

MODEL TEST PAPER 2
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. A meeting of the heads of departments of the Arnav Ltd. has been called to review the operating performance of the company in the last financial year. The head of the production department appraised that during the last year the company could operate at 70% capacity level but in the coming financial year 95% capacity level can be achieved if an additional amount of ₹100 Crore on capex and working capital is incurred.

The head of the finance department has presented that during the last financial year the company had a P/V ratio of 40%, margin of safety and the break-even were ₹50 crore and ₹200 crore respectively.

To the reply to the proposal of increasing the production capacity level to 95%, the head of the finance department has informed that this could be achieved if the selling price and variable cost are reduced by 8% and 5% of sales respectively. Fixed cost will also increase by ₹20 crore due to increased depreciation on additional assets. The additional capital will be arranged at a cost of 15% p.a. from a bank.

In the coming financial year, it has been aimed to achieve an additional profit of ₹10 crore over and above the last year's profit after adjusting the interest cost on the additional capital.

The following points is required to be calculated on urgent basis to put the same in the meeting. You being an assistant to the head of finance, has been asked the followings:

- i. What will be the revised sales for the coming financial year?

A. ₹ 322.22 Crore

- B. ₹ 311.11 Crore
C. ₹ 300.00 Crore
D. ₹ 324.24 Crore
- ii. What will be the revised break-even point for the coming financial year?
A. ₹ 222.22 Crore
B. ₹ 252.22 Crore
C. ₹ 244.44 Crore
D. ₹ 255.56 Crore
- iii. What will be the revised margin of safety for the coming financial year?
A. ₹ 100 Crore
B. ₹ 58.89 Crore
C. ₹ 55.56 Crore
D. ₹ 66.66 Crore
- iv. The profit of the last year and for the coming year are:
A. ₹ 50 Crore & ₹95 Crore respectively
B. ₹ 20 Crore & ₹ 65 Crore respectively
C. ₹ 20 Crore & ₹ 30 Crore respectively
D. ₹ 45 Crore & ₹ 66.66 Crore respectively
- v. The total cost of the last year and for the coming year are:
A. ₹ 230 Crore & ₹292.22
B. ₹ 230 Crore & ₹275 Crore
C. ₹ 220 Crore & ₹282.22 Crore
D. ₹ 220 Crore & ₹292.22 Crore

(5 x 2 = 10 Marks)

2. K Ltd. is a manufacturer of a single product A. 8,000 units of the product A has been produced in the month of March 2024. At the beginning of the year a total 1,20,000 units of the product-A has been planned for production. The cost department has provided the following estimates of overheads:

Fixed	₹ 12,00,000	Variable	₹ 6,00,000
Semi-Variable	₹ 1,80,000		

Semi-variable charges are considered to include 60 per cent expenses of fixed nature and 40 per cent of variable character.

The records of the production department shows that the company could have operated for 20 days but there was a festival holiday during the month.

The actual cost data for the month of March 2024 are as follows:

Fixed	₹ 1,19,000	Variable	₹ 48,000
Semi-Variable	₹ 19,200		

The cost department of the company is now preparing a cost variance report for managerial information and action. You being an accounts officer of the company are asked to calculate the following information for preparation of the variance report:

- i. What is the amount of variable overhead cost variance for the month of March 2024:
 - A. ₹ 10,200 (A)
 - B. ₹ 10,400 (A)
 - C. ₹ 10,800 (A)
 - D. ₹ 10,880 (A)
- ii. What is the amount of fixed overhead volume variance for the month of March 2024:
 - A. ₹ 9,000 (F)
 - B. ₹ 9,000 (A)
 - C. ₹ 21,800 (A)
 - D. ₹ 11,000 (A)
- iii. What is the amount of fixed overhead expenditure variance for the month of March 2024:
 - A. ₹ 21,520 (A)
 - B. ₹ 21,500 (A)
 - C. ₹ 21,400 (A)
 - D. ₹ 21,480 (A)
- iv. What is the amount of fixed overhead calendar variance for the month of March 2024:
 - A. ₹ 5,400 (A)
 - B. ₹ 5,450 (A)
 - C. ₹ 5,480 (A)
 - D. ₹ 5,420 (A)
- v. What is the amount of fixed overhead cost variance for the month of March 2024:
 - A. ₹ 43,320 (A)
 - B. ₹ 43,300 (A)
 - C. ₹ 43,200 (A)

D. ₹ 43,380 (A)

(5 x 2 = 10 Marks)

3. If the amount of wages under Halsey plan is ₹ 420, total time allowed is 8 hours and the guaranteed time rate is ₹ 60 per hour. What is the total time saved by the worker?

- A. 2 hours
B. 3 hours
C. 6 hours
D. 3.5 hours

(2 Marks)

4. From the following information, calculate the Total cost of Product A and B using the ABC analysis:

	Product A	Product B
Units	5,000	5,000
Number of purchase orders placed	100	220
Number of deliveries received	70	200
Ordering Cost	₹ 4,00,000	
Delivery Cost	₹ 1,35,000	

- A. A = ₹ 47,500; B = ₹ 1,27,500
B. A = ₹ 2,67,500; B = ₹ 2,67,500
C. A = ₹ 1,60,00; B = ₹ 3,75,000
D. A = ₹ 1,47,500; B = ₹ 1,47,500

(2 Marks)

5. What would be Prime cost from below information?

Direct materials Purchased	:	₹ 75,000
Direct labour	:	₹ 45,000
Direct expenses	:	₹ 15,000
Manufacturing overheads	:	₹ 22,500
Direct materials consumed	:	₹ 67,500

- A. ₹ 1,35,000
B. ₹ 1,27,500
C. ₹ 1,57,500
D. ₹ 1,50,000

(2 Marks)

6. A product passes through Process-I. Input raw material issued were 8,000 units. Normal loss anticipated was 10% of input with realisable value of ₹ 5 per unit. 7,600 units of output were produced and transferred to next process. If the total cost incurred under Process-I was ₹ 40,000, then amount of abnormal gain/(loss) is:

- A. ₹ 2,000

B. (₹ 5,000)

C. (₹ 2,500)

D. ₹ 3,000

(2 Marks)

7. Find out the most appropriate unit cost from the following information of ZMD Transport Services Ltd. dealing in goods carriage:

Total cost = ₹ 5,25,000

Kms. Travelled = 8,75,000

Tonnes carries = 4,000

No. of Drivers = 25

No. of trucks = 20

Tonnes Km carried = 6,55,000

A. ₹ 0.6

B. ₹ 0.8

C. ₹ 21,000

D. ₹ 131.25

(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) The product of a manufacturing concern passes through two processes A and B and then to finished stock. The details of expenses incurred on the two processes during the year were as under:

	Process A (₹)	Process B (₹)
Materials	40,000	--
Labour	40,000	56,000
Overheads	16,000	40,000

On completion, the output of Process A is transferred to Process B at a price calculated to give a profit of 20% on the transfer price and the output of Process B is charged to finished stock at a profit of 25% on the transfer price. The finished stock department realized ₹ 4,00,000 for the finished goods received from Process B.

You are asked to SHOW process accounts and total profit, assuming that there was no opening or closing work-in-progress.

(5 Marks)

- (b) DSM Ltd manufactures speed boats which require propeller TP-M4. The following particulars are collected for the year 2023-24:

(i) Annual demand of TP-M4 12,000 units

- (ii) Cost of placing an order ₹1,200 per order
- (iii) Cost per unit of TP-M4 is ₹1,740/-
- (iv) Carrying cost p.a. 12%

The company has been offered a quantity discount of 5 % on the purchase of TP-M4, provided the order size is 6,000 units at a time.

Required to:

- (i) COMPUTE the economic order quantity (EOQ)
- (ii) ADVISE whether the quantity discount offer can be accepted.

(5 Marks)

- (c) A skilled worker in Shanu Ltd. is paid a guaranteed wage rate of ₹ 30 per hour. The standard time per unit for a particular product is 4 hours. Sam, a machine-man, has been paid wages under the Rowan Incentive Plan and he had earned an effective hourly rate of ₹ 37.50 on the manufacture of that particular product.

WHAT could have been his total earnings and effective hourly rate, had he been put on Halsey Incentive Scheme (50%)? **(4 Marks)**

2. (a) The following information are available for the three machines of a manufacturing department of KBC Ltd.:

	Preliminary estimates of expenses			
	Total	(per annum)		
		Machines		
		P	Q	R
	(₹)	(₹)	(₹)	(₹)
Depreciation	20,000	7,500	7,500	5,000
Spare parts	10,000	4,000	4,000	2,000
Power	40,000			
Consumable stores	10,000	4,000	3,000	3,000
Insurance of machinery	8,000			
Indirect labour	20,000			
Building maintenance expenses	20,000			
Annual interest on capital outlay	60,000	25,000	25,000	10,000
Monthly charge for rent and rates	10,000			
Salary of foreman (per month)	20,000			
Salary of Attendant (per month)	5,000			

(The foreman and the attendant control all the three machines and spend equal time on them.)

The following additional information is also available:

	Machines		
	P	Q	R
Estimated Direct Labour Hours	1,00,000	1,50,000	1,50,000
Ratio of K.W. Rating	3	2	3
Floor space (sq. ft.)	40,000	40,000	20,000

There are 14 holidays besides Sundays in the year, of which two were on Saturdays. The manufacturing department works 8 hours in a day but Saturdays are half days. All machines work at 85% capacity throughout the year and 2% is reasonable for breakdown.

You are required to :

CALCULATE predetermined machine hour rates for the above machines after taking into consideration the following factors:

- An increase of 15% in the price of spare parts.
- An increase of 25% in the consumption of spare parts for machine 'Q' & 'R' only.
- 20% general increase in wages rates.
- An 10% decrease in the consumption of consumable stores.

(10 Marks)

- (b) Happi Ltd. Produces product RP in batches, management of the Happi Ltd. wants to know the number of batches of product RP to be produced where the cost incurred on batch setup and carrying cost of production is at optimum level.

(4 Marks)

3. (a) Aman International School has a total of 180 students consisting of 6 sections with 30 students per section. The school plans for a picnic around the city during the week-end to places such as Prayag zoo, the Capi Park, Azad planetarium etc. A private transport operator has come forward to lease out the buses for taking the students. Each bus will have a maximum capacity of 50 (excluding 2 seats reserved for the teachers accompanying the students). The school will employ two teachers for each bus, paying them an allowance of ₹ 500 per teacher. It will also lease out the required number of buses. The following are the other cost estimates:

	Cost per student (₹)
Breakfast	50
Lunch	100
Tea	10
Entrance fee at zoo	20

Rent ₹ 6500 per bus.

Special permit fee ₹ 500 per bus.

Block entrance fee at the planetarium ₹ 2500.

Prizes to students for games ₹ 500.

No cost are incurred in respect of the accompanying teachers (except the allowance of ₹ 500 per teacher).

You are required to PREPARE:

- (a) A flexible budget estimating the total cost for the levels of 60, 90, 120, 150 and 180 students. Each item of cost is to be indicated separately.
- (b) COMPARE the average cost per student at these levels.
- (c) WHAT will be your conclusions regarding the break-even level of student if the school proposes to collect ₹ 400 per student?

(10 Marks)

- (b) 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 (₹)
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.

(4 Marks)

4. (a) The following are the budgeted details are available from the records of a manufacturing company SP Ltd.:

	₹	₹
Direct Materials		2,13,000
Direct Wages:		
Machine Shop (12,000 hours)	63,000	
Assembly Shop (10,000 hours)	48,000	1,11,000

Works Overhead:		
Machine Shop	88,200	
Assembly Shop	51,800	1,40,000
Administrative Overhead		92,800
Selling Overhead		81,000
Distribution Overhead		62,100

You are required to:

- PREPARE a Schedule of Overhead Rates from the figures available stating the basis of overhead recovery rates used under the given circumstances.
- WORK OUT a Cost Estimate for the following job based on overhead calculated on above basis.

Direct Material:	25 kg @ ₹ 17.20/kg
	15 kg @ ₹ 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

(8 Marks)

- HOW is slow moving and non-moving item of stores detected and WHAT steps are necessary to reduce such stocks? **(4 Marks)**
 - WHEN is the reconciliation statement of Cost and Financial accounts not required? **(2 Marks)**
5. (a) Following information relate to a manufacturing concern for the year ended 31st March, 2023:

	(₹)
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	₹ 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 ₹579 per unit during the year.

PREPARE cost sheet of the firm. **(8 Marks)**

- (b) A hotel having 20 single rooms is having 80% occupancy in normal season (8 months) and 50% in off- season (4 months) in a year (take 30 days month).

Annual fixed expenses	Amount in ₹
Salary of the staff (excluding room attendant)	15,00,000
Repair & maintenance	12,60,000
Depreciation on building & furniture	12,40,000
Other fixed expenses like dusting, sweeping etc.	13,25,000
	53,25,000
Variable expenses (per guest per day)	
Linen, laundry & security support	80.00
Electricity & other facilities	120.00
Misc. expenses like attendant etc.	300.00
	500.00

Management wishes to make a margin of 25% of total cost.

Required

- (a) CALCULATE the Tariff per room per day.
(b) CALCULATE the break-even occupancy in normal season (in percentage also) assuming there is 50% occupancy in off-season.

(6 Marks)

6. (a) Why is it necessary to reconcile the Profits between the Cost Accounts and Financial Accounts? **(5 Marks)**

- (b) DISCUSS the essential features of a good cost accounting system?

(5 Marks)

- (c) ENUMERATE the remedial steps to be taken to minimize the labour turnover **(4 Marks)**

OR

- (c) DISCUSS basic assumptions of Cost Volume Profit analysis. **(4 Marks)**