Ratio Analysis

- Ratio Analysis is a form of Financial Statement Analysis that is used to obtain a quick indication of a firm's financial performance.
- It is used to evaluate various aspects of a company's operating and financial performance such as its efficiency, liquidity, profitability and solvency.
- It is the process of establishing and interpreting various ratios for helping in making certain decisions.
- The trend of these ratios are studied to check whether they are improving or deteriorating.
- It simplify the accounting figures and help in future forecasting.

Classification of Ratios:

- It can be classified as follows:

1. Liquidity Ratios:

- In accounting, the term **liquidity** is defined as the ability of a company to meet its financial obligations as they come due.
- The **liquidity ratio**, then, is a computation that is used to measure a company's ability to pay its short-term debts.
- The short-term debts are met by realising amount from current, floating and circulating assets.
- In this category following ratios are determined:

a. Current Ratio:

- This ratio establishes the relationship between current assets and current liabilities.

- It is also called as working capital ratio.
- This ratio is computed by dividing the current assets from the current liabilities.
- The optimum ratio which the organisations normally maintained is 2:1
- The formula of current ratio is as follows:

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

where;

Current Assets = Closing stock + Debtors + Marketable securities + Bills Receivable + Advance payment of tax + Prepaid expenses + Outstanding income + Bank balance + Cash balance + etc.

Current Liabilities = Creditors + Bank overdraft + Bills Payable + Provision for tax + Unclaimed dividend + Short-term loans and advances + Prepaid income + Outstanding expenses + etc

Question: Balance Sheet for Company XYZ. Calculate the current ratio.

	Amount (₹)
Assets	
Cash	1,00,000
Bills Receivable	50,000
Inventory	50,000
Debtors	2,00,000
Bank	4,00,000
Total Assets	8,00,000
Liabilities	
Bills Payable	50,000
Short-Term Debt	1,50,000
Long Term Debt	1,00,000
Owners' Equity_	5,00,000
Total Liabilities	8,00,000

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b. Quick Ratio:

- This ratio establish the relation between quick assets and current liabilities.
- It is also called as Acid-test ratio.
- This ratio is computed by dividing the quick assets from the current liabilities.
- The optimum ratio which the organisations normally maintained is 1:1.
- The formula of quick ratio is as follows:

Quick Ratio = Quick Assets/Current Liabilities

- **Quick Assets=** Current Assets – Stock - Prepaid expenses

Question:

1. A Ltd. has a current ratio of 4.5:1 and quick ratio of 3:1. If its inventory is ₹ 48,000, find out its total current liabilities.

2. X Ltd. has a quick ratio of 1.5:1, current assets is ₹ 1,00,000 and current liabilities is ₹ 40,000. Calculate the value of stock.

c. Absolute Liquid Ratio:

- This ratio establish the relation between absolute liquid assets and current liabilities.
- This ratio is computed by dividing the absolute liquid assets from the current liabilities.
- The optimum ratio which the organisations normally maintained is 0.5:1.
- The formula of absolute liquid ratio is as follows:

Absolute Liquid Ratio = Absolute Liquid Assets/Current Liabilities

- **Absolute Liquid Assets=** Cash in hand + Cash at bank + Marketable securities or Temporary investments

Question: Calculate Absolute Liquid ratio from the following information:

Particulars	Amount (₹)
Goodwill	50,000
Plant and Machinery	4,00,000
Trade Investments	2,00,000
Marketable Securities	1,50,000
Bills Receivable	40,000
Cash in hand	45,000
Cash at bank	30,000
Inventories	75,000
Bank Overdraft	70,000
Sundry Creditors	60,000
Bills Payable	90,000
Outstanding expenses	30,000

2. Solvency Ratios:

- The term solvency refers to the ability of a concern to meet its long-term obligations and interest on long-term obligations.
- The long-term debt includes debenture holders, medium and long-term loans, creditors selling goods on installment basis, etc.
- It is also called as Leverage ratio.
- It is a part of financial ratio analysis, help the business owner determine the chances of the firm's long-term survival.

- In this category following ratios are determined:

a. Debt-Equity Ratio:

- This ratio establishes a relationship between long-term debts and shareholders funds.
- This ratio is computed by dividing the long-term debts from the shareholders funds.
- The optimum ratio which the organisations normally maintained while taking funds is 2:1.
- The formula of debt-equity ratio is as follows:

Debt to Equity Ratio= Long-term debts/Shareholders Funds

- Where;
- Long-term debts= Debentures + Bonds + Loans + etc.
- Shareholders Funds= Equity Share Capital + Preference Share Capital + Reserves + Net Profit – Net Loss – Preliminary expenses – Underwriting expenses

Question: Calculate Debt-Equity Ratio

Liabilities	Amount (₹)	Assets	Amount (₹)
Equity Share Capital	1,00,000	Land and Building	6,00,000
18% Preference Share		Plant and Machinery	5,00,000
Capital	1,00,000	Furniture and Fixtures	1,00,000
Reserves	60,000		12,00,000
Profit and Loss A/C	2,40,000	Less: Depreciation	2,00,000
15% Debentures	8,00,000		10,00,000
Trade Creditors	40,000	Long term investments	1,00,000
Bills Payable	30,000	Stock	95,000
Outstanding expenses	20,000	Debtors	3,10,000
Bank overdraft	10,000	Marketable Securities	10,000
Provision for Tax	2,40,000	Cash	10,000
		Bills Receivable	10,000
		Prepaid expenses	5,000
		Preliminary expenses	60,000
		Underwriting Commission	40,000

b. Capital Gearing Ratio:

- The gearing ratio measures the proportion of a company's borrowed funds to its equity.
- The ratio indicates the financial risk to which a business is subjected, since excessive debt can lead to financial difficulties.
- A high gearing ratio represents a high proportion of debt to equity and vice versa.
- It is used to describe the relationship between equity share capital including reserve and surplus to preference share capital and other fixed interest long-term loans.
- The formula of Capital Gearing Ratio will be:

$$\textbf{Capital Gearing Ratio} = \frac{\text{Equity Share Capital + Reserve and Surplus}}{\text{Preference Share Capital + Long-term loans bearing fixed interest}}$$

Question: Calculate capital gearing ratios of 2016 and 2017

Particulars	2016	2017
Equity Share Capital	5,00,000	4,00,000
Reserve and Surplus	3,00,000	2,00,000
8% Preference Share Capital	2,50,000	3,00,000
6% Debentures	2,50,000	4,00,000