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SUGGESTED SOLUTION

CA INTERMEDIATE

SUBJECT- F.M.

Test Code – CIM 8707

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

ANSWER-A

Particulars	Present	Alternative 1	Alternative 2
1. Sales	30,00,000	30,00,000	30,00,000
2. Collection Expenses	30,000	60,000	95,000
3. Bad Debts [on Sales] (5%, 4%, 3%)	1,50,000	1,20,000	90,000
4. Collection Period [in days]	50	40	30
5. Average Debtors $\left[\text{Sales x } \frac{\text{Days in (4)}}{365}\right]$	4,10,959	3,28,767	2,46,575
6. Interest on Average Debtors (assumed at 10%)	41,096	32,877	24,658
7. Total Costs [2+3+6]	**2,21,096**	**2,12,877**	**2,09,658**
8. Incremental Benefit (based on Line 7 above)	-	8,219	11,438

Note: Since the Rate of Return on Investment has not been specified in the question, it is assumed at 10% in the above.

Conclusion: From the above Table, by comparing Costs, **Alternative 2** is more beneficial.

(5 MARKS)

ANSWER-B

1. Quick Ratio=

$$\frac{\text{Current Assets - Stock - Prepaid Expenses}}{\text{Current Liabilities}} = \frac{30,50,000 - 21,60,000 - 10,000}{10,00,000} = 0.88 \text{ times.}$$

2. Debt Equity Ratio =

$$\frac{\text{Debt (i.e. 10\% Debentures)}}{\text{Equity (i.e. ESC + Retained Earnings}} = \frac{16,00,000}{(20,00,000 + 8,00,000)} = 0.57:1$$

3. ROCE = $\frac{\text{EBIT}}{\text{Equity + Debt}} = \frac{12,00,000}{[(20,00,000 + 8,00,000) + 16,00,000]} = 27.27\%$

4. Debtors T/O Ratio = $\frac{\text{Credit Sales}}{\text{Average Debtors}} = \frac{\text{80\% of 40,00,000}}{[\text{Assumed as given Debtors = 4,00,000}]} = 8 \text{ times}$

So, Average Collection Period = $\frac{360}{8}$ = 45 days.

(5 MARKS)

ANSWER -2

ANSWER-A

Calculation of operating cycle

Period of raw material stage	$\frac{2,00,000}{10,000}$	= 20 days
Period of work-in-progress stage	$\frac{3,00,000}{12,500}$	= 24 days
Period of finished goods stage	$\frac{1,80,000}{18,000}$	= 10 days
Period of Accounts receivable stage	$\frac{3,00,000}{20,000}$	= 15 days
Period of Accounts payable stage	$\frac{1,80,000}{10,000}$	= 18 days

Duration of operating cycle = (20 + 24 + 10 + 15) - 18 =51 days

(5 MARKS)

ANSWER-B

Expected Profit for Sale (20,00,000 ÷200) X 30		Rs. 3,00,000
Less : Incremental cost		35,000
Incremental Profit		2,65,000
Quarterly Sales (Rs. 20,00,000 ÷ 4)		Rs. 5,00,000
Cost of quarterly sales is (5,00,000 ÷ 200) X 170		4,25,000
Cost of Credit availed by Sug Ltd :		**Product per Quarter**
15% of Rs. 4,25,000	Rs. 63,750 X 20 days	Rs. 12,75,000
30% of Rs. 4,25,000	1,27,500 X 45 days	57,37,500
25% of Rs. 4,25,000	1,06,250 X 90 days	95,62,500
28% of Rs. 4,25,000	1,19,000 X 100 days	Rs. 1,19,00,000
2% of Rs. 4,25,000	(Non-recovery)	-
Total Funds blocked for 1 day		2,84,75,000
Interest @ 25% for 1 day for 1 Quarter		Rs. 19,503
Interest for 4 quarters		78,012
Cost of Bad Debts (5,00,000 X 2% X 4)		40,000
Total cost (Interest + Bad Debt)		1,18,012
Incremental Profit		2,65,000
Net Profit (2,65,000 - 1,18,012)		1,46,988

The firm should accept the offer.

(5 MARKS)

ANSWER -3

(a) G.P. Ratio = $\frac{\text{Gross Profit}}{\textit{Sales}} = 25\%$

Sales = $\frac{\text{Gross Profit}}{25}$ x 100 = $\frac{Rs.8,00,000}{25}$ x 100 = Rs.32,00,000

(b) Cost of Sales = Sales – Gross profit

= Rs. 32,00,000 - Rs. 8,00,000

= Rs. 24,00,000

(c) Receivable turnover = $\frac{\text{Sales}}{\text{Receivables}} = 4$

= Receivables = $\frac{\text{Sales}}{4} = \frac{\text{Rs.32,00,000}}{4}$ =Rs.8,00,000

(d) Fixed assets turnover = $\frac{\text{Cost of Sales}}{\text{Fixed Assets}} = 8$

Fixed Assets = $\frac{\text{Cost of Sales}}{8} = \frac{\text{Rs.24,00,000}}{8}$ =Rs.3,00,000

(e) Inventory turnover = $\frac{\text{Cost of Sales}}{\text{Average Stock}} = 8$

Average Stock = $\frac{\text{Cost of Sales}}{8} = \frac{Rs.24,00,000}{8} = Rs.3,00,000$

Average Stock = $\frac{\text{Opening Stock + Closing Stock}}{2}$

Average Stock = $\frac{\text{Opening Stock + Opening Stock + 20,000}}{2}$

Average Stock = Opening Stock + Rs. 10,000

Opening Stock = Average Stock - Rs.10,000

= Rs. 3,00,000 - Rs.10,000

= Rs. 2,90,000

Closing Stock = Opening Stock + Rs. 20,000

= Rs. 2,90,000 + Rs. 20,000

= Rs. 3,10,000

(f) Payable turnover = $\frac{\text{Purchases}}{\text{Payables}}$ =6

Purchases = Cost of Sales + Increase in Stock

	=	Rs. 24,00,000 + Rs. 20,000
	=	Rs. 24,20,000
Payables	=	$\frac{\text{Purchase}}{6} = \frac{\text{Rs.24,20,000}}{6} = \text{Rs.4,03,333}$

(g) Capital turnover = $\frac{\text{Cost of Sales}}{\text{Capital Employed}} = 2$

Capital Employed = $\frac{\text{Cost of Sales}}{2} = \frac{\text{Rs.24,00,000}}{2} = Rs.12,00,000$

(h) Share Capital = Capital Employed – Reserves & Surplus

= Rs. 12,00,000 – Rs. 2,00,000 = Rs. 10,00,000

(8*1 = 8 MARKS)

Balance Sheet of Tirupati Ltd as on…………..

Liabilities	**Amount (Rs.)**	**Assets**	**Amount (Rs.)**
Share Capital	10,00,000	Fixed Assets	3,00,000
Reserve & Surplus	2,00,000	Closing Inventories	3,10,000
Payables	4,03,333	Receivables	8,00,000
		Other Current Assets	1,93,333
	16,03,333		**16,03,333**

(Fixed Asset turnover, inventory turnover capital turnover is calculated on cost of sales)

(2 MARKS)

ANSWER -4

Statement of Estimation of Working Capital Needs

		Rs.	**Rs.**
A.	**Current Assets**		
	(i) Inventories :		
	- Raw Materials $\left(\frac{\text{1,04,000 units x Rs.98}}{\text{52 weeks}} \text{x 3 weeks}\right)$	5,88,000	
	- Work-in-process		
	Materials $\left(\frac{\text{1,04,000 units x Rs.98}}{\text{52 weeks}} \text{x 2 weeks}\right)$	2,94,000	
	Labour & Overheads $\left(\frac{\text{1,04,000 units x Rs.126}}{\text{52 weeks}} \text{x 2 weeks}\right) \text{x 0.75}$	3,52,800	
	- Finished goods	17,92,000	30,26,800

	$\left(\frac{1{,}04{,}000 \text{ units x Rs.224}}{52 \text{ weeks}} \text{x 4 weeks}\right)$		
	(ii) Receivables $\left(\frac{1{,}04{,}000 \text{ units x Rs.224}}{52 \text{ weeks}} \text{x 2.5 weeks}\right) \text{x 0.75}$		8,40,000
	(iii) Cash in hand		2,25,000
	Total Current Assets		40,91,800
B.	**Current Liabilities :**		
	(i) Payable to suppliers $\left(\frac{1{,}04{,}000 \text{ units x Rs.98}}{52 \text{ weeks}} \text{x 3.5 weeks}\right)$		6,86,000
	(ii) Direct wages payables $\left(\frac{1{,}04{,}000 \text{ units x Rs.53}}{52 \text{ weeks}} \text{x 2 weeks}\right)$		2,12,000
	(iii) Overheads payables $\left(\frac{1{,}04{,}000 \text{ units x Rs.73}}{52 \text{ weeks}} \text{x 1.5 weeks}\right)$		2,19,000
			11,17,000
	Net Working Capital (A-B)		29,74,800
	Add : Provision for contingencies (4% of total Working Capital requirement)		1,23,950
	Working Capital requirement		30,98,750

(10 MARKS)

ANSWER -5

Particulars	**Rs.**
Total Sales	Rs. 200 lakhs
Credit Sales (80%)	Rs. 160 lakhs
Receivables for 40 days	Rs. 80 lakhs
Receivables for 120 days	Rs. 80 lakhs
Average collection period [(40 x 0.5) + (120 x 0.5)]	80 days
Average level of Receivables (Rs. 1,60,00,000 x 80/360)	Rs.35,55,556
Factoring Commission (Rs. 35,55,556 x 2/100)	Rs.71,111
Factoring Reserve (Rs. 35,55,556 x 10/100)	Rs. 3,55,556
Amount available for advance {Rs. 35,55,556 - (3,55,556 + 71,111)}	Rs.31,28,889
Factor will deduct his interest 18% : Interest = $\frac{\text{Rs.31,28,889 x 18 x 80}}{\text{100 x 360}}$	Rs. 1,25,156
Advance to be paid (Rs. 31,28,889 - Rs. 1,25,156)	Rs.30,03,733

(5 MARKS)

(i) Statement Showing Evaluation of Factoring Proposal

		Rs.
A.	**Annual Cost of Factoring to the Firm:**	
	Factoring commission (Rs. 71,111 x 360/80)	3,20,000
	Interest charges (Rs. 1,25,156 x 360/80)	5,63,200
	Total	8,83,200
B.	**Firm's Savings on taking Factoring Service:**	**Rs.**
	Cost of credit administration saved	2,40,000
	Bad Debts (Rs. 160,00,000 x 1/100) avoided	1,60,000
	Total	4,00,000
C.	**Net Cost to the firm (A - B) (Rs. 8,83,200 - Rs. 4,00,000)**	4,83,200

Effective cost of factoring = $\frac{\text{Rs.}4,83,200}{\text{Rs.}30,03,733}$ x100 = 16.09* %

* If cost of factoring is calculated on the basis of total amount available for advance, then, it will be

$= \frac{\text{Rs.}4,83,200}{\text{Rs.}31,28,889} \times 100 = 15.44\%$

(ii) If Bank finance for working capital is available at 14%, firm will not avail factoring service as 14 % is less than 16.08% (or 15.44%)

(5 MARKS)