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SUGGESTED SOLUTION

CA INTERMEDIATE

SUBJECT- COSTING

Test Code – CIM 8469

BRANCH - () (Date :)

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ANSWER - 1

1. Cost Ledger Control Account

Dr. Cr.

	(Rs.)		(Rs.)
To Store Ledger Control A/c	65,000	By Opening Balance	34,25,000
To Balance c/d	47,10,000	By Store ledger control A/c	6,25,000
		By Manufacturing Overhead Control A/c	4,25,000
		By Wages Control A/c	3,00,000
	47,75,000		47,75,000

(1.5 MARKS)

Stores Ledger Control Account

Dr. Cr.

	(Rs.)		(Rs.)
To Opening Balance	15,00,000	By WIP Control A/c	6,75,000
To Cost ledger control A/c	6,25,000	By Cost ledger control A/c (Returns)	65,000
		By Balance c/d	13,85,000
	21,25,000		21,25,000

(1 MARK)

WIP Control Account

Dr. Cr.

	(Rs.)		(Rs.)
To Opening Balance	7,50,000	By Finished Stock Ledger Control A/c	11,25,000
To Wages Control A/c	2,00,000	By Balance c/d	9,25,000
To Stores Ledger Control A/c	6,75,000		
To Manufacturing Overhead Control A/c	4,25,000		
	20,50,000		20,50,000

(2 MARKS)

Finished Stock Ledger Control Account

Dr. Cr.

	(Rs.)		(Rs.)
To Opening Balance	12,50,000	By Cost of Sales	8,75,000
To WIP Control A/c	11,25,000	By Balance c/d	15,45,000

To	Cost of Sales A/c (Sales Return)	45,000		
		24,20,000		24,20,000

(2 MARKS)

Manufacturing Overhead Control Account

Dr. Cr.

		(Rs.)			(Rs.)
To	Cost Ledger Control A/c	4,25,000	By	Opening Balance	75,000
To	Wages Control A/c	1,00,000	By	WIP Control A/c	4,25,000
			By	Under recovery c/d	2 5,000
		5,25,000			5,25,000

(1.5 MARKS)

Wages Control Account

Dr. Cr.

		(Rs.)			(Rs.)
To	Transfer to Cost Ledger Control A/c	3,00,000	By	WIP Control A/c	2,00,000
			By	Manufacturing Overhead Control A/c	1,00,000
		3,00,000			3,00,000

(1.5 MARKS)

Cost of Sales Account

Dr. **Cr.**

		(Rs.)			(Rs.)
To	Finished Stock Ledger Control A/c	8,75,000	By	Finished Stock Ledger Control A/c (Sales return)	45,000
			By	Balance c/d	8,30,000
		8,75,000			8,75,000

(1.5 MARKS)

Trial Balance

	(Rs.)	(Rs.)
Stores Ledger Control A/c	13,85,000	
WIP Control A/c	9,25,000	
Finished Stock Ledger Control A/c	15,45,000	
Manufacturing Overhead Control A/c	25,000	
Cost of Sales A/c	8,30,000	
Cost ledger control A/c	----	47,10,000
	47,10,000	47,10,000

(3 MARKS)

ANSWER - 2

Material Price Variance = Actual Quantity (Std. Price – Actual Price)

X = 12,500 units (Rs. 40 – Rs. 44) = 50,000 (A)

Y = 18,000 units (Rs. 30 – Rs. 28) = 36,000 (F)

Z = 88,500 units (Rs. 10 – Rs. 12) = 1,77,000(A) 1,91,000 (A)

Material Usage Variance = Std. Price (Std. Qty – Actual Qty.)

X = Rs. 40 (6,000 × 2 – 12,500) = 20,000 (A)

Y = Rs. 30 (6,000 × 3 – 18,000) = Nil

Z = Rs. 10 (6,000 × 15 – 88,500) = 15,000 (F) 5,000 (A)

Material Mix Variance = Std. Price (Revised Std. Qty. – Actual Qty.)

X = Rs. 40 $\left(\frac{1,19,000\times2}{20} - 12,500\right)$ = 24,000 (A)

Y = Rs. 30 $\left(\frac{1,19,000\times3}{20} - 18,000\right)$ = 4,500 (A)

Z = Rs. 10 $\left(\frac{1,19000\times15}{20} - 88,500\right)$ = 7,500 (F) 21,000 (A)

Material Yield Variance = Std. Price (Std. Qty. – Revised Std. Qty.)

X = Rs. 40 (6,000 × 2 - $\frac{1,19,000\times2}{20}$) = 4,000 (F)

Y = Rs. 30 (6,000 × 3 - $\frac{1,19,000\times3}{20}$) = 4,500 (F)

Z = Rs.10 (6,000 × 15 - $\frac{1,19,000\times15}{20}$) = 7,500 (F) 16,000(F)

Labour Rate Variance = Actual Hours (Std. Rate – Actual Rate)

= 2,500 hours (Rs. 55 – Rs. 58) = 7,500 (A)

Labour Efficiency Variance = Std. Rate (Std. Hours – Actual Hours)

= Rs. 55 (6,000 × 3 – 17,500) = 27,500(F)

(6*1 = 6 MARKS)

ANSWER – 3

COMPUTATION OF VARIANCES

(i) Overhead Cost Variance = Absorbed Overheads – Actual Overheads

= (Rs.87,200 + Rs.44,800) – (Rs.1,21,520 + Rs.55,680)

= Rs. 45,200 (A)

(ii) Fixed Overhead Cost Variance = Absorbed Fixed Overheads – Actual Fixed Overheads

= Rs. 87,200 – Rs.1,21,520

= Rs.34,320 (A)

(iii) Variable Overhead Cost Variance = Standard Variable Overheads for Production – Actual Variable Overheads

= Rs. 44,800 – Rs. 55,680

= Rs. 10,880 (A)

(iv) Fixed Overhead Volume Variance = Absorbed Fixed Overheads – Budgeted Fixed Overheads

= Rs. 87,200 – Rs.1,09,000

= Rs. 21,800 (A)

(v) Fixed Overhead Expenditure = Budgeted Fixed Overheads – Actual Fixed Overheads

Variance

= Rs.10.90 × 10,000 units – Rs.1,21,520

= Rs.12,520 (A)

(vi) Calendar Variance = Possible Fixed Overheads – Budgeted Fixed Overheads

= Rs.1,03,550 – Rs.1,09,000

= Rs. 5,450 (A)

(6*0.5 = 3 MARKS)

Fixed Overheads per Unit = $\frac{\text{Budgeted Fixed Overheads}}{\text{Budgeted Output}} = \frac{\text{Rs.12,00,000}}{\text{1,20,000units}}$	Rs. 10
Fixed Overheads element in *Semi-Variable* Overheads i.e. 60% of Rs.1,80,000	Rs. 1,08,000
Fixed Overheads per Unit = $\frac{\text{Budgeted Fixed Overheads}}{\text{Budgeted Output}} = \frac{\text{Rs.1,08,000}}{\text{1,20,000units}}$	Rs. 0.90
Standard Rate of Absorption of Fixed Overheads *per unit* (Rs.10 + Rs.0.90)	Rs.10.90
Fixed Overheads Absorbed on 8,000 units @ Rs10.90	Rs. 87,200
Budgeted Variable Overheads	Rs. 6,00,000
Add : Variable element in Semi-Variable Overheads 40% of Rs. 1,80,000	Rs. 72,000

Total Budgeted Variable Overheads	Rs. 6,72,000
Standard Variable Cost *per unit* = $\frac{\text{Budgeted Variable Overheads}}{\text{Budgeted Output}} = \frac{\text{Rs.6,72,000}}{\text{1,20,000units}}$	Rs.5.60
Standard Variable Overheads for 8,000 units @ Rs.5.60	Rs. 44,800
Budgeted Annual Fixed Overheads (Rs. 12,00,000 + 60% of Rs. 1,80,000)	Rs.13,08,000
Possible Fixed Overheads = $\frac{\text{Budgeted Fixed Overheads}}{\text{Budgeted Days}} \times \text{Actual Days}$ $= \left[\frac{\text{Rs.1,09,000}}{\text{20 Days}} \times \text{19 Days}\right]$	Rs.1,03,550
Actual Fixed Overheads (Rs.1,10,000 + 60% of Rs. 19,200)	Rs.1,21,520
Actual Variable Overheads (Rs.48,000 + 40% of Rs.19,200)	Rs. 55,680

(5 MARKS)

ANSWER – 4

(i) Statement of Profit as per Financial records (for the year ended March 31, 20X8)

	(Rs.)		(Rs.)
To Opening stock of Finished Goods	53,125	By Sales	22,80,000
To Work-in-process	46,000	By Closing stock of finished Goods	45,650
To Raw materials consumed	8,40,000	By Work-in-Process	41,200
To Direct labour	6,10,000	By Rent received	46,000

To Factory overheads	4,22,000	By Interest received	38,000
To Administration overheads	1,98,000		
To Selling & distribution overheads	72,000		
To Dividend paid	1,22,000		
To Bad debts	18,000		
To Profit	69,725		
	24,50,850		24,50,850

(4 MARKS)

Statement of Profit as per Costing records

(for the year ended March 31,20X8)

	(Rs.)
Sales revenue (A) (12,615 units)	22,80,000
Cost of sales:	
Opening stock (625 units ×Rs. 120)	75,000
Add: Cost of production of 12,405 units (Refer to working note 2)	21,63,350
Less: Closing stock (Rs.174.39 × 415 units)	(72,372)
Cost of goods sold (12,615 units)	21,65,978
Selling & distribution overheads (12,615 units ×Rs. 3)	37,845
Cost of sales: (B)	22,03,823
Profit: {(A) – (B)}	76,177

(3 MARKS)

(ii) **Statement of Reconciliation**

(Reconciling the profit as per costing records with the profit as per financial records)

	(Rs.)	(Rs.)
Profit as per Cost Accounts		76,177
Add: Administration overheads over absorbed (*Rs.* 2,81,550 – *Rs.* 1,98,000)	83,550	
Opening stock overvalued (*Rs.* 75,000 – *Rs.* 53,125)	21,875	
Interest received	38,000	
Rent received	46,000	
Factory overheads over recovered (Rs. 4,27,000 – Rs. 4,22,000)	5,000	1,94,425
		2,70,602
Less: Selling & distribution overheads under recovery (Rs. 72,000 – Rs. 37,845)	34,155	
Closing stock overvalued (Rs. 72,372 – Rs. 45,650)	26,722	
Dividend	1,22,000	
Bad debts	18,000	(2,00,877)
Profit as per financial accounts		69,725

Working notes:

1. **Number of units produced**

	Units
Sales	12,615
Add: Closing stock	415
Total	13,030
Less: Opening stock	(625)
Number of units produced	12,405

2. **Cost Sheet**

	(Rs.)
Raw materials consumed	8,40,000
Direct labour	6,10,000
Prime cost	14,50,000
Factory overheads (70% of direct wages)	4,27,000

Factory cost	18,77,000
Add: Opening work-in-process	46,000
Less: Closing work-in-process	41,200
Factory cost of goods produced	18,81,800
Administration overheads (15% of factory cost)	2,81,550
Cost of production of 12,405 units (Refer to working note 1)	21,63,350

Cost of production per unit:

$$= \frac{\text{Total Cost of Production}}{\text{No. of units produced}} = \frac{`\ 21,63,350}{12,405\ \text{units}} = `\ 174.39$$

(7 MARKS)

ANSWER – 5

1. Standard hours (SH) for actual hours produced are calculated as below:

$$\text{Skilled} = \frac{1,800}{2,000} \times 1,280 = 1,152 \text{ hrs.}$$

$$\text{Semi-skilled} = \frac{1,800}{2,000} \times 480 = 432 \text{ hrs.}$$

$$\text{Unskilled} = \frac{1,800}{2,000} \times 240 = 215 \text{ hrs.}$$

2. Actual hours (AH) paid are calculated as below:

Category	No. of Worker	Hours in a week	Total Hours
Skilled	28	40	1,120
Semi-skilled	18	40	720
Unskilled	4	40	160
			2,000

3. For 40 hours week total Revised standard hours (RSH) will be calculated as below:

Category	No. of Worker	Hours in a week	Total Hours
Skilled	32	40	1,280
Semi-skilled	12	40	480
Unskilled	6	40	240
			2,000

(3 MARKS)

Calculations

Category of workers	SH × SR	AH × SR	AH × AR	RSH × SR
Skilled	1,152 × 3 = 3,456	1,120 × 3 = 3,360	1,120 × 4 = 4,480	1,280 × 3 = 3,840
Semi-skilled	432 × 2 = 864	720 × 2 = 1,440	720 × 3 = 2,160	480 × 2 = 960

Unskilled	216 × 1 = 216	160 × 1 = 160	160 × 2 = 320	240 × 1 = 240
Total	Rs. 4,536	Rs. 4,960	Rs. 6,960	Rs. 5,040

(i) Labour Cost Variance = Std. Cost for hours worked – Actual cost paid

= (SH × SR) – (AH × AR)

= Rs.4,536 – 6,960 = Rs.2,424 (A)

(ii) Labour Rate Variance = AH (SR – AR) or (AH × SR) – (AH × AR)

Skilled = 3,360 – 4,480 = Rs.1,120 (A)

Semi-skilled = 1,440 – 2,160 = Rs.720 (A)

Unskilled = 160 - 320 = Rs.160 (A) 2,000 (A)

(iii) Labour Efficiency Variance = SR (SH – AH) or (SR × SH) – (SR × AH) Skilled

= 3,456 – 3,360 = Rs.96 (F)

Semi-skilled = 864 – 1,440 = Rs.576 (A)

Unskilled = 216 - 160 = Rs.56 (F)

Rs.424 (A)

(iv) Labour Mix Variance = SR (RSH – AH) or (SR × RSH) – (SR × AH)

Skilled = 3,840 – 3,360 = Rs.480 (F)

Semi-skilled = 960 – 1,440 = Rs.480 (A)

Unskilled = 240 - 160 = Rs. 80 (F)

Rs.80 (F)

(v) Labour Yield Variance = SR (SH – RSH) or (SR × SH – SR × RSH) Skilled =

3,456 - 3,840 = Rs.384 (A)

Semi-skilled = 864 - 960 = Rs.96 (A)

Unskilled = 216 - 240 = Rs. 24 (A) Rs.504 (A)

Check

(i) LCV = LRV + LEV

Rs.2,424 (A) = Rs.2,000 (A) + Rs.424 (A)

(ii) LEV = LMV + LYV

Rs.424 (A) = Rs.80 (F) + Rs.504 (A)

(5 MARKS)