

(MCQ Portion)

- *Answers to MCQs are to be marked on the OMR answer sheet as given on the cover page of the descriptive answer book only. Answer to MCQs, if written inside the descriptive answer book shall not be evaluated.*
- *Please write and darken correct MCQ booklet number in the OMR answer sheet. The correct MCQ booklet number must also be written in the attendance register.*

Case Scenario – I :

Safety First Tyre Company is the manufacturer of 'Puncture Resistant' motorcycle tyres. In the manufacturing process, it undertakes three different jobs namely, Belting (B), Extrusion (E) and Vulcanizing (V). All the three jobs require the use of a special machine and also the use of Artificial Intelligence (AI) system when necessary. The AI system is hired from outside and the hire charges paid for every quarter is ₹ 4,08,000. An estimate of overhead expenses relating to the special machine is given below :

- The cost of the special machine is ₹ 66,00,000 and depreciation is charged @ 10% per annum on straight line basis. 1260000 Depreciation
- Rent paid for every six months is ₹ 1,38,000. 55000
- Other indirect expenses per annum ₹ 4,92,000. 23000
41000



(3)

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During the first month of operation, the following details are available from the job book of the company :

	Jobs		
	Belting (B)	Extrusion (E)	Vulcanizing (V)
Number of hours the special machine was used			
Without the use of Artificial Intelligence (AI) system	600	900	-
With the use of Artificial Intelligence (AI) system	450	550	1000
	1050	1450	1000

Any fraction in calculations may be rounded off up to two decimal places.

On the basis of the above Case Scenario, you are required to answer the following MCQs 1 to 5 :

1. What is the machine hour rate for the company as a whole for a month when the Artificial Intelligence (AI) was not used ?

- (A) ₹ 29.45 per hour
(B) ₹ 41 per hour
(C) ₹ 38.25 per hour
(D) ₹ 34 per hour

2

60 + 34

34

30600

20400
45900

2. What is the machine hour rate for the month in respect of the individual jobs – Belting (B), Extrusion (E) and Vulcanizing (V) respectively ?

(A) ₹ 63.14 (B), ₹ 59.79 (E) and ₹ 102 (V) per hour
(B) ₹ 45.37 (B), ₹ 68.19 (E) and ₹ 98.95 (V) per hour
(C) ₹ 55.25 (B), ₹ 48.33 (E) and ₹ 105 (V) per hour
(D) ₹ 49.41 (B), ₹ 78.54 (E) and ₹ 94.35 (V) per hour

3. What is the amount of overheads per month for using the special machine without the aid of Artificial Intelligence (AI) system ?

(A) ₹ 44,000
(B) ₹ 36,000
(C) ₹ 51,000
(D) ₹ 58,000

4. What is the amount of overheads per month for using the special machine with the aid of Artificial Intelligence (AI) system ?

(A) ₹ 2,04,000
(B) ₹ 1,82,000
(C) ₹ 1,95,714
(D) ₹ 2,25,000



5. What is the machine hour rate for the company as a whole for a month when the Artificial Intelligence (AI) system was used ?

2

(A) ₹ 122.55 per hour

☒ (B) ₹ 102 per hour

(C) ₹ 130 per hour

(D) ₹ 133.75 per hour

6. AMC Travels is running 4 luxury buses between two cities which are 60 kms. apart. The seating capacity of each bus is 50 passengers. The actual passengers carried were 70% of the seating capacity. All the four buses run for 30 days for the month. Each bus made one round trip per day. During the month of April 2026, AMC incurred total cost of ₹ 25,05,000.

What is the cost per passenger kilometer for the month of April 2026 ?

$$4 \times 60 \times 50 \times 70\% \times 30 \times 2$$

(A) ₹ 3.75

(B) ₹ 7.55

(C) ₹ 6.84

☒ (D) ₹ 4.97

7. The following information has been extracted from the records of XYZ Ltd. for two consecutive years :

Particulars	Year 1	Year 2
Sales (₹)	1,80,00,000	2,40,00,000
Profit (₹)	24,00,000	42,00,000

What is the Break-even Sales Value ?

2

- (A) ₹ 1,00,00,000
 (B) ₹ 1,40,00,000
 (C) ₹ 1,25,00,000
 (D) ₹ 90,00,000
8. The management of Gamma Limited has provided the following information for Product X :

Maximum Stock Level	1125 units
Re-Ordering Level (ROL)	750 units
Minimum rate of consumption per day	25 units
Minimum lead time	5 days

What is the Re-Order Quantity (ROQ) ?

- (A) 450 units
 (B) 375 units
 (C) 500 units
 (D) 600 units

$$\text{Maximum} = \text{ROL} + \text{ROL} \times (\text{Min } \Delta \text{min})_2$$

$$1125 = 750 + \text{ROL} (25 \times 5)$$

$$= 750 + 125 \text{ROL}$$

9. The following information pertains to a worker G :

Basic Pay	₹ 25,000 per month
Dearness Allowance	₹ 5,000 per month
Other Allowances	₹ 2,000 per month

The number of working days in a year is 325 of 8 hours each. G has availed 25 days as holidays on full pay in a year.

What is the wage rate per hour of worker G ?

- (A) ₹ 175
 (B) ₹ 160
 (C) ₹ 140
 (D) ₹ 185

10. The following information pertains to Job Number 501 undertaken by PCM Limited :

Direct Materials	₹ 60,000
Direct Wages	₹ 50,000
Factory Overheads	60% of Direct Wages
Administrative Overheads	25% of Factory Cost
Profit percentage on total cost	25%

What is the selling price of Job Number 501 ?

- (A) ₹ 2,24,675
 (B) ₹ 1,89,550
 (C) ₹ 2,18,750
 (D) ₹ 2,33,640

Case Scenario – II :

Graphite Core Industries established in 1995 is globally recognized for producing reliable, high quality wooden pencils. It begins its production process by sourcing raw graphite, clay, and cedar wood slats, holding them as raw materials. The following are details about the manufacturing processes of the company :

- Core Manufacturing Process – In this process, the graphite and clay are mixed, extruded into rods and fired to create hardened pencil cores known as lead. Simultaneously, the cedar wood is cut into grooved slats. The output of this process i.e. lead and grooved slat is transferred to the Casing & Shaping Process at 30% profit on the transfer price.
- Casing & Shaping Process – In this process, the leads are glued between the grooved slats, shaped into individual pencils and painted. The output of this process i.e. pencils, are then transferred to the Finished Stock at 10% profit on the transfer price. Stock in process is valued at prime cost.

The Production manager has provided the following information for the month of April 2026 :

Particulars	Core Manufacturing Process (₹)	Casing & Shaping Process (₹)
Direct Materials	4,90,000	8,95,000
Direct Wages	3,60,000	9,50,000
Direct Expenses	3,40,000	3,80,000
Factory Overheads	3,00,000	5,00,000

Additional Information :

Particulars	Opening Stock (₹)	Closing Stock (₹)
Core Manufacturing Process	5,10,000	2,50,000
Casing & Shaping Process	7,75,000	6,00,000
Finished Stock of Pencils	14,00,000	10,00,000

Finished stock is valued at the price at which it is received from the Casing & Shaping Process. During the month of April 2026, the company sold pencils worth ₹ 75,00,000. Inter process profits included in opening stock for Casing & Shaping Process and Finished Stock are ₹ 75,000 and ₹ 3,20,000 respectively.

On the basis of above case scenario for the month of April 2026, you are required to answer the following MCQs 11 to 15 :

11. What is the transfer price of pencils (including inter process profit) transferred to Finished Stock account from the Casing & Shaping Process ?

- (A) ₹ 62,00,000
(B) ₹ 57,50,000
(C) ₹ 60,00,000
(D) ₹ 64,00,000

2500000 1750000

AL = 4725000

Core man
↓
Casing & Shaping
↓
Finished Stock²
750000
75000

1750000 750000
2500000

12. What is the amount of total profit realized by Graphite Core Industries on sale of finished stock of pencils which is transferred to the Costing Profit and Loss Account ?

2

- (A) ₹ 25,25,000
- (B) ₹ 25,40,000
- (C) ₹ 25,17,500
- (D) ₹ 25,32,500

13. What is the Profit of the Core Manufacturing Process ?

2

- (A) ₹ 5,25,000
- (B) ₹ 7,50,000
- (C) ₹ 6,00,000
- (D) ₹ 6,75,000

14. What is the Prime Cost (including Inter Process Profit) of Casing & Shaping Process ?

2

- (A) ₹ 44,00,000
- (B) ₹ 53,25,000
- (C) ₹ 46,75,000
- (D) ₹ 55,00,000



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15. What is the amount of profit included in the closing stock of Casing & Shaping Process ?

2

(A) ₹ 90,000

(B) ₹ 84,000

(C) ₹ 87,000

(D) ₹ 93,000

	2500000	1750000	750000
DM	950000		
	300000		
	895000		
+ open	250000	750000 175000	750000
(-) Closing	600000	200000	320000

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PART – II

(Descriptive Portion)

(Candidates are required to give descriptive answers for this part inside the answer book)

1. Question paper comprises 6 questions. Answer Question No. 1 which is compulsory and any 4 out of the remaining 5 questions.
2. Working notes should form part of the answer.
3. Answers to the questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate has not opted for Hindi Medium, his/her answers in Hindi will not be evaluated.
4. Candidates are required to write the question number legibly.

1. (a) XYZ Limited specializes in manufacture of high end office furniture. 5
They use a batch costing system to track production costs. The company received an order for a special production run, Batch A – 01, consisting of 20 Ergonomic Executive Chairs. The estimated costs for this specific batch are as follows :

Direct Material	₹ 55,500
<u>Direct Labour :</u>	
Cutting & Shaping	300 hours @ ₹ 50 per hour
Polishing & Finishing	200 hours @ ₹ 40 per hour
<u>Factory Overheads :</u>	
Cutting & Shaping	300 hours @ ₹ 8 per hour
Polishing & Finishing	200 hours @ ₹ 8 per hour
Administrative & Selling Overheads	20% of Works Cost
Profit	25% on Selling Price

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You are required to calculate :

- (i) Total Cost of the Batch. 99000
- (ii) Selling Price per Chair. 6600

- (b) EXA Ltd. operates a standard costing system for controlling its material costs and has furnished the following information for the month of April, 2026 :

Standard Price of raw material	₹ 30 per kg	SR
Standard Quantity of material required per unit of output	5 kgs.	10000 SR
Standard labour rate	₹ 50 per hour	SR
Standard labour requirement	2.5 hours per unit	
Actual Output	2000 units	5000 hours
Material Price Variance	₹ 1,75,000 (Adverse)	AR
Actual Quantity of raw material purchased and consumed	14,000 kgs.	
Actual wages paid for 6,000 hours	₹ 3,24,000	

You are required to calculate :

- (i) Actual price per kg of raw material 42.50

(14)

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- (ii) Material usage variance 120000 A
- (iii) Material cost variance 295000 A
- (iv) Labour rate variance 24000 A
- (v) Labour efficiency variance 50000 A

(Indicate the nature of variance Favourable (F) or Adverse (A))

- (c) A manufacturing concern reported a net loss of ₹ 4,20,000 as per the Cost Accounts for the year ended 31st March, 2026. Upon scrutiny of both sets of accounts, the following differences were identified :

Sr. No.	Particulars	Amount (₹)
(i)	Profit on sale of investments (Financial Accounts only) +	55,000
(ii)	Factory overheads under-absorbed in Cost Accounts (-)	70,000
(iii)	Discount allowed to customers (Financial Accounts only) (-)	30,000
(iv)	Depreciation overcharged in Cost Accounts (+)	90,000
(v)	Selling overheads over-absorbed in Cost Accounts (+)	65,000
(vi)	Bad debts written-off (Financial Accounts only) (-)	1,10,000
(vii)	Over-valuation of closing stock in Cost Accounts (-)	40,000

You are required to :

- (i) Prepare a Reconciliation Statement.
- (ii) Ascertain the net profit / (loss) as per the Financial Accounts.

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2. (a) The cost particulars of cotton yarn manufactured by a textile mill in April 2026 are as follows :

Direct Material :	- Cotton Bales : 2,000 kgs @ ₹ 120 per kg $2000 \times 120 = 240000$ - Other materials : 600 kgs @ ₹ 85 per kg 51000
Direct Wages :	- 75 skilled men @ ₹ 60 per day for 25 days 112500 - 40 unskilled men @ ₹ 30 per day for 25 days 30000
Direct Expenses :	Hire charges for Special equipment ₹ 9,000 Power and fuel ₹ 3,000 445500
Works Overhead	160% of direct wages 228000
Administration overhead related with production	₹ 45,000 673500
Selling and distribution expenses	₹ 37,500 695000
Selling Price per kg of cotton yarn	₹ 600 732500 167500 900000

Additional Information :

- 1,500 kgs. of Cotton yarn was produced.

- Waste cotton and chemical scrap realised during the manufacturing process amounted to ₹ 23,500.
- There were no opening or closing stocks of raw materials and finished stock.

You are required to prepare a cost statement for the month of April 2026 showing :

- (i) Prime Cost 445500
- (ii) Net Works Cost 673500
- (iii) Cost of Production 695000
- (iv) Cost of Sales 732500
- (v) Total Profit & Sales 167500 + 900000
- (b) PQR Ltd is a manufacturing company that operates at 80% capacity, generating a profit of ₹ 7,50,000 by selling 36000 units. The cost details are as follows :

Particulars	Amount (in ₹)
Material Cost per unit	25
Labour Cost per unit	15
Semi Variable Cost (Variable Component = ₹ 10 per unit)	8,20,000
Contribution per unit	50
Margin of Safety Sales at the current level of sales	15,00,000
Fixed Cost upto 80% Capacity (Including depreciation of ₹ 1,90,000)	5,90,000
Additional Fixed Cost (Beyond 80% Capacity)	1,50,000

You are required to ascertain :

- (i) Break Even Point in units at current Capacity utilisation. 21000
- (ii) Total Sales value and Cash Break Even Sales Quantity at current capacity utilization. 360000
17200
- (iii) Capacity utilisation & Margin of safety sales, if the company wants to earn a profit of ₹ 9,37,500. (Assume selling price per unit and variable cost per unit remain unchanged.) 1875
95%

3. (a) Apex Chemicals Ltd. processes a basic chemical raw material in Department I, which yields two joint products, A and B, at the split-off point in the ratio 60 : 40. The input-output ratio of Department I is 100 : 90. 8
- Product A can either be sold at split-off or further processed in Department II to produce A-Prime. Department II is used exclusively for Product A, and its input-output ratio is 100 : 80.

Production & Cost Data

Particulars	Department I	Department II
Raw Material Input	1,20,000 kg @ ₹ 7 per kg	—
Conversion Costs :		
Other Direct Material	₹ 4,50,000	₹ 1,00,000
Direct Labour	₹ 4,00,000	₹ 1,40,000
Variable Overhead	₹ 6,00,000	₹ 2,60,000
Fixed Overhead	₹ 5,50,000	₹ 40,000
Total Conversion Cost	₹ 20,00,000	₹ 5,40,000

Other Data :

Product	Selling Price (₹ per kg)	Selling Expense (₹)
A (split-off)	45	30,000
B	45	26,000
A-Prime	75	22,000

Required :

- (i) Prepare a joint cost apportionment statement for Products A and B on the basis of sales value at split-off point.
 - (ii) Advise whether Product A should be sold at split-off or processed into A-Prime, showing incremental revenue, incremental cost, and profit.
- (b) Alpha Limited uses Standard Costing System for manufacturing its single product 'STAR'. The following data has been gathered from the cost records of the company to compute various fixed overhead variances for a specific period :

Number of budgeted working days	25
Budgeted man-hours per day	12,000
Output (budgeted) per man-hour (in units)	1
Fixed overhead cost as budgeted	₹ 6,00,000
Actual number of working days	28
Actual man-hours per day	12,500
Actual output per man-hour (in units)	0.9
Actual fixed overhead incurred	₹ 6,24,000

You are required to ascertain the following :

- (i) Fixed Overhead Expenditure Variance
- (ii) Fixed Overhead Volume Variance
- (iii) Fixed Overhead Calendar Variance
- (iv) Fixed Overhead Cost Variance

(Indicate the nature of variance Favourable (F) or Adverse (A))

4. (a) ZED Ltd. manufactures two categories of products, Omega and Theta. 9
These products are sold through two primary distribution channels, Online Portals and Retail Stores. In the current financial year, Omega performed exceptionally well online due to a viral trend, while Theta saw a surge in retail stores. The following information is available for the year 2025-26 :

Product	Channel	Budgeted Sales	Actual Sales	Selling Price per unit (For Budgeted and Actual Sales)
Omega	Online	1000 units	1200 units	₹ 15,000
	Retail	800 units	700 units	₹ 18,000
Theta	Online	500 units	450 units	₹ 40,000
	Retail	400 units	500 units	₹ 45,000

Market research indicates that Omega series is facing stiff competition offline, therefore, management has decided to reduce the price by 10% across both channels. Theta series has gained luxury status, so the management has decided to increase the price by ₹ 5,000 per unit for both Online and Retail sales. Based on these price changes, the Sales Manager has submitted the following estimates of increase in sales for the year 2026-27 over the original budgeted sales :



Product	Online Channel	Retail Channel
Omega	+ 15%	+ 5%
Theta	+ 10%	+ 20%

Furthermore, the company has signed a contract for an Influencer Marketing Campaign. It is estimated that for the year 2026-27 this campaign will generate the following additional sales :

Product	Online Channel	Retail Channel
Omega	200 units	Nil
Theta	100 units	50 units

You are required to prepare :

- Sales Budget for 2026-27 after incorporating the above estimates.
 - Statement showing Budgeted and Actual Sales for 2025-26.
- (b) The labour turnover rates for the quarter ended 31st March, 2026 are computed as 12%, 6% and 4% under Flux method, Replacement method and Separation method respectively. The number of workers replaced during that quarter is 54.

You are required to ascertain –

- Average number of workers on roll for the quarter
- Number of workers recruited and joined
- Number of workers left and discharged

960
72
36

5. (a) XYZ Private Limited manufactures two products, Mini and Maxi, 10 utilising the same production methods. The company operates under the Absorption Costing System. The details of the products for financial year 2025-26 are provided below :

Particulars	Products	
	Mini	Maxi
Number of units produced	8000 units	10000 units
Number of units sold	6400 units	8000 units
Direct Material Cost per unit	₹ 250	₹ 400
Direct Labour Hours per unit	4 Hours	5 Hours
Selling price per unit sold during the year	₹ 950	₹ 1180

Using the traditional method, all the Production overheads were of ₹ 54,00,000, which were directly distributed on the basis of units produced. Direct labour hour rate is ₹ 50 per hour.

Further, the Board of Directors is considering transitioning to an Activity – Based Costing (ABC) system to determine the production overheads.

The total production overheads are analyzed into the following :

Particulars	Amount (₹)
Set-up costs	9,00,000
Machine Running costs	18,00,000
Inspection costs	27,00,000
Total	54,00,000

The following data on cost drivers was provided by the production manager relating to the bifurcation of production overheads :

Particulars	Mini	Maxi
Number of Setups	100	200
Number of Machine Runs	750	1,050
Number of Inspections	60	210

You are required to calculate :

- (i) Total Sales and Total Profit earned for each product as per Absorption Costing System. 6080000 9440000
 1280000 1840000
- (ii) Total Sales and Total Profit earned for each product as per Activity - Based Costing System. 1880000 1240000
- (b) The following information has been furnished by the management accountant of CMC Limited :

Margin of Safety	5600 units
Break even sales	2400 units
Margin of Safety	₹ 9,80,000
Total Cost	₹ 11,94,200

You are required to calculate :

- (i) Profit
- (ii) Profit Volume (P/V) Ratio
- (iii) Break even sales value
- (iv) Fixed Cost

$\text{Total Sales} = 9800000$
 $\text{MOS} = \frac{\text{Profit}}{\text{P/V Ratio}}$
 $\frac{980000}{5600}$
 $\text{Total Sales} = 9800000$
 $\text{Sales} - \text{Profit} = \text{MOS}$
 $\frac{980000}{5600} = \text{Profit}$
 $\text{P/V Ratio} = \frac{\text{Profit}}{\text{Sales}}$
 $\frac{980000}{9800000} = \text{P/V Ratio}$
 $\text{Fixed Cost} = \text{Sales} - \text{Profit}$

6. (a) Which system of inventory management is known as 'Demand Pull' or 'Pull through' system of production ? Explain. Also, specify the two principles on which this system is based. 5
- (b) Distinguish between cost control and cost reduction. ✓ 5
- (c) A factory employing 3000 workers faces issues of proxy attendance and payroll errors under the manual system. The Plant Head has recommended using an automated method, the Bio-Metric Attendance system. Discuss briefly the features of this Bio-Metric Attendance System. 4

OR

- (c) Explain the meaning of spoiled work and defective work. Discuss the treatment of defective work under the following circumstances : 4
- (i) Where a percentage of defective work is allowed in a particular batch, as it cannot be avoided.
- (ii) Where the defect is due to bad workmanship.
- (iii) Where the defect is due to the Inspection Department wrongly accepting incoming material of poor quality.
-