



J.K. SHAH[®]
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SUGGESTED SOLUTION

CA INTERMEDIATE

SUBJECT- COSTING

Test Code – CIM 8709

BRANCH - () (Date :)

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- NOTES: (1) WORKING NOTES SHOULD FORM PART OF ANSWERS.
 (2) INTERNAL WORKING NOTES SHOULD ALSO BE CONSIDERED.
 (3) NEW QUESTION SHOULD BE ON NEW PAGE

ANSWER -1

- (i) Amount of under/ over absorption of production overheads during the period of first six months of the year 2017 – 2018 :

	Amount (Rs.)	Amount (Rs.)
Total production overheads actually incurred during the period		24,88,200
Less : Amount paid to worker as per court order	1,28,000	
Expenses of previous year booked in the current year	1,200	
Wages paid for the strike period under an award	44,000	
Obsolete stores written off	6,700	(1,79,900)
		23,08,300
Less : Production overheads absorbed as per machine hour rate (1,16,000 hours × Rs. 20*)		23,20,000
Amount of over absorbed production overheads		11,700

* Budgeted Machine hour rate (Blanket rate) = $\frac{Rs.44,00,000}{2,20,000 \text{ hours}} = Rs. 20 \text{ per hour}$

(6 MARKS)

- (ii) **Accounting treatment of over absorbed production overheads :** As, one fourth of the over absorbed overheads were due to defective production policies, this being abnormal, hence should be transferred to Costing Profit and Loss Account.

Amount to be transferred to Costing Profit and Loss Account = $(11,700 \times \frac{1}{4}) = Rs. 2,925$

Balance of over absorbed production overheads should be distributed over Works in progress, finished goods and Cost of sales by applying supplementary rate*.

Amount to be distributed = $(11,700 \times \frac{3}{4}) = Rs. 8,775$

Supplementary rate = $\frac{Rs.8,775}{33,000 \text{ units}} = Rs. 0.2659 \text{ per unit}$

(2 MARKS)

- (iii) Apportionment of under absorbed production overhead over WIP, Finished goods and Cost of sales :

	Equivalent completed units	Amount (Rs.)
Work – in – Progress (18,000 units × 50% × Rs. 0.2659)	9,000	2,393
Finished goods (2,400 units × Rs. 0.2659)	2,400	638
Cost of sales (21,600 units × Rs. 0.2659)	21,600	5,744
Total	33,000	8,775

ANSWER -2

Effective machine hours = 200 hours × 75% = 150 hours

Computation of Comprehensive Machine Hour Rate

	Per month (Rs.)	Per hour (Rs.)
Fixed cost		
Supervision charges	18,000.00	
Electricity and lighting	9,500.00	
Insurance of Plant and building (Rs. 18,250 ÷ 12)	1,520.83	
Other General Expenses (Rs. 17,500 ÷ 12)	1,458.33	
Depreciation (Rs. 64,800 ÷ 12)	5,400.00	
	35,879.16	239.19
Direct Cost		
Repairs and maintenance	17,500.00	116.67
Power	65,000.00	433.33
Wages of machine man		139.27
Wages of Helper		109.41
Machine Hour Rate (Comprehensive)		1,037.87

(6 Marks)**Wages per machine hour**

	Machine man	Helper
Wages for 200 hours		
Machine – man (Rs. 400 per day × 25 days*)	Rs. 10,000.00	--
Helper (Rs. 275 per day × 25 days*)	---	Rs. 6,875.00
Dearness Allowance (DA)	Rs. 4,575.00	Rs. 4,575.00
	Rs. 14,575.00	Rs. 11,450.00
Production bonus (1/3 of Basic and DA)	4,858.33	3,816.67
Leave wages (10% of Basic and DA)	1,457.50	1,145.00
	20,890.83	16,411.67
Effective wage rate per machine hour	Rs. 139.27	Rs. 109.41

*1day= 8 hours. Therefore for 200 hours, 25 days

(4 Marks)**ANSWER -3****(i) Overhead Distribution Summary**

	Basis	Total (Rs.)	A (Rs.)	B (Rs.)	C (Rs.)	X (Rs.)	Y (Rs.)
Direct materials	Direct	--	--	--	--	2,00,000	1,00,000
Direct wages	Direct	--	--	--	--	1,00,000	2,00,000
Factory rent	Area	4,00,000	1,00,000	50,000	1,00,000	50,000	1,00,000
Power	H.P. × Machine Hrs.	2,50,000	50,000	80,000	80,000	15,000	25,000

Depreciation	Capital value	1,00,000	20,000	40,000	20,000	10,000	10,000
Other overheads	Machine hrs.	9,00,000	1,00,000	2,00,000	4,00,000	1,00,000	1,00,000
		16,50,000	2,70,000	3,70,000	6,00,000	4,75,000	5,35,000

(4 Marks)

(ii) **Redistribution of Service Department's expenses**

	A (Rs.)	B (Rs.)	C (Rs.)	X (Rs.)	Y (Rs.)
Total overheads	2,70,000	3,70,000	6,00,000	4,75,000	5,35,000
Dept. X overhead apportioned in the ratio (45:15:30: —:10)	2,13,750	71,250	1,42,500	(4,75,000)	47,500
Dept. Y overhead apportioned in the ratio (60:35: —:5: —)	3,49,500	2,03,875	—	29,125	(5,82,500)
Dept. X overhead apportioned in the ratio (45:15:30: —:10)	13,106	4,369	8,738	(29,125)	2,912
Dept. Y overhead apportioned in the ratio (60:35: —:5: —)	1,747	1,019	—	146	(2,912)
Dept. X overhead apportioned in the ratio (45:15:30: —:10)	65	22	44	(146)	15
Dept. Y overhead apportioned in the ratio (60:35: —:5: —)	9	6	—	—	(15)
	8,48,177	6,50,541	7,51,282	—	—

(4 Marks)

(iii) **Machine hour rate :**

		A	B	C
A	Total overheads (Rs.)	8,48,177	6,50,541	7,51,282
B	Machine hours	1,000	2,000	4,000
C	Machine hour rate (Rs.) [A ÷ B]	848.18	325.27	187.82

(2 Marks)

ANSWER –4

Statement of Cost for the month of September

Particulars	Rs.	Rs.
Raw material Consumed:		
Opening stock of Raw material	2,42,000	
Add : Purchases of raw material (Balancing Figure)	52,37,930	
Less : Closing stock of raw material	(2,92,000)	
Raw material consumed(Working Note 1)		51,87,930
Add : Direct Employee cost (50% of 51,87,930)		25,93,965
Prime cost		77,81,895
Add: Factory overheads :		

Consumable stores	3,50,000	
Lease rent of Production Assets	2,00,000	5,50,000
Gross work cost		83,31,895
Add : Opening stock of WIP		2,00,000
Less : Closing stock of WIP		(5,00,000)
Net Work cost /Factory cost		80,31,895
Add : Research and development cost for Process		2,50,000
Add : Quality Control cost		2,00,000
Less : Scrap value realised (Working Note 2)		(2,44,000)
Cost of production		82,37,895
Add : Opening stock of finished goods		Nil
Less : Closing stock of finished goods		(4,11,895)
Cost of Goods sold (Given)		78,26,000
Add : Selling and Distribution expenses		4,13,000
Add : Packing cost (Secondary)		1,90,000
Add : Administrative Expenses (General)		2,24,000
Cost of Sales (A)		86,53,000
Add : Profit (B-A)		17,97,000
Sales (Working Note 3)(B)		1,04,50,000

Working Note 1: Raw material Consumed

Let 'x' be the amount of Raw material consumed.

Therefore, Direct Employee cost will be 0.5x

Therefore, Prime cost = 1.5x

On Solving Equation:

Prime Cost + [Factory O/H + Opening WIP – Closing WIP+ Research & Development cost..+ Quality Control Cost – Scrap]+Opening stock of Finished goods – Closing Stock of Finished goods = 78,26,000

$$1.5x + [4,56,000] - (-----) = 78,26,000$$

$$1.5x + [4,56,000] - 0.075x - 22800 = 78,26,000$$

We get 'x' =51,87,930 (i.e. R/M Consumed)

Working Note 2: Scrap Value realized:

$$1,00,000 \times 4\% \times 61 = \text{Rs. } 2,44,000$$

Working Note 3: Sales:

Sales Qty= Opening Stock of Finished goods + Production Qty – Closing Stock of Finished goods

Sales Qty= Nil + 1,00,000 – 5,000

Sales Qty= 95,000 units

Therefore sales value will be 95,000 x 110 = 1,04,50,000 Rs.

- (i) Value of Raw Material Purchased = Raw Material Consumed + Closing Stock of Raw Material – Opening Stock of Raw material

Raw Material Purchased= 51,87,930 + 2,92,000 – 2,42,000

=52,37,930 Rs.

(ii) Profit = Sale – Cost of Sales

=1,04,50,000 – 86,53,000

=17,97,000 Rs.

(10 MARKS)

ANSWER -5

Calculation of Cost of Production of A Ltd. for the period

Particulars	Amount (Rs.)
Raw materials purchased	64,00,000
Add: Opening stock	2,88,000
Less: Closing stock	(4,46,000)
Material consumed	62,42,000
Wages paid	23,20,000
Prime cost	85,62,000
Repair and maintenance cost of plant & machinery	9,80,500
Insurance premium paid for inventories	26,000
Insurance premium paid for plant & machinery	96,000
Quality control cost	86,000
Research & development cost	92,600
Administrative overheads related with factory and production	9,00,000
	1,07,43,100
Add: Opening value of W-I-P	4,06,000
Less: Closing value of W-I-P	(6,02,100)
	1,05,47,000
Less: Amount realised by selling scrap	(9,200)
Add: Primary packing cost	10,200
Cost of Production	1,05,48,000

Notes:

- (i) Other administrative overhead does not form part of cost of production.
- (ii) Salary paid to Director (Technical) is an administrative cost.

(10 MARKS)