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FOR CA INTERMEDIATE EXAM PREPARATION

CA Intermediate 2023 Suggested Answers · Paper 3 Cost and Management Accounting (Old Scheme)

EXAM
CA Intermediate

YEAR
2023

TYPE
Suggested Answers

SUBJECT
Paper 3 Cost and Management Accounting (Old Scheme)

DATE
November 2023

PAPER – 3: COST AND MANAGEMENT ACCOUNTING

*Question No. **1** is compulsory.*

*Attempt any **four** questions out of the remaining **five** questions.*

In case, any candidate answers extra question(s)/ sub-question(s) over and above the required number, then only the requisite number of questions first answered in the answer book shall be valued and subsequent extra question(s) answered shall be ignored.

Working notes should form part of the answer.

Question 1

Answer the following:

(a) *ABC Limited manufactures a product 'AM25' using material 'CEE'.*

The following information is available regarding material 'CEE':

Purchase price per unit	*₹ 300*
Cost of placing an order	*₹ 150*
Carrying cost per unit per annum	*6% of purchase price*
Consumption of material 'CEE' per annum	*1,94,400 units*
Lead time	*Average 6 days, Maximum 8 days, Minimum 4 days*

Maximum consumption of material 'CEE' per day is 200 kg more than the average consumption per day.

Required:

Calculate the following in relation to material 'CEE':

(i) Economic Order Quantity.

(ii) Reorder Level

(iii) Maximum Stock Level. (Assume 360 days in a year) ***(5 Marks)***

(b) *A worker took 60 hours to complete a job in a factory. The normal rate of wages is ₹ 80 per hour. The worker is entitled to receive bonus according to the Halsey Premium Plan. Factory overhead is recovered on the job at ₹ 60 per man hour actually worked. The factory cost of the job is ₹ 37,280 and material cost of the job is ₹ 28,400.*

Required:

(i) Calculate the standard time for completing the job and effective hourly rate under the Halsey Premium plan.

(ii) Calculate the effective rate of earnings per hour if wages would have been paid under the Rowan Plan. ***(5 Marks)***

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(c) *XYZ Limited manufactures three joint products A, B and C from a joint process. Product B is sold at split off point whereas product A and C are sold after further processing. 10% of the quantity of product A is lost in further processing. Data regarding these products for the year ending 31st March,2023 are as follows:*

	A	B	C
Number of units produced and sold	3,60,000	2,10,000	4,50,000
Selling price per unit at split off point	-	₹ 6	-
Selling price per unit after further processing	₹ 9.50	-	₹ 12
Further processing costs	₹ 8,60,000	-	₹10,40,000

The joint production cost upto the split off point at which A, B and C become separable products is ₹ 57,26,000.

Required:

(i) *Prepare a statement showing apportionment of joint cost to the products using Net realizable value method.*

(ii) *Assume XYZ Limited has received an offer from D Limited to purchase product 'A' at the split off point at ₹ 7 per unit and another company PQR Limited has offered to purchase product 'C' at split off point at 9 per unit.*

Advise whether these offers should be accepted or not? ***(5 Marks)***

(d) *Unique Construction Limited commenced a contract on 01.08.2022. The total contract price was ₹ 96,00,000. The following information was available from their costing records as at 31.03.2023:*

Material consumed	₹ 35,91,000
Wages paid	₹ 9,65,000
Wages outstanding as on 31.03.2023	₹ 75,000
Plant issued to site on 01.08.2022	₹ 7,50,000
Direct expenses	₹ 1,96,650
General overheads	₹ 2,08,000

A supervisor who was paid ₹ 18,000 per month, had spent 40% of his time on this contract. Plant costing ₹ 60,000 was transferred to other contracts on 31.12.2022. Plant was to be depreciated at 15% per annum on straight line method (SLM) basis. On 31.03.2023, 60% of the contract was completed. The architect's certificate had been issued covering 50% of the contract price.

Prepare a Contract account and show the notional profit or loss as on 31.03.2023.

(5 Marks)

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Answer

(a) (i) Economic Order Quantity (EOQ) = $\sqrt{\frac{2AO}{C}}$

Where, A= Annual demand for the material CEE = 1,94,400 Kgs

O = Ordering cost = ₹ 150

C = Carrying cost per unit per annum = 6% of ₹ 300 = 18

EOQ = $\sqrt{\frac{2\times1,94,400\times150}{18}}$ = **1,800 Units (Kgs.)**

(ii) Re-order level (ROL) = Maximum consumption# × Maximum lead time

ROL = 740 × 8 = **5,920 Kg.**

Maximum Consumption = Average consumption +200 kg

= $\frac{1,94,400}{360}$ + 200 = 540 + 200 Kg = 740 Kg.

Maximum lead time = 8 days

(iii) Maximum Stock level = Re-order quantity + Re-order level – (Min. consumption* × Min. lead time)

= 1,800 + 5,920 – (340×4)

= 7,720 – 1,360 = **6,360 Kg**

*Minimum consumption = 2 × Average consumption – Maximum Consumption

= 2 × 540 – 740

= 1080 – 740 = 340 kg.

(b) (i) Calculation of standard time and effective hourly rate:

Standard time = Actual hours worked + time saved = 60 +12 = 72 hours

Effective hourly rate under Halsey premium plan = $\frac{\text{Total labour cost}}{\text{Actual hour worked}} = \frac{5,280}{60}$

= ₹ 88

(ii) Calculation of effective rate earnings under Rowan plan:

(Rate × Actual hours worked) + Rate × $\frac{\text{Time Saved}}{\text{Std. Time}}$ × Time taken

₹ 80 × 60 hours + ₹ 80 × $\frac{12}{72}$ × 60

₹ 4,800 + 800 = ₹ 5,600

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Effective rate per hour = 5,600 ÷ 60 hour = ₹ 93.33

Working Note:

(1) Calculation of labour cost = Factory cost – Material cost – Factory Overhead

= 37,280 – 28,400 – (₹ 60 × 60 hours)

= 37,280 – 28,400 – 3,600 = ₹ 5,280

(2) Calculation of bonus and time saved

Total labour cost = Normal Rate × Actual hours worked + ½ time saved × normal rate

₹ 5,280 = (₹ 80 × 60 hours) + ½ (time saved × ₹ 80)

40 × time saved = ₹ 5,280 – ₹ 4,800

Time saved = (5,280 - 4,800) ÷ 40

Time saved = 12 hours

The solution can also be presented in following way:

(b)

Particulars	**(₹)**
Factory Cost	37,280
Less: Factory Overheads 60 x ₹ 60	3,600
Prime Cost	33,680
Direct material	28,400
Direct wages (Balancing Figure)	5,280

(i) Wages under Halsey Plan (Rate × Actual hours worked) + Rate × $\frac{\text{Time Saved}}{\text{Std. Time}}$ ×Time taken

₹ 5,280 = 60 x ₹ 80 + (S* – 60)/2 x ₹ 80

₹ 5,280 = ₹ 4,800 + 40S – 2,400

S = ₹ 2,880/40 = 72 hours

*Standard time

Effective rate of earnings per hour = 5,280/60 = ₹ 88

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(ii) Wages under Rowan Plan: (Rate × Actual hours worked) + Rate × $\frac{\text{Time Saved}}{\text{Std. Time}}$ × Time taken

= 60 x 80 + $\frac{72-60}{72}$ x 60 x 80 = ₹ 5,600

Effective rate of earnings per hour = 5,600/60 = ₹ 93.33

(c) (i) Statement showing apportionment of joint cost to the products using NRV method

Particulars	Product A (₹)	Product B (₹)	Product C (₹)
Sales value	34,20,000 (3,60,000 x ₹ 9.5)	12,60,000 (2,10,000 x ₹ 6)	54,00,000 (4,50,000 x ₹ 12)
Less: Further processing cost	8,60,000	-	10,40,000
Net Realisable Value	25,60,000	12,60,000	43,60,000
Apportionment of Joint cost of ₹ 57,26,000 in the ratio of 256:126:436	17,92,000	8,82,000	30,52,000

(ii) Decision whether to Process further or not

Particulars	Product A (₹)	Product C (₹)
Incremental Revenue	9,00,000 (₹ 9.5-₹ 7) x 3,60,000	13,50,000 (₹ 12- ₹ 9) x 4,50,000
Less: Further processing cost	8,60,000	10,40,000
Less: wastage if further processed	2,80,000 ₹ 7 x (3,60,000*10%/90%)	-
Incremental profit/(loss)	**(2,40,000)**	**3,10,000**

On comparing incremental sales revenue with further processing cost, there is net loss of ₹ 2,40,000 in case of product A and profit of ₹ 3,10,000 in case of product C. Hence **offer of D Ltd should be accepted and Product A should be sold at split off point** Whereas product C should be **sold after further processing.**

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The solution can also be presented in following way:

Profit from further processing

Particulars	Product A (₹)	Product C (₹)
Sales Revenue	34,20,000 (3,60,000 x 9.5)	54,00,000 (4,50,000 x 12)
Less: Joint cost	17,92,000	30,52,000
Less: Further processing cost	8,60,0000	10,40,000
(i) Profit/(loss)	**7,68,000**	**13,08,000**

Profit from Accepting offer (Sale at separation point)

Particulars	Product A (₹) D Limited offer accepted	Product C (₹) PQR Limited offer accepted
Sales Revenue	28,00,000 (3,60,000/0.90) x 7	40,50,000 (4,50,000 x 9)
Less: Joint cost	17,92,000	30,52,000
(ii) Profit/(loss)	**10,08,000**	**9,98,000**
Incremental profit (loss) (i)-(ii)	**(2,40,000)**	**3,10,000**

On comparing profit at separation point with further processing profit, there is net loss of ₹ 2,40,000 in case of product A and profit of ₹ 3,10,000 in case of product C. Hence **offer of D Ltd should be accepted and Product A should be sold at split off point** Whereas product C should be **sold after further processing.**

(d) Contract A/c for the year ending 31/03/23

Particulars		(₹)	Particular		(₹)
To Material		35,91,000	By work in Progress:		
To Wages:			Work certified	48,00,000	
Current Wages	9,65,000		Work uncertified	8,61,000	56,61,000
Add: outstanding Wages	75,000	10,40,000	By Plant (Transferred)	60,000	
To Plant		7,50,000	Less: Dep @ 15% for 5 months	3,750	56,250
To Direct Expenses		1,96,650	By Plant at site		6,21,000
To General overheads		2,08,000	(7,50,000 - 60,000-69,000)		
To Supervision Salary (18,000 × 8 × 40%)		57,600			
To Notional profit c/d		4,95,000			
		63,38,250			**63,38,250**

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Working Note:

Calculation of cost of work uncertified:

Particular	(₹)
Cost incurred till date	51,66,000
Estimated total cost (51,66,000/60%)	86,10,000
Cost of work certified (86,10,000 × 50%)	43,05,000
Cost of uncertified work (51,66,000 – 43,05,000)	**8,61,000**

The solution can also be presented in following way and depreciation can be calculated as shown below:

Contract A/c for the year ending 31/03/23

Particulars	(₹)	Particular	(₹)
To Material	35,91,000		
To Wages:			
Current Wages 9,65,000			
Add: outstanding Wages 75,000	10,40,000		
To Depreciation on plant	72,750		
To Direct Expenses	1,96,650		
To General overheads	2,08,000		
To Supervision Salary (18,000 × 8 × 40%)	57,600	By work Cost (Bal Fig.)	51,66,000
	51,66,000		**51,66,000**
To work cost	51,66,000	By work certified	48,00,000
To Notional profit c/d	4,95,000	By Work uncertified	8,61,000
	56,61,000		**56,61,000**

Working Note:

1. Calculation of cost of work uncertified:

Particular	(₹)
Cost incurred till date	51,66,000
Estimated total cost	86,10,000

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(51,66,000/60%)	
Cost of work certified (86,10,000 × 50%)	43,05,000
Cost of uncertified work (51,66,000 – 43,05,000)	**8,61,000**

2. Calculation of Depreciation

Plant value (7,50,000 – 60,000) = ₹ 6,90,000 used for 8 months and plant value ₹ 60,000 used for 5 months.

Depreciation amount for 8 months = (6,90,000 x 15% x 8 months) /12 = ₹ 69,000

Depreciation amount for 5 months = (60,000 x 15% x 5 months) /12 = ₹ 3,750

Total depreciation amount = ₹ 72,750

Question 2

(a) The following data relates to the manufacture of product BXE for the year ended 31st March,2023:

	Amount (₹)
Value of stock as on 1st April,2022	
Raw materials	*27,00,000*
Work in progress	*10,60,000*
Finished Goods	*25,00,000*
Material purchased	*2,48,00,000*
Freight inward	*7,50,000*
Direct wages	*42,00,000*
Power & Fuel	*18,75,000*
Cost of special drawings	*3,60,000*
Trade Discount	*4,50,000*
Insurance on material procured	*15,000*
Rent of Factory Building (1/5th used for office purpose)	*7,00,000*
Depreciation on machinery	*6,25,000*
Depreciation on Delivery Vans	*1,20,000*
Consumable stores and indirect wages	*15,20,000*
Quality Control cost	*9,00,000*
Primary packing cost	*12,90,000*

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General Administrative overheads (excluding rent of building)	*17,50,000*
Salary paid to Marketing Staff	*9,60,000*
Packing cost for transportation	*1,84,000*
Value of stock as on 31st March, 2023	
Raw materials	*32,60,000*
Work in progress	*11,80,000*
Finished Goods	*28,38,000*

Additional Information:

- *Further, some of the finished product was found defective and the defective products were rectified by incurring expenditure of additional factory overheads to the extent of ₹ 33,600. The cost of rectification is not included in details mentioned above.*
- *An amount of ₹ 1,20,600 was realised by selling scrap and waste generated during the year.*

Prepare Cost sheet for the year ended 31stMarch, 2023 showing:

(i) Prime cost,

(ii) Factory cost,

(iii) Cost of production.

(iv) Cost of goods sold, and

(v) Cost of sales. ***(10 Marks)***

(b) HL Limited produces and sells four varieties of beverage. The past data shows different demand patterns for various quarters during the year. The sales quantity and selling price for the month of September 2023 is as follows:

	Sales Quantity	***Selling Price per unit***
Hot Coffee	*1,40,000 Units*	*₹ 20/-*
Cold Coffee	*3,40,000 Units*	*₹ 40/-*
Fruit Juice	*4,20,000 Units*	*₹ 20/-*
Carbonated Soft Drink	*2,70,000 units*	*₹ 20/-*

For the quarter October to December 2023, it is estimated that due to climate changes the demand for Hot Coffee would increase every month by 50% of the previous month and the demand for Cold Coffee would decrease every month by 30% of the previous month. The demand for Fruit Juice would decrease by 20% in the month of October 2023 and thereafter it will remain constant. HL Limited would be able to sell only 60,000 units, 50,000 units and 30,000 units of Carbonated Soft Drink respectively during the months of October,

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November and December 2023. There would be no change in the selling price of all the products during the next quarter.

Standard Quantity of closing stock for the period September 2023 to December 2023 is as follows: *(in units)*

	Hot Coffee	*Cold Coffee*	*Fruit Juice*	*Carbonated Soft Drink*
September 2023	*12,000*	*13,000*	*11,000*	*7,500*
October 2023	*15,000*	*14,000*	*12,000*	*5,500*
November 2023	*13,000*	*15,000*	*10,000*	*6,000*
December 2023	*11,000*	*16,000*	*13,000*	*7,000*

You are required to prepare a Production Budget (in units) and Sales Budget (in units and sales value) for the months of October, November and December 2023. ***(10 Marks)***

Answer

(a) **Cost Sheet for the product BXE**

Sl. No.	Particulars	(₹)	(₹)
(i)	Material Consumed:		
	Raw materials purchased	2,48,00,000	
	Freight inwards	7,50,000	
	Insurance on material procured	15,000	
	Less: Trade discount	(4,50,000)	
	Add: Opening stock of raw materials	27,00,000	
	Less: Closing stock of raw materials	(32,60,000)	2,45,55,000
(ii)	Direct wages		42,00,000
(iii)	Direct expenses:		
	Power & fuel	18,75,000	
	Cost of special drawings	3,60,000	22,35,000
	Prime Cost		**3,09,90,000**
(iv)	Works/ Factory overheads:		
	Rent of factory building (4/5th of 7,00,000)	5,60,000	
	Depreciation on machinery	6,25,000	
	Defective rectification cost	33,600	
	Consumable stores & indirect wages	15,20,000	27,38,600
	Gross works cost		3,37,28,600

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	Add: Opening work in process		10,60,000
	Less: Closing work in process		(11,80,000)
	Factory cost		**3,36,08,600**
(v)	Quality control cost		9,00,000
(vi)	Primary packing cost		12,90,000
(vii)	Less: Amount realised from scrap sale		(1,20,600)
	Cost of production		**3,56,78,000**
	Add: Opening stock of finished goods		25,00,000
	Less: Closing stock of finished goods		(28,38,000)
	Cost of Goods Sold		**3,53,40,000**
	Administrative overheads:		
(viii)	Rent of factory building (1/5th of 7,00,000)		1,40,000
	General administrative overheads		17,50,000
	Selling and Distribution overheads:		
(x)	Salary paid to marketing staff		9,60,000
(xi)	Packing cost for transportation		1,84,000
(xii)	Depreciation on delivery vans		1,20,000
	Cost of Sales		**3,84,94,000**

Alternatively, Power and fuel expenses of ₹ 18,75,000 can be taken as a part of factory overhead. Accordingly, prime cost will be 2,91,15,000. However, there will be no change in factory cost, cost of production, cost of goods sold and cost of sales.

(b) **Production Budget (in units)**

Particulars	Hot Coffee	Cold Coffee	Fruit Juice	Carbonated Soft Drink
October 2023				
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 2023				
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

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Less: Opening stock	15,000	14,000	12,000	5,500
Production	**3,13,000**	**1,67,600**	**3,34,000**	**50,500**
December 2023				
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	Hot Coffee	Cold Coffee	Fruit Juice	Carbonated Soft Drink
October 2023 (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 [420000 -(4,20,000x20%)]	60,000
October 2023 (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 2023 (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 2023 (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 2023 (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 2023 (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)

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Sales Budget can also be presented in following way:

	Oct 2023		Nov 2023		Dec 2023	
	Quantity (units)	Amount (₹)	Quantity (units)	Amount (₹)	Quantity (units)	Amount (₹)
Hot Coffee @ ₹ 20 per unit	2, 10,000	42,00,000	3,15,000	63,00,000	4,72,500	94,50,000
Cold Coffee @ ₹ 40 per unit	2,38,000	95,20,000	1,66,600	66,64,000	1,16,620	46,64,800
Fruit Juice @ ₹ 20 per unit	3,36,000	67,20,000	3,36,000	67,20,000	3,36,000	67,20,000
Carbonated Soft Drink @ ₹ 20 per unit	60,000	12,00,000	50,000	10,00,000	30,000	6,00,000
		2,16,40,000		**2,06,84,000**		**2,14,34,800**

Question 3

(a) *HCP Ltd. is a manufacturing company having two production departments, P and Q and two service departments, R and S. The budgeted cost information for the month of October 2023 is furnished below:*

		Production Departments		*Service Departments*	
	(₹)	*P (₹)*	*Q (₹)*	*R (₹)*	*S (₹)*
Indirect material	*1,77,500*	*94,750*	*49,750*	*18,270*	*14,730*
Indirect Labour	*1,55,000*	*35,000*	*75,000*		
Factory Rent	*75,000*				
Depreciation on machinery	*37,500*				
Power	*96,000*				
Security Expenses for Factory Premises	*24,000*				
Insurance- machinery	*12,000*				
Supervisor Expenses	*48,000*				
Additional information					
Floor Area (Sq. meters)		*1250*	*750*	*200*	*300*
Net book value of machinery (₹)		*21,00,000*	*5,00,000*	*1,00,000*	*3,00,000*
H.P. of machines		*800*	*200*	*80*	*120*

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Machine hours	*4,000*	*1,000*	*600*	*800*
Number of employees	*10*	*30*	*6*	*4*
Labour hours	*2,000*	*6,000*	*1,200*	*600*

The overhead costs of the two service department are distributed using step method in the same order viz. R and S respectively on the following basis:

Department R *Number of employees*

Department S *Machine hours*

Required:

(i) Prepare a statement showing distribution of overheads to various departments, clearly showing the basis of distribution.

(ii) Calculate the total budgeted overheads for both production departments after the service departments have been re-apportioned to them.

(iii) Calculate the most appropriate overhead absorption rate for each of the production department. ***(10 Marks)***

(b) Royal Hotel offers three types of rooms to its guests - Deluxe Room, Executive Room and Suite Room. Other information is as follows:-

	Deluxe Room	***Executive Room***	***Suite Room***
Room Tariff per day	*₹ 1,500*	*₹ 2,400*	*₹ 3,800*
No. of rooms	*20*	*10*	*4*
Average occupancy during the year	*80%*	*60%*	*75%*
Housekeeping expenses per day	*₹280*	*₹320*	*₹425*

The hotel provides complimentary breakfast facility to its executive room and suite room guests while swimming pool facility is provided free of cost only to suite room guests.

The restaurant and swimming pool is run by a contractor. The contractor recovers charges of ₹ 150 per person for breakfast and ₹ 200 per person for using swimming pool facility from Royal Hotel.

Besides the above-mentioned charges, annual fixed expenses are as follows:

Salaries to staff *₹ 57,60,000*

Electricity Expenses *₹ 24,00,000*

Salaries to staff are apportioned to Deluxe Room. Executive Room and Suite Room in the ratio of 25:35:40 and electricity expenses are to be apportioned in proportion to occupancy.

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You are required to calculate the total profit of each room type on annual basis.

Note: Assume 360 days in a year and double occupancy in each category of room.

(10 Marks)

Answer

(a) (i) Overhead Distribution Statement

Particular	Basis	Total Amount (₹)	Production Departments		Service Departments	
			P (₹)	Q (₹)	R (₹)	S (₹)
Indirect material	Direct	1,77,500	94,750	49,750	18,270	14,730
Indirect labour	Direct	1,55,000	35,000	75,000	15,000	30,000
Factory rent (125:75:20:30)	Floor Area	75,000	37,500	22,500	6,000	9,000
Depreciation of machinery (21:5:1:3)	Book value of machinery	37,500	26,250	6,250	1,250	3,750
Power (80:20:8:12)	H.P. of machines	96,000	64,000	16,000	6,400	9,600
Security expenses for factory premises (125:75:20:30)	Floor Area	24,000	12,000	7,200	1,920	2,880
Insurance-machinery (21:5:1:3)	Book value of machinery	12,000	8,400	2,000	400	1,200
Supervisor expenses (10:30:6:4)	Number of employees	48,000	9,600	28,800	5,760	3,840
Total		**6,25,000**	**2,87,500**	**2,07,500**	**55,000**	**75,000**

(ii) Redistribution of Service Department's Expenses

Particular	Production Departments		Service Departments	
	P (₹)	Q (₹)	R (₹)	S (₹)
Overhead as per primary distribution	2,87,500	2,07,500	55,000	75,000
Expenses of service department R is apportioned among other	12,500	37,500	(55,000)	5,000

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departments P, Q & S in the ratio of number of employees (10:30:4)				
Expenses of service department S is apportioned among other departments P & Q in the ratio of Machine hours (40:10)	64,000	16,000	-	(80,000)
Total Budgeted overheads	**3,64,000**	**2,61,000**	**-**	**-**

(iii) Calculation of overhead rates for each of the production department

Particular	**Production Departments**	
	P (₹)	**Q (₹)**
Total Budgeted overheads	3,64,000	2,61,000
Actual machine hours	4000 hours	-
Actual labour hours	-	6000 hours
Actual machine/labour hour rate	**91**	**43.5**

Note: Department P is assumed to be machine oriented and Department Q is assumed to be labour oriented as per information available in the question

The solution 3(a) can also be presented in following way for Distribution of Power expenses:

Overhead Distribution Statement

Particular	**Basis**	**Total Amount (₹)**	**Production Departments**		**Service Departments**	
			P (₹)	**Q (₹)**	**R (₹)**	**S (₹)**
Indirect material	Direct	1,77,500	94,750	49,750	18,270	14,730
Indirect labour	Direct	1,55,000	35,000	75,000	15,000	30,000
Factory rent (125:75:20:30)	Floor Area	75,000	37,500	22,500	6,000	9,000
Depreciation of machinery (21:5:1:3)	Book value of machinery	37,500	26,250	6,250	1,250	3,750
Power (3200:200:48:96)	H.P. x machine hours	96,000	86,682	5,418	1,300	2,600
Security expenses for factory premises (125:75:20:30)	Floor Area	24,000	12,000	7,200	1,920	2,880

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Insurance-machinery (21:5:1:3)	Book value of machinery	12,000	8,400	2,000	400	1,200
Supervisor expenses (10:30:6:4)	Number of employees	48,000	9,600	28,800	5,760	3,840
Total		**6,25,000**	**3,10,182**	**1,96,918**	**49,900**	**68,000**

Power can be distributed on the basis of HP of machines x machine hours

800 x 4000 = 32,00,000, 200 x 1000 = 2,00,000, 80 x 600 = 48,000, 120 x 800 = 96,000

Ratio is 3200:200:48:96

(ii) Redistribution of Service Department's Expenses

Particular	Production Departments		Service Departments	
	P (₹)	Q (₹)	R (₹)	S (₹)
Overhead as per primary distribution	**3,10,182**	**1,96,918**	**49,900**	**68,000**
Expenses of service department R is apportioned among other departments P, Q & S in the ratio of number of employees (10:30:4)	11,340.90	34,022.73	(49,900)	4,536.37
Expenses of service department S is apportioned among other departments P & Q in the ratio of Machine hours (40:10)	58,029.10	14,507.27	-	(72,536.37)
Total Budgeted overheads	**3,79,552**	**2,45,448**	**-**	**-**

(iii) Calculation of overhead rates for each of the production department

Particular	Production Departments	
	P (₹)	Q (₹)
Total Budgeted overheads	**3,79,552**	**2,45,448**
Actual machine hours	4000 hours	-
Actual labour hours	-	6000 hours
Actual machine/labour hour rate	**94.89**	**40.91**

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Note: Department P is assumed to be machine oriented and Department Q is assumed to be labour oriented as per information available in the question

(b) Calculation of room days:

Nature of Room	Occupancy (Room-days)
Deluxe room	5760 (20 x 80% x 360)
Executive room	2160 (10 x 60% x 360)
Suite room	1080 (4 x 75% x 360)

Statement showing Total Profit for each room type

Elements	Deluxe room (₹)	Executive room (₹)	Suite room (₹)	Total (₹)
Room Days	**5760**	**2160**	**1080**	
Revenue	86,40,000	51,84,000	41,04,000	1,79,28,000
Cost				
Housekeeping @ ₹ 280 per room day	16,12,800	6,91,200	4,59,000	27,63,000
Breakfast @ ₹ 150 per person	-	6,48,000	3,24,000	9,72,000
Swimming pool @ ₹ 200 per person	-	-	4,32,000	4,32,000
Salaries to staff (25:35:40)	14,40,000	20,16,000	23,04,000	57,60,000
Electricity expenses (occupancy)	15,36,000	5,76,000	2,88,000	24,00,000
Total cost	45,88,800	39,31,200	38,07,000	1,23,27,000
Profit	**40,51,200**	**12,52,800**	**2,97,000**	**56,01,000**

The solution can also be presented in following way:

Calculation of room days

Particulars	Occupancy during the year		
	Deluxe Room	Executive Room	Suite Room
(i) No. of Rooms	20	10	4
(ii) Occupancy in %	80%	60%	75%

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No. of rooms occupied per day	16	6	3
No. of rooms occupied per year	5,760	2,160	1,080

Statement showing Total Profit for each room type

Annual Room Rent	Deluxe Room	Executive Room	Suite Room
Room Rent per day per room	₹ 1,500	₹ 2,400	₹ 3,800
Annual Room Rent (A)	₹ 86,40,000	₹ 51,84,000	₹ 41,04,000
Annual Fixed Expenses			
Staff Salary (25:35:40)	₹ 14,40,000	₹ 20,16,000	₹ 23,04,000
Electricity Expenses (Occupancy)	₹ 15,36,000	₹ 5,76,000	₹ 2,88,000
Total (B)	₹ 29,76,000	₹ 25,92,000	₹ 25,92,000
Housekeeping Expenses	₹ 16,12,800	₹ 6,91,200	₹ 4,59,000
Breakfast Charges		₹ 6,48,000 (2,160 x 2 x 150)	₹ 3,24,000 (1,080 x 2 x 150)
Swimming Pool Charges			₹ 4,32,000 (1,080 x 2 x 200)
Total (C)	₹ 16,12,800	₹ 13,39,200	₹12,15,000
Total Cost (B+C)	₹ 45,88,800	₹ 39,31,200	₹ 38,07,000
Profit	**₹ 40,51,200**	**₹ 12,52,800**	**₹ 2,97,000**

Question 4

(a) JH Plastics Limited manufactures three products S, M and L. To date, simple traditional absorption costing system has been used to allocate overheads to products. Total production overheads are allocated on the basis of machine hours. The machine hour rate for allocating production overheads is ₹ 240 per machine hour under the traditional absorption costing system. Selling prices are calculated by adding mark up of 40% of the product cost. Information related to products for the most recent year is as under:

	Products		
	S	*M*	*L*
Units produced and sold	*7,500*	*12,500*	*9,000*
Direct material cost per unit (₹)	*158*	*179*	*250*
Direct labour cost per unit (₹)	*40*	*45*	*60*
Machine hours per unit	*0.30*	*0.45*	*0.50*

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Number of Machine setups	*120*	*120*	*160*
Number of purchase orders	*90*	*135*	*125*
Number of inspections	*100*	*160*	*140*

The management wishes to introduce activity-based method (ABC) system of attributing production overheads to products and has identified major cost pools for production overheads and their associated cost drivers as follows:

Cost pool	Amount	Cost driver
Purchasing Department Cost	*₹ 7,00,000*	*Number of Purchase orders*
Machine setup Cost	*₹ 9,00,000*	*Number of Machine setups*
Quality Control Cost	*₹ 6,56,000*	*Number of inspections*
Machining Cost	*₹ 5,64,000*	*Machine hours*

Required:

(i) Calculate the total cost per unit and selling price per unit for each of the three products using:

(a) The traditional costing approach currently used by JH Plastics Limited;

(b) Activity based costing (ABC) approach.

(ii) Calculate the difference in selling price per unit as per (a) and (b) above and show which product is under-priced or over-priced. ***(10 Marks)***

(b) R Ltd. produces and sells 60,000 units of product 'AN', at its Noida Plant. The selling price of the product is ₹ 15 per unit. The variable cost is 80% of selling price per unit. Fixed cost during this period is ₹ 4,20,000. The company is continuously suffering losses, and management plans to shut down the Noida Plant.

The fixed cost is expected to be reduced by ₹ 2,50,000.

Additional costs of plant shut down are expected at ₹ 25,000.

You are required to comment on:

(i) Whether the Noida plant be shut down?

(ii) Find the shut-down point in units. ***(5 Marks)***

(c) A product passes through two processes; Process A and Process B.

The output of Process A is treated as input of Process B.

The following information has been furnished:

	Process A	Process B
Input Material	*₹ 3,90,000*	-

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78,000 Kg.@ ₹ 5		
Indirect Material	*-*	*₹34,320*
Wages	*₹ 2,85,000*	*₹ 3,30,000*
Overhead	*₹ 1,67,400*	*₹ 1,11,600*
Output transferred to Process B	*68,640 kgs*	
Transfer to Finished Stock	*-*	*69,000 kgs*
Normal loss of input material (weight in kgs.)	*7,800 kgs*	*240 kgs*

There is no realisable value for normal loss. No stock of raw materials on work-in-process was left at the end.

You are required to prepare the Process account for each Process. ***(5 Marks)***

Answer

(a) (i) (a) Statement showing 'Cost per unit & Selling price per unit – Traditional Method'.

Particular	Products		
	S (₹)	M (₹)	L (₹)
Direct material cost per unit	158	179	250
Direct labour cost per unit	40	45	60
Production overhead @ ₹ 240 per machine hour	72 (₹ 240 x 0.3)	96 (₹ 240 x 0.4)	120 (₹ 240 x 0.5)
Cost per unit	**270**	**320**	**430**
Add: Profit @ 40%	108	128	172
Selling price per unit	**378**	**448**	**602**

(b) Statement showing 'Cost per unit & Selling price per unit – Activity Based Costing'.

Particular	Activity Drivers	Total Amount (₹)	Products		
			S	M	L
Production (units)	-	-	7500	12500	9000
Machine hours	-	-	2250 (7500 x 0.3)	5000 (12500 x 0.4)	4500 (9000 x 0.5)
			(₹)	(₹)	(₹)
Direct material cost per unit (i)			158	179	250

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Direct labour cost per unit (ii)			40	45	60
Overheads					
Purchasing department cost (90:135:125)	Number of purchase orders	7,00,000	1,80,000	2,70,000	2,50,000
Machine setup cost (120:120:160)	Number of machine setups	9,00,000	2,70,000	2,70,000	3,60,000
Quality control cost (100:160:140)	Number of inspections	6,56,000	1,64,000	2,62,400	2,29,600
Machining cost (225:500:450)	Machine hours	5,64,000	1,08,000	2,40,000	2,16,000
Total Overhead			7,22,000	10,42,400	10,55,600
Overhead Cost per unit (iii)			96.27	83.39	117.29
Total Cost per unit (i+ii+iii)			**294.27**	**307.39**	**427.29**
Add: Profit @ 40%			117.71	122.96	170.92
Selling price per unit			**411.98**	**430.35**	**598.21**

Note: The question may also be solved by calculating cost driver rate & allocating various cost based on cost driver rate. However, there will be no change in any of the answer.

(ii)

Particular	**Products**		
	S (₹)	**M (₹)**	**L (₹)**
Selling price per unit as per Traditional Costing	378	448	602
Selling price per unit as per Activity Based Costing	411.98	430.35	598.21
Difference	**(33.98)**	**17.65**	**3.79**

Product S is underpriced while product M and L is overpriced using Traditional costing approach.

(b) **Statement of profit**

Particulars	**₹**
Selling Price	15 per unit
Less : Variable cost	12 per unit

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Contribution	3 per unit
Capacity	60,000 units
Total contribution (60,000 units × ₹ 3)	1,80,000
Less: Fixed Cost	4,20,000
Loss	**(2,40,000)**

Shut down cost

Particular	₹
Fixed cost	1,70,000
Additional cost	25,000
Shut down cost	**1,95,000**

(i) Since the loss of Noida plant exceeds shut down cost it is better to shut down the plant.

(ii) Shut down point: $\frac{\text{Total fixed cost - Shut down cost}}{\text{Contribution per unit}}$

$$\frac{4,20,000 - 1,95,000}{3} = 75,000 \text{ units}$$

The solution can also be presented in following way

Statement of profit

Particulars	If plant is continued ₹	If plant is shut down ₹
Selling Price	15 per unit	-
Less : Variable cost	12 per unit	-
Contribution	3 per unit	-
Capacity	60,000 units	-
Total contribution (60,000 units × ₹ 3)	1,80,000	
Less : Fixed Cost	4,20,000	1,70,000
Additional Fixed Cost	-	25,000
Loss	**2,40,000**	**1,95,000**

(i) Since the loss of Noida plant exceeds shut down cost it is better to shut down the plant.

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(ii) Shut down point: $\frac{\text{Total fixed cost - Shut down cost}}{\text{Contribution per unit}}$

$$\frac{4,20,000 - 1,95,000}{3} = 75,000 \text{ units}$$

(c) **Process A Account**

Particulars	Units	₹	Particulars	Units	₹
To Material	78,000	3,90,000	By Normal Loss	7,800	-
To Wages		2,85,000	By Abnormal Loss	1,560	18,720
To Overheads		1,67,400	By Process B A/c	68,640	8,23,680
Total	**78,000**	**8,42,400**	**Total**	**78,000**	**8,42,400**

Cost per unit of completed units and abnormal loss = $\frac{8,42,400}{78,000 \text{ units} - 7,800 \text{ units}}$ = ₹ 12 unit

Process B Account

Particulars	Units	₹	Particulars	Units	₹
To Process A A/c	68,640	8,23,680	By Normal loss	240	-
To Indirect Material		34,320	By Finished stock	69,000	13,11,000
To Wages		3,30,000			
To Overheads		1,11,600			
To Abnormal gain	600	11,400			
Total	**69,240**	**13,11,000**	**Total**	**69,240**	**13,11,000**

Cost per unit of completed units and abnormal gains:

$$\frac{\text{Total cost}}{\text{Inputs - Normal loss}} = \frac{₹12,99,600}{68,640 \text{ units} - 240 \text{ units}} = ₹19$$

Question 5

(a) PQR Alloys Ltd. uses a standard costing system.

Budgeted information for the year:

Budgeted output	*84,000 units*
Variable Factory Overhead per unit	*₹ 16*
Standard time for one unit of output	*0.80 machine hour*
Fixed factory overheads	*₹ 6,72,000*

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Actual results for the year:

Actual output	*87,600 units*
Variable Overhead efficiency variance	*₹ 67,200 (A)*
Actual Fixed factory overheads	*₹ 7,05,000*
Actual variable factory overheads	*₹ 14,37,000*

Required:

Calculate the following variances clearly indicating Adverse(A) or Favourable (F):

(i) Variable factory overhead expenditure variance.

(ii) Fixed factory overhead expenditure variance.

(iii) Fixed factory overhead efficiency variance.

(iv) Fixed factory overhead capacity variance. ***(10 Marks)***

(b) The following data relate to the manufacture of a product 'VD-100 during the month of October 2023:*

Good units produced	*12,600*
Units Sold	*11,800*
Direct wages	*₹ 8,82,000*
Administrative Overheads	*₹ 4,72,000*
Selling price per unit	*₹ 416*

Each unit produced requires 2 kg. of material 'Z'. Cost of material 'Z' is ₹ 72 per kg. 10% of the production has been scrapped as bad and fetches ₹ 45 per unit. Factory overheads are 80% of wages. Selling and distribution overheads are ₹ 54 per unit sold. There is no opening or closing stock of material and work in progress.

You are required to find out total cost of sales and profit for the month of October 2023.

(6 Marks)

(c) Construct journal entries in the following situations assuming that cost and financial transactions are integrated:

(i)	*Purchase of raw material*	*₹ 4,40,000*
(ii)	*Direct Material issued to production*	*₹ 3,60,000*
(iii)	*Wages charged to production*	*₹ 80,000*
(iv)	*Manufacturing overheads charged to production*	*₹ 1,32,000*

(4 Marks)

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Answer

(a) Calculation of actual hours

$$\text{Standard rate per hour} = \frac{\text{Variable factory overhead per unit}}{\text{Standard time for one unit of output}} = \frac{₹16}{0.8} = ₹\ 20$$

Variable Overhead Efficiency Variance:

(Standard hours for actual production – Actual hours) × Standard rate per hour

Let actual hours be x

[(87,600 × 0.8) – x] ×20 = -67,200

(70,080 – x) × 20 = -67,200

x = 73,440

(i) Variable Factory Overhead Expenditure Variance:

(Variable overhead at actual hours – Actual variable overheads)

$$\left[\left(\frac{13,44,000}{67,200} \times 73,440\right) - 14,37,000\right]$$

= 31,800 F

(ii) Fixed Factory Overhead Expenditure Variance:

Budgeted fixed overhead – Actual fixed overhead.

(6,72,000 – 7,05,000)

= 33,000 A

(iii) Fixed Factory Overhead Efficiency Variance:

(Standard hours for actual production – Actual hours) × Standard rate per hour

(70,080 – 73,440) × 10 = 33,600 A

(iv) Fixed Overhead Capacity Variance:

(Actual hours - Budgeted hours) × Standard rate per hour

(73,440 - 67,200) ×10 = 62,400 F

The solution can also be presented in following way based on Quantity (units)

Calculation of standard quantity for actual hours:

Variable standard rate per unit (SR) = ₹ 16

Variable Overhead Efficiency Variance:

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(SR x AQ) – (SR x standard quantity for Actual hours worked)

-67,200 = (16 x 87,600) – 16 x

-67200 = 14,01,600- 16 x

x = 14,68,800 / 16 = **91,800** (SQ for actual hours worked)

(i) Variable Factory Overhead Expenditure Variance:

(SR x SQ for actual hour worked – Actual variable overheads)

16 x 91,800 – 14,37,000 or 14,68,800 – 14,37,000

= 31,800 F

(ii) Fixed Factory Overhead Expenditure Variance:

Budgeted fixed overhead – Actual fixed overhead.

(6,72,000 – 7,05,000)

= 33,000 A

(iii) Fixed Factory Overhead Efficiency Variance:

Standard rate per unit (SR) = 6,72,000 / 84,000 = ₹ 8 per unit

(SR x AQ) – (SR x standard quantity for Actual hours)

(8 x 87,600) – (8 x 91,800)

(7,00,800 – 7,34,400) = 33,600 A

(iv) Fixed Overhead Capacity Variance:

(SR x standard quantity for Actual hours - Budgeted fixed overheads)

(8 x 91800) – (6,72,000)

(7,34,400 – 6,72,000) = 62,400 F

(b) Since 10% units are scrapped.

Units produced (total) is 14,000 (12,600/90%)

Calculation of cost of sales and profit

Particulars	**₹**
Raw Material (28,000 × ₹ 72)	20,16,000
Wages	8,82,000
Prime Cost	**28,98,000**
Factory overheads	7,05,600
Factory Cost	**36,03,600**

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Sale of Scrap (1,400 × ₹ 45)	(63,000)
Cost of Production	**35,40,600**
Less: Closing Stock of finished goods $\left(\frac{₹35,40,600}{12,600} \times 800\right)$	2,24,800
Cost of goods sold	33,15,800
Add: Administration overheads	4,72,000
Add: Selling & Distribution overheads (₹ 54 x 11,800)	6,37,200
Cost of Sales	**44,25,000**
Sales (11,800 × ₹ 416)	49,08,800
Profit	**4,83,800**

(c) Journal entries are as follows

		DR. (₹)	Cr. (₹)
Stores Ledger Control A/c	Dr.	4,40,000	
To Payables (Creditors)/ Bank A/c			4,40,000
(Materials purchased)			
Work-in-Process Control A/c	Dr.	3,60,000	
To Stores Ledger Control A/c			3,60,000
(Materials issued to production)			
Work-in-Process Control A/c	Dr.	80,000	
To Wages Control A/c			80,000
(Direct wages charged to production)			
Work-in-Process Control A/c	Dr.	1,32,000	
To Factory Overhead Control A/c			1,32,000
(Manufacturing overhead charged to production)			

Question 6

*Answer any **four** of the following:*

(a) Explain very briefly the following terms used in Cost and Management Accounting:

(i) Pre-determined Cost

(ii) Estimated Cost

(iii) Imputed Cost

(iv) Discretionary Cost ***(5 Marks)***

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(b) State with reasons whether the following independent statements are ***true or false:***

(i) Under LIFO method, in the period of falling prices, lower income is reported and income-tax liability is reduced.

(ii) Under VED analysis, inventories are classified on the basis of cost of individual items.

(iii) Material requisition note is prepared by the store keeper.

(iv) Simple average pricing method is suitable when quantity purchased under each lot is different and prices fluctuate considerably.

(v) Bin card and stores ledger are maintained by the purchasing department. ***(5 Marks)***

(c) What do you mean by employee productivity? Point out the factors which must be taken into consideration for increasing employee productivity. ***(5 Marks)***

(d) Explain very briefly the following terms:

(i) Retention Money

(ii) Escalation Clause

(iii) Co-Products

(iv) Job Costing

(v) Process Costing ***(5 Marks)***

(e) What is meant by cost driver? Give its different categories. Suggest suitable cost drivers (at least two) in the following business functions:

(i) Distribution

(ii) Research and Development

(iii) Customer services ***(5 Marks)***

Answer

(a) (i) Pre- Determined Cost

A cost which is computed in advance before production or operations start, on the basis of specification of all the factors affecting cost, is known as a pre-determined cost.

(ii) Estimated Cost

Estimated cost is "the expected cost of manufacture, or acquisition, often in terms of a unit of product computed on the basis of information available in advance of actual production or purchase". Estimated costs are prospective costs since they refer to prediction of costs.

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(iii) Imputed Cost

Imputed costs do not involve any immediate cash payment. Implicit costs are not recorded in the books of account but yet, they are important for certain types of managerial decisions such as equipment replacement and relative profitability of two alternative courses of action. They are also known as economic costs. These cost are similar to opportunity cost.

(iv) Discretionary Cost

Discretionary costs are not tied to a clear cause and effect relationship between inputs and outputs. They arise from periodic decisions regarding the maximum outlay to be incurred. Examples are -advertising, public relations, training etc.

(b)

Statement No.	True/False	Reason
(i)	**False**	Under LIFO method, in case of falling prices profit tends to rise due to lower material cost, thus income tax liability is increased.
(ii)	**False**	Under VED Analysis, inventories are classified on the basis of its criticality for the production function and final product.
(iii)	**False**	Material Requisition Note is prepared by the production or other consuming department. It is a voucher used to get material issued from store.
(iv)	**False**	Simple average pricing method is suitable when the materials are received in uniform lots of similar quantity, and prices do not fluctuate considerably.
(v)	**False**	Bin card is maintained by the storekeeper in the store. While Stores ledger is maintained in cost accounting department.

(c) Meaning of employee productivity

Productivity is generally determined by the input/output ratio.

In case of employees, it is calculated as: $\frac{\text{Standard time for doing actual work}}{\text{Actual time taken}}$

Employee productivity is used for measuring the efficiency of individual workers. It is an index of efficiency in the utilisation of human resources, materials, capital, power and all kinds of services and facilities.

It is measured by the output in relation to input. Productivity can be improved by reducing the input for a certain quantity or value of output or by increasing the output from the same given quantity or value of input.

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Factors for increasing Employee productivity: The important factors which must be taken into consideration for increasing employee productivity are as follows:

1. Employing only those workers who possess the right type of skill.
2. Placing a right type of person to a right job.
3. Training young and old workers by providing them the right types of opportunities.
4. Taking appropriate measures to avoid the situation of excess or shortage of employees.
5. Carrying out work study for fixation of wages and for the simplification and standardisation of work.

(d) **(i)** **Retention Money:** Retention money is a part of the value of work certified which though certified but is not paid by the contractee. Retention amount is kept by the contractee as security amount against any damage.

(ii) **Escalation Clause:** Escalation clause is a clause written in the agreement (contract) between the contractor and contractee which states that in case of increase in the prices of materials, wages or other supplies beyond a certain level the contract price will be increased by an agreed amount.

(iii) **Co-Products:** Co-products may be defined as Two or more products which are contemporary but do not emerge necessarily from the same material in the same process.

(iv) **Job Costing:** Job costing is the method of costing required to be done for unique products manufactured done against specific orders. In this method of costing, cost of each job is ascertained separately.

(v) **Process Costing:** Process costing is a method of costing used in industries where the material has to pass through two or more process for being converted into a final product. Here the cost of completing each stage of work is ascertained, like cost of making pulp and cost of making paper from pulp.

(e) **Meaning of Cost Driver:** A Cost driver is a factor or variable which effect level of cost. Generally, it is an activity which is responsible for cost incurrence. Level of activity or volume of production is the example of a cost driver. An activity may be an event, task, or unit of work etc.

There are two categories of cost driver.

- **Resource Cost Driver -** It is a measure of the quantity of resources consumed by an activity. It is used to assign the cost of a resource to an activity or cost pool.

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- **Activity Cost Driver -** It is a measure of the frequency and intensity of demand, placed on activities by cost objects. It is used to assign activity costs to cost objects.

Business Function	Cost drivers
Distribution	Number of units distributed, Number of customers
Research and Development	Number of research projects, personnel hours on a project, technical complexities of the projects.
Customer service	Number of service calls, number of products serviced, hours spent in servicing of products.

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