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Accounting Ratios H.W

Question 11:

From the following information calculate:

(i) Gross Profit Ratio (ii) Inventory Turnover Ratio (iii) Current Ratio (iv) Liquid Ratio (v) Net Profit Ratio (vi) Working capital Ratio:

	Rs
Revenue from Operations	25,20,000
Net Profit	3,60,000
Cast of Revenue from Operations	19,20,000
Long-term Debts	9,00,000
Trade Payables	2,00,000
Average Inventory	8,00,000
Current Assets	7,60,000
Fixed Assets	14,40,000
Current Liabilities	6,00,000
Net Profit before Interest and Tax	8,00,000

ANSWER:

(i)

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Revenue from Operations}} \times 100$$

$$\begin{aligned}\text{Gross Profit} &= \text{Net Revenue from Operations} - \text{Cost of Revenue from Operations} \\ &= 25,20,000 - 19,20,000 \\ &= 6,00,000\end{aligned}$$

$$\text{Gross Profit Ratio} = \frac{6,00,000}{25,20,000} \times 100 = 23.81$$

(ii)

$$\begin{aligned}\text{Inventory Turnover Ratio} &= \frac{\text{Cost of Revenue from Operations}}{\text{Average Inventory}} \\ &= \frac{19,20,000}{8,00,000} \\ &= 2.4 \text{ times}\end{aligned}$$

$$\text{(iii) Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$\begin{aligned}\text{Current Assets} &= \text{Liquid Assets} + \text{Inventory} \\ &= 7,60,000 + 8,00,000 \\ &= 15,60,000\end{aligned}$$

$$\text{Current Ratio} = \frac{15,60,000}{6,00,000} = \frac{2.6}{1} = 2.6:1$$

(iv)

$$\begin{aligned}\text{Liquid Ratio} &= \frac{\text{Liquid Assets}}{\text{Current Liabilities}} \\ &= \frac{7,60,000}{6,00,000} \\ &= \frac{1.27}{1} \\ &= 1.27:1\end{aligned}$$

(v)

$$\begin{aligned}\text{Net Profit Ratio} &= \frac{\text{Net Profit}}{\text{Net Revenue from Operations}} \times 100 \\ &= \frac{3,60,000}{25,20,000} \times 100 \\ &= 14.28\%\end{aligned}$$

(vi)

$$\text{Working Capital Ratio} = \frac{\text{Revenue from Operations}}{\text{Working Capital}}$$

$$\begin{aligned}\text{Working Capital} &= \text{Current Assets} - \text{Current Liabilities} \\ &= 15,60,000 - 6,00,000 \\ &= 9,60,000\end{aligned}$$

$$\begin{aligned}\text{Working Capital Ratio} &= \frac{25,20,000}{9,60,000} \\ &= 2.625 \text{ times}\end{aligned}$$

Note: There is a misprint in the question given in the textbook. The figure of Rs '760,000' represents the value of 'Liquid Assets' and not 'Current Assets'. The above solution has been worked out accordingly and the answer given as per the textbook is same as per the above solution.

Question 12:

Compute Gross Profit Ratio, Working Capital Turnover Ratio, Debt Equity Ratio and Proprietary Ratio from the following information:

	Rs
Paid-up Share Capital	5,00,000
Current Assets	4,00,000
Revenue from Operations	10,00,000
13% Debentures	2,00,000
Current Liabilities	2,80,000
Cost of Revenue from Operations	6,00,000

ANSWER:

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Revenue from Operations}} \times 100$$

$$\begin{aligned}\text{Gross Profit} &= \text{Net Revenue from Operations} - \text{Cost of Revenue from Operations} \\ &= 10,00,000 - 6,00,000 \\ &= 4,00,000\end{aligned}$$

$$\text{Gross Profit Ratio} = \frac{4,00,000}{10,00,000} \times 100 = 40\%$$

$$\text{Working Capital Ratio} = \frac{\text{Revenue from Operations}}{\text{Working Capital}}$$

$$\begin{aligned}\text{Working Capital} &= \text{Current Assets} - \text{Current Liabilities} \\ &= 4,00,000 - 2,80,000 \\ &= 1,20,000\end{aligned}$$

$$\begin{aligned}\text{Working Capital Ratio} &= \frac{10,00,000}{1,20,000} \\ &= 8.33 \text{ times.}\end{aligned}$$

$$\begin{aligned}\text{Debt Equity Ratio} &= \frac{\text{Debt}}{\text{Equity}} \\ &= \frac{2,00,000}{5,00,000} = 2 : 5 = 0.4 : 1\end{aligned}$$

$$\text{Proprietary Ratio} = \frac{\text{Shareholders Funds}}{\text{Total Assets}}$$

$$\begin{aligned}\text{Total Assets} &= \text{Paid up Capital} + \text{Debentures} + \text{Current Liabilities} \\ &(\because \text{Total Liabilities} = \text{Total Assets}) \\ &= 5,00,000 + 2,00,000 + 2,80,000 \\ &= 9,80,000\end{aligned}$$

$$\text{Proprietary Ratio} = \frac{5,00,000}{9,80,000} = 25 : 49 = 0.51 : 1$$

Question 13:

Calculate Inventory Turnover Ratio if:

Inventory in the beginning is Rs. 76,250, Inventory at the end is 98,500, Gross Revenue from Operations is Rs. 5,20,000, Sales Return is Rs. 20,000, Purchases is Rs. 3,22,250.

ANSWER:

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Revenue from Operations}}{\text{Average Inventory}}$$

$$\begin{aligned}\text{Cost of Revenue from Operations} &= \text{Inventory in the beginning} + \text{Purchases} - \text{Inventory at the end} \\ &= 76,250 + 3,22,250 - 98,500 \\ &= 3,00,000\end{aligned}$$

$$\begin{aligned}\text{Average Inventory} &= \frac{\text{Inventory in the beginning} + \text{Inventory at the end}}{2} \\ &= \frac{76,250 + 98,000}{2} \\ &= 87,375\end{aligned}$$

$$\text{Inventory Turnover Ratio} = \frac{3,00,000}{87,375} = 3.43 \text{ times}$$

Question 14:

Calculate Inventory Turnover Ratio from the data given below:

	Rs
Inventory in the beginning of the year	10,000
Inventory at the end of the year	5,000
Carriage	2,500
Revenue from Operations	50,000
Purchases	25,000

ANSWER:

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Revenue from Operations}}{\text{Average Inventory}}$$

$$\begin{aligned}\text{Cost of Revenue from Operations} &= \text{Inventory in the beginning} + \text{Purchases} + \text{Carriage} - \text{Inventory at the end} \\ &= 10,000 + 25,000 + 2,500 - 5,000 \\ &= 32,500\end{aligned}$$

$$\begin{aligned}\text{Average Inventory} &= \frac{\text{Inventory in the beginning} + \text{Inventory at the end}}{2} \\ &= \frac{10,000 + 5,000}{2} \\ &= 7,500\end{aligned}$$

$$\text{Inventory Turnover Ratio} = \frac{32,500}{7,500} = 4.33 \text{ times}$$

Question 15:

A trading firm's average inventory is Rs 20,000 (cost). If the inventory turnover ratio is 8 times and the firm sells goods at a profit of 20% on sale, ascertain the profit of the firm.

ANSWER:

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Revenue from Operations}}{\text{Average Inventory}}$$

$$\text{or, } 8 = \frac{\text{Cost of Revenue from Operations}}{20,000}$$

$$\text{or, Cost of Revenue from Operations} = 20,000 \times 8$$

$$\text{or, Cost of Revenue from Operations} = 1,60,000$$

Let Sale Price be Rs 100

Then Profit is Rs 20

Hence, the Cost of Revenue from Operations = Rs 100 – Rs 20 = Rs 80

If the Cost of Revenue from Operations is Rs 80, then Revenue from Operations = 100

If the Cost of Revenue from Operations is Rs 1, then Revenue from Operations = $\frac{100}{80}$

If the Cost of Revenue from Operations is 1,60,000 then,

$$\text{Revenue from Operations} = \frac{100}{80} \times 1,60,000 = 2,00,000$$

$$\begin{aligned}\text{Profit} &= \text{Net Revenue from Operations} - \text{Cost of Revenue from Operations} \\ &= 2,00,000 - 1,60,000 \\ &= 40,000\end{aligned}$$
