Mock Test Paper - Series I: November, 2025

Date of Paper: **24th November, 2025**

Time of Paper: 10 P.M. to 1 P.M.

INTERMEDIATE: GROUP – II

PAPER – 4: COST AND MANAGEMENT ACCOUNTING

Suggested Answers/ Solution

PART I – Case Scenario based MCQs

1. (b)

Selling price pu	= 150	
Variable cost pu	= 150 x 67%	= 100.5
Contribution pu	= 49.5	
Total contribution	= 49.5 x 15,000	= 7,42,500
Contribution + Loss	= Fixed cost,	
Fixed cost	= 7,42,500 + 85,000	= 8,27,500

2. (c)

BEP $= \frac{\text{Fixed cost}}{\text{contribution per unit}}$

$= \frac{8,27,500}{49.5}$ = 16,718 units

MOS in value = (Sales in units - BEP in units) x Selling price pu

= (19,500 – 16,718) x 150 = 4,17,300

3. (a)

Target sales in units $= \frac{\text{(Fixed cost + Target profit)}}{\text{contribution per unit}}$

$= \frac{(8,27,500 + 1,60,000)}{49.5}$ = 19,950 units

Increase = 19,950 – 19,500 = 450 units

Increase in % $= \frac{450}{19,500}$ = 2.307%

4. (a)

New selling price	= 187.5
Variable cost will remain same	= 100.5
New contribution pu	= 87

BEP in units $= \frac{\text{Fixed cost}}{\text{New contribution per unit}}$

$= \frac{8,27,500}{87}$ = 9,512 units

New sales units = 19,500(1 - 9%) = 17,745 units

MOS sales in ₹ = (17,745 – 9,512) x 187.5 = 15,43,687.5

5. (d) BEP as calculated in part 2 = 16,718 units

BEP in ₹ = 16,718 x 150 = 25,07,700

Total sales = 150 x 19,500 units = 29,25,000

BEP in % = BEP in ₹/ total sales $= \frac{25,07,700}{29,25,000}$ = 85.73%

6. (a) 2,13,000; 3,13,000; 4,70,500

7. (b) 2,39,000; 1,67,600; 1,17,620

8. (a) 3,37,000; 3,34,000; 3,39,000

9. (c) 58,000; 50,500; 31,000

10. (d) ₹ 1,41,14,800

Working Note:

Production Budget (in units)

Particulars	Classic Tea	Iced Tea	Herbal Infusion	Sparkling Tea
October 2024				
Sales*	2,10,000	2,38,000	3,36,000	60,000
Add: Closing stock	15,000	14,000	12,000	5,500
Total Quantity Required	2,25,000	2,52,000	3,48,000	65,500
Less: Opening stock	12,000	13,000	11,000	7,500
Production	**2,13,000**	**2,39,000**	**3,37,000**	**58,000**
November 2024				
Sales*	3,15,000	1,66,600	3,36,000	50,000
Add: Closing stock	13,000	15,000	10,000	6,000

Total Quantity Required	3,28,000	1,81,600	3,46,000	56,000
Less: Opening stock	15,000	14,000	12,000	5,500
Production	**3,13,000**	**1,67,600**	**3,34,000**	**50,500**
December 2024				
Sales*	4,72,500	1,16,620	3,36,000	30,000
Add: Closing stock	11,000	16,000	13,000	7,000
Total Quantity Required	4,83,500	1,32,620	3,49,000	37,000
Less: Opening stock	13,000	15,000	10,000	6,000
Production	**4,70,500**	**1,17,620**	**3,39,000**	**31,000**

*sales units are taken from sales budget

Sales Budget (in Units and sales value)

Particulars	Classic Tea	Iced Tea	Herbal Infusion	Sparkling Tea
October 2024 (in units)	2,10,000 [1,40,000 + (1,40,000 x 50%)]	2,38,000 [3,40,000 -(3,40,000 x 30%)]	3,36,000 [4,20,000 -(4,20,000x20%)]	60,000
October 2024 (Sales Value in ₹)	42,00,000 (2,10,000 x ₹ 20)	95,20,000 (2,38,000 x ₹ 40)	67,20,000 (3,36,000 x ₹20)	12,00,000 (60,000 x ₹ 20)
November 2024 (in units)	3,15,000 [2,10,000 +(2,10,000 x 50%)]	1,66,600 [2,38,000 -(2,38,000 x 30%)]	3,36,000	50,000
November 2024 (Sales Value in ₹)	63,00,000 (3,15,000 x ₹ 20)	66,64,000 (1,66,600 x ₹ 40)	67,20,000 (3,36,000 x ₹ 20)	10,00,000 (50,000 x ₹ 20)
December 2024 (in units)	4,72,500 [3,15,000 +(3,15,000 x 50%)]	1,16,620 [1,66,600 -(1,66,600 x 30%)]	3,36,000	30,000
December 2024 (Sales Value in ₹)	94,50,000 (4,72,500 x ₹ 20)	46,64,800 (1,16,620 x ₹ 40)	67,20,000 (3,36,000 x ₹ 20)	6,00,000 (30,000 x ₹ 20)

11. (d) 7,400 units

Maximum Stock Level

= (Maximum Consumption x Maximum Lead Time) + Reorder Quantity – Minimum Consumption x Minimum Lead Time)

= 900 x 7 + 2,000 - 300 x 3

= 7,400 units

12. (b) ₹ 1,000 (A) and ₹ 600 (F)

Standard Hours = 450 units x 6 hours per unit = 2,700 hours

Expenditure Variance = (Standard Rate x Actual Hours) − Actual Overheads

= (₹ 2 x 2,400) − ₹ 5,800 = ₹ 4,800− ₹ 5,800

= ₹ 1,000 (A)

Efficiency Variance = (Standard Hours – Actual Hours) x Standard Rate

= (2,700−2,400) x ₹ 2 = 300 x 2 = ₹ 600(F)

13. (d) 60 kg

Normal Loss = 6% of 4,000 = 240 kg

Normal Output = Input - Normal Loss

= 4,000 – 240 = 3,760 kg

Actual Output = 3,700 kg

Difference = 3,760-3,700 = 60 kg

14. (a) 758.95 units

EBQ $= \sqrt{\frac{2DS}{C}} = \sqrt{\frac{2 \times 12 \times 600 \times 120}{30 \times 0.10}}$ = 758.95 units.

15. (b) ₹ 420

Calculation of total earnings:

= Time taken × Time rate + 50% (Time Allowed – Time Taken) × Time rate

= 6 hrs. × ₹ 60 + 1/2 × (2 hrs. × ₹ 60) or ₹ 360 + ₹ 60 = ₹ 420

Part II – Descriptive Questions

1. (a) Statement of Labour Cost (per man-day of 8 hours)

Particulars	(`)
(a) Basic Salary	80.00
(b) Dearness Allowance @ 80 paise per every point over 100 cost of living index for a month of 25 days $\frac{(785-100)x0.80}{25}$	21.92
	101.92
(c) Leave Salary – 10% of (a) and (b) $\frac{101.92\times10}{100}$	10.19
	112.11
(d) Employer's contribution to Provident Fund 10% of (a), (b) and (c) $\frac{112.11\times10}{100}$	11.21
(e) Employer's contribution to State Insurance 2.5% of (a), (b) and (c) $\frac{112.11\times2.5}{100}$	2.80
(f) Amenities to labour @ ₹ 30 per head per month of 25 working days $\frac{₹30}{25\,days}$	1.20
Total	127.32

(b) (i) Computation of over/ under absorption of manufacturing overheads:

	(₹)
Actual overheads	21,32,720
Overhead recovered (applied)	18,29,520
Under absorption (recovery) of overhead	3,03,200

(ii) Treatment of under-absorbed overhead

The under-absorption of overheads is disposed-off using two methods:

(1) Write off the under – absorbed overhead to Costing Profit & Loss Account.

(2) Use supplementary rate, to recover the under-absorbed overhead.

According to first method, the total unabsorbed overhead amount of ₹ 3,03,200 will be written off to Costing Profit & Loss Account. The use of this method will reduce the profits of the concern by ₹ 3,03,200 for the period.

According to second method, a supplementary rate may be used to adjust the overhead cost of each cost unit. The under-absorbed amount in total may, at the end of the accounting period, be apportioned on ratio basis to the three control accounts, viz, Work-in-progress, Finished goods stock and Cost of goods sold account. Apportioning of under-absorbed overhead can be carried out by using direct labour hours/ machine hours/ the value of the balances in each of these accounts, as the basis. Prorated figures of under-absorbed overhead over Work-in-progress, Finished goods stock and Cost of goods sold in this question on the basis of values, of the balances in each of these accounts are as follows:

	Additional Overhead (Under-absorbed) Total		
	(₹)	**(₹)**	**(₹)**
Work-in-progress	7,07,400	35,370	7,42,770
Finished Goods Stock	11,53,660	57,683	12,11,343
Cost of Goods Sold	42,02,940	2,10,147	44,13,087
	60,64,000	3,03,200	63,67,200

By using this method, the profit for the period will be reduced by ₹2,10,147 and the value of stock will increase by ₹93,053. The latter will affect the profit of the subsequent period.

Working Notes

The apportionment of under-absorbed overhead over Work-in-progress, Finished goods stock and Cost of goods sold on the basis of their value in the respective account is as follows:

Overhead to be absorbed by work-in-progress	$= \frac{₹3,03,200}{₹60,64,000} \times 7,07,400 = ₹\ 35,370$
Overhead to be absorbed by finished goods	$= \frac{₹3,03,200}{₹60,64,000} \times 11,53,660 = ₹\ 57,683$

Overhead to be absorbed by cost of goods sold	$= \frac{₹3,03,200}{₹60,64,000} \times 42,02,940$ = ₹ 2,10,147

(c) (i) Estimated Net Realisable Value Method:

	Flavoured Milk Amount (₹)	Cheese Amount (₹)
Sales Value	8,40,000 (₹ 30 x 28 x 1000)	76,80,000 (₹ 480 x 16 x 1000)
Less: Post split-off cost (Further processing cost)	-	(1,20,000)
Net Realisable Value	8,40,000	75,60,000
Apportionment of Joint Cost of ₹ 51,00,000* in ratio of 1:9	5,10,000	45,90,000

***** [(₹ 100 × 50 × 1000) + ₹ 1,00,000] = ₹ 51,00,000

(ii) Incremental revenue from further processing of Cheese into Clarified Cheese Oil

(₹ 480 × 16 × 1000 - ₹ 360 × 20 × 1000)	₹ 4,80,000
Less: Incremental cost of further processing of Cheese into Clarified Cheese Oil	₹ 1,20,000
Incremental operating income from further processing	₹ 3,60,000

The operating income of Creamy Delights Ltd. will decrease by ₹ 3,60,000 in February if it sells 20 tonnes of Cheese to Dairy Fresh Foods, instead of further processing the cheese into Clarified Cheese Oil for sale.

Therefore, Creamy Delights Ltd. is advised not to accept the offer and should continue further processing the cheese into Clarified Cheese Oil itself.

2. (a) (i) Traditional Costing System: Overhead Absorption Based on Machine Hours

Total Manufacturing Overheads (₹ '000)

Overhead Component	Amount (₹ '000)
Machine Operating Expenses	140
Maintenance Costs	30

Wages of Machine Supervisors	90
Stores Handling Staff Wages	28
Packaging & Despatch Wages	42
Total Manufacturing Overhead	**330**

Overhead Absorption Rate = ₹ 3,30,000/2,500 hrs. = ₹ 132 per Machine Hour

Computation of Unit Cost Using Traditional System

Component	A	B	C
Machine Hrs	30	520	60
Machine Labour Cost (₹18/hr)	₹540	₹ 9,360	₹ 1,080
Direct Material	₹ 1,500	₹ 3,800	₹ 2,200
Overheads (₹132/hr)	₹ 3,960	₹ 68,640	₹ 7,920
Total Cost	₹ 6,000	₹ 81,800	₹ 11,200
Qty Produced	600	13000	2600
Unit Cost (₹)	**₹ 10.00**	**₹ 6.29**	**₹ 4.31**

(ii) ABC System Development & Cost Calculation

ABC Process:

1. Identify Activities:
   - Receiving Materials
   - Machine Setups
   - Quality Inspections
   - Packaging & Despatch
2. Allocate Overheads to Activity Pools
3. Determine Cost Drivers and Rates
4. Assigning the cost of activities to cost objects

Overhead Allocation to Activities (₹ '000):

Activity	Receiving	Setups	Inspections	Despatch	Total
Machine Operation (140)	21.00	98.00	—	21.00	140.00

Maintenance (30)	4.50	21.00	—	4.50	30.00
Supervisors' Wages (90)	6.75	63.00	13.50	6.75	90.00
Stores Staff (28)	28.00	—	—	—	28.00
Packaging & Despatch (42)	—	—	—	42.00	42.00
Total (₹ '000)	**60.25**	**182.00**	**13.50**	**74.25**	**330.00**

Allocation ratios:

- Machine Operation & Maintenance: 15% Receiving, 70% Setups, 15% Despatch
- Supervisors: 7.5% Receiving, 70% Setups, 15% Inspections, 7.5% Despatch

Determine Cost Driver Rates:

Activity	Cost (₹ '000)	Driver Volume	Rate per Unit
Receiving	60.25	1,100 consignments	₹ 54.77 per consignment
Machine Setups	182.00	950 setups	₹ 191.58 per setup
Quality Inspections	13.50	700 inspections	₹ 19.29 per inspection
Despatch	74.25	480 despatches	₹ 154.69 per order

Assign Activity Costs to Components

Component	A (₹)	B (₹)	C (₹)
Direct Labour	540	9,360	1,080
Direct Material	1,500	3,800	2,200
Receiving	45 x 54.77 = 2,464.65	32 x 54.77 = 1,752.64	33 x 54.77 = 1,807.41
Setups	20 x 191.58 = 3,831.60	22 x 191.58 = 4,214.76	18 x 191.58 = 3,448.44
Inspections	12 x 19.29 = 231.48	10 x 19.29 = 192.90	20 x 19.29 = 385.80
Despatch	25 x 154.69 = 3,867.25	90 x 154.69 = 13,922.10	55 x 154.69 = 8,507.95
Total Cost	**12,435.00**	**33,242.40**	**17,429.60**
Units	600	13,000	2,600
Unit Cost ₹	**20.73**	**2.56**	**6.70**

(iii) Comparison

Component	Traditional Unit Cost (₹)	ABC Unit Cost (₹)	Observation
A	₹ 10.00	₹ 20.73	Highly under-costed under traditional system
B	₹ 6.29	₹ 2.56	Over-costed under traditional system
C	₹ 4.31	₹ 6.70	Under-costed under traditional system

(b) The main points which distinguish Job Costing and Process Costing are as below:

Job Costing	Process Costing
(i) A Job is carried out or a product is produced by specific orders.	The process of producing the product has a continuous flow and the product produced is homogeneous.
(ii) Costs are determined for each job.	Costs are compiled on time basis i.e., for production of a given accounting period for each process or department.
(iii) Each job is separate and independent of other jobs.	Products lose their individual identity as they are manufactured in a continuous flow.
(iv) Each job or order has a number and costs are collected against the same job number.	The unit cost of process is an average cost for the period.
(v) Costs are computed when a job is completed. The cost of a job may be determined by adding all costs against the job.	Costs are calculated at the end of the cost period. The unit cost of a process may be computed by dividing the total cost for the period by the output of the process during that period.
(vi) As production is not continuous and each job may be different, so more managerial attention is required for effective control.	Process of production is usually standardized and is therefore, quite stable. Hence control here is comparatively easier.

3. (a) (i) Material Usage Variance

= Std. Price x (Std. Quantity – Actual Quantity Adjusted)

= ₹ 80 x [(2,750 x 15 kg) – (41,600 – 400)]

= ₹ 80 x (41,250 – 41,200)

= ₹ 4,000 **Favourable**

(ii) Material Price Variance

= Actual Quantity x (Std. Price – Actual Price)

= 41,600 kg x (₹ 80 – ₹ 84)

= 41,600 x (–4)

= ₹ 1,66,400 **Adverse**

(iii) Material Cost Variance

= (SQ x SP) – (AQ x AP)

= (41,250 x ₹ 80) – (41,600 x ₹ 84)

= ₹ 33,00,000 – ₹ 34,94,400

= ₹ 1,94,400 **Adverse**

(iv) Labour Efficiency Variance (Exclude idle time)

= Std. Rate x (Std. Hours – Actual Hours worked)

= ₹ 120 x [(2,750 x 5 hrs) – (14,500 – 300)]

= ₹ 120 x (13,750 – 14,200)

= ₹ 54,000 **Adverse**

(v) Labour Rate Variance

= Actual Hours x (Std. Rate – Actual Rate)

= 14,500 x (₹120 – ₹ 125)

= 14,500 x (–5)

= ₹ 72,500 **Adverse**

(vi) Labour Idle Time Variance

= Idle Hours x Std. Rate

= 300 hrs x ₹ 120

= ₹ 36,000 **Adverse**

(vii) Labour Cost Variance

= (SH x SR) – (AH x AR)

= (13,750 x ₹120) – (14,500 x ₹ 125)

= ₹ 16,50,000 – ₹ 18,12,500

= ₹ 1,62,500 **Adverse**

(viii) Variable Overhead Cost Variance

= (SH x SR) – Actual Overhead

= (13,750 hrs x ₹ 25) – ₹ 3,62,500

= ₹ 3,43,750 – ₹ 3,62,500

= ₹ 18,750 **Adverse**

(ix) Fixed Overhead Cost Variance

= Absorbed Fixed Overhead – Actual Fixed Overhead

= (2,750 units x ₹ 300) – ₹ 8,50,000

= ₹ 8,25,000 – ₹ 8,50,000

= ₹ 25,000 **Adverse**

(b) Memorandum Reconciliation Account

Particulars	₹	Particulars	₹
To Net Loss as per Costing Books	3,15,000	By Administration Overheads over-absorbed in Cost Accounts	5,000
To Factory Overheads under-absorbed	8,000	By Depreciation over-charged in Cost Accounts (₹ 90,000 – ₹ 75,000)	15,000
To Income-tax provided in Financial Accounts	80,000	By Interest on Investments (not included in Cost Accounts)	25,000
To Preliminary Expenses written off (in Financial Accounts)	5,000	By Transfer Fees (income in Financial Accounts)	3,000

To Overvaluation of Closing Stock of Finished Goods in Cost Accounts	10,000	By Net Loss as per Financial Accounts	3,70,000
Total	**4,18,000**	**Total**	**4,18,000**

4. (a) (i) Statement of Equivalent Production

Particulars	Input Units	Particulars	Output Units	Equivalent Production			
				Honeycomb		Labour & O.H.	
				%	Units	%	Units
Opening WIP	4,500	Completed and transferred to Process - II	39,500	100	39,500	100	39,500
Units introduced	1,00,000	Normal Loss (55%* of 1,00,000)	55,000	--	--	--	--
		Abnormal loss	1,000	100	1,000	80	800
		Closing WIP	9,000	100	9,000	80	7,200
	1,04,500		1,04,500		49,500		47,500

***** For every 100 kg of honeycombs, only 45 litres of nectar are extracted. Thus, normal loss = 100 – 45 = 55%

(ii) Statement showing cost for each element

Particulars	Honeycomb (₹)	Labour (₹)	Overhead (₹)	Total (₹)
Cost of opening work-in-process	50,000	15,000	45,000	1,10,000
Cost incurred during the month	5,00,000	2,00,000	6,00,000	13,00,000
Total cost: (A)	5,50,000	2,15,000	6,45,000	14,10,000
Equivalent units: (B)	49,500	47,500	47,500	
Cost per equivalent unit: (C) = (A ÷ B)	11.111	4.526	13.579	29.216

(iii) Statement of Distribution of cost

	Amount (₹)	Amount (₹)
1. Value of units completed and transferred (39,500 units × ₹ 29.216)		11,54,032

2. Value of Abnormal Loss:		
- Honeycomb (1,000 units × ₹ 11.111)	11,111	
- Labour (800 units × ₹ 4.526)	3,621	
- Overheads (800 units × ₹ 13.579)	10,863	25,595
3. Value of Closing W-I-P:		
- Honeycomb (9,000 units × ₹ 11.111)	99,999	
- Labour (7,200 units × ₹ 4.526)	32,587	
- Overheads (7,200 units × ₹ 13.579)	97,769	2,30,355

(iv) Process-I A/c (Nectar Extraction)

Particulars	Units	(₹)	Particulars	Units	(₹)
To Opening W.I.P:			By Normal Loss	55,000	--
- Honeycomb	4,500	50,000	By Abnormal loss (₹ 25,595 + ₹ 18 (difference due to approximation))	1,000	25,613
- Labour	--	15,000	By Process-II A/c	39,500	11,54,032
- Overheads	--	45,000	By Closing WIP	9,000	2,30,355
To Honeycomb introduced	100,000	5,00,000			
To Direct Labour		2,00,000			
To Overheads		6,00,000			
	104,500	14,10,000		104,500	14,10,000

(b) Working notes

1. Annual production = 40,000 units

2. Raw material required for 40,000 units (40,000 units × 1 kg.) = 40,000 kg.

3. EOQ = $\sqrt{\frac{2 \times 40{,}000 \text{ kgs.} \times ₹\ 1{,}000}{₹\ 20}}$ = 2,000 kgs.

4. Total cost of procurement and storage when the order size is equal to EOQ or 2,000 kg.

No. of orders (40,000 kg. ÷ 2,000 kg.)	= 20 times
Ordering cost (20 orders × ₹1,000)	= ₹ 20,000
Carrying cost (₹) (½ × 2,000 kg. × ₹ 20)	= ₹ 20,000
Total cost	₹ 40,000

(i) **Re-order point** = Safety stock + Lead time consumption

$$= \quad 1{,}000 \text{ kg.} + \frac{40{,}000 \text{ kg.}}{360 \text{ days}} \times 36 \text{ days}$$

$$= \quad 1{,}000 \text{ kg.} + 4{,}000 \text{ kg.} \quad = 5{,}000 \text{ kg.}$$

(ii) **Statement showing the total cost of procurement and storage of raw materials** *(after considering the discount)*

Order size	No. of orders	Total cost of procurement	Average stock	Total cost of storage of raw materials	Discount	Total cost
Kg.		(₹)	Kg.	(₹)	(₹)	(₹)
(1)	(2)	(3)=(2)×₹1,000	(4)=½×(1)	(5)=(4)×₹ 20	(6)	(7)=[(3)+(5)– (6)
40,000	1	1,000	20,000	4,00,000	40,000	3,61,000
20,000	2	2,000	10,000	2,00,000	32,000	1,70,000
10,000	4	4,000	5,000	1,00,000	20,000	84,000
8,000	5	5,000	4,000	80,000	4,000	81,000

(iii) Number of orders which the company should place to minimize the costs after taking EOQ also into consideration is 20 orders each of size 2,000 kg. The total cost of procurement and storage in this case comes to ₹ 40,000, which is minimum. *(Refer to working notes 3 and 4)*

5. (a) Cost Sheet of 'Premium'

Particulars	Per unit (₹)	Total (₹)
Direct materials (Working note- (i))	8.00	4,80,000
Direct wages (Working note- (ii))	4.00	2,40,000
Prime cost	12.00	7,20,000
Production overhead (Working note- (iii))	1.20	72,000
Factory Cost	13.20	7,92,000
Administration Overhead (200% of direct wages)	8.00	4,80,000
Cost of production	21.20	12,72,000
Less: Closing stock (60,000 units – 54,000 units)	-	1,27,200
Cost of goods sold i.e. 54,000 units	21.20	11,44,800
Selling cost	1.00	54,000

Cost of sales/ Total cost	22.20	11,98,800
Profit	7.80	4,21,200
Sales value (₹ 30 × 54,000 units)	30.00	16,20,000

Working Notes:

(i) Direct material cost per unit of 'Standard' = M

Direct material cost per unit of 'Premium' = 2M

Total Direct Material cost = 2M × 60,000 units + M × 1,80,000 units

Or, ₹ 12,00,000 = 1,20,000 M + 1,80,000 M

Or, M $= \frac{₹\,12,00,000}{3,00,000} = ₹\,4$

Therefore, Direct material Cost per unit of 'Premium' = 2 × ₹ 4 = ₹ 8

(ii) Direct wages per unit for 'Premium' = W

Direct wages per unit for 'Standard' = 0.6W

So, (W x 60,000) + (0.6W x 1,80,000) = ₹ 6,72,000

W = ₹ 4 per unit

(iii) Production overhead per unit = $\frac{₹\,2,88,000}{(60,000+1,80,000)} = ₹\,1.20$

Production overhead for 'Premium' = ₹ 1.20 × 60,000 units = ₹ 72,000

Notes:

1. Administration overhead is specific to the product as it is directly related to direct labour as mentioned in the question and hence to be considered in cost of production only.
2. Cash discount is treated as interest and finance charges; hence, it is ignored.
3. Penalty paid against the copyright infringement case is an abnormal cost; hence, not included.

(b) Working Notes:

(i) Total Room days in a year

Season	Occupancy (Room-days)	Equivalent Full Room charge days
Season – 80% Occupancy	200 Rooms × 80% × 6 months × 30 days in a month = **28,800** Room Days	28,800 Room Days × 100% = 28,800
Off-season – 40% Occupancy	200 Rooms × 40% × 6 months × 30 days in a month = **14,400** Room Days	14,400 Room Days × 50% = 7,200
Total Room Days	28,800 + 14,400 = 43,200 Room Days	36,000 Full Room days

(ii) Lighting Charges:

It is given in the question that lighting charges for 8 months is ₹ 110 per month and during winter season of 4 months it is ₹ 30 per month. Further it is also given that peak season is 6 months and off season is 6 months.

It should be noted that – being Hill station, winter season is to be considered as part of Off season. Hence, the non-winter season of 8 months include – Peak season of 6 months and Off season of 2 months.

Accordingly, the lighting charges are calculated as follows:

Season	Occupancy (Room-days)
Season & Non-winter – 80% Occupancy	200 Rooms × 80% × 6 months × ₹ 110 per month = ₹ **1,05,600**
Off- season & Non-winter – 40% Occupancy (8 – 6 months)	200 Rooms × 40% × 2 months × ₹ 110 per month = ₹ **17,600**
Off- season & -winter – 40% Occupancy months)	200 Rooms × 40% × 4 months × ₹ 30 per month = ₹ **9,600**
Total Lighting charges	₹ 1,05,600+ ₹ 17,600 + ₹ 9,600 = ₹ **132,800**

Statement of total cost:

	(₹)
Staff salary	8,00,000
Repairs to building	3,00,000
Laundry	1,40,000
Interior	2,50,000
Miscellaneous Expenses	2,00,200
Depreciation on Building (₹ 300 Lakhs × 80% × 5%)	**12,00,000**
Depreciation on Furniture & Equipment (₹ 300 Lakhs × 20% × 15%)	**9,00,000**
Room attendant's wages (₹ 15 per Room Day for 43,200 Room Days)	**6,48,000**
Lighting charges	1,32,800
Total cost	**45,71,000**
Add: Profit Margin (20% on Room rent or 25% on Cost)	11,42,750
Total Rent to be charged	**57,13,750**

Calculation of Room Rent per day:

Total Rent / Equivalent Full Room days = ₹ 57,13,750/ 36,000 = ₹ 158.72

Room Rent during Season – ₹ 158.72

Room Rent during Off season = ₹ 158.72 × 50% = ₹ 79.36

6. (a)

Business Scenario	Costing Method	Key Reason
Cement Manufacturing	Unit/Output Costing	Uniform products, mass production
Custom Furniture Workshop	Job Costing	Unique, custom jobs per client
Pharmaceutical Batch Production	Batch Costing	Production in identifiable batches
Food Processing (Snacks)	Process Costing	Continuous and standardized production
Bus Transport Company	Service/Operating Costing	Costing per service unit (e.g., km, passenger-km)

(b) Different method of Inventory Control by Setting Quantitative Levels are explained below:

(i) **Re-order Stock Level (ROL):** *This level lies between minimum and the maximum levels* in such a way that before the material ordered is received into the stores, there is sufficient quantity in hand to cover both normal and abnormal consumption situations. In other words, it is the level at which fresh order should be placed for replenishment of stock.

It is calculated as:

ROL = Maximum Consumption x Maximum Re-order Period

Or

ROL = Minimum Stock Level + (Average Rate of Consumption x Average

Re-order period)

(ii) **Re-Order Quantity:** Re-order quantity is the quantity of materials for which purchase requisition is made by the store department. While setting the quantity to be re-ordered, consideration is given to the maintenance of minimum level of stock, re-order level, minimum delivery time and the most important the cost. Hence, the quantity should be where, the total of carrying cost and ordering cost is at minimum. For this purpose, an economic order quantity should be calculated.

Economic Order Quantity (EOQ): The size of an order for which total of ordering and carrying cost are minimum.

$$EOQ = \sqrt{\frac{2 \times \text{Annual Requirement (A)} \times \text{Cost per order (O)}}{\text{Carrying Cost per unit per annum (C)}}}$$

(iii) **Minimum Stock Level:** It is lowest level of material stock, which must be maintained in hand at all times, so that there is no stoppage of production due to non-availability of inventory.

It is calculated as below:

Minimum Stock Level = Re-order Stock Level - (Average Consumption Rate x Average Re-order Period)

(iv) **Maximum Stock Level:** It is the highest level of quantity for any material which can be held in stock at any time. Any quantity beyond this level cause extra amount of expenditure due to engagement of fund, cost of storage, obsolescence etc.

It can be calculated as below:

Maximum Stock Level = Re-order Level + Re-order Quantity - (Minimum Consumption Rate x Minimum Re-order Period)

Here, Re-order Quantity may be EOQ

(v) Average Inventory Level: This is the quantity of material that is normally held in stock over a period. *It is also known as normal stock level.*

It can be calculated as below:

Average Stock Level = Minimum Stock Level + 1/2 Re-order Quantity

Alternatively, it can be calculated as below:

$$\text{Average Stock Level} = \frac{\text{Maximum Stock Level} + \text{Minimum Stock Level}}{2}$$

(vi) Danger level: It is the level at which normal issues of the raw material inventory are stopped and emergency issues are only made.

It can be calculated as below:

Danger Level = Average Consumption* x Lead time for emergency purchase

*Some time minimum consumption is also used.

(vii) Buffer Stock: Some quantity of stock may be kept for **contingency** to be used in case of sudden order, such stock is known as buffer stock.

(c) The basis apportionment of expenses are stated below:

Overhead Cost	**Bases of Apportionment**
1. Lighting and heating (conditioning), Fire precaution service	Floor area, or volume of department
2. Time keeping, labour welfare expense	Number of workers
3. Holiday pay and ESI and PF contribution	Direct wages
4. General overhead	Direct labour hour, or Direct wages, or Machine hours.
5. (i) Depreciation of plant and machinery (ii) Insurance of stock	Capital values

6.	(i) Power/steam consumption (ii) Internal transport (iii) Managerial salaries	Technical estimates
7.	Lighting expenses (light)	No. of light points, or Area or Metered units
8.	Electric power (machine operation)	Horse power of machines, or Number of machine hour, or value of machines or units consumed.

OR

(c)

Industry	**Cost Unit**
Power	Kilo-watt hour (kWh)
Steel	Ton
Transport	Passenger- kilometer
Brewing	Barrel
Electricity	Kilowatt-hour (kWh)
Oil	Barrel, tonne, litre
Hotel	Room
Hospital	Patient day