
Repair & Maintenance	₹ 10,000/-
Food supplied to patients	₹ 72/- per patient per day
Laundry charges	₹ 30/- per patient per day
Medicines	₹ 60/- per patient per day
Administrative expenses	₹ 72,000/-

Salary to two supervisor s	₹ 2000 p.m. for each.
Salary to four nurses	₹ 1,500 p.m. for each
Salary to two ward boys	₹ 1,200 p.m. for each

Expert doctors were called from the outside to visit the patients. Expert doctors were paid ₹ 250 for each patient visited by them.

From the above information CALCULATE fee that Health centre should have been charged to per patient per day to earn a profit of 75% on fees charged. **(6 Marks)**

6. (a) DISTINGUISH between fixed and flexible budget. **(5 Marks)**

(b) WRITE short notes on Scope of Cost Reduction **(5 Marks)**

(c) DISTINGUISH between Job costing and Batch costing. **(4 Marks)**

OR

(d) WHAT do you mean by time and motion study? WHY is it so important to management? **(4 Marks)**