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SUGGESTED SOLUTION

CA INTERMEDIATE

SUBJECT- COSTING AND F.M.

Test Code – CIM 8694

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

Trading and Profit & Loss Account of Sukanya & Co.

Particulars	Rs.	Particulars	Rs.
To Opening Stock(WN 3)	87,272	By Sales (given)	7,30,000
To Purchases (bal.fig)	6,65,728	By Closing Stock(WN 2)	96,000
To Gross Profit(10% on Sales)	73,000		
Total	**8,45,500**	**Total**	**8,45,500**
To Expenses(bal. fig)	43,000	By Gross Profit b/d	73,000
To Net Profit(WN 8)	30,000		
Total	**73,000**	**Total**	**73,000**

(2 MARKS)

Balance Sheet of Sukanya & Co.

Liabilities	Rs.	Assets	Rs.
Share Capital (given)	2,50,000	Fixed Assets(WN 7)	1,80,000
Reserves & Surplus (WN 6)	50,000	Current Assets	
Current Liabilities		Stock(WN 2)	96,000
Bank Overdraft (given)	15,000	Debtors(WN 4)	80,000
Creditors & Others (WN 1)	65,000	Cash & Bank(WN 5)	24,000
Total	**3,80,000**	**Total**	**3,80,000**

(2 MARKS)

Working Notes and Calculations

1. Current Ratio = $\frac{\text{Current Assets}}{\text{Current Liabilities}}$ = 2.5 times.

So, Current Assets = 2.5 x Current Liabilities.

Net Working Capital = Current Assets - Current Liabilities =Rs. 1,20,000.

2.5x Current Liabilities - Current Liabilities

1.5x Current Liabilities =Rs. 1,20,000. So, Current Liabilities

= $\frac{Rs.1,20,000}{1.5} = Rs.80,000$

Bank OD Creditors

Given Rs.15,000 (b/f) Rs.65,000

Current Assets = 2.5 x Rs.80,000 = Rs.2,00,000

2. Quick Ratio = $\frac{Quick\ Assets}{Current\ Liabilites}$ = 1.3 times.

So, $\frac{Current\ assets - Stock}{Current\ Liabilites} = 1.3$

On substitution, $\frac{Rs.2,00,000-Closing\ Stock}{Rs.80,000}$= 1.3

On solving, we get, Closing Stock =Rs. 96,000

3. Closing Stock = Opening Stock + 10% thereon =Rs. 96,000. So, Opening Stock = $\frac{96,0000}{110\%}$ = Rs.87,272

4. Debtors Velocity = 40 days. Assuming 1 year=365 days, Debtors = Sales x $\frac{40}{365}$ =

Rs. 7,30,000 x $\frac{40}{365}$ =Rs. 80,000

5. Total Current Assets = WN 1 =Rs. 2,00,000

Inventory (WN 2) =Rs. 1,15,500 **Debtors** (WN 4) =Rs. 80,000 **Cash and Bank** (bal. fig)Rs. 4,500

6. In the absence of information, it is assumed that there are no Loans (i.e. no Debt) or Fictitious Assets. Hence, Total Funds = Equity + Debt = Equity + Nil Debt = Equity only.
Also, Total Funds, (i.e. Equity in this question) = Proprietary Fund = Capital Employed = Fixed Assets + Net Working Capital.

Given that $\frac{\text{Fixed Assets}}{\text{Proprietary Funds}} = 0.6 \text{ times.}$

So, $\frac{\text{Working Capital}}{\text{Proprietary Funds}} = 1-0.6-0.4 \text{ times.}$

On substitution, $\frac{\text{Rs.1,20,000}}{\text{Proprietary Funds}} = 0.4$

On solving, we get, proprietary Funds = $\frac{\text{Rs.1,20,000}}{0.4} = Rs.3,00,000$

Share Capital (given) Rs.2,50,000 Reserves & Surplus (bal.fig) Rs.50,000

7. Fixed Assets = 0.6 x Proprietary Funds = 0.6 x Rs. 3,00,000 =Rs. 1,80,000

8. Net Profit = 10% of Proprietary Funds =Rs. 3,00,000 x 10% =Rs. 30,000

(8*1 = 8 MARKS)

ANSWER -2

(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) = $\frac{Rs.44,00,000}{2,20,000\ hours}$ = Rs. 20 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 × ¼) = 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 × ¾) = Rs. 8,775

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

(2 MARKS)

(iii) Apportionment of under absorbed production overhead over WIP, Finished gods 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

(2 MARKS)

ANSWER -3

A. Computation based on Given Basic Data

1. Debtors T/0 Ratio = $\frac{365\ \text{days}}{\text{DSO } 40.55}$ = 9.00 times.

   Hence, Accounts Receivable = Average Debtors =

   $\frac{\text{Sales}}{\text{Debtors T/O}} = \frac{100}{9\ \text{times}} = Rs.11.11\ \text{crores.}$

2. Current Ratio = $\frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{\text{Current Assets}}{10.55} =$

   = 3 times. So, Current Assets = 3 x 10.55 = Rs. 31.65 Crores.

3. Total Assets = Fixed Assets + Current Assets = 28.35 + 31.65 = Rs. 60 Crores.

   Hence, ROA = $\frac{\text{Net Income}}{\text{Total Assets}} = \frac{5.00}{60.00} = 8.33\%$

4. ROE = $\frac{\text{Net Income}}{\text{Equity}} = \frac{5.00}{\text{Equity}}$ = 12% (given). So, Equity = $\frac{5.00}{12\%}$ = Rs. 41.67 Crores.

5. Long Term Debt = Total Assets (-) Current Liabilities (-)Equity = Rs. 60 (-) Rs. 10.55 (-)

Rs.41.67 = Rs. 7.78 Crores.

(5*1 = 5 MARKS)

B. Computation for revised DSO

1. New Debtors T/O Ratio = $\frac{365 \text{ days}}{DSO\ 30.4}$ = 12.00 times.

   Hence, New Accounts Receivable = Average Debtors =

   $\frac{\text{Sales}}{\text{Debtors T/O}} = \frac{100}{12 \text{ times}} = Rs.8.33 \text{ Crores.}$

   Hence, Cash Generated = Reduction in Debtors = Rs. 11.11 Crores –Rs. 8.33 Crores = Rs.2.78 Crores.

2. New Equity = Old Equity - Shares bought back = Rs. 41.67 Crores -Rs. 2.78 Crores = Rs.38.89 Crores.

3. New ROE = $\frac{\text{Net Income}}{\text{Equity}38.89} = \frac{=5.00}{38.89} = 12.86\%$

   New ROA = $\frac{\text{Net Income}}{\text{Total Assets}} = \frac{5.00}{60.00 - 2.78} = 8.74\%$

4. Debt to Total Assets: Old : $\frac{7.78}{60.00} = 12.97\%$ New : $\frac{7.78}{60.00 - 2.78} = 13.60\%$

(5 MARKS)

ANSWER -4

ANSWER –A

(i) Variable overhead absorption rate = $\frac{Difference\ in\ Total\ Overheads}{Difference\ in\ levels\ in\ terms\ of\ machine\ hours}$

$= \frac{Rs.3,47,625 - Rs.3,38,875}{15,500\ hours - 14,500\ hours}$ = Rs. 8.75per machine hour.

(ii) Calculate of Total fixed overheads :

	(Rs.)
Total overheads at 14,500 hours	3,38,875
Less : Variable overheads (Rs. 8.75 × 14,500)	(1,26,875)
Total fixed overheads	2,12,000

(iii) Calculation of Budgeted level of activity in machine hours :

Let budgeted level of activity = X

Then, $\frac{(Rs.8.75\ X + Rs.2,12,000}{X}$ = Rs. 22

8.75X + Rs. 2,12,000 = 22X

13.25 X = 2,12,000

X = 16,000

Thus, budgeted level of activity = 16,000 machine hours.

(iv) Calculation of Under / Over absorption of overheads :

	(Rs.)
Actual overheads	3,22,000
Absorbed overheads (14,970 hours × Rs. 22 per hour)	3,29,340
Over – absorption (3,29,340 – 3,22,000)	7,340

(v) Departmental absorption rates provide costs which are more precise than those provided by the use of blanket absorption rates. Departmental absorption rates facilitate variance analysis and cost control. The application of these rates make the task of stock and work – in – process (WIP) valuation easier and more precise. However, the setting up and monitoring of these rates can be time consuming and expensive.

(5*1 = 5 MARKS)

ANSWER –B

Fabrication of 12 Nos. machine parts (job No.....) Date of commencement: 16 August, 20X8 Date of Completion. Cost sheet for the week ending, August 21, 20X8:

	(Rs.)	**(Rs.)**
Direct materials (all items)		780.00
Direct labour (manual) 20 hours @Rs. 15 per hour		300.00
Machine facilities:		
Machine No. I : 4 hours @ Rs. 45	180.00	
Machine No. II : 6 hours @ Rs. 65	390.00	570.00
Total		1,650.00
Overheads @ Rs. 8 per hour on 20 manual hours		160.00
Total cost		1,810.00
Supplementary Rates		
Overheads 20 hours @ Rs. 2 per hour	40.00	
Machine facilities:		
Machine No. I - 4 hours @ Rs. 15	60.00	
Machine No. II - 6 hours @ Rs. 15	90.00	190.00
Cost		2,000.00

Working notes:

Overheads budgeted: 3,000 hours × Rs.8
=Rs.24,000 Actual hours: 2,400

Actual rate per hour Rs.24,000 ÷ 2,400 hours =
Rs.10 Supplementary charge Rs. 2 (Rs.10 – Rs. 8)
per hour

Machine facilities:

	Machine No. I	Machine No. II
Budgeted	Rs.1,800 (40 × Rs.45)	Rs.2,600 (40 × Rs.65)
Actual number of hours	30	32.5
Actual rate per hour	Rs.60.00	Rs.80.00
Supplementary rate per hour	Rs. 15.00 (Rs.60.00 – Rs.45.00)	Rs. 15.00 (Rs.80.00 – Rs.65.00)

(5 MARKS)

ANSWER -5

Net worth = Capital + Reserves and surplus

= 4,00,000 +6,00,000 =Rs.10,00,000

$$\frac{\text{Total Debt}}{\text{Networth}} = \frac{1}{2}$$

∴Total debt = Rs. 5,00,000

Total Liability side = Rs. 4,00,000 +Rs. 6,00,000 +Rs. 5,00,000

= Rs. 15,00,000

= Total Assets

Total Assets Turnover = $\frac{\text{Sales}}{\text{Total Assets}}$

= $2 = \frac{\text{Sales}}{Rs.15,00,000}$

∴ Sales = Rs. 30,00,000

Gross Profit on Sales : 30% i.e. Rs. 9,00,000

∴Cost of Goods Sold (COGS) = Rs. 30,00,000 – Rs. 9,00,000

= Rs. 21,00,000

Inventory turnover = $\frac{\text{COGS}}{\text{Inventory}}$

3 = $\frac{\text{Rs.21,00,000}}{\text{Inventory}}$

∴Inventory = Rs. 7,00,000

Average collection period = $\frac{\text{Average debtors}}{\text{Sales/day}}$

4 - = $\frac{\text{Debtors}}{Rs.30,00,000/360}$

∴ Debtors =Rs. 3,33,333.

Acid test ratio = $\frac{\text{Current Assets - Stock (Quick Asset)}}{\text{Current Liabilities}}$

0.75 = $\frac{\text{Current Assets - Rs.7,00,000}}{Rs.5,00,000}$

∴ Current Assets = Rs.10,75,000.

∴ Fixed Assets = Total Assets – Current Assets

= Rs. 15,00,000 –Rs. 10,75,000 =Rs. 4,25,000

Cash and Bank balance	=	Current Assets – Inventory – Debtors
	=	Rs. 10,75,000 – Rs. 7,00,000 – Rs. 3,33,333
	=	Rs. 41,667.

(6 MARKS)

Balance Sheet as on March 31, 2016

Liabilities	**Rs.**	**Assets**	**Rs.**
Equity Share Capital	4,00,000	Plant and Machinery and other	
Reserves & Surplus	6,00,000	Fixed Assets	4,25,000
Total Debt:		Current Assets:	
Currentliabilities	5,00,000	Inventory	7,00,000
		Debtors	3,33,333
		Cash	41,667
	15,00,000		**15,00,000**

(2 MARKS)