

MODEL TEST PAPER 5
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.

Mr. Vikas, a toy importer has understood the importance of manufacturing in India. He is backed up by the new govt. policies that motivate him to manufacture in India. As per the custom department any import made for the manufacturing under “Made in India”, custom duty will be refunded upto 80%. Vikas decided not to import toy from China anymore, instead import raw material from Srilanka, for the manufacturing of toys in India. Under an agreement of Govt. Of India with Srilankan Govt., any import from Srilanka will receive tax benefits.

Vikas ordered material Xendga & material Zenga from Srilanka. Details are given below:-

	Srilankan Rupees (SLR)
Material Xendga (12,000 units * 125 SLR)	15,00,000
Material Zenga (8,000 units * 225 SLR)	<u>18,00,000</u>
Factory cost	33,00,000
Add: Containers cost	2,00,000
Add: Freight upto loading shipment on ship (paid by exporter)	<u>50,000</u>
F.O.B.	<u><u>35,50,000</u></u>

- Ocean Freight is \$ 2,000
- Insurance is \$ 1,500

When shipment reached India, it was unloaded at Chennai port. Vikas requested to put the goods in custom port's warehouse. Vikas due to cash crunch was not in a position to pay custom duty and therefore did not file the bill of exchange (B.O.E.). Custom authorities charged a penalty of INR 15,000.

Finally, after a month Vikas filled B.O.E. and paid custom duty of 20% on CIF value of the shipment. IGST was also applicable @ 18% on the combined value of CIF & custom duty paid.

He spent further a sum of INR 12,500 to bring the imported goods to his factory. An inspection was done on the goods and it was found that 5% of the goods were broken. This came to management as a surprise because generally such rate of defects on imports is 8%.

Additional Information:

- Exchange rates:
 - 1) 1 INR = 0.25 SLR
 - 2) 1 USD = 75 INR
- IGST credits are available.
- Containers were refunded at INR 38,000.
- Indian and Srilankan brokers were paid commission by Vikas on factory cost. Indian broker charged 6% whereas Srilankan broker charged 12%.
- CIF (cost, insurance and Freight) includes F.O.B (Free on Board)., Insurance & Ocean freight.

You are required to answer the following 5 questions:

1. What is the total cost of shipment to be recorded by Vikas?
 - (a) INR 13,17,000
 - (b) INR 13,04,500
 - (c) INR 13,54,500
 - (d) INR 13,32,500
2. What is the absorption rate of total cost per unit of Zenga?
 - (a) INR 90.28
 - (b) INR 84.44
 - (c) INR 93.62
 - (d) INR 85.77
3. What is the absorption rate of total cost per unit of Xendga?
 - (a) INR 52.01
 - (b) INR 54.24
 - (c) INR 58.13
 - (d) INR 68.65

4. Amount of refundable taxes?
- INR 4,13,600
 - INR 4,57,600
 - INR 2,20,000
 - INR 2,37,600
5. If loss of goods was 9% instead of 5%, what will be the amount that will be charged to statement of profit & loss?
- INR 13,045
 - INR 19,898.4
 - INR 14,178.4
 - INR 24,045
- (5 x 2 = 10 Marks)**

Hilfy 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.

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

	Quantity/Time	Rate (₹)	Amount (₹)
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 (₹)	Amount (₹)
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) ₹ 1430 (A) & 43,200 (F)
 - (b) ₹ 1430 (F) & 43,200 (F)
 - (c) ₹ 24,000 (A) & 37,500 (F)
 - (d) ₹ 19,300 (A) & 37,500 (F)
7. Compute Material Price Variance for supplier negotiation
 - (a) ₹ 18,000 (A)
 - (b) ₹ 43,200 (F)
 - (c) ₹ 37,500 (A)
 - (d) ₹ 37,500 (F)
8. Compute Material Cost Variance
 - (a) ₹ 32,500 (F)
 - (b) ₹ 24,500 (A)
 - (c) ₹ 79,270 (F)
 - (d) ₹ 79,270 (A)
9. Compute Labour Efficiency Variance and Labour Yield Variance.
 - (a) ₹ 940 (A) & 1,140 (A)
 - (b) ₹ 2,424 (A) & 1,556 (A)
 - (c) ₹ 2,424 (A) & 1,556 (A)
 - (d) ₹ 940 (A) & 1,140 (F)
10. Compute Labour Cost Variance.
 - (a) ₹ 884 (A)
 - (b) ₹ 1,556 (F)
 - (c) ₹ 884 (F)
 - (d) ₹ 1,556 (A)
11. A company's fixed costs are ₹ 5,00,000, the selling price per unit is ₹ 200, and the variable cost per unit is ₹100. How many units must the company sell to earn the targeted profit of ₹ 2,00,000?
 - (a) 2,000 units
 - (b) 5,000 units
 - (c) 10,000 units

(5 x 2 = 10 Marks)

- (d) 7,000 units (2 Marks)
12. 1200 Kg of a material were input to a process in a period. The normal loss is 8% of input
- There is no opening or closing work-in-progress. Output in the period was 1100 Kg. What was the abnormal gain/loss in the period?
- (a) Abnormal gain of 12 Kg
(b) Abnormal loss of 12 kg
(c) Abnormal gain of 108 Kg
(d) Abnormal loss of 4 kg (2 Marks)
13. ABC Manufacturing allocates its factory overhead costs based on machine hours. The total estimated overhead cost for the year is ₹ 6,00,000, and the company expects to use 30,000 machine hours. During the year, job A used 300 machine hours. What amount of overhead costs should be allocated to this job?
- (a) ₹ 4,000
(b) ₹ 6,000
(c) ₹ 10,000
(d) ₹ 8,000 (2 Marks)
14. A factory has a capacity utilization ratio of 85% and its activity ratio is 95%. Which one of the following is the efficiency ratio?
- (a) 120%
(b) 110%
(c) 112%
(d) 90% (2 Marks)
15. A company uses batch costing and incurs a setup cost of ₹ 20,000 for a batch of 300 units. If direct materials cost ₹ 20 per unit and direct labor costs ₹ 10 per unit, what is the total cost of the batch?
- (a) ₹ 25,000
(b) ₹ 29,000
(c) ₹ 32,000
(d) ₹ 7,000 (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) A skilled worker is paid a guaranteed wage rate of ₹ 150.00 per hour. The standard time allowed for a job is 50 hours. He gets an effective hourly rate of wages of ₹ 180.00 under Rowan Incentive Plan due to saving in time. For the same saving in time, CALCULATE the hourly rate

of wages he will get, if he is placed under Halsey Premium Scheme (50%). **(5 Marks)**

- (b) SpeedEx Logistics, established in 2010 and headquartered in Mumbai, India, operates within the transportation and logistics industry as a third-party logistics (3PL) provider. The company's fleet consists of 10 trucks, 15 vans, and 5 trailer, each serving distinct purposes. The records of Truck R-40 reveal the following information for July 2024.

Days Maintained	30
Days Operated	25
Total Hours Operated	300
Total Kilometres Covered	2,500
Total Tonnage Carried	
(4 tonne-load per trip, return journey empty 2 round trips per day)	

The following further information is made available:

- Operating Costs for the month: Petrol ₹ 400, oil ₹170, Grease ₹ 90, Wages to driver ₹ 550, Wages to Worker ₹ 350.
- Maintenance Costs for the month: Repair ₹ 170, Overhaul ₹ 60, Tyres ₹ 150, Garage charges ₹ 100.
- Fixed Costs for the month based on the estimates for the year: Insurance ₹ 50, Licence, tax etc. ₹ 80, Interest ₹ 40, Other Overheads ₹ 190
- Capital costs: Cost of acquisition ₹ 54,000; Residual Value at the end of 5 years life ₹ 36,000.

You are required to CALCULATE:

- cost per days maintained
- cost per days operated
- cost per hours operated
- cost per kilometres covered
- cost per commercial tonne km

(5 Marks)

- (c) Alpha Ltd. has an Annual demand from a single customer for 60,000 Covid-19 vaccines. The customer prefers to order in the lot of 15,000 vaccines per order. The production cost of vaccine is ₹ 5,000 per vaccine. The set-up cost per production run of Covid-19 vaccines is ₹ 4,800. The carrying cost is ₹ 12 per vaccine per month.

You are required to:

- FIND the most Economical Production Run.
- CALCULATE the extra cost that company incurs due to production of 15,000 vaccines in a batch.

(4 Marks)

2. (a) As demand for LED light increases, more entrepreneurs are coming into its manufacturing process. eLED Pvt. Ltd. is also one of the recently formed company whose main business is related to LED lights.

The company has extended its hand into various LED products like COB (Chip On Board) LEDs, SMD (Surface Mounted Device) LEDs, RGB LEDs, Flashing LEDs, Miniature LEDs, OLEDs, Filament Bulbs, etc.

However, at the beginning stage, the company has decided to only assemble the products and enter into manufacturing stage at later years.

The details relating to the first process of mounting for the month of August are given below:

Opening Work-in-Process:	31,000 units
Material	₹ 12,40,000
Labour	₹ 2,32,500
Overheads	₹ 6,97,500
Introduction during the process:	5,89,000 units
Material	₹ 2,29,40,000
Labour	₹ 55,64,500
Overheads	₹ 1,66,93,500

The process involve some wastage as well. The management estimated a normal loss of 5% of total input including opening work-in-process which can be sold out for ₹ 20 per unit. However, the workers reported 46,500 units as scrapped in which 100% material was used along with 80% of Labour and overheads.

5,42,500 units were transferred for next process of soldering.

Some units were still in process and thus, shifted for the next month process of mounting. With 100% material used along with 80% labour and overheads, 31,000 units were shifted.

Following the average method of inventory, you are required to PREPARE:

- (i) Statement of cost showing cost per equivalent unit
 - (ii) Statement of distribution cost
 - (iii) Process Account (Mounting)
 - (iv) Normal Loss Account and Abnormal Loss Account. **(10 Marks)**
- (b) EXPLAIN the Usefulness/Suitability of ABC. **(4 Marks)**
3. (a) A company manufactures and sells a product, the price of which is controlled by the Government. Raw material required for this product is also made available at a fixed controlled price. The following figures have been called for the previous two accounting years of the company:

	Year- I	Year- II
Quantity Sold (tones)	1,26,000	1,44,000
Price per tone	₹ 185	₹ 185
(₹ In thousands)		
Sales Value	23,310	26,640
Raw Materials	11,340	12,960
Direct Labour	1,512	1,872
Factory, Administration and Selling Expenses	9,702	11,232
Profit	756	576

During the year II direct labour rates increased by $8\frac{1}{3}\%$. Increases in factory, administration and selling expenses during the year were ₹ 8,10,000 on account of factors other than the increased quantities produced and sold. The managing director desires to know, what quantity if they had produced and sold would have given the company the same net profit per tonne in Year II as it earned during the Year I Advise him. **(7 Marks)**

- (b) ABC Ltd is engaged in producing electronic equipments. It has furnished following details related to its products produced during a month:

	Units	Amount (₹)
Opening stock	10,000	5,00,00,000
Purchases	4,90,000	25,20,00,000
Closing stock	17,500	85,00,000
Works-in-progress		
Opening	20,000	1,20,00,000
Closing	10,000	60,50,000
Direct employees' wages, allowances etc.		5,50,50,000
Primary packaging cost (per unit)		140
R&D expenses & Quality control expenses		1,90,00,000
Guards' salaries		20,00,000
Directors' salaries		60,00,000
Consumable stores, depreciation on plant related to factory overhead		3,42,00,000
Product inspection (before primary packaging)		22,00,000
Rearrangement design of factory machine		75,00,000

Administrative overheads related to production		3,45,00,000
Selling expenses		3,94,50,000
Royalty paid for production		3,10,50,000
Cost of web-site (for online sale) maintenance		60,75,000
Gifts & Snacks		30,50,000
GST (credit allowed)		5,50,00,000
AMC cost of CCTV		10,00,000
Hiring of cars for the transportation of employees and guests		25,00,000
Audit and Legal Fees		29,00,000
Secondary packaging cost (per unit)		20

Distribution of the following costs:
Guard's salaries to Factory, Office and Distribution in the ratio 7: 2:1.
Hiring of cars is only for selling and distribution
AMC of CCTV to Factory, Office and Selling in the ratio 6 : 2 : 2.

The company paid EPF of 12% over above basic pay. However, Guards will not receive any incentive or EPF.

It has lucky draws every month giving the first prize of ₹ 1,00,000; 2nd prize of ₹ 50,000, 3rd prize of ₹ 20,000 and three consolation prizes of ₹ 10,000 each to customers buying the product.

It also sponsors a television programme every week at a cost of ₹ 20,00,000 per month.

The hiring of cars attracts GST under RCM @5% without credit.

There was a normal scrap of 2,000 units of direct material which realized ₹ 350 per unit. The entire finished product was sold at a profit margin of 25% on sales.

You are required to PREPARE a cost sheet **(7 Marks)**

4. Allurgy Ltd. is into metallic tools manufacturing. It has four production departments. The work performed in every department is fairly uniform, thus the manager of the company created a policy to recover the production overheads of the entire company by adopting a single blanket rate.

The relevant data for a month are given below:

Departments	Direct Materials (₹)	Direct Wages (₹)	Factory Overheads (₹)	Direct Labour Hours	Machine Hours
Budget:					
Operating	64,35,000	7,92,000	35,64,000	1,98,000	7,92,000

Assembly	11,73,000	24,15,000	9,66,000	6,90,000	69,000
Quality Control	5,10,000	10,50,000	4,20,000	3,00,000	30,000
Packing	9,90,000	6,93,000	12,37,500	4,95,000	-
Actual:	-	-	-	-	-
Operating	77,22,000	9,50,400	38,61,000	2,37,600	9,50,400
Assembly	9,38,400	18,63,000	5,79,600	6,21,000	75,900
Quality Control	4,08,000	8,10,000	2,52,000	2,70,000	33,000
Packing	11,88,000	8,91,000	13,36,500	5,94,000	-

Additional details relating to one of the jobs during the month are also provided below:

Job No. 157

Departments	Direct Materials (₹)	Direct Wages (₹)	Direct Labour Hours	Machine Hours
Operating	11,880	2,376	594	1,782
Assembly	4,140	2,484	828	207
Quality Control	1,800	1,080	360	90
Packing	2,970	594	396	-

During Quality Control phase of this particular Job, the company incurred certain additional expenditure of ₹ 495 on direct wages as there were certain production that was not as perfect as the saleable product. The defective units were normal in nature and after rectification have been brought to the required degree of perfection.

The company adds 25% on the factory cost to cover administration overheads and profit.

You are required to figure out the following:

- COMPUTE the overhead absorption rate as per the blanket rate based on the percentage of total factory overheads to total factory wages and determine the selling price of the Job No. 157. **(1 + 2 = 3 Marks)**
- The new manager thinks that the machinery is used to a varying degree in the different departments. Thus, it is not appropriate to follow one blanket rate for the whole company. Therefore, suggest an alternative method of absorption of the factory overheads and CALCULATE the overhead rates based on the method so suggested. **(4 Marks)**
- DETERMINE the selling price of Job 157 based on the overhead rates calculated in (b) above. **(3 Marks)**
- CALCULATE the department-wise under or over recovery of overheads based on the company's current policy and the method suggested in (b) above. **(4 Marks)**

5. (a) The financial books of a company reveal the following data for the year ended 31st March, 2024:

	(₹)
Opening Stock:	
Finished goods 545 units	48,250
Work-in-process	38,000
01.04.2023 to 31.03.2024	
Raw materials consumed	5,00,000
Direct Labour	4,20,000
Factory overheads	3,56,000
Administration overheads	2,10,000
Stores Adjustment debited in financial Account	50,000
Dividend paid	98,000
Bad Debts	16,000
Selling and Distribution Overheads	84,000
Income tax paid	34,000
Interest received	42,000
Sales 14,250 units	13,96,500
Closing Stock: Finished goods 460 units	44,500
Work-in-process	36,200

The cost records provide as under:

- Factory overheads are absorbed at 60% of direct wages.
- Administration overheads are recovered at 20% of factory cost.
- Selling and distribution overheads are charged at ₹ 6 per unit sold.
- Opening Stock of finished goods is valued at ₹ 90 per unit.
- The company values work-in-process at factory cost for both Financial and Cost Profit Reporting.

Required:

- (i) Prepare statements for the year ended 31st March, 2024 show
 - the profit as per financial records
 - the profit as per costing records.
 - (ii) Present a statement reconciling the profit as per costing records with the profit as per Financial Records **(7 Marks)**
- (b) PPP Ltd. is currently operating at 80% of its capacity producing 80,000 units. For the past two years, the production is increasing by 10% of its capacity consistently. The cost details are as follows:

	Year 3	Year 2	Year 1 (Current year)
	(₹)	(₹)	(₹)
Direct Materials	12,00,000	14,00,000	16,00,000
Direct Labour	6,00,000	7,00,000	8,00,000
Factory Overheads	3,20,000	3,40,000	3,60,000
Selling Overheads	3,40,000	3,80,000	4,20,000
Administrative Overheads	<u>1,60,000</u>	<u>1,60,000</u>	<u>1,60,000</u>
	26,20,000	29,80,000	33,40,000

The company is planning for 90% capacity level for next year.

Additional information:

Due to increase in demand of the raw material, the distributor is expected to increase the price by 10% from the next year.

At the beginning of the current year, the dispute occurred between workers and employees regarding wages which lead them to go on strike. Later on, they settled for 20% increase in wages from next year.

Following increases in overhead cost are expected for next year:

Variable Factory Overheads	5%
Fixed Factory Overheads	10%
Variable Selling Overheads	10%
Fixed Selling Overheads	15%
Administrative Overheads	15%

Profit is estimated @ 25% on total cost.

You are required to PREPARE flexible budget for the next year at 90% level of capacity.

Also ascertain profit and contribution. **(7 Marks)**

6. (a) Management of Tillu manufacturing co. is thinking of installing a costing system its company. What practical DIFFICULTIES management will expect and how management will OVERCOME the same? **(5 Marks)**
- (b) 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. **(5 Marks)**
- (c) Fixed budgets are very simple to understand and less time consuming, however, only flexible budgets are more realistic and practicable because it gives due consideration to behaviour of revenue and cost at different levels of activity. But still there are certain demerits of both the budgets. NARRATE the same. **(4 Marks)**

OR

- (c) DISCUSS the objectives of time keeping & time booking. **(4 Marks)**