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**SUGGESTED SOLUTION**

CA INTERMEDIATE

SUBJECT- F.M.

**Test Code – CIM 8622**

**BRANCH - () (Date :)**

Head Office : Shraddha, 3<sup>rd</sup> Floor, Near Chinai College, Andheri (E), Mumbai – 69.

Tel : (022) 26836666

## ANSWER 1

### Income Statement

Particulars	Amt. (Rs.)
Sales	75,00,000
Less : Variable cost (56% of 75,00,000)	(42,00,000)
Contribution	33,00,000
Less : Fixed costs	(6,00,000)
Earnings before interest and tax (EBIT)	27,00,000
Less : Interest on debt @ 9% on Rs. 45 lakhs)	(4,05,000)
Earnings before tax (EBT)	22,95,000

(2 MARKS)

$$(i) \quad ROI = \frac{EBIT}{\text{Capital employed}} \times 100 = \frac{EBIT}{\text{Equity+Debt}} \times 100$$
$$= \frac{27,00,000}{55,00,000+45,00,000} \times 100 = 27\%$$

(ROI is calculated on Capital Employed)

(1 MARK)

(ii) ROI = 27% and Interest on debt is 9%, hence, it has a favourable financial leverage.

(1 MARK)

$$(iii) \quad \text{Capital Turnover} = \frac{\text{Net Sales}}{\text{Capital}}$$

$$\text{OR} = \frac{\text{Net Sales}}{\text{Capital}} = \frac{\text{Rs.75,00,000}}{\text{Rs.1,00,00,000}} = 0.75$$

Which is very low as compared to industry average of 3.

(1 MARK)

(iv) Calculation of Operating, Financial and Combined leverages

$$(a) \quad \text{Operating Leverage} = \frac{\text{Contribution}}{\text{EBIT}} = \frac{\text{Rs.33,00,000}}{\text{Rs.27,00,000}} = 1.22 \text{ (approx.)}$$

$$(b) \quad \text{Financial Leverage} = \frac{\text{EBIT}}{\text{EBT}} = \frac{\text{Rs.27,00,000}}{\text{Rs.22,95,000}} = 1.18 \text{ (approx.)}$$

$$(c) \quad \text{Combined Leverage} = \frac{\text{Contribution}}{\text{EBT}} = \frac{33,00,000}{\text{Rs.22,95,000}} = 1.44 \text{ (approx.)}$$

$$\text{Or} = \text{Operating Leverage} \times \text{Financial Leverage} = 1.22 \times 1.18 = 1.44 \text{ (approx)}$$

(1.5 MARKS)

(v) Operating leverage is 1.22. So if sales is increased by 10%. EBIT will be increased by  $1.22 \times 10$  i.e. 12.20% (approx.)

(1 MARK)

(vi) Since the combined Leverage is 1.44, sales have to drop by  $100/1.44$  i.e. 69.44% to bring EBT to Zero

$$\begin{aligned}\text{Accordingly, New Sales} &= \text{Rs. } 75,00,000 \times (1 - 0.6944) \\ &= \text{Rs. } 75,00,000 \times 0.3056 \\ &= \text{Rs. } 22,92,000 \text{ (approx.)}\end{aligned}$$

Hence at Rs. 22,92,000 sales level EBT of the firm will be equal to Zero.

**(1.5 MARKS)**

(vii) Financial leverage is 1.18. So, if EBIT increases by 20% then EBT will increase by  $1.18 \times 20 = 23.6\%$  (approx.)

**(1 MARK)**

## ANSWER 2

**Net worth** = Capital + Reserves and surplus

$$= 4,00,000 + 6,00,000 = \text{Rs. } 10,00,000$$

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

$$\therefore \text{Total debt} = \text{Rs. } 5,00,000$$

$$\text{Total Liability side} = \text{Rs. } 4,00,000 + \text{Rs. } 6,00,000 + \text{Rs. } 5,00,000$$

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

$$= \text{Total Assets}$$

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

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

$$\therefore \text{Sales} = \text{Rs. } 30,00,000$$

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

$$\therefore \text{Cost of Goods Sold (COGS)} = \text{Rs. } 30,00,000 - \text{Rs. } 9,00,000$$

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

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

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

$$\therefore \text{Inventory} = \text{Rs. } 7,00,000$$

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

$$40 = \frac{\text{Debtors}}{\text{Rs.30,00,000}/360}$$

∴ Debtors = Rs. 3,33,333.

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

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

∴ Current Assets = Rs. 10,75,000.

∴ **Fixed Assets** = Total Assets – Current Assets

$$= \text{Rs. 15,00,000} - \text{Rs. 10,75,000} = \text{Rs. 4,25,000}$$

**Cash and Bank Balance** = Current Assets – Inventory – Debtors

$$= \text{Rs. 10,75,000} - \text{Rs. 7,00,000} - \text{Rs. 3,33,333} = \text{Rs. 41,667}$$

**(7 MARKS)**

**Balance Sheet as on March 31, 20X8**

<b>Liabilities</b>	<b>Rs.</b>	<b>Assets</b>	<b>Rs.</b>
Equity Share Capital	4,00,000	Plant and Machinery and Other Fixed Assets	4,25,000
Reserves & Surplus	6,00,000	Current Assets :	
Total Debt :		Inventory	7,00,000
Current liabilities	5,00,000	Debtors	3,33,333
		Cash	41,667
	15,00,000		15,00,000

**(3 MARKS)**