Chapter 5 - Accounting Ratios

Short Answer Questions

Question 1:

What do you mean by Ratio Analysis?

Answer:

Ratio Analysis is a technique of financial analysis. It describes the relationship between various items of Balance Sheet and Income Statements. It helps us in ascertaining profitability, operational efficiency, solvency, etc. of a firm. It may be expressed as a fraction, proportion, percentage and in times. It enables budgetary controls by assessing qualitative relationship among different financial variables. Ratio Analysis provides vital information to various accounting users regarding the financial position and viability and performance of a firm. It also lays down the basic framework for decision making and policy designing by management.

Question 2:

What are the various types of ratios?

Answer:

Accounting ratios are classified in the following two ways.

I. Traditional Classification

II. Functional Classification

I. **Traditional Classification:** This classification is based on the financial statements, i.e. Profit and Loss Account and Balance Sheet. The Traditional Classification further bifurcates accounting ratios on the basis of the accounts to which the elements of a ratio belong. On the basis of accounts of financial statements, the Traditional Classification bifurcate accounting ratios as:

a. ***Income Statement Ratios***: These are those ratios whose all the elements belong only to the Trading and Profit and Loss Account, like Gross Profit Ratio, etc.

b. ***Balance Sheet Ratios***: These are those ratios whose all the elements belong only to the Balance Sheet, like Current Ratio, Debt Equity Ratio, etc.

c. ***Composite Ratios***: These are those ratios whose elements belong both to the Trading and Profit and Loss Account as well as to the Balance Sheet, like Debtors Turnover Ratio, etc.

II. **Functional Classification:** This classification reflects the functional need and the purpose of calculating ratio. The basic rationale to compute ratio is to ascertain liquidity, solvency, financial performance and profitability of a business. Consequently, the Functional Classification classifies various accounting ratios as:

a. ***Liquidity Ratio***: These ratios are calculated to determine short term solvency.

b. ***Solvency Ratio***: These ratios are calculated to determine long term solvency.

c. ***Activity Ratio***: These ratios are calculated for measuring the operational efficiency and efficacy of the operations. These ratios relate to sales or cost of goods sold.

d. ***Profitability Ratio***: These ratios are calculated to assess the financial performance and the financial viability of the business.

Question 3:

What relationships will be established to study:

a. Inventory Turnover

b. Trade Receivables Turnover

c. Trade Payables Turnover

d. Working Capital Turnover

Answer:

a. **Inventory Turnover Ratio**: This ratio is computed to determine the efficiency with which the stock is used. This ratio is based on the relationship between cost of goods sold and average stock kept during the year.

$$\text{Inventory / Stock Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Stock}}$$

$$\text{Cost of Goods Sold} = \text{Opening Stock} + \text{Purchases} + \text{Direct Expenses} - \text{Closing Stock}$$

$$\text{or, Cost of Goods Sold} = \text{Net Sales} - \text{Gross Profit}$$

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

b. **Debtors Turnover Ratio or Trade Receivables Turnover Ratio**: This ratio is computed to determine the rate at which the amount is collected from the debtors. It establishes the relationship between net credit sales and average accounts receivables.

$$\text{Debtors Turnover Ratio} = \frac{\text{Net Credit Sales}}{\text{Average Accounts Receivables}}$$

$$\text{Net Credit Sales} = \text{Total Sales} - \text{Cash Sales}$$

$$\text{Average Accounts Receivables} = \frac{(\text{Opening Debtors} + \text{Opening B/R}) + (\text{Closing Debtors} + \text{Closing B/R})}{2}$$

c. **Trade Payables Turnover Ratio**: This ratio is known as Creditors Turnover Ratio. It is computed to determine the rate at which the amount is paid to the creditors. It establishes the relationship between net credit purchases and average accounts payables.

$$\text{Payable Turnover Ratio} = \frac{\text{Net Credit Purchases}}{\text{Average Accounts Payable}}$$

$$\text{Net Credit Purchases} = \text{Total Purchases} - \text{Cash Purchases}$$

$$\text{AverageAccounts Payable} = \frac{(\text{Opening Creditors} + \text{Opening B/P}) + (\text{Closing Creditors} + \text{Closing B/P})}{2}$$

d. **Working Capital Turnover Ratio**: This ratio is computed to determine how efficiently the working capital is utilised in making sales. It establishes the relationship between net sales and working capital.

$$\text{Working Capital Turnover Ratio} = \frac{\text{Net Sales}}{\text{Working Capital}}$$

$$\text{Net Sales} = \text{Total Sales} - \text{Sales Return}$$

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

Question 4:

The liquidity of a business firm is measured by its ability to satisfy its long-term obligations as they become due. What are the ratios used for this purpose?

Answer:

The liquidity of a business firm is measured by its ability to pay its long term obligations. The long term obligations include payments of principal amount on the due date and payments of interests on the regular basis. Long term solvency of any business can be calculated on the basis of the following ratios.

a. **Debt-Equity Ratio**- It depicts the relationship between the borrowed fund and owner's funds. The lower the debt-equity ratio higher will be the degree of security to the lenders. A low debt-equity ratio implies that the company can easily meet its long term obligations.

$$\text{Debt-Equity Ratio} = \frac{\text{Long-term Debt}}{\text{Equity/ Share holders Fund}}$$

b. **Total Assets to Debt Ratio-** It shows the relationship between the total assets and the long term loans. A high Total Assets to Debt Ratio implies that more assets are financed by the owner's fund and the company can easily meet its long-term obligations. Thus, a higher ratio implies more security to the lenders.

$$\text{Total Assets to Debt Ratio} = \frac{\text{Total Assets}}{\text{Long-term Debt}}$$

c. **Interest Coverage Ratio**- This ratio depicts the relationship between amount of profit utilised for paying interest and amount of interest payable. A high Interest Coverage Ratio implies that the company can easily meet all its interest obligations out of its profit.

$$\text{Interest Coverage Ratio} = \frac{\text{Net Profit before Interest and Tax}}{\text{Interest on Long-term Loans}}$$

Question 5:

The average age of inventory is viewed as the average length of time inventory is held by the firm for which explain with reasons.

Answer:

Inventory Turnover Ratio: This ratio is computed to determine the efficiency with which the stock is used. This ratio is based on the relationship between cost of goods sold and average stock kept during the year.

$$\text{Inventory / Stock Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Stock}}$$

$$\text{Cost of Goods Sold} = \text{Opening Stock} + \text{Purchases} + \text{Direct Expenses} - \text{Closing Stock}$$

$$\text{or, Cost of Goods Sold} = \text{Net Sales} - \text{Gross Profit}$$

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

$$\text{Average Age of Inventory} = \frac{\text{Days in a year}}{\text{Inventory Turnover Ratio}}$$

It shows the rate with which the stock is turned into sales or the number of times the stock in turned into sales during the year. In other words, this ratio reveals the average length of time for which the inventory is held by the firm.

Long Answer Questions

Question 1:

What are liquidity ratios? Discuss the importance of current and liquid ratio.

Answer:

Liquidity ratios are calculated to determine the short-term solvency of a business, i.e. the ability of the business to pay back its current dues. Liquidity means easy conversion of assets into cash without any significant loss and delay.

Short-term creditors are interested in ascertaining liquidity ratios for timely payment of their debts.

Liquidity ratio includes

1. Current Ratio

2. Liquid Ratio or Quick Ratio

1. **Current Ratio**- It explains the relationship between current assets and current liabilities. It is calculated as:

$$\text{CurrentRatio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Currents Assets are those assets that can be easily converted into cash within a short period of time like, cash in hand, cash at bank, marketable securities, debtors, stock, bills receivables, prepaid expenses. etc.

Current Liabilities are those liabilities that are to be repaid within a year like, bank overdraft, bills payables, Short-term creditors, provision for tax, outstanding expenses etc.

Importance of Current Ratio

It helps in assessing the firm's ability to meet its current liabilities on time. The excess of current assets over current liabilities provide a sense of safety and security to the creditors. The ideal ratio of current assets over current liabilities is 2:1. It means that the firm has sufficient funds to meet its current liabilities. A higher ratio indicates poor investment policies of management and low ratio indicates shortage of working capital and lack of liquidity.

2. **Liquid Ratio**- It explains the relationship between liquid assets and current liabilities. It indicates whether a firm has sufficient funds to pay its current liabilities immediately. It is calculated as:

$$\text{Liquid Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$$

$$\text{Liquids Assets} = \text{Current Assets} - \text{Stock} - \text{Prepaid Expenses}$$

Importance of Liquid Ratio

It helps in determining whether a firm has sufficient funds if it has to pay all its current liabilities immediately.

It does not include stock, since it takes comparatively more time to convert the stock into cash. Further prepaid expenses are also not included in liquid assets, since these cannot be converted into cash. The ideal Liquidity Ratio is considered to be 1:1. It means that the firm has a rupee in form of liquid assets for every rupee of current liabilities.

Question 2:

How would you study the solvency position of the firm?

Answer:

Solvency position of a firm is studied with the help of the Solvency Ratios. Solvency ratios are the measures of the long-term financial position of the firm in terms of its ability to pay its long-term liabilities. In other words, the solvency of the firm is measured by its ability to pay its long term obligation on the due date. The long term obligations include payments of principal amount on the due date and payments of interests on the regular basis. Long term solvency of any business can be calculated on the basis of the following ratios.

a. **Debt-Equity Ratio**- It depicts the relationship between the borrowed fund and owner's funds. The lower the debt-equity ratio higher will be the degree of security to the lenders. A low debt-equity ratio implies that the company can easily meet its long term obligations.

$$\text{Debt-Equity Ratio} = \frac{\text{Long-term Debt}}{\text{Equity/ Share holders Fund}}$$

Equity or the Shareholders Fund includes Preference Share Capital, Equity Share Capital, Capital Reserve, Securities Premium, General Reserve *less* Accumulated Loss and Fictitious Assets

b. **Total Assets to Debt Ratio-** It shows the relationship between the total assets and the long term loans. A high Total Assets to Debt Ratio implies that more assets are financed by the owner's fund and the company can easily meet its long-term obligations. Thus, a higher ratio implies more security to the lenders.

$$\text{Total Assets to Debt Ratio} = \frac{\text{Total Assets}}{\text{Long-term Debt}}$$

Total Assets includes all fixed and current assets except fictitious assets like, Preliminary Expenses, Underwriting Commission, etc.

Debt includes all long-term loans that are to be repaid after one year. It includes debentures, mortgage loans, bank loans, loans from other financial institutions, etc.

c. **Interest Coverage Ratio**- This ratio depicts the relationship between amount of profit utilise for paying interest and amount of interest payable. A high Interest Coverage Ratio implies that the company can easily meet all its interest obligations out of its profit.

$$\text{Interest Coverage Ratio} = \frac{\text{Net Profit before Interest and Tax}}{\text{Interest on Long-term Loans}}.$$

d. **Proprietary Ratio**- It shows the relationship between the Shareholders Fund and the Total Assets. This ratio reveals the financial position of a business. The higher the ratio the higher will be the degree of safety for the creditors. It is calculated as:

$$\text{Proprietary Ratio} = \frac{\text{Shareholders Fund}}{\text{Total Assets}} \text{ or } \frac{\text{Equity}}{\text{Total Assets}}$$

Total Assets includes all fixed and current assets except fictitious assets like, Preliminary Expenses, Underwriting Commission, etc.

Question 3:

What are important profitability ratios? How are these worked out?

Answer:

Profitability ratios are calculated on the basis of profit earned by a business. This ratio gives a percentage measure to assess the financial viability, profitability and operational efficiency of the business. The various important Profitability Ratios are as follows:

1. Gross Profit Ratio

2. Operating Ratio

3. Operating Profit Ratio

4. Net Profit Ratio

5. Return on Investment or Capital Employed

6. Earnings per Share Ratio

7. Dividend Payout Ratio

8. Price Earnings Ratio

1. **Gross Profit Ratio**- It shows the relationship between Gross Profit and Net Sales. It depicts the trading efficiency of a business. A higher Gross Profit Ratio implies a better position of a business, whereas a low Gross Profit Ratio implies an inefficient unfavourable sales policy.

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$$

$$\text{Gross Profit} = \text{Net Sales} - \text{Cost of Goods Sold}$$

$$\text{Net Sales} = \text{Total Sales} - \text{Sales Return}$$

$$\text{Cost of Goods Sold} = \text{Opening Stock} + \text{Purchases} + \text{Direct Expenses} - \text{Closing Stock}$$

2. **Operating Ratio-** It shows the relationship between Cost of Operation and Net Sales. This ratio depicts the operational efficiency of a business. A low Operating Ratio implies higher operational

efficiency of the business. A low Operating Ratio is considered better for the business as it enables the business to be left with a greater amount after covering its operation costs to pay for interests and dividends.

$$\text{Operating Ratio} = \frac{\text{Operating Cost}}{\text{Net Sales}} \times 100$$

$$\text{Operating Cost} = \text{Cost of Goods Sold} + \text{Operating Expenses}$$

$$\text{Cost of Goods Sold} = \text{Sales} - \text{Gross Profit}$$

3. **Operating Profit Ratio-** It shows the relationship between the Operating Profit and Net Sales. It helps in assessing the operational efficiency and the performance of the business.

$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Sales}} \times 100$$

$$\text{Operating Profit Ratio} = 100 - \text{Operating Ratio}$$

$$\text{Operating Profit} = \text{Sales} - \text{Operation Cost}$$

4. **Net Profit Ratio**- It shows the relationship between net profit and sales. Higher ratio is better for firm. It depicts the overall efficiency of a business and acts as an important tool to the investors for analysing and measuring the viability and performance of the business.

$$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100$$

$$\text{or, Net Profit Ratio} = \frac{\text{Profit Before Tax}}{\text{Net Sales}} \times 100$$

$$\text{or, Net Profit Ratio} = \frac{\text{Profit After Tax}}{\text{Net Sales}} \times 100$$

$$\text{Net Sales} = \text{Total Sales} - \text{Sales Return}$$

5. **Return on Investment or Capital Employed-** It shows the relationship between the profit earned and the capital employed to earn that profit. It is calculated as:

$$\text{Return on Investment or Capital Employed} = \frac{\text{Profit before Interest and Tax}}{\text{Capital Employed}} \times 100$$

$$\text{Capital Employed} = \text{Fixed Assets} + \text{Current Assets} - \text{Current Liabilities}$$

$$\text{Or, Capital Employed} = \text{Share Capital} + \text{Reserve and Surplus} + \text{Long-term Funds} - \text{Fictitious Assets}$$

This ratio depicts the efficiency with which the business has utilised the capital invested by the investors. It is an important yardstick to assess the profit earning capacity of the business.

6. **Earning per Shares**- It shows the relationship between the amount of profit available to distribute as dividend among the equity shareholders and number of equity shares.

$$\text{Earning per Share} = \frac{\text{Profit available for equity shareholders}}{\text{Number of equity shares}}$$

$$\text{Profit available for equity shareholders} = \text{Net Profit after Tax} - \text{Preference Share Dividend}$$

7. **Dividend Payout Ratio**- It shows the relationship between the dividend per share and earnings per share. This ratio depicts the amount of earnings that is distributed in the form of dividend among the shareholders. A high Dividend Payout Ratio implies a better position and goodwill of the business for the shareholders.

$$\text{Dividend Payout ratio} = \frac{\text{Dividend per share}}{\text{Earning per share}}.$$

$$\text{Dividend per share} = \frac{\text{Dividend paid}}{\text{No. of shares}}$$

8. **Price Earning Ratio**- It shows the relationship between the market price of a share and the earnings per share. This ratio is the most common tool that is used in the stock markets. This ratio depicts the degree of reliance and trust that the shareholders have on the business. This ratio reflects the expectation of the shareholders regarding the rise in the future prices of the company's shares. A higher Price Earning Ratio definitely enables a company to enjoy favourable position in the market.

$$\text{Price Earning Ratio} = \frac{\text{Market Price of a Share}}{\text{Earnings Per Share}}$$

Question 4:

The current ratio provides a better measure of overall liquidity only when a firm's inventory cannot easily be converted into cash. If inventory is liquid, the quick ratio is a preferred measure of overall liquidity. Explain.

Answer:

Current Ratio- It explains the relationship between current assets and current liabilities. It is calculated as:

$$\text{CurrentRatio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Currents Assets are those assets that are easily converted into cash within a short period of time like cash in hand, cash at bank, marketable securities, debtors, stock, bills receivables, prepaid expenses. etc.

Current Liabilities are those liabilities that are to be repaid within a year like bank overdraft, bills payables, Short-term creditors, provision for tax, outstanding expenses etc.

Liquid Ratio- It explains the relationship between liquid assets and current liabilities. It indicates whether a firm has sufficient funds to pay its current liabilities immediately. It is calculated as:

$$\text{Liquid Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$$

$$\text{Liquids Assets} = \text{Current Assets} - \text{Stock} - \text{Prepaid Expenses}$$

Generally, Current Ratio is preferable for such type of business where the stock or the inventories cannot easily be converted into cash like heavy machinery manufacturing companies, locomotive companies, etc. This is because, the heavy stocks like machinery, heavy tools etc. cannot be easily sold off. But on the other hand, the businesses where the stock can be easily realised or sold off regard Liquid Ratio to be more suitable measure to reveal their liquidity position. For example, the inventories of a service sector company is very liquid as there are no stock kept for sale, so they prefer Liquid Ratio as a measure of overall liquidity.

Moreover, sometimes companies prefer to resort to Liquid Ratio instead of Current Ratio, if the prices of the stock held are prone to fluctuate. This is because if the prices of the inventories fluctuate more, then this may affect their liquidity position of the business and may reduce (or overcast) the Current Ratio. Consequently, they prefer Liquid Ratio as it excludes inventories and stocks.

Thirdly, if the stock forms the major portion of a company's current assets, then they would prefer Current Ratio and not Liquid Ratio. This is because their current assets mostly consist of stock. The Liquid Ratio of such company will be very low as liquid assets exclude stock. This will reduce their Liquid Ratio and may create a bad image for the creditors. In such a case, Current Ratio provides better measure of overall liquidity.

Numerical Questions

Question 1:

Following is the Balance Sheet of Raj Oil Mills Limited as at March 31, 2017. Calculate Current Ratio.

Particulars	(Rs)
I. Equity and Liabilities:	
1. Shareholders' funds	
a) Share capital	7,90,000
b) Reserves and surplus	35,000
2. Current Liabilities	
a) Trade Payables	72,000
Total	**8,97,000**
II. Assets	
1. Non-current Assets	
a) Fixed assets	
Tangible assets	7,53,000
2. Current Assets	
a) Inventories	55,800
b) Trade Receivables	28,800
c) Cash and cash equivalents	59,400
Total	**8,97,000**

Answer:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$= \frac{1,44,000}{72,000}$$

$$= 2:1$$

Current Assets = Inventories +Trade Receivables + Cash

= 55,800 + 28,800 + 59,400

= Rs 1,44,000

Current Liabilities = Trade Payables = Rs 72,000

Question 2:

Following is the Balance Sheet of Title Machine Ltd. as at March 31, 2017.

Particulars	Amount Rs.
I. Equity and Liabilities	
1. Shareholders' funds	
a) Share capital	24,00,000
b) Reserves and surplus	6,00,000
2. Non-current liabilities	
a) Long-term borrowings	9,00,000
3. Current liabilities	
a) Short-term borrowings	6,00,000
b) Trade payables	23,40,000
c) Short-term provisions	60,000
Total	**69,00,000**
II. Assets	
1. Non-current Assets	
a) Fixed assets	
Tangible assets	45,00,000
2. Current Assets	
a) Inventories	12,00,000
b) Trade receivables	9,00,000
c) Cash and cash equivalents	2,28,000
d) Short-term loans and advances	72,000
Total	**69,00,000**

Calculate Current Ratio and Liquid Ratio.

Answer:

1. Current Ratio

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$
$$= \frac{24,00,000}{30,00,000}$$
$$= 0.8:1$$

Current Assets = Inventories +Trade Receivables + Cash + Short term Loans and Advances

= 12,00,000 + 9,00,000 + 2,28,000 + 72,000

= Rs 24,00,000

Current Liabilities = Trade Payables + Short-term Borrowings + Short-term Provisions

= 23,40,000 + 6,00,000 + 60,000

= Rs 30,00,000

2. Quick Ratio

$$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Current Liabilities}}$$
$$= \frac{12,00,000}{30,00,000}$$
$$= 0.4:1$$

Quick Assets = Trade Receivables + Cash + Short term Loans and Advances

= 9,00,000 + 2,28,000 + 72,000

= Rs 12,00,000

Question 3:

Current Ratio is 3.5:1. Working Capital is Rs 90,000. Calculate the amount of Current Assets and Current Liabilities.

Answer:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$\text{or, } 3.5 = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

or, Current Assets = 3.5 Current Liabilities (**1**)

Working Capital = Current Assets − Current Liabilities

Working Capital = 90,000

or, Current Assets − Current Liabilities = 90,000

or, 3.5 Current Liabilities − Current Liabilities = 90,000 (from **1**)

or, 2.5 Current Liabilities = 90,000

$$\text{or, Current Liabilities} = \frac{90,000}{2.5} = 36,000$$

$$\text{or, Current Assets} = 3.5 \text{ Current Liabilities}$$
$$= 3.5 \times 36,000$$
$$= 1,26,000$$

Question 4:

Shine Limited has a current ratio 4.5:1 and quick ratio 3:1; if the inventory is 36,000, calculate current liabilities and current assets.

Answer:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

or, $\frac{4.5}{1} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$

or, 4.5 Current Liabilities = Current Assets

$$\text{Quick ratio} = \frac{\text{Quick Assets}}{\text{Current Liabilities}}$$

or, $3:1 = \frac{\text{Quick Assets}}{\text{Current Liabilities}}$

or, 3 Current Liabilities = Quick Assets

$$\text{Quick Assets} = \text{Current Assets} - \text{Inventory} = \text{Current Assets} - 36,000$$ Quick Assets =

Current Assets − Quick Assets = 36,000

or, 4.5 Current Liabilities − 3 Current Liabilities = 36,000

or, 1.5 Current Liabilities = 36,000

or, Current Liabilities = 24,000

Current Assets = 4.5 Current Liabilities

$$\text{or, Current Assets} = 4.5 \times 24,000$$
$$= 1,08,000$$

Note: The solution given in the book is incorrect as it from the given figures Current Assets is ascertained to be Rs 1,08,000 and Current Liabilities Rs 24,000.

Question 5:

Current liabilities of a company are Rs 75,000. If current ratio is 4:1 and liquid ratio is 1:1, calculate value of current assets, liquid assets and inventory.

Answer:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$\text{or, } 4 = \frac{\text{Current Assets}}{75,000}$$

or, 4 × 75,000 = Current Assets

or, Current Assets = 3,00,000

$$\text{Liquid Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$$

$$\text{or, } 1 = \frac{\text{Liquid Assets}}{75,000}$$

Liquid Assets = 75,000

Inventory = Current Assets − Liquid Assets
= 3,00,000 − 75,000
= 2,25,000

Question 6:

Handa Ltd.has inventory of Rs 20,000. Total liquid assets are Rs 1,00,000 and quick ratio is 2:1. Calculate current ratio.

Answer:

$$\text{Quick Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilties}}$$

$$\text{or, } 2 = \frac{1,00,000}{\text{Current Liabilities}}$$

$$\text{or, Current Liabilities} = \frac{1,00,000}{2}$$
$$= 50,000$$

Current Assets = Liquid Assets + Inventory
= 1,00,000 + 20,000
= 1,20,000

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilties}}$$
$$= \frac{1,20,000}{50,000}$$
$$= \frac{2.4}{1} = 2.4:1$$

Question 7:

Calculate debt equity ratio from the following information:

	Rs
Total Assets	15,00,000
Current Liabilities	6,00,000
Total Debts	12,00,000

Answer:

$$\text{Debt Equity Ratio} = \frac{\text{Debt}}{\text{Equity}}$$

$$\begin{aligned}\text{Equity} &= \text{Total Assets} - \text{Total Debts} \\ &= 15,00,000 - 12,00,000 \\ &= 3,00,000\end{aligned}$$

Long Term Debts = Total Debts − Current Liabilities

$$\text{Debt Equity Ratio} = \frac{\text{Long Term Debt}}{\text{Equity}}$$

or, $\text{Debt Equity Ratio} = \frac{6,00,000}{3,00,000} = \frac{2}{1} = 2:1$

Question 8:

Calculate Current Ratio if:

Inventory is Rs 6,00,000; Liquid Assets Rs 24,00,000; Quick Ratio 2:1.

Answer:

$$\text{Quick Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$$

or, $2 = \frac{24,00,000}{\text{Current Liabilities}}$

$$\begin{aligned}\text{Current Liabilities} &= \frac{24,00,000}{2} \\ &= 12,00,000\end{aligned}$$

Current Assets = Liquid Assets + Inventory

$$\begin{aligned}&= 24,00,000 + 6,00,000 \\ &= 30,00,000.\end{aligned}$$

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$= \frac{30,00,000}{12,00,000} = \frac{2.5}{1} = 2.5:1$$

Question 9:

Compute Stock Turnover Ratio from the following information:

	Rs
Net Revenue from Operations	2,00,000
Gross Profit	50,000
Inventory at the end	60,000
Excess of inventory at the end over inventory in the beginning	20,000

Answer:

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

$$\begin{aligned}\text{Cost of Goods Sold} &= \text{Net Sales} - \text{Gross Profit} \\ &= 2,00,000 - 50,000 \\ &= 1,50,000\end{aligned}$$

$$\begin{aligned}\text{Inventory in the beginning} &= \text{Inventory at the end} - 20,000 \\ &= 60,000 - 20,000 \\ &= 40,000\end{aligned}$$

$$\begin{aligned}\text{Average Inventory} &= \frac{\text{Inventory in the beginning} + \text{Inventory at the end}}{2} \\ &= \frac{40,000 + 60,000}{2} \\ &= 50,000\end{aligned}$$

$$\text{Inventory Turnover Ratio} = \frac{1,50,000}{50,000} = 3 \text{ times}$$

Question 10:

Calculate following ratios from the following information:

(i) Current ratio (ii) Acid test ratio (iii) Operating Ratio (iv) Gross Profit Ratio

	Rs
Current Assets	35,000
Current Liabilities	17,500
Inventory	15,000
Operating Expenses	20,000
Revenue from Operations	60,000
Cost of Goods Sold	30,000

Answer:

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

$$\text{Current Ratio} = \frac{35,000}{17,500} = 2:1$$

ii) $$\text{Acid Test Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$$

$$\begin{aligned}\text{Liquid Assets} &= \text{Current Assets} - \text{Inventory} \\ &= 35,000 - 15,000 \\ &= 20,000\end{aligned}$$

$$\text{Acid Test Ratio} = \frac{20,000}{17,500} = \frac{1.143}{1} = 1.143:1$$

iii)

$$\begin{aligned}\text{Operating Ratio} &= \frac{(\text{Cost of Goods Sold} + \text{Operating Expenses})}{\text{Net Revenue from Operations}} \times 100 \\ &= \frac{(30,000 + 20,000)}{60,000} \times 100 \\ &= \frac{50,000}{60,000} \times 100 = 83.33\%\end{aligned}$$

iv)

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

$$\begin{aligned}\text{Gross Profit} &= \text{Net Revenue from Operations} - \text{Cost of Goods Sold} \\ &= 60{,}000 - 30{,}000 \\ &= 30{,}000\end{aligned}$$

$$\text{Gross Profit Ratio} = \frac{30{,}000}{60{,}000} \times 100 = 50\%$$

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)

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

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

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

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

(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)

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

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

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

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:

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

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

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

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

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

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

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

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

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

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

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,

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

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

Question 16:

You are able to collect the following information about a company for two years:

	2015-16	2016-17
Trade receivables on Apr. 01	Rs. 4,00,000	Rs 5,00,000
Trade receivables on Mar. 31		Rs 5,60,000
Stock in trade on Mar. 31	Rs. 6,00,000	Rs 9,00,000
Revenue from operations (at gross profit of 25%)	Rs. 3,00,000	Rs 24,00,000

Calculate Inventory Turnover Ratio and Trade Receivables Turnover Ratio.

Answer:

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

or,

$$\text{Cost of Revenue from Operations} = \text{Revenue from Operations} - \text{Gross Profit}$$
$$= 24,00,000 - 6,00,000$$
$$= 18,00,000$$

$$\text{Average Inventory} = \frac{\text{Inventory in the beginning} + \text{Inventory at the end}}{2}$$
$$= \frac{6,00,000 + 9,00,000}{2}$$
$$= 7,50,000$$

$$\text{Inventory Turnover Ratio} = \frac{18,00,000}{7,50,000} = 2.4 \text{ times}$$

$$\text{Trade Receivables Turnover Ratio} = \frac{\text{Net Credit Sales}}{\text{Average Trade Receivables}}$$

$$\text{Average Trade Receivables} = \frac{\text{Trade Receivables in the beginning} + \text{Trade Receivables at the end}}{2}$$

$$= \frac{5,00,000 + 5,60,000}{2}$$

$$= 5,30,000$$

$$\text{Trade Receivables Turnover Ratio} = \frac{24,00,000}{5,30,000} = 4.53 \text{ times}$$

Note: It has been assumed that all sales are credit sales

Question 17:

From the following Balance Sheet and other information, calculate following ratios:

(i) Debt-Equity Ratio (ii) Working Capital Turnover Ratio (iii) Trade Receivables Turnover Ratio

Balance Sheet as at March 31, 2017

Particulars	Note No.	Rs.
I. Equity and Liabilities:		
1. Shareholders' funds		
a) Share capital		10,00,000
b) Reserves and surplus		9,00,000
2. Non-current Liabilities		
Long-term borrowings		12,00,000
3. Current Liabilities		
Trade payables		5,00,000
Total		**36,00,000**
II. Assets		
1. Non-current Assets		
a) Fixed assets		
Tangible assets		18,00,000
2. Current Assets		
a) Inventories		4,00,000
b) Trade Receivables		9,00,000
c) Cash and cash equivalents		5,00,000
Total		**36,00,000**

Additional Information: Revenue from Operations Rs. 18,00,000

Answer:

1. Debt-Equity Ratio

$$\text{Debt Equity Ratio} = \frac{\text{Debt}}{\text{Equity}}$$
$$= \frac{12,00,000}{19,00,000}$$
$$= 0.63 : 1$$

Debt = Long Term Borrowings = Rs 12,00,0000

Equity = Share Capital + Reserve and Surplus

= 10,00,000 + 9,00,000

= Rs 19,00,000

2. Working Capital Turnover Ratio

$$\text{Working Capital Turnover Ratio} = \frac{\text{Revenue from Operations}}{\text{Working Capital}}$$
$$= \frac{18,00,000}{13,00,000}$$
$$= 1.39 \text{ times}$$

Revenue from Operations = Rs 18, 00,000

Working Capital = Current Assets – Current Liabilities

= 18,00,000 – 5,00,000

= Rs 13,00,000

3. Trade Receivables Turnover Ratio

$$\text{Trade Receivables Turnover Ratio} = \frac{\text{Net Credit Sales}}{\text{Average Trade Receivables}}$$
$$= \frac{18,00,000}{9,00,000}$$
$$= 2 \text{ times}$$

Net Credit Sales = Rs 18,00,000

Average Trade Receivables = Rs 9,00,000

Notes:
1. Revenue from Operations are assumed to be revenue generated from credit sales.

2. The amount of trade receivables given in the Balance Sheet is assumed to be Average Trade Receivables.

Question 18:

From the following information, calculate the following ratios:

i) Quick Ratio

ii) Inventory Turnover Ratio

iii) Return on Investment

	Rs.
Inventory in the beginning	50,000
Inventory at the end	60,000

Revenue from operations	4,00,000
Gross Profit	1,94,000
Cash and Cash Equivalents	40,000
Trade Receivables	1,00,000
Trade Payables	1,90,000
Other Current Liabilities	70,000
Share Capital	2,00,000
Reserves and Surplus	1,40,000

(Balance in the Statement of Profit & Loss A/c)

Answer:

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

$$\begin{aligned}\text{Quick Assets} &= \text{Cash} + \text{Debtors} \\ &= 40,000 + 1,00,000 \\ &= 1,40,000\end{aligned}$$

$$\begin{aligned}\text{Current Liabilities} &= \text{Creditors} + \text{Outstanding Expenses} \\ &= 1,90,000 + 70,000 \\ &= 2,60,000\end{aligned}$$

$$\text{Quick Ratio} = \frac{1,40,000}{2,60,000} = 7:13 = 0.54:1$$

(ii)

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

$$\begin{aligned}\text{Cost of Revenue from Operations} &= \text{Revenue from Operations} - \text{Gross Profit} \\ &= 4,00,000 - 1,94,000 \\ &= 2,06,000\end{aligned}$$

$$\begin{aligned}\text{Average Inventory} &= \frac{\text{Inventory in the beginning} + \text{Inventory at the end}}{2} \\ &= \frac{50,000 + 60,000}{2} \\ &= 55,000\end{aligned}$$

$$\text{Inventory Turnover Ratio} = \frac{2,06,000}{55,000} = 3.74 \text{ times}$$

$$\text{Return on Investment} = \frac{\text{Profit before Interest and Tax}}{\text{Capital Employed}} \times 100$$

$$\begin{aligned}\text{Capital Employed} &= \text{Equity Share Capital} + \text{Profit and Loss} \\ &= 2,00,000 + 1,40,000 \\ &= 3,40,000\end{aligned}$$

$$\text{Return on Investment} = \frac{1,40,000}{3,40,000} \times 100 = 41.17\%$$

Question 19:

From the following, calculate (a) Debt Equity Ratio (b) Total Assets to Debt Ratio (c) Proprietary Ratio.

	Rs
Equity Share Capital	75,000
Preference Share Capital	25,000
General Reserve	45,000
Balance in the Statement of Profits and Loss	30,000
Debentures	75,000
Trade Payables	40,000
Outstanding Expenses	10,000

Answer:

(a) $\text{Debt Equity Ratio} = \frac{\text{Debt}}{\text{Equity}}$

$$\begin{aligned}\text{Equity/Shareholders Funds} &= \text{Equity Share Capital} + \text{Preference Share Capital} + \text{General Reserve} \\ &\quad + \text{Accumulated Profit} \\ &= 75,000 + 25,000 + 45,000 + 30,000 \\ &= 1,75,000\end{aligned}$$

Debt = Debentures = 75,000

$$\text{Debt Equity Ratio} = \frac{75,000}{1,75,000} = \frac{3}{7} = 0.43:1$$

(b) $\text{Total Assets to Debt Ratio} = \frac{\text{Total Assets}}{\text{Debt}}$

$$\begin{aligned}\text{Total Assets} &= \text{Equity Share Capital} + \text{Preference Share Capital} + \text{General Reserve} \\ &\quad + \text{Accumulated Profits} + \text{Debentures} + \text{Sundry Creditors} + \text{Outstanding Expenses} \\ &\quad (\because \text{Total liabilities is equal to total assets}) \\ &= 75,000 + 25,000 + 45,000 + 30,000 + 75,000 + 40,000 + 10,000 \\ &= 3,00,000\end{aligned}$$

$$\text{Total Assets to Debt Ratio} = \frac{3,00,000}{75,000} = 4:1$$

(c)

$$\text{Proprietary Ratio} = \frac{\text{Shareholder Funds}}{\text{Net Assets}}$$

$$\text{Proprietary Ratio} = \frac{1,75,000}{3,00,000} = \frac{7}{12} = 7:12 \text{ or } 0.58:1$$

Question 20:

Cost of Revenue from Operations is Rs 1,50,000. Operating expenses are Rs 60,000. Revenue from Operations is Rs 2,50,000. Calculate Operating Ratio.

Answer:

$$\text{Operating Ratio} = \frac{(\text{Cost of Revenue from Operations} + \text{Operating Expenses})}{\text{Net Revenue from Operations}} \times 100$$

$$= \frac{(1,50,000 + 60,000)}{2,50,000} \times 100$$

$$= \frac{2,10,000}{2,50,000} \times 100 = 84\%$$

Question 21:

Calculate the following ratio on the basis of following information:
(i) Gross Profit Ratio (ii) Current Ratio (iii) Acid Test Ratio (iv) Inventory Turnover Ratio (v) Fixed Assets Turnover Ratio

	Rs.
Gross Profit	50,000
Revenue from Operations	1,00,000
Inventory	15,000
Trade Receivables	27,500
Cash and Cash Equivalents	17,500
Current Liabilities	40,000
Land & Building	50,000
Plant & Machinery	30,000
Furniture	20,000

Answer:

(i)

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

$$= \frac{50,000}{1,00,000} \times 100 = 50\%$$

(ii)

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$\text{Current Assets} = \text{Inventory} + \text{Trade Receivables} + \text{Cash and Cash Equivalents}$$

$$= 15,000 + 27,500 + 17,500$$

$$= 60,000$$

$$\text{Current Ratio} = \frac{60,000}{40,000} = 1.5:1$$

(iii)

$$\text{Acid Test Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$$

$$\begin{aligned}\text{Liquid Assets} &= \text{Current Assets} - \text{Inventory} \\ &= 60,000 - 15,000 \\ &= 45,000\end{aligned}$$

$$\text{Acid Test Ratio} = \frac{45,000}{40,000} = 1.125:1$$

(iv)

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

$$\begin{aligned}\text{Cost of Revenue from Operations} &= \text{Revenue from Operations} - \text{Gross Profit} \\ &= 1,00,000 - 50,000 \\ &= 50,000\end{aligned}$$

Average Inventory = 15,000*

Note: Since values for inventory in the beginning and inventory at the end is not given, the amount of inventory is assumed to be average inventory.

$$\text{Inventory Turnover Ratio} = \frac{50,000}{15,000} = 3.33 \text{ times}$$

(v)

$$\text{Fixed Assets Turnover Ratio} = \frac{\text{Revenue from Operations}}{\text{Net Fixed Assets}}$$

$$\begin{aligned}\text{Net Fixed Assets} &= \text{Land \& Building} + \text{Plant and Machinery} + \text{Furniture} \\ &= 50,000 + 30,000 + 20,000 \\ &= 1,00,000\end{aligned}$$

$$\text{Fixed Assets Turnover Ratio} = \frac{1,00,000}{1,00,000} = 1:1$$

Question 22:

From the following information calculate Gross Profit Ratio, Inventory Turnover Ratio and Trade Receivables Turnover Ratio.

	Rs

Revenue from Operations	3,00,000
Cost of Revenue from Operations	2,40,000
Inventory at the end	62,000
Gross Profit	60,000
Inventory in the beginning	58,000
Trade Receivables	32,000

Answer:

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

$$\begin{aligned}\text{Gross Profit} &= \text{Net Revenue from Operations} - \text{Cost of Revenue from Operations} \\ &= 3,00,000 - 2,40,000 \\ &= 60,000\end{aligned}$$

$$\text{Gross Profit Ratio} = \frac{60,000}{3,00,000} \times 100 = 20\%$$

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

$$\begin{aligned}\text{Average Inventory} &= \frac{\text{Inventory in the beginning} + \text{Inventory at the end}}{2} \\ &= \frac{58,000 + 62,000}{2} \\ &= 60,000\end{aligned}$$

$$\text{Inventory Turnover Ratio} = \frac{2,40,000}{60,000} = 4 \text{ times}$$

$$\begin{aligned}\text{Trade Receivables Turnover Ratio} &= \frac{\text{Net Revenue from Operations}}{\text{Average Trade Receivables}} \\ &= \frac{3,00,000}{32,000} = 9.4 \text{ times}\end{aligned}$$

Note: In the solution, Trade Receivables are assumed as the Average Trade Receivables