BAOU
Education for All

Dr. Babasaheb Ambedkar Open University

(Established by Government of Gujarat)

NAAC ACCREDITED A++ GRADE 3.55/4

MBA

SEMESTER - 3

MBA03EF306

Analysis of Financial Statements & Report

Message for the Students

Dr. Babasaheb Ambedkar Open (University is the only state Open University, established by the Government of Gujarat by the Act No. 14 of 1994 passed by the Gujarat State Legislature; in the memory of the creator of Indian Constitution and Bharat Ratna Dr. Babasaheb Ambedkar. We Stand at the seventh position in terms of establishment of the Open Universities in the country. The University provides as many as 54 courses including various Certificate, Diploma, UG, PG as well as Doctoral to strengthen Higher Education across the state.

On the occasion of the birth anniversary of Babasaheb Ambedkar, the Gujarat government secured a quiet place with the latest convenience for University, and created a building with all the modern amenities named 'Jyotirmay' Parisar. The Board of Management of the University has greatly contributed to the making of the University and will continue to this by all the means.

Education is the perceived capital investment. Education can contribute more to improving the quality of the people. Here I remember the educational philosophy laid down by Shri Swami Vivekananda:

> ***"We want the education by which the character is formed, strength of mind is Increased, the intellect is expand and by which one can stand on one's own feet".***

In order to provide students with qualitative, skill and life oriented education at their threshold. Dr. Babaasaheb Ambedkar Open University is dedicated to this very manifestation of education. The university is incessantly working to provide higher education to the wider mass across the state of Gujarat and prepare them to face day to day challenges and lead their lives with all the capacity for the upliftment of the society in general and the nation in particular.

The university following the core motto 'स्वाध्यायः परमम् तपः' does believe in offering enriched curriculum to the student. The university has come up with lucid material for the better understanding of the students in their concerned subject. With this, the university has widened scope for those students who
are not able to continue with their education in regular/conventional mode. In every subject a dedicated term for Self Learning Material comprising of Programme advisory committee members, content writers and content and language reviewers has been formed to cater the needs of the students.

Matching with the pace of the digital world, the university has its own digital platform Omkar-e to provide education through ICT. Very soon, the University going to offer new online Certificate and Diploma programme on various subjects like Yoga, Naturopathy, and Indian Classical Dance etc. would be available as elective also.

With all these efforts, Dr. Babasaheb Ambedkar Open University is in the process of being core centre of Knowledge and Education and we invite you to join hands to this pious *Yajna* and bring the dreams of Dr. Babasaheb Ambedkar of Harmonious Society come true.

Prof. Ami Upadhyay
Vice Chancellor,
Dr. Babasaheb Ambedkar Open University,
Ahmedabad.

MBA
SEMESTER-3 FINANCE
ANALYSIS OF FINANCIAL STATEMENTS AND REPORT
BLOCK: 1

Authors' Name: Prof. (Dr.) Manoj Shah, Professor& Director, Dr. BAOU, Ahmedabad
Dr. Dipak Sanki, Assistant Professor, KBS College, Vapi

Review (Subject): Prof. (Dr.) Manoj Shah, Professor& Director, Dr. BAOU, Ahmedabad
Dr. Gurmeet Singh, Associate Professor, GLS University, Ahmedabad
Dr. Narayan Baser, Associate Professor, PDPU, Gandhinagar

Review (Language): Prof. (Dr.) Atanu Bhattacharya, Central University of Gujarat, Gandhinagar

Editor's Name: Prof. (Dr.) Manoj Shah
Professor and Director,
School of Commerce and Management,
Dr. Babasaheb Ambedkar Open University,
Ahmedabad.

Co-Editor's Name: Dr. Dhaval Pandya
Assistant Professor,
School of Commerce and Management,
Dr. Babasaheb Ambedkar Open University,
Ahmedabad.

Publisher's Name: Dr. Ajaysinh Jadeja
Registrar,
Dr. Babasaheb Ambedkar Open University
'JyotirmayParisar',Opp.ShriBalaji Temple,Chharodi,Ahmedabad,382481,
Gujarat,India.

Edition: 2024 (First Edition)

ISBN: 978-93-5598-738-9

978-93-5598-738-9

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ANALYSIS OF FINANCIAL STATEMENTS & REPORT

MBA03EF306

SEMESTER-3

BLOCK-1

BLOCK-2

UNIT – 1 FINANCIAL ANALYSIS- AN INTRODUCTION

1.1 Introduction to Financial Analysis

Financial analysis is the process of examining and interpreting a company's financial statements to assess its financial performance and condition. It is used by investors, creditors, and other stakeholders to make informed decisions about whether to invest in, lend to, or do business with a company.

In the ever-changing business world, where decisions rely a lot on data and thinking ahead is super important, financial analysis plays a really big and important role. This chapter is like a door into the complicated world of financial analysis. It helps us understand why it's so important and looks at the tools that help businesses handle the tricky parts of managing their money.

Financial analysis is the art and science of examining financial statements and related data to gain insights into the health and performance of an organization. Beyond mere number-crunching, it is a holistic approach that transforms raw financial data into actionable intelligence. As organizations grow in size and complexity, the need for astute financial analysis becomes not just a matter of choice but a prerequisite for sustainable success

Why is financial analysis important?

Financial analysis is important because it provides insights into a company's:

- **Financial performance:** How well is the company generating revenue, profits, and cash flow?
- **Financial condition**: How healthy is the company's balance sheet? Is it able to meet its short- and long-term financial obligations?
- **Financial prospects**: How is the company likely to perform in the future?

This information can be used to make a variety of business decisions, such as:

- **Investment decisions**: Investors use financial analysis to assess the risk and potential return of an investment in a company's stock or bonds.
- **Lending decisions**: Creditors use financial analysis to assess the creditworthiness of a borrower and to determine the interest rate to charge on a loan.
- **Business decisions:** Managers use financial analysis to make decisions about pricing, production, and other aspects of the business.

Types of financial analysis

There are two main types of financial analysis:

- **Financial statement analysis:** This involves examining and interpreting a company's financial statements, such as the balance sheet, income statement, and cash flow statement.
- **Ratio analysis:** This involves calculating and analyzing financial ratios to assess a company's performance and condition. Financial ratios can be used to compare a company to itself over time, to other companies in the same industry, or to benchmarks.

What are the benefits of financial analysis?

Financial analysis can provide a number of benefits to investors, creditors, and other stakeholders, including:

- **Improved decision-making:**
  Financial analysis can help investors, creditors, and other stakeholders make more informed decisions about their investments, loans, and business relationships.
- **Reduced risk:** Financial analysis can help investors, creditors, and other stakeholders identify and reduce their risk exposure.
- **Increased investment returns**: Financial analysis can help investors identify undervalued stocks and other investment opportunities.
- **Improved financial performance:** Financial analysis can help managers identify areas where they can improve the company's financial performance.

How to get started with financial analysis

If you are new to financial analysis, there are a few things you can do to get started:

- Learn about the different types of financial statements and what they tell you about a company's financial performance and condition.
- Learn how to calculate and analyze common financial ratios.
- Read financial news and analysis to learn about the latest trends and developments in the financial markets.
- Talk to financial professionals, such as investment advisors and financial analysts, to get their insights and advice.

Financial analysis is a valuable skill for investors, creditors, and other stakeholders. It can help them make informed decisions about their investments, loans, and business relationships. If you are new to financial analysis, there are a number of resources available to help you get started.

1.2 Corporate financial analysis

Corporate financial analysis is a subset of financial analysis that specifically focuses on the financial health and performance of corporations. It is used by corporate managers, investors, and other stakeholders to assess the company's strengths and weaknesses, identify opportunities and threats, and make informed decisions about the future of the business.

Corporate financial analysis typically involves examining and interpreting the company's financial statements, such as the balance sheet, income statement, and cash

flow statement. Financial analysts also use a variety of financial ratios to compare the company to itself over time, to other companies in the same industry, and to benchmarks.

Some of the key areas of corporate financial analysis include:

- Profitability analysis: This involves assessing the company's ability to generate profits. Profitability ratios such as net profit margin and return on equity are used to measure how well the company is converting sales into profits.
- Asset utilization analysis: This involves assessing the company's efficiency in using its assets. Asset utilization ratios such as inventory turnover and fixed asset turnover are used to measure how well the company is generating sales and profits from its assets.
- Leverage analysis: This involves assessing the company's use of debt to finance its operations. Leverage ratios such as debt-to-equity ratio and interest coverage ratio are used to measure the company's financial risk.
- Liquidity analysis: This involves assessing the company's ability to meet its short-term financial obligations. Liquidity ratios such as current ratio and quick ratio are used to measure the company's ability to convert its assets into cash.

  Corporate financial analysis can be used to a variety of purposes, such as:
- Identifying investment opportunities: Investors use corporate financial analysis to assess the risk and potential return of an investment in a company's stock.
- Making lending decisions: Creditors use corporate financial analysis to assess the creditworthiness of a borrower and to determine the interest rate to charge on a loan.
- Improving financial performance: Managers use corporate financial analysis to identify areas where they can improve the company's profitability, asset utilization, leverage, and liquidity.
- Making strategic decisions: Corporate financial analysis can be used to inform strategic decisions such as mergers and acquisitions, new product development, and investment in new markets.

Corporate financial analysis is a complex and challenging field, but it is also an essential skill for anyone who wants to understand and make informed decisions about the financial health and performance of corporations.

Here are some specific examples of how corporate financial analysis can be used:

- An investor might use corporate financial analysis to identify undervalued stocks. They could look for companies with strong profitability, asset utilization, and liquidity ratios, and then compare those ratios to the company's peers to see if it is trading below its fair value.
- A creditor might use corporate financial analysis to assess the creditworthiness of a borrower. They could look at the company's leverage and liquidity ratios to see how much debt the company has relative to its equity and how easily it can convert its assets into cash to meet its financial obligations.
- A manager might use corporate financial analysis to identify areas where the company can improve its financial performance. For example, they could look at the company's inventory turnover ratio to see how quickly the company is selling through its inventory. If the inventory turnover ratio is low, it could indicate that the company is carrying too much inventory and that it could improve its profitability by reducing its inventory levels.

- A CEO might use corporate financial analysis to inform strategic decisions such as mergers and acquisitions. For example, a CEO might use corporate financial analysis to assess the financial performance of a potential acquisition target and to determine if the acquisition would be financially beneficial to the company.

Overall, corporate financial analysis is a valuable tool for investors, creditors, managers, and other stakeholders who want to understand and make informed decisions about the financial health and performance of corporations.

1.3 Investment financial analysis

Investment financial analysis is the process of examining and interpreting a company's financial statements to assess its investment potential. It is used by investors to identify undervalued stocks and other investment opportunities.

Investment financial analysis typically involves examining and interpreting the following financial statements:

- **Balance sheet:** This statement shows the company's assets, liabilities, and equity at a specific point in time. Balance sheet refers to a financial statement that reports a company's assets, liabilities, and shareholder equity. It is an important tool for investors to gain insight into a company and its operations.
- **Income statement:** This statement shows the company's revenues, expenses, and profits over a period of time. It shows a company's expense, income, gains, and losses, which can be put into a mathematical equation to arrive at the net profit or loss for that time period i.e. I-E = P. This information helps you make timely decisions to make sure that your business is on a good financial footing.
- **Cash flow statement:** This statement shows the company's cash inflows and outflows over a period of time. It is a statement that provides aggregate data regarding all cash inflows that a company receives from its on-going operations and external sources. It also includes all cash outflows that pay for business activities and investments during a given period.

Investment analysts also use a variety of financial ratios to compare companies to each other and to benchmarks. Some of the most common financial ratios used in investment analysis include:

- **Price-to-earnings ratio (P/E ratio):** This ratio compares a company's stock price to its earnings per share. It is a common measure of a company's valuation. P/E Ratio is calculated by dividing the market price of a share by the earnings per share. For example, the market price of a share of the X Company is 100 and the earnings per share are 10. Then P/E = 100 / 10 = 10.
- **Return on equity (ROE):** This ratio measures how well a company is generating profits from its equity. It is a measure of profitability. Return on Equity (ROE) is the measure of a company's net income divided by the value of its total shareholders' equity. Return on equity = Net income / Average shareholder's equity.
- **Debt-to-equity ratio**: This ratio compares a company's debt to its equity. It is a measure of financial leverage. The debt-to-equity ratio (D/E ratio) depicts how much debt a company has compared to its assets. It is calculated by dividing a

company's total debt by total shareholder equity. Higher debt-to-equity ratio states the company may have a more difficult time covering its liabilities and vice versa.

- **Current ratio**: This ratio compares a company's current assets to its current liabilities. It is a measure of liquidity. Current Ratio = Current Assets/Current Liabilities. Current Ratio indicates the number of times this company in question could pay off its immediate liabilities with its total current assets.

Investment financial analysis can be used to identify investment opportunities in a number of ways. For example, investors might look for companies with:

- **Strong profitability**: Companies with high ROE and net profit margin ratios are typically more profitable than their peers.
- **Efficient asset utilization**: Companies with high inventory turnover and fixed asset turnover ratios are typically more efficient in using their assets than their peers.
- **Conservative leverage**: Companies with low debt-to-equity ratios are typically less financially leveraged than their peers, which makes them less risky investments.
- **Strong liquidity**: Companies with high current ratios are typically more liquid than their peers, which means that they are better able to meet their short-term financial obligations.

It is important to note that investment financial analysis is just one tool that investors should use when making investment decisions. Investors should also consider other factors such as the company's management team, its industry outlook, and its competitive landscape.

Here is an example of how investment financial analysis can be used to identify investment opportunities:

An investor might be interested in investing in the technology sector. They could start by screening all of the technology companies in the S&P (Standard & Poor's) 500 for companies with strong profitability, efficient asset utilization, conservative leverage, and strong liquidity. Once they have identified a list of potential investment candidates, they could conduct further research on each company to learn more about its management team, industry outlook, and competitive landscape.

Investment financial analysis is a valuable tool for investors who want to identify undervalued stocks and other investment opportunities. By carefully examining and interpreting a company's financial statements and financial ratios, investors can gain a better understanding of a company's financial health and investment potential.

1.4 Types of financial analysis

There are two main types of financial analysis:

- **Financial statement analysis**: This involves examining and interpreting a company's financial statements, such as the balance sheet, income statement, and cash flow statement. Financial statement analysis can be used to assess a company's profitability, liquidity, solvency, and efficiency.
- **Ratio analysis**: This involves calculating and analyzing financial ratios to compare a company to itself over time, to other companies in the same

industry, or to benchmarks. Financial ratios can be used to assess a company's profitability, liquidity, solvency, efficiency, and valuation.

Within these two broad categories, there are a number of specific types of financial analysis, including:

- **Horizontal analysis**: This involves comparing a company's financial statements over time to identify trends in its financial performance. It is a technique used to comparing prior-period financial results with more current financial results, a company is better able to spot the direction of change balances and the magnitude in which that change has occurred.
- **Vertical analysis**: This involves comparing a company's financial statement items to each other as a percentage of total assets or revenues. It is a method of analyzing financial statements that list each line item as a percentage of a base figure within the statement. The first line of the statement always shows the base figure at 100%, with each following line item.
- **Trend analysis**: This involves comparing a company's financial performance to that of its peers or to industry benchmarks. It is a technique used to examine and predict movements of an item based on current and historical data.
- **Liquidity analysis:** This involves assessing a company's ability to meet its short-term financial obligations. Main liquidity ratios are the current ratio, quick ratio, and cash ratio. When analysing a company, investors and creditors want to see a company with liquidity ratios.
- **Solvency analysis**: This involves assessing a company's ability to meet its long-term financial obligations. It measures the size of a company's profitability and compares it to its obligations. By interpreting a solvency ratio, an analyst or investor can gain insight into how likely a company will be to continue meeting its debt obligations. A stronger or higher ratio indicates financial strength and vice versa.
- **Profitability analysis:** This involves assessing a company's ability to generate profits. It refers to the profits or gains a business makes after deducting its expenses. Therefore, profitability analysis refers to the process of calculating or analysing the profits of a business. There are three ways to determine a profit through margin or profitability ratios, break-even analyses, and return on asset assessments.
- **Efficiency analysis:** This involves assessing how well a company is using its resources to generate revenue and profits. The efficiency ratio is typically used to analyze how well a company uses its assets and liabilities internally. It calculates the turnover of receivables, the repayment of liabilities, the quantity and usage of equity, and the general use of inventory and machinery.
- **Cash flow analysis:** This involves assessing a company's cash inflows and outflows to determine its ability to generate cash and meet its financial obligations. It is the examination of the cash inflows and outflows of a business at a certain period of time for different activities, including operations, investment, and financing.
- **Valuation analysis:** This involves estimating the value of a company or its securities.

The type of financial analysis used will depend on the specific purpose of the analysis. For example, an investor might use ratio analysis to compare the financial performance of different companies before making an investment decision. A creditor might use financial statement analysis to assess the creditworthiness of a borrower before making a loan. A manager might use financial analysis to identify areas where the company can improve its financial performance.

Financial analysis is an important tool for investors, creditors, managers, and other stakeholders who want to understand and make informed decisions about the financial health and performance of companies.

1.5 Difference between corporate financial analysis and investment financial analysis

1. Corporate financial analysis is involves all the activities in the finance division of a business. Activities related to investments and capital requirement are managed by corporate financial managers. In Investment financial analysis involves major business transactions and deals, such as mergers & acquisitions, business takeovers, or other similar dealings and transaction of investment.
2. Candidates interested in a career in corporate finance analysis should ideally study economics, finance, or business and combination of all. Although accounting is not mandatory, companies prefer those with the domain requires a lot of accounting. Candidates interested in a career in investment financial analysis should have a degree in investments, finance, or other related disciplines to earn an advantage over others.
3. The compensation/ payment/remuneration are handsome but not as high as financial analysis. The compensation is high due to the rigorous work culture and steep professional growth.
4. There is adequate work-life balance, which is better than investment financial analysis. The work hours can be long and harsh. This adversely impacts the work-life balance.
5. The larger ambit of corporate finance analysis, the candidates from this domain enjoy a higher variety of job roles and profile. The narrow focus on investment financial analysis, the candidates from this domain have a fewer variety of job roles.
6. The skills required to excel in corporate financing analysis include superb communication skills and sound knowledge of corporate finance. The skills required to excel in investment financial analysis include brilliant communication skills as well as mental and mathematics skills.

❖ Exercise

- **MCQ (Multiple Choice Question)**

1) ROE Stands For?
   a) Rate of Return
   b) Return on equity
   c) Both
   d) None of above
   Ans.: **Return on equity**

2) Types of Financial Analysis includes:
   a) Horizontal Analysis
   b) Vertical Analysis

c) Trend Analysis
d) All of the above
Ans.: **All of the above**

3) Investment Financial Analysis includes.
a) Balance Sheet
b) Income Statement
c) Cash Flow Statement
d) All of the above
Ans.: **All of the above**

4) Corporate Financial Analysis includes :
a) Probability Analysis
b) Leverage Analysis
c) Liquidity Analysis
d) All of the above
Ans.: **All of the above**

Answers:-

1. **(B)**
2. **(D)**
3. **(D)**
4. **(D)**

Answer the following

1 What is financial analysis?
2 Why financial analysis is important?
3 What is corporate financial analysis?
4 What is investment financial analysis?
5 Explain the types of financial analysis.
6 Explain the difference between corporate financial analysis and investment financial analysis.

UNIT – 2

VERTICAL AND HORIZONTAL INCOME STATEMENT ANALYSIS

2.1 Introduction

In the ever-changing world of financial management, grasping the ins and outs of financial statements is crucial for making well-informed decisions. Vertical and horizontal analysis of income statements stand out as vital tools in dissecting how well a company is doing financially. These methods not only give a detailed snapshot of a business's profits and operational efficiency but also make it easier to compare its performance

The income statement, a key player among the trio of financial statements alongside the balance sheet and cash flow statement, reveals a company's revenue and expenses during a specific timeframe, usually a quarter or a year. Analysing the income statement involves closely examining it to gauge a company's financial health and spot trends.

There are two main types of income statement analysis: vertical and horizontal.

Vertical Analysis, also known as common-size analysis, digs into the composition of various expenses and revenue items, expressing them as a percentage of total sales or revenue. This method offers a clear view of the proportional contribution of each component by representing each line item as a percentage of the top line, usually sales or revenue. It's a valuable tool for uncovering trends, patterns, and potential areas of concern. By identifying the relative weight of different cost elements and revenue sources, vertical analysis provides a nuanced understanding of a company's cost structure and income composition.

On the other hand, Horizontal Analysis involves scrutinizing financial data across multiple periods to discern trends, patterns, and changes in a company's performance. By presenting income statement figures side by side for consecutive periods, stakeholders can evaluate the direction and magnitude of changes in revenue, expenses, and net income. This analysis is crucial for assessing the trajectory of a company's financial health, identifying growth or decline patterns, and forecasting future performance based on historical trends. It compares line items on the income statement across two or more accounting periods, expressing the analysis in either absolute terms (dollars) or percentage terms.

In essence, Vertical Analysis sheds light on the proportional makeup of financial elements, while Horizontal Analysis focuses on the evolution of financial figures over time, offering valuable insights into a company's growth or decline patterns.

2.1.1. Benefits of Vertical and Horizontal income statement analysis

Vertical and horizontal income statement analysis can be used to:

- Assess a company's financial performance and identify trends
- Compare a company's financial performance to that of its peers and industry
- Identify areas where a company can improve its profitability
- Make informed investment and lending decisions

2.1.2. How to Conduct Vertical and Horizontal Income Statement Analysis

To conduct vertical analysis, simply divide each line item on the income statement by the base figure (e.g., net sales) and multiply the result by 100 to express it as a percentage.

To conduct horizontal analysis, simply compare the line items on the income statement for the current period to the corresponding line items for the base period. This can be done in absolute terms (i.e., Rs) or in percentage terms.

2.1.3. Example of Vertical and Horizontal Income Statement Analysis

The following table shows an example of vertical and horizontal income statement analysis for a company called Sanki Corporation:

Line Item	**Year 1**	**Year 2**	**Vertical Analysis (%) (Year 2)**	**Horizontal Analysis (Year 2 vs. Year 1)**
Net Sales	100,000	110,000	100%	10% increase
Cost of Goods Sold	60,000	66,000	60%	10% increase
Gross Profit	40,000	44,000	40%	10% increase
Selling and Administrative Expenses	20,000	22,000	20%	10% increase
Operating Profit	20,000	22,000	20%	10% increase
Other Income (Expense)	2,000	3,000	3%	50% increase
Net Income Before Taxes	22,000	25,000	23%	13.6% increase
Income Tax Expense	6,000	7,000	6%	16.7% increase

The vertical analysis shows that Sanki Corporation’s cost of goods sold and selling and administrative expenses each account for 60% and 20% of net sales, respectively. This suggests that the company's main expenses are its cost of goods sold and selling and administrative expenses.

The horizontal analysis shows that Sanki Corporation's revenue and expenses increased by 10% from Year 1 to Year 2. However, its net income increased by 12.5%, which suggests that the company is becoming more profitable.

Vertical and horizontal income statement analysis are valuable tools for assessing a company's financial performance and identifying trends. These tools can be used by investors, creditors, and management to make informed decisions.

2.2 Definition of Horizontal income statement

Horizontal income statement analysis, also known as trend analysis, is a method used in financial statement analysis to compare each line item on the income statement over a specified period, typically spanning two or more years. This technique provides insights into how a company's financial performance has evolved over time.

Horizontal analysis is carried out by analysts to assess the percentage change in each line item during the analysed period. This process entails subtracting the previous year's figure from the current year's, dividing the result by the previous year's amount, and then multiplying by 100. For example, in the case of net sales, analysts would subtract the prior year's net sales from the current year's, divide by the prior year's net sales, and multiply the result by 100 to determine the percentage change.

Horizontal analysis is a valuable tool for identifying trends in a company's sales, costs, and expenses. It helps analysts pinpoint areas where the company is either making improvements or facing declines. For example, if a company's net sales are consistently increasing each year, it suggests a positive trend. Conversely, if the cost of goods sold is rising faster than net sales, it indicates a negative trend that may warrant further investigation.

Horizontal analysis studies the changes in the items on the financial statement, in both amount and as well as percentages, for successive accounting periods. The earliest year is known as the base year" The base year amounts are what is used to get your percentage

Percent of Change = Amount of change / Amount for the base year

Steps in performing a Horizontal Analysis:

Step 1: Compute the amount of change from the base year to the next year by subtracting the base year amount.

Step 2: Compute the percent of change from the base year, as shown above.

Example

Income statement				
	2000	**1999**	**Amount**	**Percentage**
Net Sale	1,03,500	78,500	25,000	31.85
Cost of Goods Sold	62,500	51,375	11,125	21.65
Gross Profit	42,000	28,125	13,875	49.33
Operating Expenses	28,100	13,125	14,975	114.09
Net Income	14,900	16,000	1,100	6.875

1,03,500-78,500= 25,000

25,000/78,500*100=31.85%

A Horizontal Analysis can also be done for a series of years using trend percentages. The trend percentages are computed by selecting a year to serve as the base year, usually the earliest year. Then the amounts for every other year are divided by the base year amounts to get a percentage. The percentages for the base year will always be 100%.

	2000	1999	1998	1997
Net Sale	16,065	14,767	12,984	11,571
Cost of Goods Sold	4,965	4,637	4,122	3,717
Gross Profit	12,100	11,130	9,862	8,854
Operating Expenses	9,225	6,310	5,714	4,654
Net Income	3,875	5,820	5,148	5,200

After the amounts are converted to percentages, the Income Statement will look like the one below:

	2000	1999	1998	1997
Net Sale	139	128	112	100
Cost of Goods Sold	134	125	111	100
Gross Profit	137	126	111	100
Operating Expenses	198	136	123	100
Net Income	75	112	99	100

Percentages for 2000

(16065 ÷ 11571) = 1.39

2.3 Definition of Vertical income statement

Vertical income statement analysis, also referred to as common-size analysis, is a financial statement analysis method that presents each line item on the income statement as a percentage of a base figure, typically net sales or total revenue. This approach allows analysts to assess the contribution of each line item to the company's overall profitability.

To conduct vertical analysis, analysts divide each line item on the income statement by the base figure and then multiply by 100. This calculation expresses each line item as a percentage. For instance, to determine the cost of goods sold as a percentage of net sales, an analyst would divide the cost of goods sold by net sales and multiply by 100.

Vertical analysis is useful for comparing a company's financial performance to its own historical records or to the performance of its competitors. It also aids in identifying areas where a company can enhance its profitability. For example, if a company's cost of goods sold is excessively high, the company might improve profitability by either reducing costs or increasing sales.

Both horizontal and vertical income statement analyses are essential tools for comprehending a company's financial performance. While horizontal analysis identifies trends and potential issues or opportunities over time, vertical analysis provides insights into the contribution of each line item to overall profitability, aiding in pinpointing areas for improvement.

Example:

	Amount	Percentage
Net Sale	19,400	100
Cost of Goods Sold	51,759	26.67
Gross Profit	1,43,241	73.83
Operating Expenses	91,903	47.37
Net Income	52,338	26.98

Calculate for find percentage

19,400/19,400 *100 = 100

51,759/19,400* 100 = 26.67

2.4 Corporate Financial Statement

Corporate financial statements serve as comprehensive documents that provide an overview of a company's financial performance and position during a specific period. These statements are crucial for various stakeholders, including investors, creditors, analysts, and internal management, offering insights into the company's profitability, solvency, and operational efficiency. The primary financial statements in a corporate financial report include the Income Statement, Balance Sheet, and Cash Flow Statement.

1. Income Statement:

Also known as the Profit and Loss Statement (P&L), the Income Statement outlines the company's revenues, expenses, and profits over a specific time frame (e.g., quarterly or annually). Key components include:

- **Revenue:** Total sales or income generated by the company.
- **Expenses:** Various costs incurred to generate revenue, such as operating expenses, interest, and taxes.
- **Net Income:** The company's profit or loss after deducting all expenses from revenue.

2. Balance Sheet:

The Balance Sheet provides a snapshot of a company's financial position at a specific point in time, reflecting assets, liabilities, and equity. Key components include:

- Assets: Resources owned by the company, categorized as current assets (e.g., cash, accounts receivable) and long-term assets (e.g., property, equipment).
- Liabilities: Debts and obligations owed by the company, classified as current liabilities (e.g., short-term debt) and long-term liabilities (e.g., long-term loans).
- Equity: The residual interest in the assets after deducting liabilities, representing shareholders' equity.

3. **Cash Flow Statement:**

The Cash Flow Statement details cash inflows and outflows during a specific period, categorizing activities into operating, investing, and financing. Key components include:

- **Operating Activities**: Cash flows from the company's core business operations.
- **Investing Activities:** Cash flows related to the acquisition and disposal of long-term assets.
- **Financing Activities**: Cash flows from changes in the company's capital structure, such as issuing or repurchasing stock and borrowing or repaying debt.

4. **Comprehensive Insights:**

Supplementary information accompanying the financial statements provides further details and explanations regarding accounting policies, contingent liabilities, and other relevant information.

5. **Management Discussion and Analysis (MD&A):**

A section where management provides a narrative explanation of the financial results, significant trends, and future expectations.

6. **Auditor's Report:**

An independent auditor's assessment of the fairness and accuracy of the financial statements. These financial statements collectively offer a comprehensive view of a company's financial health, aiding stakeholders in making informed decisions about investing, lending, or engaging in business transactions. It's important to note that financial statements must adhere to generally accepted accounting principles (GAAP) or international financial reporting standards (IFRS), depending on the jurisdiction and reporting framework adopted by the company.

2.5 Expression of change

Certainly, expressing change is a fundamental aspect of analyzing data, especially when dealing with financial statements or other quantitative information. Here are several ways to articulate and quantify changes:

1. **Percentage Change:**
   - The percentage change is a straightforward way to express the relative change between two values. It is calculated using the formula:
   - Percentage Change = (New Value − Old Value / Old Value) ×100
   - Example: If revenue increased from 1,00,000 to 1,20,000, the percentage change would be (1,20,000−1,00,000)/1,00,000×100=20

2. **Absolute Change:**
   - Absolute change simply represents the numerical difference between two values.
   - Example: If expenses increased from 50,000 to 60,000, the absolute change is 60,000−50,000=10,000

3. **Index Numbers:**

- Index numbers offer a way to express relative changes using a base period as a reference. It is calculated using the formula:
- Index=(Current Value/Base Period Value)×100
- This is often used in economic analysis or when comparing performance against a baseline.
- Year-over-Year Comparison:
- Comparing values to the same period in the previous year provides a meaningful context for change.

4. **Proportional Change:**
    - Expressing change in terms of proportions can be effective, especially when dealing with different scales.
    - Example: "The cost of goods sold as a proportion of revenue decreased by 5%."

Remember, the choice of expression depends on the context and the nature of the data being analyzed. In financial analysis, a combination of these methods is often used to provide a comprehensive understanding of the changes observed.

2.6 Benefits of Vertical and Horizontal Income Statement Analysis

- **Benefits of Vertical Income Statement Analysis:**
    1. **Cost Structure Understanding:** Helps stakeholders assess the company's cost structure and operational efficiency by understanding the proportion of each expense item relative to total revenue.
    2. **Comparative Analysis**: Facilitates easy comparison between companies or within the same industry, expressing financial figures as percentages of a common base, usually total revenue.
    3. **Identifying Trends**: Allows identification of trends in expense categories, aiding in recognizing the need for cost management if certain expenses show a consistent increase over time.
    4. **Benchmarking**: Provides a basis for benchmarking against industry averages, aiding in identifying areas where the company may be over- or underperforming compared to industry norms.
    5. **Strategic Decision-Making**: Assists in strategic decision-making regarding pricing strategies, cost control measures, and resource allocation by understanding the composition of the income statement.
- **Benefits of Horizontal Income Statement Analysis:**
    1. **Trend Identification**: Reveals trends over time, helping stakeholders identify improvements, deterioration, or stability in key financial metrics.
    2. **Comparative Performance**: Enables direct comparison of performance between different periods, enhancing understanding of how the company has evolved over time.
    3. **Budgetary Planning:** Assists organizations in assessing the effectiveness of budgetary planning by comparing actual results to budgeted figures, aiding in the evaluation of financial forecasts' accuracy.

4. **Investor Confidence:** Consistent positive trends in key financial indicators can enhance investor confidence, while negative trends may signal issues that need addressing.

5. **Management Assessment**: Helps management evaluate the impact of strategic decisions on financial performance, assessing the effectiveness of operational and financial strategies over time.
6. **Early Detection of Issues:** Sudden or significant changes in financial metrics over time can serve as early indicators of potential issues, allowing management to address problems proactively.

Overall Benefits:

Holistic Insight: When used together, vertical and horizontal analyses provide a comprehensive view of a company's financial health, combining insights into its cost structure, income composition, and historical performance trends.

Informed Decision-Making: Empowers stakeholders with the information needed for informed decisions in strategic planning, financial management, and investment.

By leveraging the benefits of both vertical and horizontal income statement analyses, stakeholders can enhance their ability to interpret financial data and make strategic decisions that contribute to the overall success of the organization.

❖ Exercise

- **Answer the following question:**
  1. Definition of Horizontal income statement
  2. Definition of Vertical income statement
  3. Write short note on Corporate Financial Statement
  4. Write short note on Expression of change
  5. Write the benefits of Vertical and Horizontal Income Statement Analysis
- **Fill in the Blanks**
  1. _____involves comparing financial data across different periods to identify trends and changes.
  2. The analysis of horizontal balance often includes comparing the financial statements of a company for different _____.
  3. When analyzing horizontal balance, an increase in revenue from one year to the next indicates _____ growth.
  4. A _____ in total assets over several reporting periods may suggest a decline in a company's asset management.
  5. Comparing the cost of goods sold (COGS) over multiple periods helps assess potential changes in _____or pricing.
  6. _____ balance involves expressing each line item on a financial statement as a percentage of a base item.
  7. When calculating vertical balance on the income statement, each expense is expressed as a percentage of _____.
  8. Expressing each line item on the balance sheet as a percentage of _____provides insights into the composition of assets and liabilities.

9. Vertical balance is useful for evaluating the proportion of different expense categories within the total _____.
10. Analyzing _____ on the cash flow statement involves expressing each cash flow category as a percentage of total cash flows.

- **Answers**

1. Horizontal balance
2. Years
3. Positive
4. Decrease
5. Production
6. Vertical
7. Total revenue
8. Total assets
9. operating expenses
10. vertical balance

UNIT – 3 FINANCIAL STATEMENT ANALYSIS TECHNIQUES

FINANCIAL STATEMENT ANALYSIS TECHNIQUES -1

3.1 Introduction

Financial statement analysis is the process of studying and analysing the financial statement to know the financial position of the enterprise as compared to other entities. Generally, stakeholders are unable to make correct interpretation of the financial statement hence financial statement analysis is required to make the correct decision.

3.2 Meaning of financial statement

Financial statement provides the financial result, financial position and cash flow status. A Financial statement includes a profit and loss account, Balance sheet, cash flow status and change in equity status. Basically, Financial statement provides the financial information to all stakeholders of the entity i.e. shareholders, customers, creditors, investors and government agencies. As per the format provided in section 129 and according to the prescribed accounting standard as per section 133 of the Companies Act 2013, the profit and loss account and balance sheet are prepared. After preparation of the financial statement, it is approved by the board of directors and signed by the Managing director/other director as prescribed in the Companies Act 2013.

3.3 Features of the financial statement

These are the features of the financial statement: -

1. Financial statement records the transaction related to the business. It provides complete and comprehensive financial information like sales, revenue, cash at the bank, gross profit net profit, and details of the assets and liabilities.
2. Financial statements are prepared according to various accounting principles and conventions. The disclosure of financial information, inventory valuation, treatment of depreciation, etc. are done as per prescribed accounting standards.

3. Financial statements are prepared according to basic assumptions like going concern, continuity and consistency, etc. Accordingly, provision and depreciation are provided.
4. In the preparation of a financial statement, personal judgment and opinion are also significant.
5. The information provided in the financial statement is the basic input for managerial decision-making.

3.4 Types of the financial statement

There are the following types of financial statements:-

(i) Balance sheet:- It gives the details of the assets and liabilities of the companies. Hence, it provides the financial position and long-term solvency of the company. The format of the balance sheet is prescribed in Part I of Schedule III of the Companies Act 2013. However, in the case of insurance, banking companies and other companies it is provided as prescribed in their respective act.

(ii) Income statement:- It gives the statement of income and expenditure for a given period of time. It provides the details of sales/revenue and income of the business. Hence, it gives information regarding the gross profit net profit of the business to all stakeholders.

(iii) Cash flow statement:- It provides the change in the status of cash within the two-accounting period. Hence it provides the source and application of funds for the enterprise.

(iv) Statement of Changes in Equity:- It provides the change in the owners' equity. Hence it shows how much there is an increase in the equity as compared to the previous period. It shows the strength of its fund as compared to the outsider's fund.

3.5 Main object of financial statement

(i) Providing the information regarding profit and loss:- Financial
(ii) Proving the details for income and expenditure
(iii) Knowing the ability of the company to meet short-term and long-term liability
(iv) Making the forecast of the company
(v) Understanding the financial condition of the company
(vi) Meeting with the financial liability internal and external sources of the company
(vii) Making comparative analysis within a similar company and based on comparison designing the policy.
(viii) Taking corrective action for a better financial position
(ix) Estimating the budget of the company
(x) Informing the true financial condition of the companies to all stakeholders like government organisations, investors

3.6 Benefits of financial statements

(i) Through the financial statement of the company, we come to know the financial condition of the business
(ii) With the help of financial statement, we get complete information about income and expenditure

(iii) With the help of a financial statement, we come to know the capacity of the source of fund and its utilisation.
(iv) We can also calculate the various financial ratios through the financial statement
(v) On the basis of financial statement director can take effective decisions for their business.
(vi) Through financial statement we can estimate the long-term solvency of the firm/company
(vii) Investors make their investment decisions only through the analysis of financial statement

3.7 Limitations

(i) Many companies are adopting the tools of window dressing to attract investors.
(ii) If companies are following different accounting policies then comparison among them will be difficult.
(iii) In financial statements only monetary transactions are considered however, we are unable to represent many factors in financial terms like differences in the official integrity of the employees etc.
(iv) Financial statements are historical in nature and they cannot be changed with any of the external factors.
(v) Due to inflation, we might not get the correct financial position
(vi) The analysis of financial statements is entirely dependent upon the personal skill of the individual
(vii) We require financial statements of multiple years to make a proper analysis.

3.8 Usefulness of the financial statement

A financial statement is useful in respect of the following personnel:

(i) **Finance Manager**:- Financial manager is the person who is responsible for the efficient acquisition and optimal utilisation of capital funds. Hence, a financial statement is the base document for him to make various decisions like financial needs, source of funds, capital structure, cost of capital, break-even analysis and profitability.

(ii) **Director of the company**:- Director of the company has to run the company on behalf of the shareholders. Hence financial statements are useful for them to take various short-term as well as long-term decisions.

(iii) **Creditors of the company**: Creditors of the company are always interested to know the solvency position of the business of the company. Hence through financial statements, they come to know whether a company will be able to pay their dues for short-term or long-term periods.

(iv) **Lenders of the company**: Lenders of the company are also interested in seeing the financial position of the company. They can evaluate the risk of their fund on the basis of financial soundness.

(v) **Investors**: - Investors are mainly concerned about the profitability of the company. Hence, the cost of capital of the company mainly depends upon the creditability and profitability of the company.

(vi) **Government agency**: - Government agencies can monitor the operation of the business through their financial statement only. Ultimately it is the responsibility of the government to protect the interest of all stakeholders associated with the entity.

(vii) **Tax officials**: - Financial statement also provides information to the tax officials to determine the correct tax liability and monitor the chances of tax evasion, if any.

3.9 Financial statement analysis

Financial statement analysis means studying, analysing and evaluating the financial statement for decision-making, and forecasting the strategy formulation. Hence this is a process of making meaningful conclusions after analysing the financial statement by the company management and other stakeholders.

3.10 Object of financial statement Analysis

The main object of the financial statement is to give complete financial information to all stakeholders. The major objects can be enumerated as follows:-

(i) Estimating the earning capacity of the company.
(ii) Understanding the financial status of the company.
(iii) Making the forecasting for various financial decisions of the company.
(iv) Understanding the profitability and status of the reserve of the company.
(v) Understanding the operation and administrative capacity of the company.
(vi) Evaluating the capacity of the branches of the Company.
(vii) Evaluating the short-term and long-term solvency of the company.
(viii) Understanding whether the company will meet the liability.
(ix) Comparing the performance of the company with last year.
(xi) Comparing the performance of the company with the other company.

3.11 Benefits of financial statement analysis

(i) Historical or past performance evaluation
(ii) Evaluation of the past and future Information
(iii) Assistance in future forecasting
(iv) Determining the tax liability
(v) Estimating the budget
(vi) Understanding the financial condition of the business

3.12 Limitation of financial statement analysis

(i) After analysis of the financial statement, financial decisions cannot be corrected due to various factors.

The results of financial statement analysis may not always be correct in strategy implementation.

FINANCIAL STATEMENT ANALYSIS TECHNIQUES -2

3.13 Introduction

Financial statement analysis determines the internal capability of the company. This analysis is useful for all stakeholders, especially the director of the company and the investors. Financial statement analysis determines the investing financial and dividend decisions of the firm. It provides the basis for financial decision-making and strategy formulation.

3.14 Important techniques of financial statement analysis

1. Comparative analysis of financial statements
2. Common Size statement
3. Trend analysis
4. Average analysis
5. Statement of changes in the working capital
6. Cash flow statement
7. Ratio analysis
8. Time series analysis

3.15 Description of comparative analysis of financial statement

Under this technique, we compare the financial statement of the company for different periods to know the improvement in the performance. Hence in this statement, financial figures are compared for different periods i.e. on a monthly, quarterly or annual basis. It provides a meaningful comprehensive performance evaluation of the companies. It shows whether there is an improvement in the financial performance of the company between the two accounting periods or not. It shows the comparison of the financial figures between both the balance sheet and the income statement. Hence comparisons can be made between the figure of net sales gross profit or debtor or creditor position between two accounting periods.

3.16 A Common Size Statement

This is a financial statement in which each line item is expressed as a percentage of a base item within the same period. The purpose of a Common Size Statement is to

analyze and compare the relative proportions of different components in a financial statement, helping to assess the financial health and performance of a business. Based on base items whole balance sheet items and income statement items are expressed in percentages. There are the following steps for the preparation of a common size balance sheet: -

1. **Selection of base items: -**

   In the income statement, the total revenue or net sales are often chosen as the base item. Whereas in the balance sheet, total assets and total liability are commonly used as the base item.

2. **Presentation of each item as a percentage:**

   For the income statement, each revenue and expense item is expressed as a percentage of total revenue. For the balance sheet, each asset, liability, and equity items are expressed as a percentage of total assets.

Example of Common size Balance sheet of A Company Ltd

Name of the asset	Value of the asset (in crore)	% of the total asset
Land and building	200 Crore	20%
Machinery and equipment	250 Crore	25%
Inventory	50 Crore	5%
Prepaid expenditure	100 Crore	10%
Account receivable	200 Crore	20%
Cash and cash equivalents	200 Crore	20%
Total	1000 Crore	100%
Name of liability		
Common equity	300 Crore	30%
Retained earning	100 Crore	10%
Long term debt	150 Crore	15%
Account Payable	120 Crore	12%
Short term debt	200 Crore	20%
Other short-term liability	130 Crore	13%
Total	1000 Crore	

Common Size balance statement

3. Interpretation: -

A common size income statement allows you to see the proportion of each expense to the total revenue. This can help in identifying cost structures and areas where cost control measures may be needed. A common size balance sheet allows you to understand the composition of assets, liabilities, and equity in relation to total assets. It provides insights into the capital structure and financial position of the company.

4. Comparisons:-

Common Size Statements are particularly useful for comparing financial statements of different companies or the same company over different periods. It helps in identifying trends and changes in the financial structure and performance.

5. Industry Benchmarks:

Comparing common size statements with industry benchmarks can provide insights into how a company's financial structure and performance compare to industry norms. To sum up, a Common Size Statement is a valuable tool for financial analysis as it

standardizes financial information, making it easier to compare and analyse the relative proportions of different components within a financial statement.

3.17 Trend analysis

It is a financial analysis technique that involves examining data over time to identify patterns, trends, or tendencies. It is commonly used in financial statement analysis to assess the performance of a business or investment by observing how specific financial metrics change over multiple periods. In another way, the trend analysis of ratios of a firm indicates whether the financial position of a firm is improving or deteriorating over the years. The significance of a trend analysis of ratio lies in the fact that the analyst can know the direction of movement whether the movement is favourable or unfavourable. Trend analysis is a crucial component of financial statement analysis, providing valuable insights into a company's performance over time. It involves the examination of financial data and ratios across multiple periods to identify patterns, tendencies, and potential areas of concern or improvement.
Here's how trend analysis is typically applied in the analysis of financial statements:

1. Identifying Patterns and Changes:

Trend analysis helps in identifying patterns and changes in key financial metrics over consecutive periods. This can include revenue growth, profitability trends, changes in expenses, and other important financial indicators.

2. Comparing Financial Statements:

With the help of financial statements comparison from different periods, analysts can assess the direction and magnitude of changes. For example, comparing the income statements of two or more years can reveal the growth or decline in revenue and expenses.

3. Evaluating Profitability:

Profitability ratios, such as net profit margin or return on equity, can be analyzed over time to understand the company's ability to generate profits. A consistent decline in profitability may signal potential issues.

4. Assessing Liquidity and Solvency:

Trend analysis helps evaluate a company's liquidity and solvency by examining changes in current and long-term liabilities, as well as the current and quick ratios over time. This is crucial for understanding a company's ability to meet its short-term and long-term obligations.

5. Analysing Efficiency:

Efficiency ratios, such as inventory turnover or accounts receivable turnover, can be analysed over multiple periods to assess how efficiently the company is managing its resources and assets.

6. Detecting Anomalies or Irregularities:

Unusual spikes or declines in financial metrics may indicate anomalies or irregularities that require further investigation. Trend analysis helps in identifying such deviations from the norm.

7. Forecasting Future Performance:

Trend analysis can also be used to make predictions about future financial performance. Understanding historical trends can provide insights into potential future outcomes, although it's important to consider other external factors and market conditions.

8. Industry Benchmarking:

Comparing a company's financial trends with industry benchmarks allows for a more contextual analysis. It helps in understanding whether the company is performing in line with industry standards or if there are significant deviations.

9. Investor and Stakeholder Communication:

Trend analysis is valuable for communicating financial performance to investors and stakeholders. It provides a clear narrative of the company's financial journey and helps in setting realistic expectations.

In conclusion, trend analysis in financial statement analysis is a powerful tool for assessing a company's historical performance, identifying patterns, and making informed decisions about its financial health and future prospects.There are the following steps in the trend analysis: -

1. **Data Collection:** Trend analysis begins with the collection of historical data. This data can include financial statements (income statement, balance sheet, cash flow statement), sales figures, market data, or any other relevant financial or non-financial metrics.
2. **Time Period Selection:** The time period selected for analysis depends on the goals and the nature of the business. Common periods include quarterly, annual, or multi-year comparisons.
3. **Data Presentation:** The data is presented in a structured manner, typically in the form of a time series. A time series is a sequence of data points ordered by time, enabling a visual representation of how a particular metric changes over the selected time period.
4. **Identifying Patterns and Trends:** Analysts look for patterns, trends, or anomalies in the data. Patterns can be upward (indicating growth), downward (indicating decline), or stable. Trends can be short-term or long-term, and they help identify the direction and magnitude of changes.
5. Statistical Analysis: Some trend analyses involve statistical techniques to identify patterns more objectively. This may include using regression analysis, moving averages, or other statistical methods to quantify trends and make predictions.
6. **Interpretation:** After identifying trends, the next step is interpretation. Analysts assess whether the observed trends are positive or negative, significant or insignificant and whether they align with the overall goals and strategies of the business.
7. **Comparative Analysis:** Trend analysis often involves comparing the performance of the business with industry benchmarks, competitors, or the overall market. This helps in putting the trends into context and understanding how the business is positioned relative to its peers.
8. **Decision-Making:** The insights gained from trend analysis can inform decision-making processes. For example, if a company's revenue has been consistently increasing over the past few years, it may indicate successful business strategies. On the other hand, a declining trend in profitability may prompt a review of cost structures.

9. **Forecasting:** Trend analysis is often used as a basis for forecasting future performance. By extrapolating existing trends, businesses can make reasonable predictions about their future financial position and plan accordingly.
10. **Limitations:** It's important to note that trend analysis has limitations. Past performance may not always be indicative of future results, and external factors such as economic conditions, regulatory changes, or technological advancements can significantly impact trends.

To sum up, trend analysis is a valuable tool for understanding how key metrics change over time, providing insights into a business's historical performance and helping stakeholders make informed decisions about its future prospects.

3.18 Average analysis

Under this technique, we take the average of the balance sheet and income statement for financial decision-making. It can be further divided into two categories: -

(i) Average Balance Sheet Analysis:- This involves taking the average of certain balance sheet items over a specific period, such as the average total assets or average total liabilities. It's commonly used in ratio analysis to compute metrics like Return on Assets (ROA) and Return on Equity (ROE). The average is often calculated by adding the values at the beginning and end of a period and dividing by 2.

(ii) Average Income Statement Analysis: - This involves taking the average of certain income statement items over a specific period. For example, when analysing revenue or expenses over several years, we might calculate the average revenue or average expenses to smooth out fluctuations and identify trends more accurately. This approach can be particularly useful when comparing financial performance over the years to obtain a more stable picture of the company's income trends.

3.19 Working Capital

Under this technique, we analyse the changes in the working capital. Working capital is the excess of current assets over current liability. Hence, a change in working capital shows the direction of the movement of funds.

Consequently, working capital represents the difference between a company's current assets and current liabilities. It is a measure of a company's operational liquidity and short-term financial health. The formula for working capital is:

Working capital = current assets – current liabilities

Changes in Working Capital:

Analysing changes in working capital is crucial for understanding a company's ability to manage its short-term obligations. The statement of changes in working capital doesn't exist in the same way that an income statement or a balance sheet does but analysts often look at how individual components of working capital change over time.

Here's a breakdown of how changes in working capital are typically analyzed:

1. Components of Working Capital:
Current Assets: These include items like cash, accounts receivable, and inventory.
Current Liabilities: These include items like accounts payable and short-term debt.

2. Positive vs. Negative Changes:
A positive change in working capital indicates an increase in the company's short-term assets relative to its short-term liabilities. A negative change indicates a decrease in short-term assets relative to short-term liabilities.

3. Implications of Changes:
Positive Changes: A positive change in working capital can suggest that the company can cover its short-term obligations more effectively. It might indicate improved liquidity.
Negative Changes: A negative change may signal potential liquidity issues or challenges in managing short-term obligations.

4. Analyzing Specific Components:
Analysts often break down changes in working capital into changes in individual components, such as accounts receivable, inventory, and accounts payable. For example, an increase in accounts receivable might indicate slower cash conversion, while an increase in accounts payable might suggest better negotiation terms with suppliers.

5. Cash Flow Implications:
Understanding changes in working capital is crucial for cash flow analysis. Positive changes in working capital might tie up cash, while negative changes might release cash.

6. Comparative Analysis:
Analysts often compare changes in working capital over different periods or against industry benchmarks to assess the efficiency of a company's working capital management.

To sum up, while there isn't a specific "Statement of Changes in Working Capital," analysing changes in working capital involves assessing shifts in current assets and liabilities over time, providing insights into a company's short-term financial health and management efficiency.

3.20 Cash flow statement

It gives the details of the flow of cash between two accounting periods. In other words, it is the source and application of funds of the enterprises for the given period. It gives details about the cash from operation, cash from financing activity and cash from investing activity. The cash flow statement is one of the three primary financial statements used in financial statement analysis, along with the income statement and the balance sheet. It provides valuable insights into a company's cash inflows and outflows over a specific period, helping analysts and investors understand the company's liquidity, operational efficiency, and financial health.

The cash flow statement is divided into three main sections:

1. Operating Activities:

This section represents cash flows from the company's core business operations. It includes cash received from customers, payments to suppliers, employee salaries, and other operating expenses. Positive operating cash flow indicates that the company is generating cash from its core business activities.

2. Investing Activities:

This section reflects cash flows from the buying and selling of long-term assets. Typical investing activities include the purchase or sale of property, plant, equipment,

and investments in other companies. Positive cash flow from investing activities may indicate that the company is making strategic investments.

3. Financing Activities:

This section shows cash flows related to the company's financing, such as issuing or repurchasing stock and borrowing or repaying debt. Payment of dividends is also included in this section. Positive cash flow from financing activities could suggest that the company is raising capital through debt or equity.

Trends and Changes:

Comparing cash flow statements over multiple periods helps identify trends and changes in a company's cash management.
Understanding the cash flow statement alongside the income statement and balance sheet provides a more comprehensive view of a company's financial performance and can aid in making an informed investment or lending decisions.

3.21 Ratio analysis

It is a numerical relationship between two financial figures. Hence, various ratios which we calculate give the financial health and soundness of the company, profitability, liquidity, efficiency, etc. Ratio analysis is widely used for financial statement analysis by all stakeholders like finance managers, investors, creditors etc.

Ratio analysis is a crucial tool in financial statement analysis that involves the calculation and interpretation of various financial ratios to assess a company's performance, profitability, liquidity, solvency, and efficiency. These ratios provide meaningful insights into different aspects of a company's financial health and help stakeholders, such as investors, creditors, and management make informed decisions.

There are the following types of ratios for financial analysis: -

1. **Profitability Ratios**: It calculates the profit-earning ability of the business. It is further divided into the following categories: -

   (i) Net profit ratio:- It establishes the relationship between net profit and sales. It shows how much net profit is made from total sales.

   Net Profit ratio = Net profit/Total sales

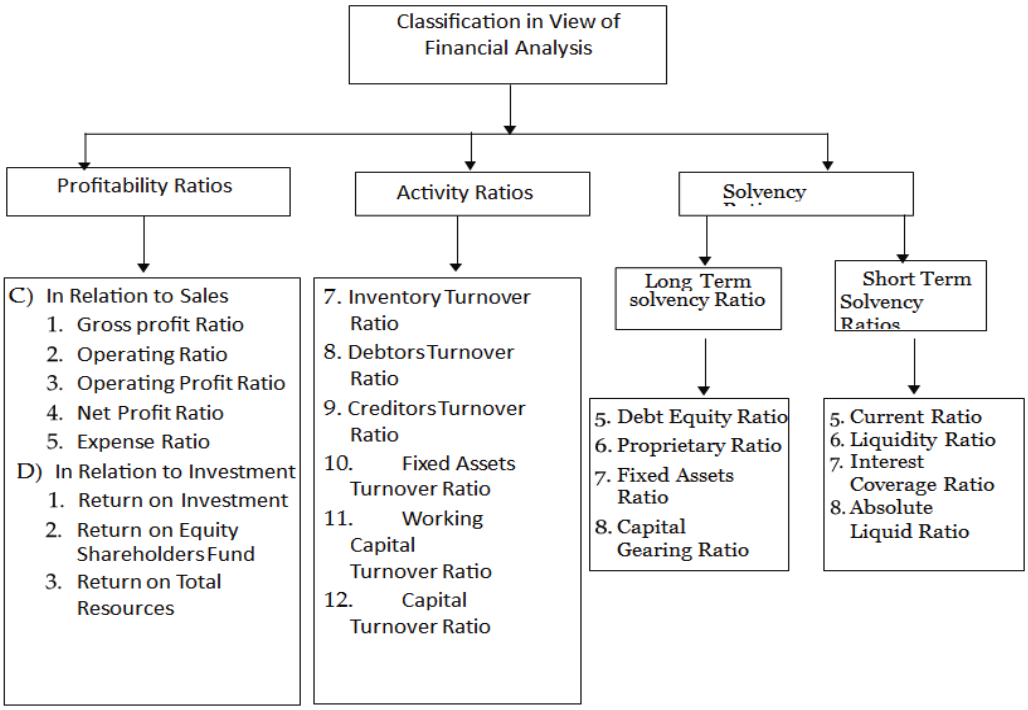
   (ii) Gross profit ratio:- It established the relationship between the gross profit to total sales. It shows how much the total gross profit is made from total sales.

   Gross profit ratio = Gross profit/ total sales

   (iii) Return on asset:- It shows the income or return generated on the total asset.

   Return on asset = Net income/Total Asset

Classification of Major Ratios



(i) Overall Profitability Ratio:- This is also called as Return on Investment (ROI) or Return on Capital Employed (ROCE) ratio. It indicates the percentage of return on the total capital employed in the business. It is calculated as follows:

ROI = Operating Profit/Capital Employed

2. Activity ratio: - These ratios indicate the efficiency with which capital employed is rotated in the business. In other words, it shows how actively business will rotate the capital. Various turnover ratios are as follows:

(i) Over-all Turnover Ratio

The ratio indicates the number of times the capital employed has been rotated in the process of doing business. The ratio is computed as follows:

= Net Sales/Capital Employed

Significance. The overall profitability of a business depends on two factors, viz, (a) the profit margin, and (b)turnover. The profit margin is disclosed by the net profit ratio while the turnover is indicated by the overall turnover ratio. A business with a lower profit margin can achieve a higher ROI if its turnover is high. This is the reason for wholesalers earning a larger return on their investment even when they have a lower profit margin. A business should not, therefore, increase its profit margin to an extent that it results in reduced turn-over resulting in a reduction of overall profit.

(ii) Fixed Assets Turnover Ratio

The ratio indicates the extent to which the investment in fixed assets has contributed towards sales. The ratio can be calculated as follows:

= Net sales/Net fixed Asset

Significance. The comparison of the fixed assets turnover ratio over a period of

time indicates whether the investment in fixed assets has been judicious or not. Of course, investment in fixed assets does not push up sales immediately but the trend of increasing sales should be visible. If such a trend is not visible or an increase in sales has not been achieved after the expiry of a reasonable time it can be very well said that increased investments in fixed assets have not been judicious.

(iii) Debtors' Turnover Ratio

This ratio indicates the speed with which money is collected from the debtors. It is computed as follows:

= Credit Sales/Average account receivable

The term average account receivable includes trade debtors and bills receivable. Average accounts receivable are computed by taking the average receivables at the beginning and at the end of the accounting year. The higher the ratio, the better it is.

This means on average three months credit is allowed to the debtors. An increase in the credit period would result in unnecessary blockage of funds and with increased possibility of losing money due to debts becoming bad.

Significance. Debtors Turnover Ratio or Debt Collection Period Ratio measures the quality of debtors since it indicates the rapidity or slowness with which money is collected from the debtors. A shorter collection period implies prompt payment by debtors. A longer collection period implies too liberal and inefficient credit collection performance. The credit policy should neither be too liberal nor too restrictive. The former will result in more blockage of funds and bad debts while the latter will cause lower sales which will reduce profits.

(iv) Creditors Turnover Ratio:- This is similar to Debtors Turnover Ratio. It indicates the speed with which payments for credit purchases are made to creditors. It can be computed as follows:

= Credit Purchase/Average account payable

The term 'accounts payable' includes trade creditors and bills payable.

From the creditors' turnover ratio, the credit period enjoyed can be computed as follows:

Credit Period = Months or days in a year/Creditors Turnover

For example, if the credit purchases during a year are Rs. 1,00,000, Average accounts payable Rs. 25,000, the Creditors Turnover Ratio will be '4' (i.e., 1,00,000 / 25,000) while the credit period enjoyed ratio would be 3 months (i.e., 12 months/4).

Significance. The creditors turnover ratio and the credit period enjoyed ratio indicate the promptness or otherwise in making payment for credit purchases. A higher creditors turnover ratio or a lower credit period enjoyed ratio signifies that the creditors are being paid promptly thus enhancing the credit-worthiness of the company. However, a very favorable ratio to this effect also shows that the business is not taking full advantage of credit facilities that can be allowed by creditors.

(v.) Stock Turnover Ratio

This ratio indicates whether the investment in inventory is efficiently used and whether it is within proper limits. It is calculated as follows:

Stock turnover ratio= Cost of goods sold/Average stock

Average inventory is calculated by taking the average of inventory at the beginning and at the end of the accounting year.

Significance. The ratio signifies the liquidity of inventory. A high inventory turnover ratio indicates brisk sales and vice-versa. The ratio is therefore a measure to discover possible trouble in the form of over-stocking or over-valuation of inventory.

(3) Solvency ratio: It indicates the capacity of the business to meet short-term and long-term obligations. These ratios indicate the financial position of the company. A company is considered to be financially sound if it is in a position to carry on its business smoothly and meet all its obligations both short-term and long-term without stress. The Financial or Solvency Ratios can therefore be classified into the following categories:

(i) **Long-term Solvency Ratios**: - These include fixed assets ratio, debt-equity ratio and proprietary ratio;

(ii) **Short-term Solvency Ratios**: - These include the current ratio, liquidity ratio, super-quick ratio and defensive interval ratio.

Various Long-term Solvency Ratios are:

(i) Fixed Assets Ratio

The ratio indicates the extent to which fixed assets have been acquired by use of long-term funds. The ratio is expressed as follows:

Net fixed ratio = Net fixed Asset/Long term fund

The term 'Net Fixed Assets' means the original cost of fixed assets minus depreciation to date. The ratio should not be more than '1'. The ideal ratio is 0.67.
Significance. It is a sound principle of finance that fixed assets should be financed out of long-term funds. As a matter of fact, a part of working capital termed core-working capital, should also be financed by long-term funds. The ratio is therefore an indication of the fact whether the company has followed sound financial policy or not. In case the ratio is more than '1', it shows that a part of the working capital has also been used to acquire fixed assets, which may prove quite troublesome for the company.

(ii) Debt-Equity Ratio

The ratio is determined to ascertain the proportion between the outsiders' funds and shareholders' funds in the capital structure of an enterprise. The term outsiders' funds is generally used to represent total long-term debt. The ratio can be computed as follows:

Debt Equity ratio = Long-term debt/Shareholders' fund

The ratio is considered to be ideal if the shareholders' funds are equal to the total long-term debt. However, these days the ratio is also acceptable if the total long-term debt does not exceed twice of shareholders' funds.

Significance. The ratio is an indication of the soundness of the long-term financial

policies pursued by the business enterprise. The excessive dependence on outsiders' funds may cause insolvency of the business. The ratio provides the margin of safety to the creditors. It tells the owners the extent to which they can gain by maintaining control with a limited investment.

(iii) Proprietary Ratio

It is a variant of the Debt-Equity Ratio. It establishes a relationship between the proprietors' or shareholders' funds and the total tangible assets. It may be expressed as follows:

= Shareholder fund/Total tangible asset

Significance. The ratio focuses attention on the general financial strength of the business enterprise. The ratio is of particular importance to the creditors who can find out the proportion of shareholders' funds in the total assets employed in the business. A high proprietary ratio will indicate relatively little danger to the creditors or vice-versa in the event of a forced reorganization or winding up of the company.

Various Short-term Solvency Ratios are:

(i) Current Ratio

The ratio is an indicator of the firm's commitment to meet its short-term liabilities. It is expressed as follows:

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

An ideal current ratio is '2'. However, a ratio of 1.5 is also acceptable if the firm has adequate arrangements with its bankers to meet its short-term requirements of funds.

Significance: The ratio is an index of the concern's financial stability, since, it shows the extent to which the current assets exceed its current liabilities. A higher current ratio would indicate inadequate employment of funds, while a poor current ratio is a danger signal to the management.

(ii) Liquidity Ratio

The ratio is also termed as Acid Test Ratio or Quick Ratio. The ratio is ascertained by comparing the liquid assets i.e., current assets (excluding stock and prepaid expenses) to current liabilities. The ratio may be expressed as follows:

Liquid Ratio = Current Asset-Stock/Current Liabilities-Bank Overdraft

Some accountants prefer the term liquid liabilities for current liabilities. The term 'liquid liabilities' means liabilities payable within a short period. Bank overdraft and cash credit facilities (if they become permanent modes of financing) are excluded from current liabilities for this purpose. The ratio may be expressed as follows:

= Liquid Asset/Liquid liability

The ideal ratio is '1'.

Significance: The ratio is an indicator of the short-term solvency of the company.

A comparison of the current ratio to the quick ratio should also indicate the inventory hold-ups. For instance, if two units have the same current ratio but different liquidity ratios, it indicates over-stocking by the concern having a low liquidity ratio as compared to the firm which has a higher liquidity ratio.

(iii) Super-quick Ratio

It is a slight variation of the quick ratio. It is calculated by comparing the super quick assets with the current liabilities (or liquid liabilities) of a firm. The ratio may be expressed as follows:

Super Quick Assets/ Current Liabilities

The term 'Super-Quick Assets' means current assets excluding stock, prepaid expenses and debtors. Thus, super-quick assets comprise mainly cash, bank balance and marketable securities.

Significance*:* This ratio is the most rigorous test of a firm's liquidity position. In case the ratio is '1', it means the firm can meet its current liabilities at any time.

There are the following advantages of financial analysis through ratio analysis: -

1. To measure the liquidity position - The purpose of ratio analysis is to measure the liquidity position of a firm. Whether the firm can meet its current obligations when they become due or not? A firm can be said to be liquid if it has sufficient liquid funds to pay the interest charges on short-term debt within a year. The liquidity ratio is useful in credit analysis by banks and other financial institutions.
2. To know the solvency position - Ratio analysis is helpful for assessing the long-term financial liability of the firm. The long-term solvency is measured through the leverage, and profitability ratios. These ratios reveal the strengths and weaknesses of a firm in respect of the solvency position. The leverage ratios indicate the proportion of various sources of finance in the firm's capital structure, particularly the ratio of debt and equity share capital.
3. Operating efficiency or turnover of the firm - The ratios help measure the operating efficiency or the turnover of the firm. These ratios indicate the efficiency in utilizing the assets of the firm such as fixed assets turnover ratio, total resources turnover ratio etc.
4. To assess the profitability position of the firm - The ratio is useful to assess and measure the profitability of the firm with respect to sales and investments. These ratios are concerned with the overall profitability of the firm.
5. Inter-firm and Intra–firm comparison - Ratios not only reflect the financial position of a firm but also serve as a tool for remedial actions. This is made possible only due to inter-firm comparison. This would demonstrate the relative position of the firm vis-à- vis its competitors. If there is any variance in the ratios either with the industry average or with those of competitors, the firm has to identify the reasons and take remedial measures.

3.22 Time series analysis

Time series analysis analyses the variable over a period of time for forecasting the variable concerning the time period. It is widely used in financial statement analysis to forecast the data. Time series analysis is a powerful tool in financial statement analysis that involves studying and analyzing data points collected over consecutive periods. In the context of financial statements, time series analysis helps identify patterns, trends, and relationships within the historical financial data of a company.

Here's a detailed overview of how time series analysis can be applied to financial statement analysis:

1. **Data Collection:**
   We Can Collect historical financial data, including income statements, balance sheets, and cash flow statements, over a specific time period. Ensure that the data is consistent, accurate, and represents comparable periods.

2. **Time Series Plotting:**
   Create time series plots for key financial metrics like revenue, net income, earnings per share, total assets, liabilities, and equity, Visualize the trends, patterns, and fluctuations over time.

3. **Identifying Trends:**
   Analyze the time series plots to identify long-term trends in financial performance. Trends may indicate the overall health and growth trajectory of the company.

4. **Seasonal Analysis:**
   Time series analysis can also be utilized to Explore any seasonal patterns within the financial data. Some industries may experience cyclicality based on seasons or specific economic cycles.

5. **Calculating Growth Rates:**
   Compute the growth rates of key financial metrics over consecutive periods. Growth rates help assess the company's performance in terms of expansion or contraction.

6. **Volatility Analysis:**
   Examine the volatility of financial metrics to understand the degree of fluctuation. High volatility may indicate risk and uncertainty in the business environment.

7. **Correlation Analysis:**
   Explore relationships between different financial variables. For example, how does revenue growth correlate with changes in net income. Identify leading and lagging indicators within the financial statements.

8. **Forecasting:**
   Utilize time series analysis techniques, such as moving averages or autoregressive integrated moving average (ARIMA) models, to make future predictions based on historical data. Forecasting helps in anticipating potential future financial scenarios.

9. **Ratio Analysis:**
   We can apply time series analysis to financial ratios over time, such as liquidity ratios, profitability ratios, and leverage ratios. Understand how these ratios evolve and impact the overall financial health of the company.

10. **Event Analysis:**
    Identify and analyze significant events or changes in the business environment that coincide with specific patterns in the financial time series. Events could include mergers, acquisitions, regulatory changes, or economic downturns.

11. **Benchmarking:**
    We can Compare the time series data of the company with industry benchmarks or competitors to assess relative performance.

12. **Risk Management:**
    Assess the risk exposure by analyzing the volatility and fluctuations in financial metrics. This helps in formulating risk mitigation strategies.

13. **Scenario Analysis:**
    Use time series analysis to evaluate the impact of different scenarios on future financial performance.

14. **Monitoring and Reporting:**
    Regularly monitor and report on the results of time series analysis to provide insights for decision-making, strategic planning, and performance evaluation.

In a nutshell, time series analysis in financial statement analysis is a comprehensive approach that involves visualizing, understanding, and predicting the financial performance of a company over time. It provides valuable insights for investors, analysts, and decision-makers in assessing the company's stability, growth potential, and risk exposure.

❖ **Exercise**

- **Questions: -**
- **Multiple Choice Questions (MCQs)**

1. What financial statement provides a snapshot of a company's assets, liabilities, and equity at a specific point in time?
   A. Income Statement
   B. Statement of Cash Flows
   C. Balance Sheet
   D. Statement of Retained Earnings
   Answer: C. Balance Sheet

2. The Income Statement shows:
   A. Assets, liabilities, and equity
   B. Revenues, expenses, and net income
   C. Changes in cash flow
   D. Shareholder dividends
   Answer: B. Revenues, expenses, and net income

3. Which financial ratio measures a company's ability to cover its short-term obligations with its short-term assets?
   A. Return on Equity (ROE)
   B. Current Ratio
   C. Debt-to-Equity Ratio
   D. Earnings per Share (EPS)
   Answer: B. Current Ratio

4. What does the Debt-to-Equity Ratio indicate about a company?
   A. Its profitability
   B. The proportion of debt used to finance its operations

C. Efficiency in managing assets
D. Return on investment
Answer: B. The proportion of debt used to finance its operations

5. The Cash Flow Statement is divided into three main sections, which are:
A. Operating, Financing, and Investing activities
B. Revenue, Expenses, and Net Income
C. Assets, Liabilities, and Equity

D. Short-term, Medium-term, and Long-term activities
Answer: A. Operating, Financing, and Investing activities

Long Questions:

1. What is financial statement analysis and what are the techniques for financial statement analysis?
2. Prepare a common size statement with the following balance sheet of A Ltd: -

I. Equity and liabilities	Amount (In Rs)
1. Shareholder fund	
(a) Share Capital	40,00000
(b) Reserve & Capital	6,00000
2. Non-current liabilities	
(a) Long term Borrowing	32,00000
3. Current liabilities	
(a) Trade Payable	2,00000
Total	80,00000
II. Asset	
1. Non-current Asset	
(a) Fixed Asset	
(i) Tangible asset	40,00000
(ii) Intangible asset	2,00000
2. Current Asset	32,00000
(a) Inventories	
(b) Cash & Cash equivalent	6,00000
Total	80,00000

UNIT – 4 BALANCE SHEET ANALYSIS AND RATIOS

4.1 Introduction

The balance sheet is one of a company's three primary financial statements. It displays the assets, liabilities, and shareholders' equity of a corporation at a certain point in time. Assets are things that the company owns, such as cash, inventory, and equipment. Liabilities are things that the company owes, such as debt and accounts payable. Shareholders' equity is one of the three primary financial statements of a business in the balance sheet. The difference between assets and liabilities represents the owners' investment in the company.

Balance sheet analysis is the process of evaluating a company's financial position by analyzing its balance sheet. It is a valuable tool for investors, creditors, and managers to make informed decisions about a company.

There are two main types of balance sheet analysis: vertical analysis and horizontal analysis.

- Vertical analysis expresses each line item on the balance sheet as a percentage of a base figure, typically total assets. This allows analysts to see how much each line item contributes to the company's overall financial structure.
- Horizontal analysis compares each line item on the balance sheet over a period of time, such as two or more years. This allows analysts to see how a company's financial position has changed over time.

Balance sheet analysis can be used to answer a variety of questions, such as:

- How liquid is the company? Liquidity is the company's ability to meet its short-term things that belong to the company, such as money, stock, and machinery, are called assets. Accounts payable and other debt are examples of liabilities that the firm has obligations. Analysts can use liquidity ratios, such as the current ratio and the quick ratio, to assess the company's liquidity.
- How solvent is the company? Solvency is the company's ability to meet its long-term obligations. Analysts can use solvency ratios, such as the debt-to-equity ratio and the times interest earned ratio, to assess the company's solvency.
- How efficient is the company using its assets? Asset turnover ratios, such as inventory turnover and total asset turnover, can be used to assess how efficiently the company is using its assets.
- How profitable is the company? Profitability ratios, such as return on assets (ROA) and return on equity (ROE), can be used to assess the company's profitability.

Balance sheet analysis is a powerful tool that can be used to gain a better understanding of a company's financial position. By understanding how to read and analyze a balance sheet, investors, creditors, and managers can make more informed decisions about the company.

Balance sheet analysis is an important tool for understanding a company's financial position. By analyzing the balance sheet, analysts can gain insights into the company's liquidity, solvency, efficiency, and profitability. This information can be used to make informed decisions about whether to invest in the company, whether to lend money to the company, or whether to work for the company.

4.2 Assets Analysis

Asset analysis is the process of evaluating a company's assets to determine their value and their potential to generate income. It is a valuable tool for investors, creditors, and managers to make informed decisions about a company.
There are two main types of asset analysis: quantitative and qualitative.

- Quantitative asset analysis uses financial ratios and other metrics to assess the value and performance of a company's assets. Some common quantitative asset analysis metrics include:
    - **Asset turnover ratio**: This ratio measures how efficiently the company is using its assets to generate revenue.
    - **Return on assets (ROA):** This ratio measures how profitable the company is on its assets.
    - **Debt-to-equity ratio:** This ratio measures the company's financial leverage.
- Qualitative asset analysis involves assessing the non-financial factors that affect the value of a company's assets, such as the company's management team, its competitive landscape, and its industry outlook.

Asset analysis can be used to answer a variety of questions, such as:

- Which assets are the most valuable to the company?
- How efficiently is the company using its assets?
- Are there any assets that are not being used effectively?
- Are there any assets that are at risk of impairment?
- What are the company's growth prospects, based on its asset base?

By understanding how to analyze assets, investors, creditors, and managers can make more informed decisions about a company.

Here are some examples of how asset analysis can be used:

- An investor is considering investing in a company that manufactures machinery. The investor would want to analyze the company's asset base to determine the value of its machinery and equipment. The investor would also want to look at the company's asset turnover ratio to assess how efficiently the company is using its machinery and equipment to generate revenue.
- The creditor is interested in the company's debt-to-equity ratio, a financial measure that helps assess how much the company relies on debt compared to its own equity. This ratio gives the creditor insights into the company's financial stability and how well it manages its debts.

- A manager is trying to improve the profitability of a company. The manager would want to analyze the company's asset base to identify any assets that are not being used effectively. The manager could then sell these assets or use them in a more profitable way.

Asset analysis is a valuable tool for understanding a company's financial position and its growth potential. By understanding how to analyze assets, investors, creditors, and managers can make more informed decisions about a company.

4.3 Liability analysis

Liability analysis is the process of evaluating a company's liabilities to determine their amount, timing, and risk. It is a valuable tool for investors, creditors, and managers to make informed decisions about a company.

There are two main types of liabilities: current and long-term.

- Current liabilities are liabilities that are due within one year. Examples of current liabilities include accounts payable, short-term debt, and accrued expenses.
- Long-term liabilities are liabilities that are due in more than one year. Examples of long-term liabilities include long-term debt, bonds, and pension liabilities.

Liability analysis can be used to answer a variety of questions, such as:

- How much debt does the company have?
- When is the company's debt due?
- What is the company's interest expense?
- What are the company's contingent liabilities?
- What is the company's financial leverage?

By understanding how to analyze liabilities, investors, creditors, and managers can gain insights into the company's liquidity, solvency, and risk profile. This information can be used to make informed decisions about whether to invest in the company, whether to lend money to the company, or whether to work for the company.
Here are some examples of how liability analysis can be used:

- An investor is considering investing in a company that has a lot of debt. The investor would want to analyze the company's debt structure to determine the company's ability to repay its debt. The investor would also want to look at the company's debt-to-equity ratio to assess the company's financial leverage.
- A creditor is considering lending money to a company that has a lot of contingent liabilities. Contingent liabilities are potential liabilities that are uncertain in amount or timing. The creditor would want to analyze the company's contingent liabilities to assess the potential risk of loss.
- A manager is trying to improve the company's financial leverage. Financial leverage is the use of debt to finance a company's operations. The manager would want to analyze the company's liability structure to identify any opportunities to reduce debt or increase equity.

Liability analysis is a valuable tool for understanding a company's financial position and its risk profile. By understanding how to analyze liabilities, investors, creditors, and managers can make more informed decisions about a company.

4.4 Equity analysis

Equity analysis is the process of evaluating a company's equity, which is the difference between its assets and liabilities. Equity represents the owners' investment in the company. Equity analysis is a valuable tool for investors to make informed decisions about whether to invest in a company.

There are two main types of equity analysis: fundamental and technical analysis.

- Fundamental analysis involves assessing the company's financial performance and outlook. Some common fundamental analysis metrics include:
    - **Earnings per share (EPS):** This metric measures the company's profitability on a per-share basis.
    - **Price-to-earnings ratio (P/E ratio):** This ratio compares the company's stock price to its EPS.
    - **Return on equity (ROE):** This ratio measures how profitable the company is on its shareholders' equity.
- Technical analysis involves studying historical price and trading data to identify trends and patterns. Some common technical analysis tools include:
    - **Support and resistance levels**: These levels represent areas where the stock price has historically tended to stop and reverse direction.
    - **Chart patterns**: These patterns can be used to identify potential turning points in the stock price.
    - **Technical indicators**: These mathematical formulas are used to generate signals about the direction of the stock price.

Equity analysis can be used to answer a variety of questions, such as:

- Is the company's stock fairly valued?
- What is the company's growth potential?
- What are the risks associated with investing in the company's stock?
- Is the company's stock a good investment for my risk tolerance and time horizon?

By understanding how to analyze equity, investors can make more informed decisions about whether to invest in a company.

Here are some examples of how equity analysis can be used:

- An investor is considering investing in a company that has a high P/E ratio. The investor would want to do further research to understand why the P/E ratio is so high. The investor would also want to look at the company's growth potential to justify the high P/E ratio.
- An investor is looking for stocks with high dividend yields. The investor would want to analyze the company's dividend payout history and its financial stability to ensure that the company can continue to pay dividends.
- An investor is trying to build a well-diversified portfolio. The investor would want to analyze the company's industry and sector to ensure that the company is not too correlated with other stocks in the portfolio.

Equity analysis is a complex topic, but it is an essential skill for investors. By understanding how to analyze equity, investors can make more informed decisions about where to invest their money.

4.5 Balance Sheet Ratios

Balance sheet ratios are financial ratios that compare different line items on a company's balance sheet. They are used to analyze a company's financial health, liquidity, and efficiency.

There are three main types of balance sheet ratios:

- **Liquidity ratios:** Liquidity ratios measure a company's ability to meet its short-term financial obligations. The most common liquidity ratios are the current ratio, quick ratio, and cash ratio.
- **Solvency ratios:** Solvency ratios measure a company's long-term financial health and its ability to repay its debts. The most common solvency ratios are the debt-to-equity ratio and the debt-to-asset ratio.
- **Efficiency ratios:** Efficiency ratios measure how well a company is using its assets to generate revenue and profits. The most common efficiency ratios are the inventory turnover ratio and the accounts receivable turnover ratio.

Here is a brief overview of some of the most common balance sheet ratios:

1. **Current Ratio:** This ratio measures a company's ability to meet its short-term financial obligations. The current ratio is calculated by dividing current assets by current liabilities. It measures a company's ability to meet its short-term financial obligations. A current ratio of 2:1 is generally considered to be healthy, but it can vary depending on the industry.

$$\textbf{Current Ratio} = \frac{\textbf{current Assets}}{\textbf{current Liabilities}}$$

A liquidity ratio called the current ratio assesses how well a business can use its short-term assets to pay its short-term liabilities. When a company's current ratio is greater than 1, it means that its current assets exceed its current liabilities, indicating sound short-term financial standing. However, an excessively high current ratio may imply inefficient use of resources.

Current Assets are those assets that can be easily converted into cash. These assets are the most liquid. The current assets are cash in hand, cash at the Bank, debtors, Bills Receivables, prepaid Expenses, and stock.

Easily convertible assets into cash are referred to as current assets. These assets have the highest liquidity. The current assets are bank cash, cash on hand, bills receivable, stock, pre-paid expenses, and debtors.

The current ratio calculates how much cash on hand is needed to pay for current obligations. A larger quantity is accessible to fulfil short-term commitments when the current ratio is greater. The recommended standard current ratio is 2:1, which is thought to be optimal. In the event when current liabilities and current assets are equal, the company lacks working capital. The firm's short-term financial strength and even solvency are shown by the current ratio.

2. Net Working Capital ratio:

The Net Working Capital (NWC) Ratio measures a company's effectiveness and short-term liquidity. It offers information on the company's capacity to use its short-term assets to pay its short-term debts. The formula for the Net Working Capital Ratio is:

$$\textbf{Net Working Capital Ratio} = \frac{\textbf{Net Working Capital}}{\textit{Net Assets}}$$

Total Assets represent the sum of a company's current and non-current assets.

In general, a firm with a positive net working capital ratio has sufficient short-term assets to meet its short-term liabilities. This is viewed as an indication of strong liquidity. A ratio larger than one implies that the business has a strong ability to pay short-term obligations since it has more current assets than current liabilities. On the other hand, a negative ratio implies that current obligations outweigh current assets, which may be a sign of impending liquidity problems.

When evaluating a company's short-term financial stability and capacity to pay for ongoing operating costs, the Net Working Capital Ratio is an essential tool. It is especially important in fields where quick payment of short-term commitments is required.

This ratio is used by analysts and investors to gauge how well a firm manages its working capital. For a more thorough study, it is necessary to take industry benchmarks and developments throughout time into account. A ratio that is always low or falling might be a sign that a business is not handling its working capital well.

3. **Quick Ratio:** Quick ratio is the Ratio between liquid Assets and Liquid liabilities. Due to the limitation of the current ratio which studies the solvency of the firm may be sometimes misleading due to high ratio of stock to current assets.

Liquid assets are those assets whose amount is almost certain on hand. Liquid assets which include all current assets minus stock and prepaid expenses. Stock is excluded from liquid assets because stock is not converted into immediate future and prepaid expenses are not available to pay off current debts.

Liquid liabilities include all current liabilities minus bank overdraft. Bank overdraft is been excluded from liquid liabilities as it is not required to be paid off in the immediate future. It is also a liquid ratio or Acid Test Ratio.

$$\textbf{Quick Ratio} = \frac{\textit{liquid assets}}{\textit{liquid liabilities}}$$

Liquid assets = current Assets – stock – prepaid expenses

Liquid Liabilities = current liabilities – Bank overdraft

The Quick Ratio, also known as the Acid-Test Ratio, is a measure of how well a company can meet its short-term debts using only its most liquid assets, such as cash and marketable securities. It is a more conservative measure of liquidity than the Current Ratio because it excludes inventory, which can be difficult to sell quickly.

A Quick Ratio greater than 1 means that a company has enough liquid assets to cover its short-term debts without having to sell inventory. A Quick Ratio below 1 may suggest that a company may have difficulty meeting its short-term debts without selling inventory.

The Quick Ratio is particularly relevant for companies that have slow inventory turnover or that operate in industries where inventory is difficult to sell. Investors and analysts rely on the Quick Ratio to gauge a company's short-term financial health and its capacity to withstand economic downturns or unexpected events.

Cash Position Ratio:

The Cash Position Ratio is a financial metric that measures the proportion of a company's cash and cash equivalents in relation to its total assets. This ratio provides insights into the company's liquidity and its ability to cover short-term obligations with its readily available cash resources. The formula for the Cash Position Ratio is:

$$\textbf{Cash Position Ratio} = \frac{\boldsymbol{Cash + Marketable\ Services}}{\boldsymbol{Current\ liabilities}}$$

- Cash and Cash Equivalents include physical currency, demand deposits, and short-term, highly liquid investments with maturities of three months or less.
- Total Assets represent the sum of a company's current and non-current assets.

A higher Cash Position Ratio indicates a larger proportion of a company's total assets held in cash or cash equivalents, suggesting a greater ability to cover short-term obligations with readily available funds. While a high cash position is generally seen as a positive sign of liquidity, excessively high levels of cash may also indicate underutilization of resources. Striking a balance is essential.

The Cash Position Ratio is crucial for assessing a company's ability to meet its short-term obligations using its most liquid assets. It is particularly relevant in situations where immediate access to cash is essential, such as during economic downturns or periods of financial uncertainty.

4. Proprietary Ratio:

The equity ratio is a measure of a company's long-term financial stability. It is calculated by dividing the company's shareholder equity by its total assets. Shareholder equity includes all of the company's capital, such as common stock, preferred stock, and retained earnings. Total assets include all of the company's assets, such as cash, inventory, and equipment.

A higher equity ratio indicates that a company is more financially stable and less reliant on debt. This is good news for creditors, as it means that the company is more likely to be able to repay its loans. A lower equity ratio, on the other hand, indicates that a company is more financially risky and more reliant on debt. This is bad news for creditors, as it means that the company is more likely to default on its loans.

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

The further analysed terms of Proprietary Ratio are as follows:

a) Fixed Assets to Proprietors Funds Ratio
b) Current Assets to Proprietors Funds Ratio

a) Fixed Assets to Proprietors Funds Ratio:

It shows the relationship between fixed assets to shareholders funds. It is been calculated to see how much amount is being invested by owners

Fixed Assets to shareholders Funds = $\frac{fixed\ Assets}{Proprietors\ Funds}$

b) Current Assets to Proprietors Funds Ratio:

The ratio shows the relationship between current assets and shareholders' funds.

Current Assets to Proprietors Funds Ratio = $\frac{current\ Assets}{Proprietors\ Fund}$

5. Capital Gearing Ratio:

Capital Gearing Ratio (CGR) is a measure of how much debt a company uses to finance its operations. It is calculated by dividing a company's long-term debt by its equity. The capital Gearing ratio expresses the relation between the fixed interest-bearing funds to non-fixed interest-bearing funds. The ratio is related to the solvency of the firm and is used to analyse the capital structure of the firm. It indicates the relation between owner's funds and non-owner's funds.

A higher CGR means that a company is using more debt, which can increase its financial risk. A lower CGR means that a company is using less debt, which can reduce its financial risk. CGR is an important indicator of a company's financial health and solvency. Creditors and investors use it to assess a company's ability to repay its debts and meet its financial obligations.

$$\textbf{Capital Gearing Ratio} = \frac{\boldsymbol{Fixed\ Interest\ Bearing\ Funds}}{\boldsymbol{Equity\ Share\ holders\ Funds}}$$

6. Debt Equity Ratio:

The debt-to-equity ratio (D/E ratio) is a financial ratio that measures how much of a company's financing is provided by debt and how much is provided by equity. It is calculated by dividing a company's total liabilities by its total equity.
A higher D/E ratio indicates that a company is using more debt to finance its operations. This can increase the company's financial risk, as it will have more interest payments to make and will be more exposed to rising interest rates. However, a higher D/E ratio can also increase the company's potential returns, as it can use borrowed money to invest in growth opportunities.
A lower D/E ratio indicates that a company is using less debt and more equity to finance its operations. This can make the company less financially risky, but it can also limit its growth potential, as it will have less money to invest.
The ideal D/E ratio will vary depending on the industry and the company's specific circumstances. However, a D/E ratio of 1:1 is generally considered to be a good balance between risk and reward.

a) Debt – Equity Ratio = $\frac{\boldsymbol{long\ term\ Debts}}{\boldsymbol{Equity/\ shareholders\ \ fund}}$

Or

b) Debt – Equity Ratio = $\frac{\boldsymbol{External\ Equities}}{\boldsymbol{Internal\ Equities}}$

Or

c) Debt – Equity Ratio = $\frac{\boldsymbol{outsiders\ Fund}}{\boldsymbol{Shareholders\ Fund}}$

7. Reserve to Equity share Capital ratio:

It makes clear the company's growth and dividend distribution policies. A very high ratio denotes a policy of conservation of dividends and greater profit reinvestment. The situation will be better with a higher ratio.

Reserve to Equity share Capital ratio = $\frac{\textbf{\textit{Revenue Reserve}}}{\textbf{\textit{Equity Capital}}}$

8. Solvency Ratio:

It is also known as the Debt Ratio. It is a difference of 100 and propriety Ratio. This ratio is calculated between the company's total assets and its external liabilities. All long-term and short-term liabilities are considered external liabilities.

Solvency Ratio = $\frac{\textbf{Total Liabilites}}{\textbf{Total Assets}}$

9. Security Ratio:

A financial ratio called a security ratio assesses the security and safety of an investment. It is computed by deducting the investment's market value from the value of the collateral offered as security.

Security Ratio = Market Value of Investment / Value of Collateral

A security ratio of 1:1 or higher is generally considered to be good. This means that the market value of the investment is equal to or greater than the value of the collateral. A security ratio that is too low can indicate that the investment is at risk of default and that the lender may not be able to recover the full value of the investment if the borrower defaults.
Security ratios are commonly used by lenders to assess the risk of a loan and to determine the amount of interest to charge. They are also used by investors to assess the risk of an investment and to determine whether or not to invest in a particular security.

Here are some examples of security ratios:

- **Loan-to-value ratio (LTV):** This ratio is used to assess the risk of a mortgage loan. It is calculated by dividing the amount of the loan by the appraised value of the property.
- **Margin ratio**: This ratio is used to assess the risk of a margin loan. It is calculated by dividing the market value of the securities that are pledged as collateral for the loan by the amount of the loan.
- **Debt-to-equity ratio (D/E)**: This ratio is used to assess the overall financial leverage of a company. It is calculated by dividing the company's total liabilities by its total equity.

Security ratios are an important tool for lenders and investors to use when making investment decisions. They can help to identify and mitigate risk and to ensure that investments are made responsibly and prudently.

Illustration 1. The following is the balance sheet of a firm:

Liabilities	Amt	Assets	Amt
Share Capital	40,000	Fixed Assets	17,500
Creditors	10,000	Cash	2,000
Bill Payable	2,000	Book Debts	8,000
Provision for Tax	4,500	Stock	10,000
		Prepaid Expenses	500
	56,500		56,500

Current Assets = 2000 + 8000 + 8000 + 18500 + 500 = 37000
Current Liabilities = 10000 + 2000 + 4500 = 16500

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

$= \frac{37000}{16500}$

= 2.24:1

Quick Ratio = $\frac{\boldsymbol{liquid\ assets}}{\boldsymbol{liquid\ liabilities}}$

Quick Ratio = $\frac{20000}{16500}$

Quick Ratio = 1.21: 1

Illustration 2. From the following balance sheet of the firm as of the year 2003 - 04, you are required to calculate the current Ratio and Liquid Ratio

Particulars	2003	2004
Stock	28,000	51,000
Debtors	12,000	18,000
Bills payable	4,000	5,000
Creditors	10,000	17,000
Provision for Taxation	7,000	9,000
Cash	7,000	6,000
Bank Overdraft	7,000	17,000

For the year 2003

- **Current Ratio** = $\frac{current\ Assets}{current\ Liabilities}$

Current Assets = Stock + debtors + Cash

= 28,000 + 12,000 + 7,000

= 47,000

Current Liabilities = Creditors + Bills Payable + Provision for Tax + Bank Overdraft

= 10,000 + 4,000 + 7,000 + 7,000

= 28,000

- **Current Ratio** = $\frac{current\ Assets}{current\ Liabilities}$

Current Ratio = $\frac{47,000}{28,000}$

= 1.68 : 1

- **Liquid assets** = current Assets – stock

Liquid Assets = 47,000– 28,000

=19,000

Liquid Liabilities = current liabilities – Bank overdraft

= 28,000 – 7,000

= 21,000

- **Quick Ratio** = $\frac{liquid\ assets}{liquid\ liabilities}$

Quick Ratio = $\frac{19,000}{21,000}$

Quick Ratio = 0.90: 1

For the year 2004

- **Current Ratio** = $\frac{\boldsymbol{current\ Assets}}{\boldsymbol{current\ Liabilities}}$

Current Assets = Stock + debtors + Cash

= 51,000 + 18,000 + 6,000

=75,000

Current Liabilities = Creditors + Bills Payable + Provision for Tax + Bank Overdraft

= 17,000 + 5,000 + 9,000 + 17,000

= 48,000

- **Current Ratio =** $\frac{\boldsymbol{current\ Assets}}{\boldsymbol{current\ Liabilities}}$

Current Ratio = $\frac{75,000}{48,000}$

=1.56: 1

- **Liquid assets = current Assets – stock**

Liquid Assets = 75,000– 51,000

= 24,000

- **Liquid Liabilities = current liabilities – Bank overdraft**

  = 48,000 – 17,000

  = 31,000

- **Quick Ratio =** $\frac{\boldsymbol{liquid\ assets}}{\boldsymbol{liquid\ liabilities}}$

  Quick Ratio = $\frac{24,000}{31,000}$

  Quick Ratio =0.77: 1

Illustration: 3

Find out Debt – Equity Ratio

Particulars	**Amount**
Total Debts	2,00,000
Total Assets	3,00,000
Current Liabilities	20,000

Long term Debt = Total Debts – Current Liabilities

Long Term Debt = 2,00,000 –20,000

= 1,80,000

Shareholders funds = Total Assets – Total Debts

= 3,00,000 – 2,00,000

=1,00,000

Debt – Equity Ratio = $\frac{outsiders\ Fund}{Shareholders\ Fund}$

Debt – Equity Ratio = $\frac{1,80,000}{1,00,000}$

= 1.8: 1

Illustration: 4

Find out Debt – Equity Ratio from the following information

Particulars	**Amount**
Capital Employed	25,00,000
Long term Debt	17,00,000

- **Shareholders Fund** = capital Employed – long term debt

  = 25,00,000 – 17,00,000

  = 8,00,000

- **Debt – Equity Ratio** = $\frac{long\ term\ debts}{Shareholders\ Fund}$

Debt – Equity Ratio = $\frac{17,00,000}{8,00,000}$

= 2.13: 1

Illustration: 5

Find out Debt – Equity Ratio from the below information

Particulars	**Amount**
Equity Share Capital	20,00,000
Preference Share Capital	4,00,000
Reserve	6,00,000
Profit & Loss Account	2,00,000
6% Debentures	5,00,000
Creditors	3,00,000
Bills payable	2,00,000
Provision for Taxation	1,70,000
Outstanding Creditors	1,60,000

- **Shareholders Fund = Equity share capital + preference share capital + reserve + Profit & loss allocation**

  Shareholders fund = 20,00,000 + 4,00,000 + 6,00,000 + 2,00,000

  Shareholders fund = 32,00,000

- **Total Debts = 6% debentures + creditors + Bills Payable + Provision for Taxation + outstanding Creditors**

  Total Debts = 5,00,000 + 3,00,000 + 2,00,000 + 1,70,000 + 1,60,000

  =13,30,000

  Debt – Equity Ratio = $\frac{long\ term\ debts}{Shareholders\ Fund}$

  Debt – Equity Ratio = $\frac{32,00,000}{13,30,000}$

  = 2.41 : 1

Illustration:6

From the following information calculate the capital gearing ratio

Particulars	**Amount**
Equity share capital	20,00,000
10% preference share capital	7,00,000
18% debentures	9,00,000
Loan at 15% (long period)	1,60,000
Current liabilities	4,00,000
General reserve	9,00,000

- **Capital Gearing Ratio =** $\frac{\textbf{\textit{Fixed Interest Bearing Funds}}}{\textbf{\textit{Equity Share holders Funds}}}$
- **Fixed Interest-Bearing Funds** = 10% preference share + 18% debentures + loan at 15%
- **Fixed Interest-Bearing Funds** = 7,00,000 + 9,00,000 + 1,60,000
- **Fixed Interest-Bearing funds** = 17,60,000
- **Equity shares holders fund** = Equity share capital + General Reserve
- **Equity Shares holders fund** = 20,00,000 + 9,00,000
- **Equity shareholders fund** = 29,00,000
- **Capital Gearing Ratio** = $\frac{Fixed\ Interest\ Bearing\ Funds}{Equity\ Share\ holders\ Funds}$
- **Capital Gearing Ratio** = $\frac{17,60,000}{29,00,000}$

  = 0.61

Illustration:7. From the following information calculate

1. Capital Gearing Ratio
2. Current Ratio
3. Liquid Ratio
4. Current Assets to Fixed Assets
5. Debt Equity Ratio
6. Proprietary Ratio

Liabilities	**Amount**	**Assets**	**Amount**
Share capital	2,60,000	Plant & Machinery	1,50,000
General Reserve	60,000	Land & Building	3,00,000
Profit & loss Account	90,000	Stock	4,00,000
10% Debentures	4,60,000	Bill's receivables	17,000
Creditors	1,50,000	Debtors	1,70,000
Bills Payable	75,000	Bank Balance	58,000
	10,95,000		10,95,000

- **Current Ratio =** $\frac{\textbf{\textit{current Assets}}}{\textbf{\textit{current Liabilities}}}$
- **Current Assets = stock + Bills Receivables + debtors + bank balance**

  Current Assets = 4,00,000 + 17,000 + 1,70,000 + 58,000

  Current Assets = 6,45,000
- **Current Liabilities = creditors + Bills Payable**

  Current liabilities = 1,50,000 + 75,000

  Current Liabilities = 2,25,000
- **Current Ratio =** $\frac{\textbf{\textit{current Assets}}}{\textbf{\textit{current Liabilities}}}$

  Current Ratio = $\frac{6,45,000}{2,25,000}$

Current Ratio = 2.86 : 1

- **Liquid Assets = current Assets – stock**

  Liquid Assets = 6,45,000 – 4,00,000

  = 2,45,000

- **Liquid Liabilities = current liabilities – Bank overdraft**

  =2,25,000 – 0

  = 2,25,000

- **Quick Ratio =** $\frac{liquid\ assets}{liquid\ liabilities}$

  Quick Ratio = $\frac{2,45,000}{2,25,000}$

  Quick Ratio =1.09 : 1

- **Current Assets to Fixed Assets =** $\frac{current\ Assets}{fixed\ Assets}$

- Fixed Assets = Plant & Machinery + land & Building

  Fixed Assets = 1,50,000 + 3,00,000

  Fixed Assets = 4,50,000

- **Current Assets to Fixed Assets =** $\frac{current\ Assets}{fixed\ Assets}$

  Current Assets to Fixed Assets = $\frac{1,50,000}{4,50,000}$

  Current Assets to Fixed Assets = 0.33

- **Capital Gearing Ratio =** $\frac{Fixed\ Interest\ Bearing\ Funds}{Equity\ Share\ holders\ Funds}$

- Fixed Interest-Bearing Funds = 10 % debentures

  Fixed Interest-Bearing Funds = 4,60,000

- Equity = share capital + General Reserve + Profit & Loss Account

  Equity = 2,60,000 + 60,000 + 90,000

  Equity = 4,10,000

- **Capital Gearing Ratio =** $\frac{Fixed\ Interest\ Bearing\ Funds}{Equity\ Share\ holders\ Funds}$

  Capital Gearing Ratio = $\frac{4,60,000}{4,10,000}$ = 1.12

- **Debt – Equity Ratio =** $\frac{outsiders\ Fund}{Shareholders\ Fund}$

  Debt = 10% debentures

  Debt = 4,60,000

- **Equity = share capital + General Reserve + Profit & Loss Account**

  Equity = 2,60,000 + 60,000 + 90,000

Equity = 4,10,000

- **Debt – Equity Ratio =** $\frac{\boldsymbol{outsiders\ Fund}}{\boldsymbol{Shareholders\ Fund}}$

  Debt – Equity Ratio = $\frac{4,60,000}{4,10,000}$

  Debt – Equity = 1.12: 1

- **Proprietary Ratio =** $\frac{\boldsymbol{Shareholders\ Funds}}{\boldsymbol{Total\ Assets}}$

  Equity = share capital + General Reserve + Profit & Loss Account

  Equity = 2,60,000 + 60,000 + 90,000

  Equity = 4,10,000

- **Total Assets = fixed Assets + current Assets**

  Total Asset = 4,50,000 + 6,62,000

  Total Assets =11,12,000

- **Proprietary Ratio =** $\frac{\boldsymbol{Shareholders\ Funds}}{\boldsymbol{Total\ Assets}}$

  Proprietary Ratio = $\frac{4,10,000}{11,12,000}$

  Proprietary Ratio = 0.36

❖ **Exercise**

1. Answer the following questions

1) Discuss the important ratios usually worked from financial statements showing how they would be useful to higher management.
2) What is the Balance sheet ratio? Discuss its importance and objectives.
3) Explain Current and Liquid ratios.
4) Write a short note on the Proprietary Ratio.
5) Explain the significance of the Capital Gearing Ratio.

2. From the Following Balance sheet, calculate

- Current Ratio
- Liquid Ratio
- Proprietary Ratio
- Capital Gearing Ratio
- Current Assets to Working Capital Ratio

Liabilities	Amount	Assets	Amount
Equity share Capital	3,00,000	Plant & machinery	3,00,000
10% preference share capital	2,00,000	Land & building	3,50,000
10% debentures	2,00,000	Stock	2,00,000
Reserves & surplus	1,00,000	Debtors	70,000
Long term debt	60,000	Cash	1,00,000
Creditors	1,00,000		
Bank Overdraft	60,000		
Total	10,20,000	Total	10,20,000

UNIT – 5 CASH FLOW STATEMENT ANALYSIS AND RATIOS

5.1 Introduction

Cash flow analysis is very important and useful for short-term planning. A business's most liquid asset, if any, is cash. A company needs sufficient cash to pay off debts incurred in the near future, pay interest and other expenses, carry out day-to-day operations and pay dividends to shareholders. Thus, the entire transactions of the company are made out of cash inflows or outflows. Thus, cash inflows and outflows can be estimated for the near future to determine the availability of cash in the company so that excess cash is not kept on hand and does not have a negative impact on the profitability of the business. Thus, the cash balance matches the cash requirement of the company during the period and accordingly, arrangements can be made to address the deficit if needed or to invest it properly if there is excess.

Thus, the cash flow statement shows the cash inflows and outflows during the previous year and how much cash was left (on hand) at the end of the year. Thus, total receipts are added to the opening cash balance in the statement and the outgoings are deducted to get the closing balance.

5.2 Meaning of Cash Flow Statement

Cash flow means cash inflows and outflows i.e., cash inflows (sources) increase total cash availability which is used by the company and cash outflow means consumption/ uses of cash which means decreases in cash.

The difference between cash inflows and outflows is known as net cash flow, which can be net cash inflows or net cash outflows. Thus, making a cash flow statement gives an idea of the cash situation. A company can know whether it has sufficient cash flow to carry out the financial transactions of the business. So that when the business debts are to be paid, it can be known whether it can be paid or not.

As per Indian Chartered Accountants of India (ICAI) “Accounting Standard -3” and revised standard Ind As-7 for cash flow statements, all companies have to implement this and companies have to show cash flow statements in their annual report.

A cash flow statement will report the cash flows arising from operating activities, investing activities and financing activities during a specified period of time.

This statement allows for assessing the impact of cash and cash equivalents activities on the company's financial activities through the classification of activities. This information can also be used to evaluate the relationships among those activities.

Thus, according to accounting standards, cash flows are classified into three parts as follows.

5.3 Indian Accounting Standard – 7 (Ind-AS – 7): Statement of Cash Flows

(a) Operating Activities:

Cash flow arising from operating activities is a key factor. In which sufficient cash is generated from the operations of the business to maintain the ability of the business to operate, repay loans, pay dividends and make new investments without recourse to external sources. Thus, future cash flow estimates can be obtained based on information about specific components of cash flows from historical performance.

Cash flow is derived primarily from business operations and activities. The main revenue of the business is derived from production/sales activities. So generally, profit or loss results depend on such transactions and other events.

Examples of cash flows arising from operating activities are:

1. Cash received from the sale of goods and services rendered is the main revenue.
2. Cash income from royalties, fees, commissions and other income.
3. Cash paid to suppliers who provide goods and services.
4. Cash paid to employees.
5. Cash received or paid to the insurance company for premiums and claims, annuity, and other policy benefits.
6. Cash payment or an income tax refund may be particularly for financial and investment activities.

Note:

1. Cash flow represents the operating profit (net profit) at the end of operating activities. But if it includes non-cash items/details then its effect has to be removed from it.
2. If there is a change in any current asset or current liability, it changes the cash flow. Thus, if the current assets increase, the cash flow decreases, while when the current assets decrease, the cash flow increases. Thus, when current liabilities increase, cash flow increases while current liabilities decrease, cash flow decreases.

(b) Investment Activities:

It is important to separate cash flows from investing activities because it shows the extent of such cash flow which generates future income and cash flows from expenditure incurred for research and expenditure on the property shown in the balance sheet, which is incurred solely for expenditure purposes, may be classified as an investing activity. Examples of cash flows from investing activities are as follows:

1. Cash paid to acquire property, plant, machinery, intangible assets and other long-term assets. This payment also includes capitalized development costs and self-constructed properties.
2. Cash proceeds from the sale of property, plant, machinery, intangible assets and other long-term assets.
3. Cash payments made to purchase shares, debentures or debt instruments of other companies.
4. Cash proceeds from the sale of equity shares, debentures or debt instruments of other companies.
5. Amount of cash credit and loan granted to other parties.
6. Cash advances to other parties and repayment of loans.
7. Payment or receipt of cash for futures contracts, option contracts and swap contracts.

(c) Financial Activities:

It is important to show the cash flow generated by financing activities separately because it makes it easier to estimate claims on future cash flows arising from the capital provider. Examples of cash flows from financing activities are as follows.

1. Cash flow from issuing shares or other equity instruments.
2. Cash payment to buy back or return shares of the company.
3. Cash flows arising from debentures, loans, bonds, guarantors and other short-term or long-term borrowings.
4. Cash repayment of the borrowed amount.
5. Cash payment by a lessee to reduce liability related to financial lease.

Other terms:

Interest and Dividends:

Any cash flows from interest and dividends received and paid should be shown separately. In the case of financial institutions, cash flows arising from interest paid and dividends received should be classified as cash flows from operating activities. In the case of other entities, the cash flow of interest paid should be classified as cash flow from financing activities. While cash flows from interest and dividends received should be classified as investing activities. Dividends paid should be classified as cash flows from financing activities.

Interest paid, interest received and dividends are generally classified as cash flows from financial institutions operating activities. However, there is no consensus on this classification of cash flows for other companies. Some argue that interest paid and

interest received, and dividends should be written off in the profit and loss, as they are classified as operating activities. However, it is more appropriate to classify it as a financing activity or investing activity as it is the cost of obtaining financial instruments or returns on investments.

Income Tax:

Cash flows arising from income taxes will be disclosed separately and classified as operating activities unless these cash flows can be specifically identified with financing or investing activities.

Transactions that increase cash flows due to income taxes are classified as operating, investing, or financing activities in the statement of cash flows. When taxable cash flows are allocated to more than one class of activities, the total amount of tax paid is disclosed.

Change in ownership interest in subsidiaries and other business units:

Gross cash flows resulting from acquisition or loss of control of subsidiaries and other businesses are presented separately, and classified as investing activities. Thus, cash or cash equivalents in subsidiaries or other businesses over which control is gained or lost should be disclosed separately.

5.4 Impact of Non-Cash Transactions on Profit

Investments and financial transactions that do not require the use of cash or cash equivalents are excluded from the cash flow statement. Such transactions shall be disclosed in the financial statements in such a manner as to give all information about such investment and financial activities.

Many investing and financing activities do not directly affect current cash flows. It affects the capital and asset structure of a company.

Examples:

1. Assets can be purchased directly through related liabilities or finance leases.
2. Acquisition of unit by issue (subscription) of equity shares
3. Conversion of debt into equity.

Other things/ items to be disclosed:

Where significant cash or cash equivalents are held by the company but the amount is not available for use, the company should review with the management. Cash or cash equivalents may not be made available for use by the Company even under different circumstances.

5.5 Difference between Cash Flow and Fund Flow Statement

The points of difference between the cash flow and fund flow statement are as follows:

1. Cash and working capital changes: The cash flow statement mainly takes into account changes related to cash whereas, the funds flow statement takes into account details related to changes in working capital.
2. Usefulness in short-term financial analysis: A cash flow statement is considered more useful than a fund flow statement in short-term financial analysis whereas, a fund flow statement is useful for observing the long-term financial situation.
3. Method of preparing the statement: The method of preparing the cash flow statement and fund flow statement is different. An increase in current liabilities or a decrease in current assets in the fund flow statement indicates a decrease in net working capital and vice versa. But in a cash flow statement, an increase in current liabilities or a decrease in current assets shows an increase in cash flow and vice versa shows a decrease.
4. Statement of Changes in Working Capital: The fund flow statement is usually followed by the statement of changes in working capital but the cash flow statement does not follow any such statement.
5. Opening and Closing Balances: Opening and closing balances of cash and cash equivalents are taken into account while preparing the cash flow statement whereas, no such opening or closing balances are taken into account in the fund flow statement.
6. Legal Requirements: There does not seem to be any legal requirement to prepare a fund flow statement whereas, (as required by SEBI) a cash flow statement must be prepared by the registered company as per Ind As-7.

5.6 Uses of Cash Flow Statement

1. Useful in cash planning: The cash flow statement proves useful for managers based on the company's ability to provide cash funds.
2. Evaluation of cash flows from operating activities: The cash flow statement provides information about the cash generated from operating activities which explains the difference between cash generated from operating activities and net profit.
3. Dividend Payment: The decision to pay dividends cannot be based on net profit alone. It is equally important to have profits available in the form of cash for dividend distribution. Thus, cash provided by operating activities has significance regarding the declaration of dividends.
4. Cash Flows from Investing and Financing Activities: A cash flow statement not only assesses the cash generated by operating activities but also provides information on cash flows from non-operating activities such as investing activities and financing activities. This helps to know the overall company's liquidity, position and its ability to meet cash requirements.
5. Reasons for Cash Surplus (Surplus) and deficit (Shortage): A business can make a profit and still suffer from a cash shortage, similarly the business can be loss-making and have enough cash in the bank. It is a paradoxical situation that the reasons for the increase and decrease can be known by balancing the cash through the cash flow statement.

5.7 Limitations of Cash Flow Statement

1. Not fully evidential: A financial statement is not entirely complete as financial statements are traditionally based on profit and loss accounts and balance sheets.
2. Non-disclosure of new matter: This does not introduce any new or original matter which may increase or decrease the financial position of the business. Its function is simply to reorganize financial information appearing elsewhere.
3. Historical: A statement of changes is historical in nature like other financial statements, which do not capture estimates of sources and uses of funds for the foreseeable future.
4. Not relevant: The study of changes in funds is more relevant than the study of changes in cash.
5. Non-disclosure of structural changes: This statement does not disclose structural changes in the financial relations of the business or significant policy changes in current assets and short-term investments.

5.8 Format of Cash Flow Statement

.... X.....of the company

Cash flow statement for the year ended on----------

Particulars	Amt (Rs.)	Amt (Rs.)
Cash flow from operating activities:		
Net Profit before Tax and Extra-ordinary Items:	XXX	
Add/Less: adjustment of non-cash items / Provision, Reserve and capital items. i.e., Depreciation, interest, dividend, foreign exchange loss, other deferred expenses.	(+/-) XX	
Cash flow before working capital changes:		
Changes in working capital		
(-) Increase in current assets	(X)	
(+) Increase in current liabilities	X	
(+) decrease in current assets	X	
(-) decrease in current liabilities	(X)	
Cash flow from operations before income taxes		XXXX
Income tax paid		(XX)
Net cash flow from operating activities (A)		XXX
Cash flow from investing activities:		
(-) Purchase of fixed assets and investments	(X)	
(+) Sale of fixed assets and investments	X	
(+) Interest and dividend income	X	
Net cash flow from investing activities (B)		XXX

Cash flow from financing activities:	X	
(+) issues of new shares/debentures	X	
(+) Taking long term loans	(X)	
(-) repaying long term loans	(X)	
(-) Payment of Dividend and Interest		XXX
Net cash flow from financing activities (C)		XX
Net cash flows from all three activities (A+B+C)		X
Add: Opening Cash Slip / Bank Slip		XXX
Final cash/bank slip		

5.9 Exercise of Cash Flow Statements

Example-1: Following are the balance sheets of Y Limited as on 31-03-2021 and 31-03-2022.

Liabilities	31-3-2021	31-3-2022	Assets	31-3-2021	31-3-2022
Equity share capital	1,95,000	2,60,000	Goodwill	8,000	5,000
General reserve	1,10,500	1,30,000	Machinery	2,00,000	2,00,000
Capital reserve	-	6,500	Building	3,20,000	4,17,500
Profit and loss account	39,000	48,750	Investments	65,000	52,000
10% debentures	1,30,000	91,000	Debtors	1,25,000	1,40,000
Creditors	50,000	34,500	Stock	57,000	61,500
Bills payable	28,000	50,000	Cash and Bank	5,000	14,500
Tax provision	58,500	55,250			
Depreciation provision	1,49,500	1,88,500			
Proposed dividend	19,500	23,400			
Unpaid dividend	-	2,600			
	7,80,000	8,90,500		7,80,000	8,90,500

Additional Information:

1. 21,650 and 40,000 are charged depreciation on building and machinery respectively.
2. Debentures redeemed at a 5% premium.
3. Some investments were sold at a profit.
4. Paid tax of Rs. 40,000 and paid proposed dividend for last year.
5. In the previous year, the original cost of a stock was understated by 5% which is now decided to be shown at the original cost. The stock as on 31-03-2022 is shown at its true value only.
6. A machine was sold for Rs. 16,250 costs of that were Rs. 32,500 and depreciation of Rs. 13650 was charged on it. Also, a machine of 9,000 is to be written off. On which full depreciation is calculated.
7. Profit on sale of investment credited to capital reserve.

Prepare a cash flow statement as per Accounting Standard-7 keeping in mind the above information.

Solution: **Machinery A/c**

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Bal. B/d	2,00,000	Bank A/c	16,250
Bank A/c		Profit & Loss A/c	2,600
(purchase)	41,500	Depreciation provision	13,650
		Depreciation provision	9,000
		Bal. C/d	2,00,000
	2,41,500		2,41,500

Depreciation Provision A/c

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Machinery A/c	13,650	Bal. B/d	1,49,500
Machinery A/c	9,000	P&L A/c	21,650
Bal. C/d		(Depreciation of	
	1,88,500	building)	
		P&L A/c	40,000
		(Depreciation of	
		Machine)	
	2,11,150		2,11,150

Investment A/c

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Bal. B/d	65,000	Bank A/c	13,000
		Bal. C/d	52,000
	65,000		65,000

Tax A/c

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Bank A/c	40,000	Bal. B/d	58,500
Bal. C/d	55,250	P&L A/c	36,750
	95,250		95,250

Note: When depreciation is accounted on fixed assets and a provision for depreciation account is shown, the depreciation will be credited to the provision for depreciation instead of being credited to the asset.

- Cost of machinery sold = 32,500
- Accumulated Dep. = 13,650

Cost after depreciation = 18,850

- Selling price = 16,250

Loss = 2,600

• Cost of scrapped machine = 9,000
- write-off Depreciation = 9,000

Accumulated depreciation a/c Dr.

To machinery A/c

• Closing stock:

31-03-2019 = 57,000 (which is less than 5% of their original value).
95 100
57,000 (?) = 60,000
Original value of Stock as shown, there will be an increase of Rs. 3,000 in the year ending 31-03-2021. The increase in price will be reflected in non-cash expenses as the profit in the business.

• Cost of investments = 13,000
+ Profit = 6,500
Selling price =19,500

Cash Flow Statement of Y Limited as per accounting standard -7

Particulars	Amount (Rs.)	Amount (Rs.)
(A) Cash flow arising from operating activities		
Net profit as per profit and loss account (48,750-39,000)		9,750
Add: Non-cash expenses		
Goodwill write-off	3,000	
Depreciation on Land & building	21,650	
Depreciation on machinery	40,000	
loss on sales of machinery	2,600	
Provision of premium on redemption of debenture	1,950	
Provision of Taxation	36,750	
Provision of Proposed Dividend	23,400	
Provision of general reserve	19,500	1,48,850
Net profit before working capital changes		1,55,600
• **Change in working capital**		
Increase in debtor	(15,000)	
Increase in stock price with adjustment	(4,500)	
Decrease in creditor	(15,500)	
Increase in bills payable	22,000	(13,000)
		1,45,600
Tax paid		(40,000)
Net cash flow from operating activities (A)		**1,05,600**

(B) Cash flows arising from investing activities		
Sale of machinery	16,250	
Sale of investment	19,500	
Purchase of building	(97,500)	
Purchase of machinery	(41,500)	
Net cash flow arising from investing activities (B)		**(1,03,250)**
(C) Cash flow arising from financing activities		
Redemption of Debenture	(40,950)	
Dividend paid (19,500-2,600)	(16,900)	
Issues of Equity Share	65,000	
Cash flow arising from financing activities (C)		**7,150**
Increase or decrease in cash and cash equivalents (A+B+C)		**9,500**
+ Opening balance of cash and cash equivalents		**5,000**
Balance of cash and cash equivalents at the end of the year		**14,500**

Example 2: The balance sheets of S Limited as on 31-03-2022 and 31-03-2023 are as follows. Prepare a cash flow statement as per accounting standard- 7.

Liabilities	31-3-2022	31-3-2023	Assets	31-3-2022	31-3-2023
Equity shares Capital (each of 100, Fully paid)	10,00,000	15,00,000	Goodwill	3,00,000	2,80,000
General reserve	6,00,000	2,00,000	Building	6,00,000	10,00,000
Profit and loss account	1,00,000	1,20,000	Machinery	4,00,000	9,50,000
12% Debentures	-	5,00,000	Investments	1,50,000	1,20,000
Bills Payable	2,50,000	3,10,000	Stock	1,60,000	2,50,000
Creditors	2,00,000	2,00,000	Debtors	4,90,000	2,10,000
Tax provision	1,50,000	1,70,000	Cash	80,000	80,000
			Bank	40,000	50,000
			Preliminary expenses	80,000	60,000
	23,00,000	30,00,000		23,00,000	30,00,000

Additional Information:

1. A paid tax of Rs. 1,40,000 during the year and a paid interim dividend of Rs. 80,000.
2. On 01-04-2022, capitalization of the general reserve through issues of 1 bonus share for every 2 equity shares.
3. Depreciation of Rs. 60,000 is charged on building and Rs. 40,000 on machinery.
4. The goodwill is to be written off against the capital reserve.
5. Debentures were issued at a 10% discount during the year.

6. Investments of Rs. 50,000 were sold at a loss of 10%.
7. Sold a machine at a cost value of Rs. 1,00,000 at a profit. The profit was credited to the capital reserve.

Answer: **Necessary calculation**

General Reserve Account

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Equity Share capital account	5,00,000	Bal. B/d	6,00,000
		profit and loss A/c	1,00,000
Bal. C/d	2,00,000	(?)	
	7,00,000		7,00,000

Equity Share capital account

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Bal. C/d	15,00,000	Bal. B/d	10,00,000
		General Reserve A/c	5,00,000
	15,00,000		15,00,000

Building Account

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Bal. B/d	6,00,000	Depreciation A/c	60,000
Bank A/c (purchase)	4,60,000	Bal. C/d	10,00,000
	10,60,000		10,60,000

Machinery Account

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Bal. B/d	4,00,000	Depreciation A/c	40,000
Capital Reserve A/c (Profit)	20,000	Bank A/c (Sales)	1,20,000
Bank A/c (purchase)	6,90,000	Bal. C/d	9,50,000
	11,10,000		11,10,000

Investments Account

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Bal. B/d	1,50,000	Bank A/c	45,000
		Profit and Loss A/c	5,000
Bank A/c (purchase) (?)	20,000	Bal. C/d	1,20,000
	1,70,000		1,70,000

Taxation Account

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Bank A/c (tax paid)	1,40,000	Bal. B/d	1,50,000
		Profit and Loss A/c	1,60,000
Bal. C/d	1,70,000		
	3,10,000		3,10,000

- Bonus Share:

  2 : 1

  10,000 (?)

  = 5,000 Share x 100 = 5,00,000 General Reserve Account

Cash Flow Statement of S Limited

Particulars	Amount (Rs.)	Amount (Rs.)
(A) Cash flow arising from operating activities		
Net profit as per profit and loss account	20,000	
Add: Non-cash expenses	20,000	
Preliminary expenses write-off	80,000	
Interim Dividend	60,000	
Depreciation on building	40,000	
Depreciation on Machinery	50,000	
Discount on Debenture	5,000	
Loss on sales of Investment	1,60,000	
Provision for taxation	1,00,000	
Provision for general reserve	5,35,000	
Net profit before working capital change		
• **Change in working capital**	(90,000)	
Increase in stock	2,80,000	
Decrease in debtors	60,000	
Increase in bills payable	7,85,000	
Tax paid	(1,40,000)	
Net cash flow from operating activities (A)		**6,45,000**
(B) Cash flows arising from investing activities		
Sale of machinery	1,20,000	
Sale of investment	45,000	
Purchase of building	(4,60,000)	
Purchase of machinery	(6,90,000)	
Purchase of investments	(20,000)	
Net cash flow arising from investing activity (B)		**(10,05,000)**
(C) Cash flow arising from financing activities		
Interim Dividends	(80,000)	
Debentures issued	4,50,000	
Cash flow arising from financing activities (C)		**3,70,000**
Increase or decrease in cash and cash equivalents		**10,000**
+ Opening balance of cash and cash equivalents		**1,20,000**
Balance of cash and cash equivalents at the end of the year		**1,30,000**

Example-3: The balances of D Ltd. as on 31-03-2022 and 31-03-2023 are as follows. Prepare a cash flow statement as per accounting standard -7.

Liabilities	31-3-2022	31-3-2023	Assets	31-3-2022	31-3-2023
Equity shares capital each of Rs.100, Fully paid	16,00,000	24,00,000	Goodwill	6,40,000	4,80,000
			Building	12,80,000	20,00,000
			Plant-Machinery	11,20,000	16,00,000
10% redeemable Preference share of Rs.100 each Rs. 70 paid up.	5,60,000	-	Investments	3,20,000	-
			Stock	2,40,000	4,00,000
General Reserve	6,40,000	4,00,000	Bills Receivable	3,52,000	3,20,000
Security premium	1,20,000	80,000	Debtors	80,000	80,000
Profit and loss account	2,80,000	6,00,000	Cash	50,000	3,60,000
5% Debentures	-	8,00,000	Bank	30,000	48,000
Creditors	4,00,000	4,80,000			
Bills Payable	1,60,000	-			
Taxation provision	1,92,000	2,40,000			
Proposed Dividend	1,60,000	2,88,000			
	41,12,000	52,88,000		41,12,000	52,88,000

Additional Information:

1. Redemption of Preference share capital at a 5% premium in compliance with the provisions of the Companies Act and Rs. 8,00,000 transfer from general reserve to capital redemption reserve.
2. A provision of Rs 2,40,000 has been made for the building and Rs 2,00,000 for machinery.
3. Debentures of Rs.8,00,000 were issued at a 5% discount.
4. The company issued bonus shares in the ratio of 2:1 to the existing equity shareholders from the capital redemption reserve.
5. Tax Rs. 2,00,000 and the proposed dividend of the previous year were also paid.
6. Investments are sold at a profit of 20% on the selling price.

Answer: **Necessary calculation**

Building Account

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Bal. B/d	12,80,000	Depreciation A/c	2,40,000
Bank (purchase) a/c	9,60,000	Bal. c/d	20,00,000
	22,40,000		22,40,000

Machinery Account

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Bal. B/d	11,20,000	Depreciation A/c	2,00,000
Bank (purchase)	6,80,000	Bal. c/d	16,00,000
	18,00,000		18,00,000

Preference share Account

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Bank account a/c	8,00,000	Bal. B/d	5,60,000
		Bank Account a/c (outstanding EMI)	2,40,000
	8,00,000		8,00,000

Security premium account

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Premium on redemption of Preference share account	40,000	Bal. B/d	1,20,000
Bal. c/d	80,000		
	1,20,000		1,20,000

General Reserve Account

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
C.R.R a/c	8,00,000	Bal. b/d	6,40,000
Bal. C/f	4,00,000	P& L a/c	5,60,000
	12,00,000		12,00,000

Provision for Taxation Account

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Bank a/c (Tax provision)	2,00,000	Bal. b/d	1,92,000
Bal. C/f	2,40,000	P& L a/c	2,48,000
	4,40,000		4,40,000

Notes:

- Face value of Debenture = 8,00,000

- Discount (5%) = 40,000

amount received (Bank A/c) = 7,60,000

- Investment:

Assume that the selling price = 100

- Profit = 20

Cost = 80

80	20	
3,20,000	(?)	= 80,000 Profit

Cash Flow Statement of D Limited

Particulars	Amount (Rs.)	Amount (Rs.)
(A) Cash flow arising from operating activities		
Net profit as per profit and loss account	3,20,000	
Add: Non-cash expenses	1,60,000	
Goodwill write-off	2,40,000	
Depreciation on building	2,00,000	
Depreciation on Machinery	40,000	
Debenture discount write-off	2,48,000	
Provision of taxation	2,88,000	
Provision of Proposed dividend	5,60,000	
Provision of general reserve	(80,000)	
less: Profit on sales of investment	16,56,000	
Net profit before working capital changes		
• **Change in working capital**	(1,60,000)	
Increase in stock	32,000	
Decrease in Bills Receivable	80,000	
Increase in Creditors	(1,60,000)	
Decrease in Bills Payable	17,68,000	
Tax paid	(2,00,000)	
Net cash flow from operating activities (A)		**15,68,000**
(B) Cash flows arising from investing activities		
Sale of investment	4,00,000	
Purchase of building	(9,60,000)	
Purchase of machinery	(6,80,000)	
Net cash flow arising from investing activities (B)		**(12,40,000)**
(C) Cash flow arising from financing activities		
Preference Share due installments	2,40,000	
Redemption of Preference Shares	(8,40,000)	
Debentures issued	7,60,000	
Proposed dividend paid	(1,60,000)	
Cash flow arising from financing activities (C)		--
Increase or decrease in cash and cash equivalents		**3,28,000**
+ Opening balance of cash and cash equivalents		**80,000**
Balance of cash and cash equivalents at the end of the year		**4,08,000**

5.10 Ratios

Accounting ratios are useful tools for analyzing financial statements. A ratio is defined as a relationship between two or more numbers/variables and can be presented in the form of a ratio, percentage, and fraction. When a ratio is calculated by relating two accounting

numbers derived from the financial statements, it is termed an accounting ratio or financial ratio.

A cash flow ratio is a measure of the number of times a company can pay off current debts with cash generated within the time period. If it is greater than one, shows that a company has generated more cash in a period than what is needed to pay off its current liabilities. A cash flow ratio of less than one shows the opposite the firm has not generated enough cash to cover its current liabilities.

Types of Ratios

Liquidity Ratios: The capacity of a business to pay the due to stakeholders when it is due is known as liquidity ratios. The liquidity ratios are short-term in nature. There are two types of liquidity ratios: Current Ratio & Quick or Liquid Ratio.

Solvency Ratio: The business solvency is determined by its ability to meet its contractual obligations to external stakeholders, and the ratios calculated to measure the business solvency positions are known as the solvency ratio. There are five types of solvency ratios: Debt-Equity Ratio, Debt to Capital Employed Ratio, Proprietary Ratio, Total Asset to Debt Ratio & Interest Coverage Ratio.

Activity or Turnover Ratio: It is measured as the efficiency of business operations based on the effective utilization of resources known as efficiency ratios. The most important types of activity ratios: Activity Turnover Ratio, Trade Receivable Turnover Ratio, Trade Payable Turnover Ratio, Net Asset or Capital Employed Turnover Ratio, Fixed Asset Turnover Ratio and Working Capital Turnover Ratio.

Profitability Ratios: It is the analysis of business profits in relation to the revenue generated from the business operations or assets used in the business are termed as profitability ratios. The most common types of profitability ratios: Gross Profit Ratio, Operating Ratio, Operating Profit Ratio, Net Profit Ratio, Return on Investment or Return on Capital Employed, Return on Net Worth, Earnings Per Share, Book Value Per Share, Dividend Payout Ratio Price & Earning Ratio.

Cash flow ratios make a comparison between cash flows and other elements of a financial statement. The larger the amount of cash flow, the better ability the company will have to defend in the event of a temporary failure in performance, as well as the ability to pay dividends to investors. Cash flow ratios are essential in understanding the liquidity of a business. They are especially important when evaluating the companies whose overall cash flow varies significantly from their reported profits.

Some of the most popular ratios are as under:

Current Liability Coverage Ratio: It measures the ability of a business's operations to generate cash that can be used to cover debts. In other words, the current liability coverage ratio measures the business's liquidity. The calculation of the ratio is as follows:

Current Liability Coverage Ratio = (Net Cash Flow from Operating Activities - Cash Dividend) / Average Current liabilities.

Average Current liabilities = Opening + Closing / 2

It is also known as cash current debt coverage ratio. It helps measure the business's dividend policy affects the amount of cash available to meet current debt obligations. If a value is less than 1.0, then the firm is suffering a liquidity crisis and is in danger of default. The higher the ratio, the more liquid the business.

Operating Cash Flow Ratio: It is an extended version of the current liability coverage ratio. It does not include dividends. However, this ratio is used to determine the amount of cash generated by the firm's business operations. It is useful for both management and investors to check the overall health of the firm.

Operating cash flow ratio = Net Cash Flow from Operating activities / Current liabilities.

This ratio is helpful in determining the business's short-term debt liabilities without considering its dividend policy. If the ratio is less than 1, the firm is facing a cash crisis and vice versa.

Cash Interest Coverage Ratio: The cash interest coverage ratio measures the ability of a business to meet its interest payments on its debt financing. If the ratio is less than one, the business does not have enough cash to meet its interest obligations on its short and long-term debt.

Cash interest coverage ratio = (Earnings before interest and tax + Non-cash expenses) / Interest expense.

Cash Flow Coverage Ratio: The cash flow coverage ratio is considered a solvency ratio. This ratio calculates whether a company can pay its obligations on its total debt including the debt with a maturity of more than one year. It is calculated as operating cash flow divided by total debt. A high cash flow coverage ratio indicates that your company has sufficient cash flow to pay for any debt as well as the interest payments on that debt. If the ratio is greater than 1.0, then the company is not in danger of default and vice versa.

Cash flow coverage ratio = Net cash flow from operating activities / Total liabilities

Price-to-Cash-Flow Ratio: It is a valuation ratio that is useful when a business is publicly traded. It measures the amount of operating cash flow generated per share of stock. In this ratio, the Share price is divided by the operating cash flow per share.

Price-to-Cash-Flow Ratio = Share Price / Operating Cash flow per share

Cash flow margin ratio: It is calculated as cash flow from operations divided by sales. The cash flow margin ratio is a more reliable metric than net profit, as it gives a much clearer picture of the amount of cash generated per unit of sales.

Cash flow to net income ratio: It is calculated as cash flow from operations divided by net income. If the cash flow to net income ratio is close to 1:1, this indicates that the organization is not engaging in any accounting intended to inflate earnings above cash flows.

Current Ratio = Current Assets / Current Liabilities

Liquid Ratio = Quick Assets / Quick Liabilities

stock and Prepaid Expenses are excluded in liquid assets and Liquid Liabilities exclude Bank O/D.

Proprietary Ratio = Proprietors funds / Total Assets

Proprietor fund includes Share capital (Equity & Pref.) + Retained earnings -Fictitious assets and Total Assets include Fixed Assets & Current Assets-Fictitious assets.

Stock Working Capital Ratio = Closing Stock / Working Capital

Working Capital = Current assets – Current liabilities

Capital Gearing Ratio = Fixed Interest & Dividend Bearing Funds / Equity Shareholders fund

Equity Shareholders fund includes Equity Sh. Capital + Retained earnings -Fictitious assets

Debt Equity Ratio = Long-Term Debt / Proprietors Fund

Gross Profit Ratio = Gross Profit x 100 /Net Sales

Operating Ratio = Cost of Goods Sold + Operating Expenses x 100 / Net Sales

Expenses Ratio= Operating Expenses x 100/ Net Sales

Net Operating Profit Ratio = Operating Profit x 100 / Net Sales

Net Profit Ratio = Net Profit After Tax x 100 / Net Sales

Example 4:
From the following information given below

Cash flow from operations 3,00,000
Sales 5,00,000.
EBIT 1,50,000
10% Debenture 1,00,000
Average Current Liabilities 1,00,000
Share price 200
Number of shares 10,000 each of 100
Cash dividend 20,000
Non-cash expenses = 50,000
Total liabilities = 2,00,000

You are required to calculate:
Current liability coverage ratio
Operating cash flow ratio
Cash interest coverage ratio

Cash flow coverage ratio
Price to cash flow ratio
Cash flow margin ratio
Cash flow to net income ratio

Answers:

- Current Liability Coverage Ratio = (Net Cash Flow from Operating Activities - Cash Dividend) / Average Current liabilities.
  Current liability coverage ratio = (3,00,000-20,000) / 1,00,000 = 2.8 times or 280%
- Operating cash flow ratio = Net Cash Flow from Operating activities / Current liabilities.
  Operating cash flow ratio = 3,00,000/1,00,000= 3 times or 300%
- Cash interest coverage ratio = (Earnings before interest and tax + Non-cash expenses) / Interest expense.
  Cash interest coverage ratio = (1,50,000+50,000)/10,000

  = 2,00,000/10,000 = 20 times
- Cash flow coverage ratio = Net cash flow from operating activities / Total liabilities

  = 3,00,000/2,00,000 = 1.5 times
- Price-to-Cash-Flow Ratio = Share Price / Operating Cash flow per share

  = 200 / (3,00,000/10,000) x100 = 66.67%
- Cash flow margin ratio = cash flow from operations / sales.

  = 3,00,000/5,00,000 x100 = 60%
- Cash flow to net income ratio = cash flow from operations / EBIT

  = 3,00,000/1,50,000 x100 = 200%

Example 5:

From the following information given below

Cash flow from operations 1,00,000
Sales 3,00,000
EBIT 75,000
10% Debenture 80,000
Average Current Liabilities 45,000
Share price 80
Number of shares 1,000 each of 100
Cash dividend 10,000
Non-cash expenses = 20,000
Total liabilities = 1,25,000

You are required to calculate:
Current liability coverage ratio
Operating cash flow ratio
Cash interest coverage ratio

Cash flow coverage ratio
Price to cash flow ratio
Cash flow margin ratio
Cash flow to net income ratio

Answers:

- Current Liability Coverage Ratio = (Net Cash Flow from Operating Activities - Cash Dividend) / Average Current liabilities.
  Current liability coverage ratio = (1,00,000-10,000) / 45,000 = 2 times or 200%

- Operating cash flow ratio = Net Cash Flow from Operating activities / Current liabilities.
  Operating cash flow ratio = 1,00,000/45,000= 2.22 times or 223%

- Cash interest coverage ratio = (Earnings before interest and tax + non-cash expenses) / Interest expense.
  Cash interest coverage ratio = (75,000+20,000)/8,000

  = 95,000/8,000 = 11.88 times
- Cash flow coverage ratio = Net cash flow from operating activities / Total liabilities

  = 1,00,000/1,25,000 = 0.8 times
- Price-to-Cash-Flow Ratio = Share Price / Operating Cash flow per share

  = 80 / (1,00,000/1,000) x100 = 0.8 or 80 %
- Cash flow margin ratio = cash flow from operations / sales.

  = 1,00,000/3,00,000 x100 = .34 or 34%
- Cash flow to net income ratio = cash flow from operations / EBIT

  = 1,00,000/1,50,000 x100 = .67 or 67%

Example 6:

From the following information of A ltd.

Equity Share Capital 50,000
Preference share capital 20,000
General Reserve 10,000
Secured Loan 30,000
Sundry Creditors 10,000
Land & Building 10,000
Machinery 40,000
Furniture 5,000
Inventory 30,000
Sundry Debtors 30,000
Cash/Bank Balance 5,000

Calculate Following Ratios:

1. Current Ratio
2. Liquid Ratio
3. Proprietary Ratio
4. Stock Working capital Ratio
5. Capital Gearing Ratio
6. Debt Equity Ratio

Answers:

- Current ratio = Current assets / current liabilities
  Current assets = stock (30,000) + debtors (30,000) + cash balance (5,000) = 65,000
  Current liabilities = Creditors (10,000)
  = 65,000/10,000 = 6.5:1

- Liquid ratio = liquid assets/liquid liabilities
  liquid assets = 30,000) + cash balance (5,000) = 35,000
  liquid liabilities = Creditors = 10,000
  = 35,000/10,000 = 3.5:1

- Proprietary Ratio = Proprietors fund / total assets
  Proprietor fund = Equity Share capital + Pref. Share capital + Retained earnings -
  Fictitious assets = 50,000 + 20,000 + 10,000 = 80,000
  Total Assets = Fixed Assets + Current Assets - Fictitious assets = 1,20,000
  = 80,000/1,20,000 = 0.66: 1

- Stock Working capital Ratio = closing stock / working capital
  = 30,000 / 55,000 = 0.55:1
  WC=CA-CL= 65,000 – 10,000 = 55,000

- Capital Gearing Ratio = Fixed Interest & Dividend Bearing Funds / Equity Shareholders fund
  Fixed Interest & Dividend Bearing Funds = Pref. sh. (20,000) + secured loan (30,000) = 50,000
  Equity Shareholders fund = Eq. Shares (50,000) + GR (10,000) = 60,000
  = 50,000 / 60,000 = 0.83: 1

- Debt Equity Ratio = Long-Term Debt / Proprietors Fund
  Long-term debt = secured loan (30,000)
  = 30,000/80,000 = 0.38: 1

Example 7:

From the Following balances of Urja Auto. Ltd. For the year ended 31st Dec 2022

Sales 10,00,000
Cost of goods Sold 6,00,000

Gross Profit 4,00,000
Operating Expenses 2,40,000
Operating Profit 1,60,000
Non–operating income 24,000
Non –operating Expenses 8,000
Profit before Tax 1,76,000
Less: Tax @ 30% 52,800
Net Profit After Tax 1,23,200

You are required to calculate:
Gross Profit Ratio
Operating Ratio
Net operating Profit Ratio and
Net Profit Ratio.

Answers:

- Gross Profit Ratio = Gross profit / Sales x100
  = 4,00,000/10,00,000 x 100 = 40%
- Operating ratio = COGS + Operating Exp. / sales x 100
  = 6,00,000 + 2,40,000 x 100 /10,00,000 = 84%
- Net operating profit Ratio = Operating Profit / Sales x 100
  = 1,60,000/10,00,000 x 100 = 16%
- Net profit ratio = Net Profit / Sales x 100
  = 1,23,200/10,00,000 x 100 = 12.3%

❖ Exercises:

• MCQ:

1. Ind. Accounting Standard for Cash Flow Statement is ----------
   (A) **Ind. AS-7**
   (B) **Ind.** AS-3
   (C) **Ind.** AS-14
   (D) **Ind.** AS-9
2. A cash flow statement includes which of the following?
   (A) Cash only
   (B) Bank only
   (C) Cash and Bank only
   (D) **Cash, Bank and Cash Equivalents**
3. Where is the profit on the sale of property shown?
   (A) There will be an increase in working capital

(B) Shall be deducted from working capital
(C) Non-cash expenses shall be deducted
(D) **Will be added to non-cash expenses**.

4. What will be the effect of the debtor being 80,000 during the year 2019 and the debtor being 1,00,000 in the year 2020?
(A) Debtor's cost increase in working capital will be added by Rs. 20,000.
(B) **Debtor's cost increase in working capital will be subtracted by Rs. 20,000.**
(C) Increase in debtors in financial activity will add Rs. 20,000.
(D) Increase in the value of debtors in cash activity will add Rs. 20,000.

5. The book value of the machine is Rs. 1,50,000. It was sold for Rs. 70,000 And 50,000 depreciation is charged on it. How much profit or loss will be made by selling the machine?
(A) **profit Rs. 30,000**
(B) loss Rs. 30,000
(C) profit Rs. 70,000
(D) loss Rs. 80,000

6. Taxation during the year 2018 was Rs. 70,000 and tax during the year 2019 is Rs. 1,00,000. Also, a tax provision of Rs. 50,000 has been made during the year. So how much tax would have been paid during this period?
(A) 40,000
(B) 30,000
(C) **20,000**
(D) 50,000

7. Furniture having a selling price of Rs. 1,20,000 is sold during the year at a profit of 20% of the selling price, what will be the effect on non-cash expenses?
(A) **+24,000**
(B) (24,000)
(C) +30,000
(D) None.

8. Debentures of Rs. 1,00,000 issued during the year at a discount of 5%. Which of the following will affect it?
(A) **+ 95,000 in financing activity**
(B) (95,000) In financial activity
(C) + 1,00,000 in financial activity
(D) + 95,000 in investing activity

9. Goodwill in the year 2020 is Rs. 2,00,000 and the year 2019 is Rs. 2,50,000 then what will be the effect in the cash flow statement? And by how much?
(A) Increase in investment activity as Goodwill 50,000
(B) **Goodwill of 50,000 write-off from non-cash expenditure**
(C) Goodwill increase in working capital 50,000
(D) Goodwill decreases in working capital 50,000

10. Plant and machinery in a company whose original cost was Rs. 5,00,000 and on which a depreciation provision of Rs. 1,80,000 was made. That plant and machinery are sold at a profit of Rs. 90,000. What would be the change in the cash flow statement under these circumstances?
(A) Cash flow will decrease by Rs. 5,90,000
(B) **Cash flow will increase by Rs. 5,90,000**
(C) Cash flow will decrease by Rs. 4,10,000
(D) Cash flow will increase by Rs. 4,10,000

Theoretical questions:

1. State the usefulness and limitations of cash flows.
2. How does a cash flow statement differ from a fund flow statement? State the importance and limitations of the cash flow statement and prepare a sample cash flow statement.
3. Write a short note on the Cash Flow Statement.
4. Discuss the major components of cash flow as per AS-7.
5. Cash flow statements are a useful tool for management - discuss.
6. Write a short note on: 'Cash Flow Statement and Fund Flow Statement'
7. Write a short note on the difference between 'fund flow' and 'cash flow'.
8. How does a cash flow statement differ from a fund flow? Why is a cash flow statement prepared? Explain.
9. What is ratio? Explain the different types of Ratios.
10. Explain the liquidity and solvency ratios with examples.

Practical questions:

1. The balances of Ajit Ltd. as on 31-03-2021 and 31-03-2022 are as follows.

Liabilities	**31-3-2021**	**31-3-2022**	**Assets**	**31-3-2021**	**31-3-2022**
Equity shares each of Rs.10 Fully paid	1,50,000	3,00,000	Goodwill	37,500	30,000
			Land & Building	1,42,500	2,25,000
10% redeemable Preference share of Rs.100 each Rs. 70 paid up	52,000	-	Plant-Machinery	1,20,000	1,80,000
			Investments	45,000	-
			Stock	18,750	10,500
Profit and loss account	45,000	60,000	Debtors	33,750	23,250
General Reserve	56,250	37,500	Bills Receivable	18,750	24,000
Security premium	18,750	15,000	Cash/ Bank	67,500	30,000
10% Debentures	75,000	-	Debenture discount	11,250	3,750
Creditors	30,000	37,500			
Bills Payable	22,500	11,250			
Provision of Taxation	26,250	33,750			
Proposed Dividend	18,750	31,500			
	4,95,000	5,26,500		4,95,000	5,26,500

Additional Information:

1. Depreciation of Rs. 22,500 on land-building and Rs. 33,750 on plant machinery was Write-off.

2. During the year a plant-machinery with a cost value of Rs. 75,000 on which accumulated depreciation was 45,000 sold for Rs. 33,750.
3. Investments are sold at a profit of 20% on their selling price.
4. Debentures were redeemed at Rs. 105 per share.
5. The Company has redeemed the Redeemable Preference Shares at a premium of 5% in compliance with the requisite statutory provisions. For this, Rs. 75,000 has been taken from the general reserve to the capital redemption reserve.
6. The company has issued bonus shares in the ratio of 2:1 to the existing Shareholders from the capital redemption reserve.
7. Last year's tax amount of Rs. 22,500 has been paid and last year's proposed dividend has also been paid.

From the above information, prepare the Cash flow statement for the year ending 31-03-2022.

Answer: Net cash flow from operating activities: 1,80,000
Net cash flow arising from investing activity: (1,38,750)
Net cash flow arising from financing activities: (78,750)
Increase or decrease in cash and cash equivalents: (37,500)

2. The balances of Hina Limited as on 31-03-2022 and 31-03-2023 are as follows.

Liabilities	**31-3-2022**	**31-3-2023**	**Assets**	**31-3-2022**	**31-3-2023**
Equity shares each of Rs.10 Fully paid	6,00,000	9,00,000	Goodwill	75,000	60,000
			Land-Building	3,00,000	3,75,000
10% redeemable Preference Share	3,00,000	1,50,000	Plant-Machinery	3,75,000	4,50,000
			Furniture	1,23,000	1,62,000
Profit and loss account	1,20,000	2,25,000	Investments	1,80,000	1,50,000
General Reserve	1,05,000	1,80,000	Stock	1,35,000	2,40,000
10% Debentures	1,50,000	2,25,000	Debtors	1,50,000	2,10,000
Creditors	1,42,500	1,65,000	Bills Receivable	45,000	90,000
Bills Payable	37,500	45,000	Cash / Bank	1,17,000	2,07,000
Provident Fund	75,000	1,05,000	Expenses paid in-advance	52,500	81,000
Provision of Taxation	22,500	30,000			
	15,52,500	20,25,000		15,52,500	20,25,000

Additional Information:

1. Paid income tax of Rs. 20,000 during the year and Rs. 30,000 during the year an interim dividend was paid.
2. Depreciation of Rs. 30,000 is charged on building and Rs. 40,000 on plant-machinery.
3. During the year: A machine with a cost value of Rs. 50,000 was sold at a profit. The profit of which was credited to the capital reserve.
4. Debentures were issued in excess of 10% during the year.
5. Goodwill write-off against capital reserve.
6. Investments of Rs. 50,000 were sold at 10% profit.

7. In compliance with the necessary provisions of the Companies Act, preference shares were refunded to the preference shareholders at a premium of 10%. For this, Rs. 1,50,000 has been taken from the general reserve to the capital redemption reserve.
8. The company has given bonus shares out of capital redemption reserve to existing shareholders in the ratio of 4:1.
9. The price of a stock in the next year was valued at 10% less than the original price. It is decided to be displayed at the original price from the year 2021-22. Stock is shown at the original price as on 31-03-2023.

Prepare a cash flow statement as per Accounting Standard- 7.

Answer: Net cash flow from operating activities: 2,76,500
Net cash flow arising from investing activity: (2,09,000)
Net cash flow arising from financing activities: 22,500
Increase or decrease in cash and cash equivalents: 90,000

3. The balances of G Ltd. as on 31-03-2021 and 31-03-2022 are as follows.

Liabilities	**31-3-2021**	**31-3-2022**	**Assets**	**31-3-2021**	**31-3-2022**
Equity shares each of Rs. 10 Fully paid	6,00,000	11,00,000	Goodwill	12,500	6,250
10% redeemable Preference Share Fully paid Rs.100	2,75,000	75,000	Land-Building	7,25,000	8,50,000
Profit and loss account	50,000	62,500	Plant-Machinery	3,20,000	4,97,500
General Reserve	1,00,000	75,000	Investments	80,000	1,62,000
10%Debentures	2,50,000	3,00,000	Stock	1,87,500	22,500
Creditors	1,31,250	80,000	Debtors	1,50,000	1,62,500
Bills Payable	37,500	50,000	Bills Receivable	6,250	18,750
Outstanding expenses	18,750	25,000	Cash/ Bank	18,750	12,500
Provision of Taxation	37,500	45,000	Preliminary expenses	25,000	12,500
Proposed Dividend	25,000	12,500			
	15,52,500	18,25,000		15,52,500	18,25,000

Additional Information:

1. Paid 10% dividend on Equity shares and preference share capital for the year ending 31-03-2021.
2. The company has issued new equity shares in the ratio of 2:1 to the equity shareholders at a face value.
3. As on 31-03-2022, redeemable preference shares were refunded at 10% in compliance with the provisions of the Companies Act. For this, the company issued 10,000 new equity shares at a premium of 10% and the remaining amount was transferred from the general reserve to the capital redemption reserve.
4. Investments are sold at a profit of 20% on their selling price.

5. The company issued shares as a bonus in the ratio of 10:1 to the existing shareholders from the capital redemption reserve.
6. Depreciation of Rs. 72,500 on land-building and Rs. 32,000 on plant machinery is deducted.
7. Last year's tax paid is Rs. 30,000 and last year's proposed dividend paid.
8. Debentures are issued at a discount of 10%.

Prepare a cash flow statement as per Accounting Standard-7 from the above information.

Answer: Net cash flow arising from operating activities: 2,28,250
Net cash flow arising from investing activity: (3,57,000)
Net cash flow arising from financing activity: 1,22,500
Increase or decrease in cash and cash equivalents: (6,250)
Bonus Share: 10,000, Right shares: 30,000

4. The balances of Manu Limited as on 31-03-2021 and 31-03-2022 are as follows.

Liabilities	31-3-2021	31-3-2022	Assets	31-3-2021	31-3-2022
Equity share capital (each of Rs. 100, Fully paid)	10,00,000	17,00,000	Fixed assets Less:	15,00,000 5,00,000	20,00,000 6,00,000
Security premium	-	50,000	Depreciation		
General Reserve	2,00,000	2,25,000	Fund	10,00,000	14,00,000
Capital reserve	50,000	1,00,000			
Profit and loss account	3,00,000	4,00,000			
Taxation provision	1,50,000	1,75,000	Investments	4,00,000	5,00,000
10% Debentures of Rs.100 each	5,00,000	2,50,000	Stock Debtors	7,50,000 4,50,000	8,00,000 3,00,000
Creditors	2,50,000	2,00,000	Cash/Bank	-	1,75,000
Bills Payable	75,000	1,00,000	Primary expenses	1,00,000	75,000
Bank Over Draft	2,75,000	-	Bills Receivable	2,00,000	1,00,000
Proposed Dividend	1,00,000	1,50,000			
	29,00,000	33,50,000		29,00,000	33,50,000

Additional Information: During the year ending 31-03-2022.

1. 1.fixed assets costing Rs. 2,50,000 is sold for Rs. 1,25,000 out of total fixed assets. On which the depreciation is Rs. 1,00,000.
2. The Company has issued right shares at a face value in the ratio of 2:1 in compliance with the provisions of the Companies Act.
3. 2,500 convertibles debentures of Rs. 100 after allotment of right shares. those debentures were converted into 2,000 equity shares of Rs. 100 each.
4. Investments of Rs. 1,50,000 are sold at a profit. This profit is credited to the capital reserve.

5. A bad debt amount of Rs.10,000 is now decided to be waived off.
6. The closing stock price is understated by Rs. 50,000
7. Last year's tax paid is Rs. 1,25,000.

Prepare a cash flow statement as per Accounting Standard-7.

Answer: Net cash flow from operating activities (A) 7,25,000
Net cash flow arising from investing activities (B) 6,75,000
Cash flow arising from financing activities (C) 4,00,000
Increase or decrease in cash and cash equivalents 4,50,000

5. The balances of Ansi Ltd. as on 31-03-2021 and 31-03-2022 are as follows. Prepare a cash flow statement:

Liabilities	31-3-2021	31-3-2022	Assets	31-3-2021	31-3-2022
Equity share capital	3,00,000	6,00,000	Fixed assets	19,00,000	16,00,000
Capital reserve	20,000	-	less: Depreciation		
General Reserve	4,00,000	3,40,000	Fund	5,80,000	4,60,000
Profit and loss account	1,50,000	1,20,000		13,20,000	11,40,000
Debentures	2,80,000	4,00,000			
Current Liabilities	2,60,000	2,40,000	Investments	1,60,000	2,00,000
Taxation provision	1,70,000	1,80,000	Current Assets	6,60,000	5,60,000
Proposed Dividend	72,000	60,000	Preliminary	20,000	40,000
Unpaid Dividends	8,000	-	expenses		
	21,60,000	19,40,000		21,60,000	19,40,000

Transaction during the year 2020-21.

1. A machine was sold for Rs. 50,000. The original price of which was Rs. 1,00,000 and Rs. 42,000 was deducted as depreciation on it.
2. Depreciation of Rs.1,90,000 is charged on fixed assets.
3. Debentures were redeemed at Rs. 103.
4. A few investments were sold at a profit. This profit is credited to the capital reserve.
5. Fixed assets of Rs. 28,000 is written off. (On which full depreciation is deducted.)
6. Income tax paid Rs. 1,60,000.

Answer: Net cash flow from operating activities (A) 2,93,600
Net cash flow arising from investing activities (B) (3,18,000)
Cash flow arising from financing activities (C) 24,400
Increase or decrease in cash and cash equivalents 0

6. From the following information given below.

Cash flow from operations 10,00,000
Sales 15,00,000
EBIT 1,50,000

10% Debenture 2,00,000
Average Current Liabilities 1,50,000
Share price 120
Number of shares 15,000 each of 100
Cash dividend 50,000
Non-cash expenses = 1,20,000
Total liabilities = 3,50,000

You are required to calculate:

Current liability coverage ratio
Operating cash flow ratio
Cash interest coverage ratio
Cash flow coverage ratio
Price to cash flow ratio
Cash flow margin ratio
Cash flow to net income ratio

Answer:

Current liability coverage ratio = (10,00,000-50,000) / 150,000 = 6.34 times
Operating cash flow ratio = 10,00,000/150,000= 6.67 times
Cash interest coverage ratio = (1,50,000 + 1,20,000) / 20,000 = 13.5 times
Cash flow coverage ratio = 10,00,000 / 3,50,000 = 2.85 times
Price-to-Cash-Flow Ratio = 120 / (10,00,000/15,000) x100 = 1.80 or 180%
Cash flow margin ratio = 10,00,000/15,00,000 x100 = .67 or 67%
Cash flow to net income ratio = 10,00,000/1,50,000 x100 = 6.67 or 667%

7. The Balances of om Limited as on 31-12-2023 were as follows:

Equity Share Capital 2,00,000
8% Pref. Share Capital 1,50,000
Reserves & Surplus 1,10,000
10% Debenture 1,00,000
9% Secured Loan 50,000
Creditors 10,000
Bank overdraft 15,000
Bills Payable 4,500
Outstanding Expenses 500
Machinery 3,50,000
Patents & Trademarks 2,00,000
Stock 17,500
Debtors 35,000
Bills Receivables 5,000

Cash at bank 22,500
Fictitious Assets 10,000

You are required to Calculate Following Ratios:

1. Current Ratio
2. Liquid Ratio
3. Proprietary Ratio
4. Capital Gearing Ratio
5. Debt Equity Ratio

Answers: 1. Current Ratio (2.67:1)
2. Liquid Ratio (4.17:1)
3. Proprietary Ratio (0.71: 1) or 71%)
4. Capital Gearing Ratio (1: 1)
5. Debt Equity Ratio (0.33: 1) or 33%)

8. From the following information for the year ended 31.12.2021.

Total Sales- Rs. 50,000/-
Gross Profit – 40% of Sales.
Cost of goods sold – Rs.?
Operating Expenses – Rs.6,000/-
Non-operating Income – Rs. 2,100/-
Tax Rate is 50%

You are required to calculate:

Gross Profit Ratio, Operating Ratio, Net Operating Profit Ratio and Net Profit Ratio

Answers:
Gross Profit Ratio = 40%
Operating Ratio = 72%
Net Operating Profit Ratio 28%
Net Profit Ratio 16.10%.

MBA
SEMESTER-3 FINANCE
ANALYSIS OF FINANCIAL STATEMENTS AND REPORT
BLOCK: 2

Authors' Name: Prof. (Dr.) Manoj Shah, Professor& Director, Dr. BAOU, Ahmedabad
Dr. Mukesh Bavaliya, Assistant Professor, GACC, Patadi, Surendranagar
Dr. Shailaja Parmar, Assistant Professor H.P.Arts &T.S.M College, Talod
Mr.Ankit Joshi, Assistant Professor, Dr. BAOU, Ahmedabad

Review (Subject): Prof. (Dr.) Manoj Shah, Professor& Director, Dr. BAOU, Ahmedabad
Dr. Gurmeet Singh, Associate Professor, GLS University, Ahmedabad
Dr. Narayan Baser, Associate Professor, PDPU, Gandhinagar

Review (Language): Prof. (Dr.) Atanu Bhattacharya, Central University of Gujarat, Gandhinagar

Editor's Name: Prof. (Dr.) Manoj Shah
Professor and Director,
School of Commerce and Management,
Dr. Babasaheb Ambedkar Open University,
Ahmedabad.

Co-Editor's Name: Dr. Dhaval Pandya
Assistant Professor,
School of Commerce and Management,
Dr. Babasaheb Ambedkar Open University,
Ahmedabad.

Publisher's Name: Dr. Ajaysinh Jadeja
Registrar,
Dr. Babasaheb Ambedkar Open University
'JyotirmayParisar',Opp.ShriBalaji Temple,Chharodi,Ahmedabad,382481,
Gujarat,India.

Edition: 2024 (First Edition)

ISBN: 978-93-5598-936-9

978-93-5598-936-9

UNIT – 6 RATES OF RETURN AND PROFITABILITY ANALYSIS

6.1 Introduction

In the world of finance and investments, understanding how to measure the performance and profitability of assets and businesses is essential. This chapter delves into two critical financial metrics: Rate of Return (ROR) and Profitability Ratios. These metrics are vital tools for investors, financial analysts, and business leaders seeking to make informed decisions about investments, assess the efficiency of their operations, and determine the overall health of their finances.

Rate of Return (ROR): ROR, often referred to as the "return on investment," is a fundamental concept that quantifies the gains or losses on an investment relative to the initial capital employed. It provides a clear picture of investment performance, allowing individuals and organizations to evaluate the success of their financial decisions. In this chapter, we will explore the formula for ROR, its interpretation, and its role in risk assessment and investment strategy.

Profitability Ratios: Profitability Ratios are a set of financial metrics that assess a company's ability to generate profits from its operations and assets. These ratios are essential for understanding how efficiently a business utilizes its resources to achieve its financial goals. We will delve into various types of Profitability Ratios, such as Gross Profit Ratio, Operating Profit Ratio, Net Profit Ratio, and others, providing insights into their meanings, calculations, and practical applications.

6.2 The Formula for Rate of Return

$$\textbf{Rate of Return} = \frac{\text{Net Gain from Investment}}{\text{Initial Investment}} \times 100$$

In this formula:

- **Net Gain from Investment** refers to the total profit or return generated from the investment. It can include capital gains (the difference between the final value and the initial value of the investment), interest or dividend income, or any other income generated by the investment.

- **Initial Investment** represents the amount of money initially invested or the cost of the investment.
  The result is expressed as a percentage, which represents the return on the investment relative to the initial investment amount. This percentage allows investors to assess the profitability of their investment and compare it to other investment opportunities.

6.3 Rate of Return on stock and bonds

Rate of Return (ROR) for stocks and bonds is a critical concept in the world of investments. It helps investors assess the profitability and performance of their investments. Let's delve into the Rate of Return for both stocks and bonds separately:

- **Rate of Return (ROR) for Stocks:**

ROR for stocks often referred to as the "stock return" or "equity return," measures the gain or loss on an investment in a particular stock over a specified period. It's a key indicator of how well a stock investment has performed. Here's how you can calculate the ROR for stocks:

Formula for ROR for Stocks: $\frac{\text{Ending Stock Price} - \text{Beginning Stock Price} + \text{Dividends Received}}{\text{Beginning Stock Price}} \times 100$

In this formula:

- Ending Stock Price is the price of the stock at the end of the investment period.
- Beginning Stock Price is the price of the stock at the beginning of the investment period.
- Dividends Received are any cash dividends paid out to the investor during the investment period.

The result is expressed as a percentage.

Rate of Return (ROR) for Bonds:

ROR for bonds, often referred to as the "bond yield" or "yield to maturity," measures the total return an investor can expect to receive from holding a bond until it matures. It accounts for both the interest payments and any capital gains or losses when the bond matures. Here's how you can calculate the ROR for bonds:

Formula for ROR for Bonds: $\frac{\text{Total Return from Bond}}{\text{Initial Investment in Bond}} \times 100$

In this formula:

- Total Return from a Bond includes the periodic interest payments (coupon payments) and the difference between the face value (par value) of the bond and its purchase price (if it's not purchased at face value).
- Initial Investment in a Bond is the amount of money initially invested in the bond.

The result is expressed as a percentage.

Key Points:

1. **Risk and Reward:** ROR for stocks is typically riskier but potentially offers higher returns, whereas ROR for bonds is often considered less risky but may provide more modest returns.
2. **Holding Period:** ROR can be calculated for different time frames, such as daily, monthly, annually, or for the entire holding period.
3. **Dividends vs. Coupon Payments:** Stocks may provide dividends, while bonds offer fixed coupon payments. Both contribute to the total return.
4. **Market Prices**: Stock ROR accounts for changes in market prices, while bond ROR considers both interest income and any changes in bond prices over time.
5. **Yield to Maturity (YTM):** Bond investors often use YTM as a measure of the annual rate of return they can expect if they hold the bond until maturity.
6. **Risk Factors:** The risk associated with stocks and bonds varies, and investors should consider factors like market conditions, company performance, and interest rate changes.

In conclusion, understanding the Rate of Return (ROR) for stocks and bonds is essential for investors to evaluate the performance and potential profitability of their investments. These calculations help investors make informed decisions based on their financial goals, risk tolerance, and investment time horizons.

6.4 Rate of Return Formula

The Rate of Return (ROR) is a crucial financial metric used to evaluate the profitability and performance of an investment. It measures the gain or loss on an investment relative to the initial amount invested. ROR is a fundamental concept in finance and investment analysis, providing investors with insights into the effectiveness of their investment decisions. Here are some key points about the Rate of Return:

1. ROR Calculation:

- The formula for calculating ROR is:

$$\textbf{Rate of Return} = \frac{\text{Net Gain from Investment}}{\text{Initial Investment}} \times 100$$

- The "Net Gain from Investment" includes all returns and profits generated from the investment, such as capital gains, dividends, interest, or other income.
- "Initial Investment" represents the amount of money initially invested in the asset.

2. Expressing ROR:

- ROR is typically expressed as a percentage. For example, if you invested $1,000 in a stock and it grew to $1,200, your ROR would be 20% because you gained $200 on your $1,000 investment.

3. Evaluating Investment Performance:

- ROR helps investors assess the effectiveness of their investments. A positive ROR indicates a gain, while a negative ROR represents a loss.

- It allows investors to compare the performance of different investments, helping them decide where to allocate their capital.

4. Time Period Consideration:
- ROR can be calculated for various time periods, such as daily, monthly, annually, or for the entire holding period. The choice of the time frame affects the calculated rate.

5. Risk and Return:
- ROR is a critical tool for assessing the relationship between risk and return. Investments with higher RORs often come with higher risks.

6. Benchmarking:
- Investors commonly compare an investment's ROR to a benchmark, such as a stock market index or a bond index, to gauge performance relative to the broader market.

7. Investment Diversification:
- ROR helps investors assess the diversification of their portfolios. A well-diversified portfolio may have a blended ROR that balances risk and return.

8. Real vs. Nominal ROR:
- The ROR can be expressed in real terms (adjusted for inflation) or nominal terms (not adjusted for inflation). Real ROR provides a more accurate picture of purchasing power.

9. Tax Considerations:
- Taxes can impact the effective ROR of an investment. Taxes on capital gains, dividends, and interest income may reduce the net gain.

10. Future Projections: - Investors often use historical ROR data to make future projections and assess potential investment opportunities.

In summary, the Rate of Return (ROR) is a fundamental metric used by investors to assess the profitability and performance of their investments. It serves as a key tool for decision-making, risk assessment, and portfolio management, helping individuals and organizations make informed financial choices.

6.5 Profitability Ratio Meaning

Profitability ratios are like financial magnifying glasses that help us understand how well a company makes money. They show us how well a company uses its resources to earn a profit. When a business uses its resources effectively, it's more likely to make a profit. So, these ratios help us understand how well a company is doing financially.

In other words, they tell us how good a company is at turning its sales or revenues into profits. Think of it as measuring the company's ability to make more money than it spends on its operations. Profitability ratios focus on:

1. **Making Money vs. Spending Money:** Profitability ratios focus on two key aspects of a company's finances: how much money it makes and how much money it spends.

2. **Turning Sales into Profits:** A company might be really good at selling its products or services, but what matters even more is how much money it gets to keep as profit after covering all its expenses.

3. **Comparing Companies:** Profitability ratios also allow us to compare different companies, no matter their size. We can see which company is better at making profits relative to their size or sales.

4. **Assessing Financial Health:**

   By looking at these ratios, we can assess the financial health of a company. High profitability ratios usually mean the company is doing well financially, while low ratios might be a sign of financial trouble.

These profitability ratios help investors, managers, and even regular folks like us understand how efficiently a company is making money. If a company has high profitability ratios, it's a good sign that it's doing well financially. However, if these ratios are low, it might be a sign that the company needs to find ways to improve its profitability or manage its expenses better.

6.6 Different Types of Profitability Ratio

Numerous ratios have been developed and are commonly employed to evaluate and dissect the profitability of a business. These ratios serve as analytical tools and include:

1. Gross profit ratio
2. Operating ratio
3. Operating profit ratio
4. Net profit ratio
5. Return on Investment (ROI) and Return on Capital Employed (ROCE)
6. Return on Net worth (RONW)
7. Earnings per share
8. Book value per share
9. Dividend payout ratio
10. Price Earnings ratio

1. Gross Profit Ratio:

This ratio unveils the proportion of gross profit concerning total revenue It's a crucial ratio for evaluating how efficiently a company manages its cost of goods sold (COGS) in relation to its revenue. Here's a breakdown of the Gross Profit Ratio:

Formula for Gross Profit Ratio: The Gross Profit Ratio is calculated using the following formula:

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

In this formula:

- **Gross Profit** represents the profit a company earns from its core business activities after subtracting the direct costs associated with producing or purchasing the goods sold. These costs include expenses like raw materials, labor, and manufacturing costs.
- **Total Revenue** stands for the total sales or revenue generated by the company through the sale of goods or services.

Interpreting the Gross Profit Ratio: The Gross Profit Ratio is expressed as a percentage, and it provides valuable insights into a company's operations:

- **A Higher Gross Profit Ratio** indicates that a company is efficiently managing its production and inventory costs. It suggests that the company has a healthy profit margin on its core products or services.

A Lower Gross Profit Ratio may suggest that a company is facing challenges in controlling its production costs, which could impact profitability. It's important to investigate and address the reasons behind a lower ratio.

Importance of the Gross Profit Ratio:

1. **Profitability Assessment:** The Gross Profit Ratio is a fundamental measure of profitability for a company. It helps stakeholders assess how effectively a company generates profit from its primary operations.
2. **Comparative Analysis:** It enables comparisons between companies in the same industry. A higher Gross Profit Ratio might indicate a competitive advantage in cost management.
3. **Performance Monitoring:** Over time, monitoring changes in the Gross Profit Ratio can help a company track the effectiveness of its cost control measures and pricing strategies.
4. **Investment Decisions:** Investors often use this ratio to evaluate a company's financial health and growth potential. A consistent or improving Gross Profit Ratio can be an attractive indicator for potential investors.

2. Operating Ratio:

Operating ratio gauges, the operational efficiency of a business by assessing the relationship between operating expenses and revenue.

Formula for Operating Ratio:

The Operating Ratio is calculated using the following formula:

Operating Ratio: $\frac{\text{Operating Expense}}{\text{Total Revenue}} \times 100$

In this formula:

- **Operating Expenses** represent the costs associated with a company's daily operations. These expenses include items such as salaries, rent, utilities, office supplies, and other costs directly related to running the business.
- **Total Revenue** stands for the total sales or revenue generated by the company from its core business activities.

Interpreting the Operating Ratio: The Operating Ratio is expressed as a percentage, and it provides insights into a company's operational efficiency:

- A **Lower Operating Ratio** indicates that a company is operating efficiently because it is spending a smaller portion of its revenue on operating expenses. A lower ratio is generally favorable as it suggests better cost management.
- A **Higher Operating Ratio** implies that a company is spending a larger portion of its revenue on operating expenses. This may indicate that the company is less efficient in managing its operational costs.

Key Points to Understand about the Operating Ratio:

1. **Focus on Core Operations:** The Operating Ratio primarily considers expenses related to a company's core operations. It excludes non-operating items like interest and taxes, which allows for a more focused analysis of operational efficiency.
2. **Industry Benchmarking:** Comparing the Operating Ratio to industry benchmarks is common practice. Different industries have different typical operating expense levels, so it's essential to evaluate a company's ratio in its industry context.
3. **Cost Control:** A decreasing Operating Ratio over time can indicate effective cost control measures, improved efficiency, or an increase in revenue.
4. **Profitability Indicator:** While the Gross Profit Ratio assesses profitability before operating expenses, the Operating Ratio accounts for these expenses, offering a more comprehensive view of a company's overall profitability.
5. **Investor Consideration:** Investors use the Operating Ratio to evaluate a company's ability to generate profits from its core operations. A low Operating Ratio can be an attractive indicator for potential investors.

Limitations of the Operating Ratio:

It's essential to recognize that the Operating Ratio has its limitations. It doesn't account for non-operating income, interest expenses, or taxes, which can significantly impact a company's overall financial performance. Therefore, it's often used in conjunction with other financial ratios and metrics for a more comprehensive assessment.

In conclusion, the Operating Ratio is a vital financial metric that provides insights into a company's operational efficiency and cost management. By comparing this ratio to industry benchmarks and tracking it over time, companies can assess their performance and make informed decisions to improve efficiency and profitability.

3. Operating Profit Ratio:

Operating profit ratio measures the profitability of core business operations by factoring in operating expenses. It focuses on the profitability of a company's core operations, excluding interest and taxes. Here's a brief overview, including the formula:

Formula for Operating Profit Ratio:

The Operating Profit Ratio is calculated using the following formula:

In this formula: $\frac{\text{Operating profit}}{\text{Total Revenue}} \times 100$

- **Operating Profit** represents the profit a company earns from its core business operations after accounting for operating expenses, which include costs like salaries, rent, utilities, and other day-to-day operational costs.
- **Total Revenue** stands for the total sales or revenue generated by the company from all its business activities.

Interpreting the Operating Profit Ratio:

The Operating Profit Ratio is expressed as a percentage, and it provides insights into a company's core operational profitability:

- A **Higher Operating Profit Ratio** suggests that a company is efficiently managing its core operations and generating a significant profit margin before considering interest and taxes. It reflects strong operational efficiency.
- A **Lower Operating Profit Ratio** indicates that a company may be facing challenges in controlling its operating expenses, which can impact profitability.

Key Points to Understand about the Operating Profit Ratio:

1. **Operational Focus:** The Operating Profit Ratio is particularly useful for assessing the profitability of a company's primary business activities, excluding income from non-operational sources like investments.
2. **Profitability Assessment:** It offers a snapshot of how efficiently a company generates profit from its day-to-day operations, providing valuable insights into core business performance.
3. **Investor and Management Tool:** Investors use the Operating Profit Ratio to gauge a company's operational efficiency and profitability, while management can monitor it to assess the effectiveness of cost control measures.
4. **Industry Comparison:** Comparing a company's Operating Profit Ratio to industry benchmarks helps determine its competitiveness and efficiency in relation to peers.
5. **Trend Analysis:** Tracking changes in the Operating Profit Ratio over time can highlight improvements or deteriorations in a company's core operational profitability.

In summary, the Operating Profit Ratio is a fundamental financial metric that assesses a company's ability to generate profit from its core business operations. It provides a clear picture of operational efficiency and profitability before considering interest and taxes, making it a valuable tool for financial analysis and decision-making.

4. Net Profit Ratio:

This ratio reflects the net profitability of a business by considering all expenses, including operating, financial, and taxes, in relation to total revenue.

It provides valuable insights into how efficiently a company manages its expenses and generates profit after accounting for all costs. Let's delve into the Net Profit Ratio in detail:

Formula for Net Profit Ratio:

The Net Profit Ratio is calculated using the following formula:

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

In this formula:

- **Net Profit** represents the amount of profit a company earns after accounting for all expenses, including operating expenses, interest, taxes, and other costs. It's essentially the "bottom line" profit.
- **Total Revenue** stands for the total sales or revenue generated by the company from all its business activities.

Interpreting the Net Profit Ratio:

The Net Profit Ratio is expressed as a percentage, and it provides key insights into a company's financial health and profitability:

- A **Higher Net Profit Ratio** indicates that a company is efficient in managing its expenses and generating profit. It suggests that a larger portion of each dollar earned as revenue is converted into profit.
- A **Lower Net Profit Ratio** implies that a company is less efficient in controlling expenses, which can negatively impact profitability.

Key Points to Understand about the Net Profit Ratio:

1. **Comprehensive Profitability:** Unlike the Gross Profit Ratio, which focuses on profit before operating expenses, the Net Profit Ratio considers all costs, including operating, financial, and tax-related expenses, to provide a more comprehensive view of profitability.
2. **Profitability Assessment:** The Net Profit Ratio is a fundamental measure for assessing a company's overall profitability and its ability to generate earnings after all expenses are accounted for.
3. **Profit Margin:** It's often referred to as the "profit margin" because it reveals the percentage of profit relative to total revenue. A higher margin indicates stronger profitability.
4. **Investor Perspective:** Investors often use the Net Profit Ratio to evaluate a company's financial performance and assess its capacity to generate returns. A consistently high ratio can be attractive to potential investors.
5. **Trend Analysis:** Tracking changes in the Net Profit Ratio over time can provide insights into a company's financial progress. Increasing profitability is generally a positive sign.

Limitations of the Net Profit Ratio:

While the Net Profit Ratio is a valuable metric, it has limitations:

- **Industry Variation:** Different industries may have different typical net profit margins due to variations in operating models and competition. Thus, it's crucial to compare a company's ratio to industry benchmarks.

- **Non-Recurring Items:** Extraordinary or non-recurring expenses or income may distort the Net Profit Ratio in a given period. Analysts often adjust for such items to obtain a clearer picture of ongoing profitability.

In conclusion, the Net Profit Ratio is a critical financial metric for evaluating a company's profitability. It offers a comprehensive view of how well a company manages its expenses and generates profit from its revenue. Investors, analysts, and company management use this ratio to assess financial performance and make informed decisions regarding operations and investments.

5. Return on Investment (ROI) and Return on Capital Employed (ROCE):

ROI and ROCE analyze the returns generated in relation to the total capital employed within the business, signifying the efficiency of capital utilization.

(I) Return on Investment (ROI):

Formula for ROI:

ROI is calculated using the following formula:

Return on Investment (ROI): $= \frac{\text{Net Profit}}{\text{Investment Cost}} \times 100$

In this formula:

- **Net Profit** represents the earnings a company generates after accounting for all expenses, including operating expenses, interest, taxes, and other costs.
- **Investment Cost** includes the total cost of the investment, such as the purchase price of assets, initial outlay, or capital expenditure.

Interpreting ROI:

ROI is expressed as a percentage, and it measures the profitability of an investment relative to its cost:

- A **Positive ROI** indicates that the investment has generated returns greater than its cost. This is typically seen as a favorable outcome.

A **Negative ROI** suggests that the investment has not generated sufficient returns to cover its cost. This may indicate a less successful investment.

Key Points about ROI:

1. **Versatility:** ROI is a versatile metric used to evaluate the profitability of various types of investments, including projects, assets, and business ventures.
2. **Risk Consideration:** ROI does not consider the timing of cash flows or risk factors. Therefore, it's important to complement ROI analysis with other risk assessments.
3. **Investor and Managerial Tool:** Investors use ROI to assess the attractiveness of investments, while company management uses it to evaluate the performance of projects and allocate resources effectively.

(II) Return on Capital Employed (ROCE):

Formula for ROCE:

ROCE is calculated using the following formula:

$$\textbf{Return on Investment (ROI):} = \frac{\text{Operating Profit}}{\text{Capital Employed}} \times 100$$

In this formula:

- **Operating Profit** represents the profit generated by a company from its core business operations after accounting for operating expenses. It excludes non-operating income, interest, and taxes.
- **Capital Employed** refers to the total capital invested in the business, including both equity (shareholders' equity) and debt (long-term borrowings).

Interpreting ROCE:

ROCE is expressed as a percentage, and it measures how efficiently a company utilizes its capital to generate returns:

- A **Higher ROCE** indicates that the company is effectively using its capital to generate profits. It reflects strong capital efficiency.
- A **Lower ROCE** suggests that the company may not be efficiently utilizing its capital to generate returns.

Key Points about ROCE:

1. **Focus on Core Operations:** ROCE primarily evaluates the profitability of a company's core business operations, excluding non-operating income and financial income/expenses.
2. **Comprehensive Performance Measure:** It offers a holistic view of a company's ability to generate returns from both equity and debt capital.
3. **Comparative Analysis:** Comparing ROCE to industry benchmarks and historical performance helps assess a company's relative efficiency and improvement over time.
4. **Investor and Management Tool:** ROCE is used by investors to assess a company's financial health and capital efficiency. Management uses it for resource allocation and performance assessment.

In summary, ROI and ROCE are essential financial metrics that help stakeholders evaluate a company's ability to generate returns from investments and capital. While ROI is versatile and can assess various types of investments, ROCE provides a more specific focus on capital efficiency and core business operations. Both metrics play a crucial role in investment decisions, financial analysis, and strategic planning.

6. Return on Net Worth (RONW):

RONW assesses the profitability concerning the shareholders' equity, providing insights into how well the business generates returns for its shareholders and measures how effectively a company generates earnings for its shareholders from the equity invested in the business. Here's a detailed explanation of RONW:

Formula for Return on Net Worth (RONW):

RONW is calculated using the following formula:

$$\textbf{Return on Net Worth (RONW)} = \frac{\text{Net Profit}}{\text{Shareholders' Equity}} \times 100$$

In this formula:

- **Net Profit** represents the company's earnings after accounting for all expenses, including operating costs, interest, taxes, and other costs.
- **Shareholders' Equity**, also referred to as owners' equity or simply equity, is the residual interest in the assets of the company after deducting liabilities. It represents the shareholders' investment in the business.

Interpreting RONW:

RONW is expressed as a percentage, and it provides insights into a company's ability to generate returns for its shareholders from their equity investment:

- A **Higher RONW** indicates that the company is efficiently using shareholders' equity to generate profits. It reflects strong profitability in relation to shareholders' investments.
- A **Lower RONW** suggests that the company may not be effectively utilizing shareholders' equity to generate returns.

Key Points about Return on Net Worth (RONW):

1. **Shareholder Perspective:** RONW is a critical metric from the perspective of shareholders. It helps them assess how effectively their equity investment is being used to generate returns.
2. **Profitability Assessment:** RONW offers a comprehensive view of a company's overall profitability, as it considers all expenses and financial elements in relation to equity.
3. **Management Tool:** Company management uses RONW to evaluate performance, assess the effectiveness of financial strategies, and make decisions about capital allocation and dividend policies.
4. **Comparative Analysis:** Comparing a company's RONW to industry peers and historical performance provides valuable insights into its competitiveness and financial health.
5. **Growth and Risk:** A rising RONW may indicate profitable growth, while a declining RONW may signal increased risk or financial challenges.

6. **Balance between Debt and Equity:** RONW is closely related to a company's capital structure. High reliance on debt financing can lead to higher financial leverage, potentially affecting RONW.
7. **Consideration of Share Buybacks:** Companies can influence RONW by repurchasing their own shares, reducing the denominator (shareholders' equity) and potentially boosting the ratio.

In summary, return on Net Worth (RONW) is a fundamental financial metric that helps shareholders, investors, and company management assess a company's profitability in relation to shareholders' equity. It provides valuable insights into the efficiency of capital utilization and is a crucial factor in investment decisions, financial analysis, and strategic planning.

7. Earnings per Share (EPS):

EPS quantifies the earnings attributable to each outstanding share of stock. Earnings Per Share (EPS) is a fundamental financial metric that measures the profitability of a company on a per-share basis. It provides insight into how much profit each outstanding share of common stock represents. EPS is a critical indicator for investors, analysts, and company management as it helps assess financial performance and is often a key component of investment decisions. Here's a detailed explanation of EPS:

Formula for Earnings Per Share (EPS):

EPS is calculated using the following formula:

$$EPS = \frac{net\ profit}{\text{Number of Outstanding Shares}} \times 100$$

In this formula:

- **Net Profit** represents the company's earnings after accounting for all expenses, including operating expenses, interest, taxes, and other costs.
- **Number of Outstanding Shares** is the total number of shares of common stock held by investors and the public. It reflects the ownership interest in the company.

Interpreting Earnings Per Share (EPS):

EPS is typically expressed as a specific monetary value (e.g., dollars per share), and it serves several important purposes:

- **Profitability Measurement:** EPS quantifies a company's profitability on a per-share basis. A higher EPS indicates greater earnings available to each shareholder.
- **Investor Attraction:** Investors often use EPS to gauge a company's financial health and profitability. A company with a consistently growing EPS can be more attractive to investors.
- **Comparative Analysis:** EPS allows for comparisons between companies of different sizes and industries, enabling investors to make informed investment choices.
- **Financial Decision-Making:** Company management uses EPS to evaluate financial performance, set financial targets, and make decisions regarding dividends and capital allocation.

Key Points about Earnings Per Share (EPS):

1. **Basic and Diluted EPS:** Companies may report both basic EPS (calculated using the number of common shares outstanding) and diluted EPS (which considers potential dilution from options, convertible securities, etc.).
2. **Impact of Share Buybacks:** Companies can increase EPS by repurchasing their own shares, which reduces the denominator (number of outstanding shares).
3. **Growth and Stability:** Increasing EPS over time can indicate profitable growth. Consistently stable or growing EPS is often viewed positively by investors.
4. **EPS and Dividends:** Companies often use EPS as a basis for determining dividends. Dividend per share (DPS) is calculated by dividing total dividends by the number of outstanding shares.
5. **Caution with One-Time Items:** It's important to analyze EPS carefully, as one-time gains or losses can distort the picture of ongoing profitability.
6. **Industry Comparison:** EPS should be considered in the context of the industry. Different industries may have varying typical EPS levels.

In conclusion, Earnings Per Share (EPS) is a vital financial metric that provides insight into a company's profitability on a per-share basis. It is a key factor in investment decisions, financial analysis, and financial planning. Investors and company management alike rely on EPS to assess financial performance and make informed decisions.

8. Book Value per Share:

This metric ascertains the net asset value attributable to each share of stock, often serving as a measure of intrinsic value. Book Value Per Share (BVPS) is a financial metric that measures the intrinsic value of a company's common stock on a per-share basis. It represents the net asset value of the company after deducting liabilities and preferred stock from its total assets. BVPS is an important indicator for investors and analysts to assess the fundamental value of a company's shares. Here's a detailed explanation of Book Value Per Share:

Formula for Book Value Per Share (BVPS):

BVPS is calculated using the following formula:

$$BVPS = \frac{\text{Shareholders' Equity}}{\text{Number of Outstanding Shares}}$$

In this formula:

- **Shareholders' Equity** (also known as owners' equity or simply equity) represents the residual interest in the assets of the company after deducting liabilities. It reflects the ownership interest of common shareholders.
- **Number of Outstanding Shares** is the total number of common shares held by investors and the public.

Interpreting Book Value Per Share (BVPS):

BVPS is expressed as a specific monetary value (e.g., dollars per share), and it provides several key insights:

- **Intrinsic Value:** BVPS represents the intrinsic or book value of each share of common stock, indicating what each share would be worth if the company were liquidated and its assets distributed to shareholders.
- **Investment Analysis:** Investors use BVPS as a fundamental metric to assess the underlying value of a company's shares. A share trading below BVPS might be considered undervalued.
- **Financial Health:** BVPS is a measure of a company's financial health. A higher BVPS generally indicates a stronger financial position.
- **Asset-Backed Value:** BVPS represents the value of assets per share, serving as a safety net for common shareholders in the event of bankruptcy or liquidation.

Key Points about Book Value Per Share (BVPS):

1. **Tangible and Intangible Assets:** BVPS accounts for both tangible assets (e.g., buildings, equipment) and intangible assets (e.g., patents, trademarks) but may not fully reflect their market value.
2. **Preference Shares and Liabilities:** BVPS is calculated after deducting preferred stock and liabilities. Preferred shareholders have a claim on assets ahead of common shareholders.
3. **Historical and Market Values:** BVPS is based on historical accounting values and may not necessarily reflect the current market value of a company's shares.
4. **Market-to-Book Ratio:** The market-to-book ratio compares a company's market price per share to its BVPS. A ratio below 1 suggests that shares may be undervalued relative to their book value.
5. **Value Investing:** BVPS is a fundamental metric often used by value investors who seek stocks trading at a discount to their intrinsic value.
6. **Industry Comparison:** BVPS should be considered in the context of the industry. Different industries may have varying typical BVPS levels.

In summary, Book Value Per Share (BVPS) is a significant financial metric that reflects the intrinsic value of a company's common stock on a per-share basis. It is a valuable tool for investors and analysts to assess a company's financial health and the fundamental value of its shares, providing insights into potential investment opportunities.

9. Dividend Payout Ratio:

The dividend payout ratio signifies the proportion of earnings paid out as dividends to shareholders, offering insights into dividend policy. It provides insight into how much of the company's profits are returned to shareholders versus how much is retained for reinvestment in the business. Here's a detailed explanation of the Dividend Payout Ratio:

Formula for Dividend Payout Ratio:

The Dividend Payout Ratio is calculated using the following formula:

$$\textbf{Dividend Payout Ratio} = \frac{\text{Dividends Paid to Shareholders}}{\text{Net profit}} \times 100$$

In this formula:

- **Dividends Paid to Shareholders** represent the total amount of dividends distributed to common shareholders during a specific period.
- **Net Profit** (or Net Income) represents the earnings of the company after deducting all expenses, including operating expenses, interest, taxes, and other costs.

Interpreting the Dividend Payout Ratio:

The Dividend Payout Ratio is typically expressed as a percentage, and it serves several important purposes:

- A **Higher Dividend Payout Ratio** indicates that a larger portion of the company's earnings is being returned to shareholders as dividends, which may be seen as a positive sign for income-seeking investors.
- A **Lower Dividend Payout Ratio** suggests that the company retains more of its earnings for reinvestment in the business, which may be viewed as a sign of growth potential.

Key Points about Dividend Payout Ratio:

1. **Income for Shareholders:** The Dividend Payout Ratio helps shareholders assess the portion of earnings they receive as cash dividends.
2. **Retained Earnings:** A lower ratio implies that the company is retaining a significant portion of earnings for internal reinvestment, which can support future growth and expansion.
3. **Investor Preference:** Investors seeking regular income often favor companies with higher Dividend Payout Ratios, while those seeking capital appreciation may prefer lower ratios that indicate reinvestment for growth.
4. **Dividend Policy:** A company's dividend policy influences its Dividend Payout Ratio. Companies may have different policies, such as regular dividends, periodic special dividends, or no dividends at all.
5. **Dividend Sustainability:** An excessively high Dividend Payout Ratio may raise concerns about the sustainability of dividends if earnings decline.
6. **Industry Comparison:** Dividend Payout Ratios vary by industry, with some industries traditionally paying higher dividends than others.
7. **Balance with Growth:** Companies often seek a balance between paying dividends to shareholders and retaining earnings for investment in new projects, research, development, and other growth initiatives.
8. **Market Reaction:** Changes in a company's Dividend Payout Ratio can impact its stock price and investor sentiment.

In summary, the Dividend Payout Ratio is a crucial financial metric that provides insight into a company's dividend distribution practices and its commitment to returning earnings to shareholders. It helps investors assess income potential and financial policies while

considering the company's growth prospects. Companies often manage this ratio strategically to align with their financial objectives and shareholder expectations.

10. Price Earnings Ratio:

The price-earnings ratio juxtaposes the stock's market price to its earnings per share, providing a valuation perspective from an investor's standpoint.

It's a key indicator for investors and analysts, helping them evaluate whether a stock is overvalued or undervalued in the market. The P/E ratio is also known as the Price-to-Earnings ratio. Here's a detailed explanation of the Price-Earnings Ratio:

Formula for Price-Earnings Ratio (P/E Ratio):

The P/E ratio is calculated using the following formula:

$$\textbf{Price-Earnings Ratio (P/E Ratio):} \frac{\textbf{Market Price per Share}}{\text{Earnings per Share (EPS)}}$$

In this formula:

- **Market Price per Share** represents the current market price of one share of the company's stock, as determined by supply and demand in the stock market.
- **Earnings per Share (EPS)** is the company's net earnings (profit) divided by the number of outstanding shares. It represents the earnings attributable to each share of common stock.

Interpreting the Price-Earnings Ratio:

The P/E ratio can be interpreted as follows:

- A **Higher P/E Ratio** suggests that investors are willing to pay more for each dollar of earnings, indicating that the stock may be overvalued or that investors have high expectations for future growth.
- A **Lower P/E Ratio** implies that investors are paying less for each dollar of earnings, which could mean that the stock is undervalued or that there are lower growth expectations.

Key Points about the Price-Earnings Ratio (P/E Ratio):

1. **Valuation Tool:** The P/E ratio is a fundamental valuation tool used by investors to assess the relative attractiveness of a stock's price in relation to its earnings.
2. **Earnings Expectations:** The P/E ratio reflects market sentiment and expectations about a company's future earnings growth. A high P/E may indicate optimism, while a low P/E may suggest caution.
3. **Comparative Analysis:** Investors often compare a company's P/E ratio to peers in the same industry or sector to evaluate its relative value. It can also be compared to historical P/E ratios for the same company.

4. **Growth vs. Value Stocks:** High-growth companies often have higher P/E ratios, while value stocks, which may have lower growth expectations, tend to have lower P/E ratios.
5. **Consideration of Industry Norms:** The appropriate P/E ratio can vary by industry due to differences in growth rates, risk profiles, and business models. It's important to consider industry benchmarks.
6. **Limitations:** The P/E ratio does not provide a complete picture of a company's financial health or prospects. It should be used in conjunction with other financial metrics for a comprehensive analysis.
7. **Cyclicality:** Some industries may have cyclically higher or lower P/E ratios based on economic conditions.
8. **Forward P/E:** Investors also use the forward P/E ratio, which uses estimated future earnings rather than historical earnings, to gauge future valuation.

In summary, the Price-Earnings Ratio (P/E ratio) is a fundamental financial metric used to assess the valuation of a company's stock in relation to its earnings. It plays a crucial role in investment decisions, helping investors determine whether a stock is reasonably priced or if there is potential for capital appreciation. However, it should be used in conjunction with other factors and analyses to make well-informed investment decisions.

❖ **Keywords:**

1. **Rate of Return (ROR):** ROR measures the gain or loss on an investment relative to the initial capital employed. It helps assess investment performance.
2. **Profitability Ratios**: These metrics assess a company's ability to generate profits and include various ratios like Gross Profit Ratio, Operating Profit Ratio, and Net Profit Ratio.
3. **Return on Investment (ROI):** ROI calculates the return earned on an investment relative to its cost. It's a crucial metric for investment evaluation.
4. **Gross Profit Ratio**: This ratio indicates the profitability of a company's core business activities by measuring gross profit as a percentage of revenue.
5. **Operating Profit Ratio:** Operating Profit Ratio evaluates a company's operating efficiency by measuring operating profit as a percentage of revenue.
6. **Net Profit Ratio:** Net Profit Ratio assesses a company's overall profitability by measuring net profit as a percentage of revenue.
7. **Earnings per Share (EPS):** EPS represents a company's profit attributable to each outstanding share of common stock and is vital for investors.
8. **Return on Capital Employed (ROCE):** ROCE measures how efficiently a company uses its capital to generate profits.
9. **Return on Net Worth (RONW):** RONW evaluates a company's profitability in relation to shareholders' equity or net worth.

10. **Dividend Payout Ratio:** This ratio shows the proportion of earnings paid out as dividends to shareholders.
11. **Price Earnings Ratio (P/E Ratio):** P/E Ratio assesses the valuation of a company's stock relative to its earnings.
12. **Financial Performance Analysis**: This involves evaluating a company's financial health and profitability through various metrics and ratios.
13. **Investment Evaluation**: The process of assessing the potential return and risks associated with an investment.
14. **Asset Utilization**: Analyzing how efficiently a company uses its assets to generate revenue and profits.
15. **Profit Margin:** Measures the percentage of profit relative to revenue and is a key indicator of profitability.
16. **Liquidity Ratios:** Ratios that assess a company's ability to meet short-term financial obligations.
17. **Financial Health:** The overall well-being of a company's financial position and performance.
18. **Investment Strategy:** The plan and approach an investor takes to allocate capital in various assets or securities.
19. **Business Efficiency**: The effectiveness of a company's operations in generating profits and managing resources.
20. **Portfolio Management:** The management of a collection of investments (portfolio) to achieve specific financial objectives.

❖ **Exercise**

Write the answers to the following questions.

1. What is the significance of the Rate of Return (ROR) in investment decision-making?
2. How can you calculate the Rate of Return for an investment, and what factors does it consider?
3. Explain the differences between the Gross Profit Ratio, Operating Profit Ratio, and Net Profit Ratio, and why each is important.
4. What role do Profitability Ratios play in assessing a company's financial health and performance?
5. How does Return on Investment (ROI) differ from Return on Capital Employed (ROCE), and when is each more applicable?
6. Why is Earnings Per Share (EPS) a critical metric for both investors and companies?
7. What factors can affect a company's Price Earnings Ratio (P/E Ratio), and how is it used in stock valuation?
8. How do you interpret a company's Dividend Payout Ratio, and what does it reveal about dividend policy?

UNIT – 7 LIQUIDITY AND CAPITAL STRUCTURE ANALYSIS

7.1 Introduction

In any business, capital is a must and without it, no one can survive or operate. The First function of any business is to arrange finance and use it properly so they earn a good amount of return. Liquidity means the liquid form of assets (cash and cash equivalents) within a company or asset that can be easily converted into cash. There are multiple sources of finance like equity, debt, debenture, term loans, retained earnings and commercial borrowing. Equity and debt are major sources of finance.

Capital structure refers to the composition of Owners' funds and Borrowers' funds which are used to finance a company's operations and assets. From an analysis perspective, equity/owner capital is a more expensive and permanent source of funds with greater financial flexibility in comparison to debt funds. Debt funds or borrowed sources of funds are less expensive or cheaper sources with no flexibility.

7.2 Capital Structure

Capital structure is defined as the proportions of equity share capital, preference share capital, retained earnings, debentures and long-term loans in the total amount of capital. In simple words, capital structure is known as a mix of all the sources of capital that a firm should raise to run its business. Capital structure refers to the make-up of its Capitalization i.e., loans, reserves, shares and bonds. Capital structure is referred to as the arrangement of shareholder's funds and borrowed funds in proper proportion. The components of Capital include:

(a) Shareholder's funds
   1. Equity share capital,
   2. Preference share capital and
   3. Retained earnings,

(b) Borrowed funds
   1. Debentures and
   2. Long-term loans

(a) Shareholder's Funds

The owner's funds refer to the capital generated through issuing equity shares or preference shares or utilizing the retained earnings to meet the company's financial needs. The three sources of shareholder's funds are as follows:

Equity Share Capital: The shares are issued to the equity shareholders who enjoy the ownership and are liable to get dividends. They are associated with the risk of loss in the company.

Preference Share Capital: The preference shareholders have the preferential rights to get a fixed rate of dividends along with preferential rights of receiving capital back in case of liquidation.

Retained Earnings: Retained earnings are part or a portion of the profit that has been kept separately.

(b) Debt Capital /Borrowed funds

Debt capital is referred to as the borrowed money taken from outsiders with a fixed rate of interest, that is utilized in business. There are different types of debt capital.

Debentures: It is a debt instrument that is issued to the public by a company that contains an obligation to pay money in future and a fixed amount of interest at regular intervals.

Term Loans: The fund taken from the bank at a floating or fixed rate of interest is known as a term loan. This is an appropriate source of funds for the companies because it is much cheaper in terms of cost compared to other sources.

Optimal capital structure is the perfect mix/ composition of Shareholder's Funds and borrowed funds which maximizes the market value of a company and on the other hand, minimizes its cost of capital.

In simple words, optimal capital structure means balancing both equity and debt sources of funds with the objective of maximum return and minimum cost.

7.2.1 Importance of Capital Structure

1. Balance Capital structure is very important for a firm as it determines the overall stability of a company.
2. A firm having a good capital structure has a higher chance of increasing the market value of the shares.
3. A good capital structure ensures that funds are properly used in investment.
4. It increases its profits in the form of higher returns to stakeholders.
5. A proper capital structure maximises shareholder's capital and minimises the overall cost of the capital.
6. A good capital structure provides flexibility to the company i.e., increasing or decreasing the debt in capital structure.

7.2.2 Factors Determining Capital Structure

Costs of capital: It is the cost that is incurred in raising capital from different fund sources.

Degree of Control: The equity shareholders have more rights in a company than the preference shareholders or the debenture shareholders.

Trading on Equity: For a firm that uses more equity as a source of finance to borrow new funds to increase returns.

Government Policies: The capital structure is also impacted by the rules and policies set by the government. Changes in monetary and fiscal policies result in bringing about changes in capital structure decisions.

7.3 Data and methodology

There are multiple tools and techniques available for analyzing Capital Structure and liquidity i.e., ratio analysis, capital structure analysis and capital structure theories. Capital Structure and liquidity analyses are helpful in decision-making for management. There are three types of capital structure which are given below:

1. Capital structure with Owners fund only i.e., composition of equity and preference share.
2. Capital structure with borrowed fund only i.e., composition of debt, debenture and term loan.
3. Mix Capital structure with Owner's fund and borrowed fund i.e., balancing of both the sources.

Capital structure theories: It is an approach to determine the value proportion of the capital share to the overall cost of capital. There are four theories of capital structure which are given below.

1. Traditional approach
2. M&M approach
3. Net income
4. Net operating income

Illustration-1

P K Ltd. has a paid-up capital of Rs.100,00,000 consisting of 10,00,000 equity shares of Rs.10 each and profit before tax profit is Rs. 60,00,000 annually. The management wants to do extra production and approved a project which will cost Rs. 50,00,000 and income before tax is Rs. 40 lakhs per annum. To raise this additional capital, the following options are under consideration of the management and Rate of income tax at 50%.

(a) To issue equity share capital for the entire additional amount. It is expected that new shares will be sold at a premium of Rs. 15 (face value Rs. 10).

(b) To issue 16% non-convertible debentures of Rs. 100 each for the entire amount.

(c) issue of equity capital for Rs. 25 lakhs Sold at a premium of Rs. 40 (face value Rs. 10) and 16% non-convertible debentures for the balance amount.

Calculate the additional capital that can be raised, keeping in mind that the management wants to maximize the earnings per share (EPS).

Answer:

Calculation of Earnings per share (EPS)

Particular	Case -1 equity share capital (total 150L) Newly issued with pre. (2,00,000@25)	Case -2 16% non-convertible debentures (50,000@100)	Case -3 equity share capital (50,000 @ 50) and 16% non-convertible debentures (25,000@100) (both)
Number of Equity Shares Existing (10) Newly issued with premium.	 Rs. 100,00,000 Rs. 50,00,000	 Rs. 100,00,000 -	 Rs. 100,00,000 Rs. 25,00,000
16% Debentures	--	Rs. 50,00,000	Rs. 25,00,000
Total capital	Rs. 1,50,00,000	Rs. 1,50,00,000	Rs. 1,50,00,000
Profit before interest and tax From old projects From new projects	 Rs. 60,00,000 Rs. 40,00,000	 Rs. 60,00,000 Rs. 40,00,000	 Rs. 60,00,000 Rs. 40,00,000
Total Profit (EBIT)	Rs. 1,00,00,000	Rs. 1,00,00,000	Rs. 1,00,00,000
Less: Interest on 16% non-convertible debentures	---	50,00,000x16/100 = (Rs. 8,00,000)	25,00,000x16/100 = (Rs. 4,00,000)
Profit before tax (PBT)	Rs. 1,00,00,000	Rs. 92,00,000	Rs. 96,00,000
Tax rate (50%)	Rs. 50,00,000	Rs. 46,00,000	Rs. 48,00,000
Profit after tax	Rs. 50,00,000	Rs. 46,00,000	Rs. 48,00,000
EPS (PAT/ number of shares)	50,00,000/12,00,000 =4.17	46,00,000/10,00,000 =4.60	48,00,000/10,50,000 =4.57

Advise: Case-2 is selected (issue of 16% Debentures) or most suitable to maximize the earnings per share.

Illustration-2

SK Steels Limited requires Rs. 25,00,000 for a new plant. This plant is expected to generate income before interest and taxes of Rs. 5,00,000. The company wants to maximize earnings per share. There are three alternatives to finance the project by raising debt of Rs. 2,50,000 or Rs. 10,00,000 or Rs. 15,00,000 and the balance, in each case, by issuing equity shares. The company's share is currently selling at 150, but is expected to decline to 125 in case the funds are borrowed in excess of Rs. 10,00,000.

The funds can be borrowed at the rate of 10% up to Rs. 2,50,000, 15% over Rs. 2,50,000 and up to Rs. 10,00,000 and 20 % over Rs. 10,00,000.
The tax rate applicable to the company is 50%. Analyze which plan of financing should the company choose?

Plan I = Raising Debt of Rs. 2.5 lakh + Equity of Rs. 22.5 lakh

Plan II= Raising Debt of Rs. 10 lakh + Equity of Rs. 15 lakh.

Plan III= Raising Debt of Rs. 15 lakh + Equity of Rs. 10 lakh.

Answer:

Calculation of Earnings per share (EPS)

Particulars	Plan I	Plan II	Plan III
EBIT	Rs. 5,00,000	Rs. 5,00,000	Rs. 5,00,000
Less: Interest on debenture	2,50,000x10/100= Rs. 25,000	2,50,000x10/100=Rs. 25,000 7,50,000x15/100= Rs. 1,12,500	2,50,000x10/100=Rs. 25000 7,50,000x15/100=Rs. 1,12,500 5,00,000x20/100=Rs. 1,00,000
EBT	Rs. 4,75,000	Rs. 3,62,500	Rs. 2,62,500
Less: taxes @ 50%	(Rs. 2,37,500)	(Rs. 1,81,250)	(Rs. 1,31,250)
Earning after tax (PAT)	Rs. 2,37,500	Rs. 1,81,250	Rs. 1,31,250
No. of shares	22,50,000/150= 15,000	15,00,000/150= 10,000	10,00,000/125=8,000
EPS= (PAT/ number of shares)	Rs. 2,37,500/ 15,000= 15.83	Rs. 1,81,250/ 10,000= 18.13	Rs. 1,31,250/8,000=16.41

Advise: Plan-II comprised of debt of 10 lakh and equity shares capital of 15 lakh which is the best plan among others because it maximizes the profit and give us maximum EPS (18.13).

Illustration-3

The following data are presented in respect of Q. Ltd.:

Profit before interest and tax	Rs. 52,00,000
Less: Interest on debentures @ 12%	Rs. 12,00,000
Profit before tax	Rs. 40,00,000
Less: Income tax @ 50%	Rs. 20,00,000
Profit After tax	Rs. 20,00,000
No. of equity shares (of 10 each)	8,00,000
EPS	2.5
P/E Ratio	10
Market price per share	Rs. 25
Retained earnings	Rs. 1.2 crore

The company is planning to start a new project requiring a total capital outlay of Rs. 40,00,000. You are informed that a debt equity ratio (D/D+E) higher than 35% pushes the Ke (cost of equity) up to 12.5% means reducing the P.E ratio to 8 times and raising the interest rate on the additional amount borrowed at 14%. Find out the probable price of a share if:
(i) The additional funds amount is raised as a loan.

(ii) The additional funds amount is raised by issuing equity shares.

Answer:

Return on Capital Employed = EBIT/ Capital Employed = 52,00,000/3,00,00,000x100 = 17.33% where, Capital Employed = Debt + Equity = 1,00,00,000+ (80,00,000+ 1,20,00,000) 3,00,00,000

Proposed EBIT = Proposed Capital Employed x Return on capital employed

(3,00,00,000+ 40,00,000) x 17.33% = 58,92,200 / 58,93,333

Debt Equity ratio= Debt /Debt+ Equity

- Option-1: Loan option

Debt = 1,00,00,000+ 40,00,000 = 1,40,00,000

Equity = 2,00,00,000

Debt equity ratio= D/ E+D = 1.4 cr./ (1.4 cr. +2 cr.) = 41.18%

The equity ratio has crossed the limit of 35% hence, the P. E ratio will be 8 times and additional borrowing will cost at the rate of 14%

- Option-2: Equity option

Debt = 1,00,00,000

Equity = 2,00,00,000 + 40,00,000 = 2,40,00,000

Debt Equity ratio = D/ E+D = 1 cr. / (1 cr. +2.4 cr.) = 29.41%

Debt equity ratio has not crossed the limit of 35% hence P.E ratio will be 10 times.

Number of equity shares to be issued in case of equity option@ Rs.25 per share.

= 40,00,000/ 25 = 1,60,000

Calculation of EPS and MPS under two financial Options

Particulars	Option 1 (Rs.) 14% additional loan of 40,00,000	Option II (Rs.) 8,00,000 equity share@10 1,60,000 equity share @25
Profit before interest and Tax (PBIT)	58,92,200	58,92,200
Less: Interest on old debentures @12%	12,00,000	12,00,000
Less: Interest On additional loan (new) @ 14% on 40,00,000	5,60,000	0
Profit before tax	41,32,200	46,92,200
Less: Taxes @ 50%	20,66,100	23,46,100
Earnings for equity	20,66,100	23,46,100
Shareholders/ EAT/Profit after tax		
Number of Equity Share	8,00,000	9,60,000
Earnings per Share (EPS)	2.58	2.44
= (PAT/ number of shares)		
Price/ Earnings ratio	8	10
Probable per share (MPS)	20.66	24.44
= (EPS x P.E ratio)		

Decision: The loan option has higher EPS but the equity option has a higher MPS therefore, the company should raise additional funds through the equity option.

7.4 Leverage

7.4.1 Meaning of Leverage

Leverage is a combination of effective use of capital i.e., owners' funds and borrowers' funds to increase the potential return of an investment. Leverage can also refer to the increase or more use of debt by a firm for financing and giving the maximum returns to

shareholders. In simple words, it is known as the maximum usage of fixed resources available with a firm or getting the maximum benefit of debt resources because it has a fixed liability.

There are three types of leverage given below

1. **Financial leverage**
2. **Operating leverage**
3. **Combined leverage**

Operating leverage:

Operating leverage refers to the maximum use of fixed operating costs that are available to a firm for getting more returns. In simple words, Operating leverage uses fixed cost because the fixed cost is fixed / irrelevant to the number of units produced. Operating leverage uses the maximum amount of fixed cost to generate revenue. On the other side, variable costs change when the output changes and it is very difficult to get the maximum out of them. Operating leverage is the ratio of fixed costs to variable costs. If a business has more fixed costs/ expenses than variable costs/ expenses, then it is called a high operating leverage. A firm can use a high degree of operating leverage to generate more returns, but too much of it can increase your financial risk.

Formula of operating leverage = % Change in Operating Income / % Change in Sales.

Or

Contribution / EBIT

Financial Leverage:

Financial leverage refers to the maximum use of fixed financial cost (interest on debenture or long-term loan) that is available to a firm for getting more returns. It is defined as the proportion/ ratio of debt which is a portion of the total capital of the firm. A firm having a high portion of debt in its capital is called a highly levered firm while a firm having a lower portion of debt is known as a low levered firm. It is a good option with a company that uses fixed interest-bearing sources of finance and gets the maximum return to the owners.

Formula of Financial Leverage = % change in EPS / % change in EBIT

Or

EBIT/ EBT

Or

EBIT / EBIT - Interest

Combined leverage:

Combined leverage refers to the effective use of operating leverage and financial leverage to magnify the common effects. It measures the change in profits before interest and taxes

(EBIT) resulting from a change in sales in percentage form. It defines the percentage changes in sales or earnings on a company's profitability.

Formula of Combined leverage = Operating leverage x financial leverage

$$= \frac{\text{Contribution / Earnings before Interest and Tax}}{\text{Earnings before Interest and Tax / Earning Before Tax}}$$

$$= \text{C /EBT}$$

Sample format of the Statement showing how to calculate Operating leverage, financial leverage and Combined leverage

Particular	Amount
Sales	XXX
- (Variable cost)	(xxx)
Contribution	XXX
- (Fixed cost)	(xxx)
EBIT	XXX
- (interest)	(xxx)
EBT	XXX

Illustration- 4

Calculate Operating leverage, financial leverage and Combined leverage from the following information given below:
production and sales unit = 1,100 units
selling price = Rs. 20 per unit
fixed cost = Rs. 5,000
variable cost = Rs. 10 per unit
There are two situations of firms and in both situations, formations of capital structure are given below:
situation -I
equity shares = 500 shares @10 each = 5,000 and 10% debenture (1500 @ 10) = 15,000
situation -II
equity shares = 1,500 shares @10 each = 15,000 and 10% debenture (500 @ 10) = 5,000

Solution:

Particular	Amount (situation -I)	Amount (situation -II)
Sales	1,100 X 20 = Rs. 22,000	1,100 X 20 = Rs. 22,000
- (Variable cost)	(1,100 X 10)= Rs. 11,000	(1,100 X 10)= Rs. 11,000
Contribution	Rs. 11,000	Rs. 11,000
- (Fixed cost)	(Rs. 5,000)	(Rs. 5,000)

EBIT	Rs. 6,000	Rs. 6,000
- (interest)	(15,000X10/100) = Rs. 1500	(5,000X 10/100)= Rs. 500
EBT	Rs. 4,500	Rs. 5,500

1. Operating leverage = Contribution / EBIT

situation -I 11,000/ 6,000 = 1.83

situation -I 11,000/ 6,000 = 1.83

It is the same in both situations because there is no change in operation i.e., sales, variable cost and fixed cost.

2. Financial Leverage = EBIT/ EBT

situation -I 6,000/ 4,500 = 1.33

situation -I 6,000/ 5,500 = 1.09

Financial Leverage is different in both situations because in the first situation borrowing funds /dentures is more in comparison to the second situation.

3. Combined leverage = Operating leverage x Financial leverage = C / EBT

situation -I 11,000/ 4,500 = 2.44

situation -I 11,000/ 5,500 = 2

It is different in both situations and in the first situation, 2.44 is more in comparison to the second situation where it is 2. This is because in the first case, a debenture is used more, which maximizes the profit available for the equity holder in the first situation.

Illustration - 5

The following information is available of Anika Ltd.
Sales Rs. 82,50,000
Variable Cost Rs. 46,20,000
Fixed Cost Rs. 6,60,000
9% Debentures Rs. 50,00,000
Equity Shares (Rs. 100 each) Rs. 60,00,000
Corporate Tax 35%
You are required to calculate:

1. Calculate ROI.
2. Calculate the operating, financial and combined leverage.
3. If the firm asset turnover rate/ ratio is 3, does it affect the leverage?
4. Calculate EPS.

Solution:

Particular	Amount
Sales	Rs. 82,50,000
- (Variable cost)	(Rs. 46,20,000)
Contribution	Rs. 36,30,000
- (Fixed cost)	(Rs. 6,60,000)
EBIT	Rs. 29,70,000
- (interest)	(50,00,000X 9/100) = Rs. 4,50,000
EBT	Rs. 25,20,000
- (Tax)	Rs. 8,82,000
EAT	Rs.16,38,000
Capital Equity shares Dentures	 60,00,000 50,00,000

1. Return on Investment (ROI) = EBIT / Capital Employed x 100

   = 29,70,000/ 1,10,00,000 x 100 = 27%

   ROI is 27% higher than the cost of debt i.e., 9%. The firm has good financial leverage.

2. Assets Turnover Ratio = Sales /Total Assets

   = 82,50,000/ 1,10,00,000 = 0.75 times

   0.75 times is less than the 3 times, therefore the firm has low asset leverage.

3. Operating Leverage = Contribution/ EBIT = 36,30,000 / 29,70,000 = 1.22
4. Financial Leverage = EBIT/ EBT = 29,70,000 / 25,20,000 = 1.18
5. Combined Leverage = Contribution / EBT or OL x FL = 1.22 x 1.18 = 1.44
6. Earnings Per Share (EPS) = Profit to available for Equity Shareholders / No. of Equity Shares

   = 16,38,000/60,000 = 27.30

7.5 liquidity

7.5.1 Meaning of Liquidity: liquidity means the company holds liquid assets or has cash or cash equivalent. Liquidity can be analyzed through liquidity ratio which includes: Current Ratio, Quick Ratio /Acid Test Ratio, Cash Ratio/ Cash Asset Ratio/Absolute Liquidity Ratio and Net Working Capital Ratio.

7.5.2 Types of Liquidity Ratio

1. Current Ratio
2. Quick Ratio / Acid Test Ratio

3. Cash Ratio /Cash Asset Ratio /Absolute Liquidity Ratio
4. Net Working Capital Ratio

1. Current Ratio

The current ratio is defined as the capacity/ capability of current assets to pay off the obligations/ liabilities. This ratio is useful for external parties (creditors/banks/lenders) to evaluate whether they can be offering short-term loans/debts. It provides the information regarding operating cycle of the company. It is also called as Working capital ratio. The formula of the Current Ratio /Working Capital Ratio is the current assets divided by current liabilities.

Current ratio = Current Assets / Current Liabilities

Current Assets includes =Cash at Bank + Cash in Hand + Short-term Investments (Marketable Securities) + Inventories/ stock (Finished Goods) + Trade Receivables/ debtors/ B/R (excluding Provision) + Stock of Raw Material + Stock of Work -in -Progress + Prepaid Expenses

Current Liabilities includes = Bank Overdraft (BOD) + Trade Payables (creditors/ B/P) + Provision of Taxation + Proposed Dividends + Outstanding Expenses (O/S) + short-term Loans Payable

Analysis: A higher current ratio (more than 1) is suggested to be good while a lower value (less than 1) is indicative of having difficulty in meeting its current liabilities. More than 1 is very good but many experts suggest that 2 or more than 2 is much better or helpful in short-term liquidity finance.

If Current Assets > Current Liabilities, then Current Ratio > 1: This implies that the firm has a surplus of assets over short-term debts and is a desirable situation.

If Current Assets = Current Liabilities, then Current Ratio = 1: This means that the current assets are equal to cover the short-term obligations of the firm.

If Current Assets < Current Liabilities, then the Current Ratio < 1 This is not a good situation because it means the company does not have enough resources/assets to pay off short-term debts.

2. Quick Ratio / Acid Test Ratio / Liquid ratio

A quick ratio is defined as a sufficient liquid asset that is available to be instantly converted into cash /cash equivalent to meet short-term dues. The formula of Quick Ratio / Acid Test Ratio is liquid current assets divided by the current liabilities. Quick Ratio /Acid Test Ratio is also called as Liquid Ratio. It is used to determine a company or a business's liquidity that is able to meet instantly all the current liabilities or dues.

Formula of Quick Ratio = (Cash + Marketable securities + Accounts receivable) / Current liabilities

Analysis: The quick ratio should be one 1 or more than 1 is treated good for a financially stable company.

3. Cash Ratio / Absolute Liquidity Ratio

The cash ratio is defined as the ability of cash and cash equivalents to clear off all debts/current liabilities instantly. In the Cash ratio, only cash and cash equivalents are used to make payment of current liabilities. It is helpful to creditors in determining that a company can clear short-term liabilities. It is calculated through cash and cash equivalents divided by current liabilities.

Formula of Cash ratio = Cash and equivalent / Current liabilities

4. Net Working Capital Ratio

The net working capital ratio is helpful in determining whether a company has sufficient cash or funds to continue its operations. It is calculated by deducting the current liabilities (C. L.) from the current assets (C. A.)

Formula of Net Working Capital = Current Assets – Current Liabilities.

7.5.3 Importance of Liquidity Ratio

1. It helps to find out the availability of cash (Amount) in the company.
2. It helps to determine the short-term financial position of the company.
3. It also displays how efficiently the company can convert stocks/ inventories into cash.
4. It determines the way how a company operates in the market.
5. It helps in calculating the company's working capital requirements by studying the various levels of cash or liquid assets.

Illustration: 6

The following information for Ankita ltd. given below. You are required to calculate the Current ratio and Quick Ratio.

Stock Rs. 20,000 Debtors Rs. 80,000, Bank Overdraft Rs. 40,000, Bills Receivables Rs. 60,000, Marketable Securities Rs. 50,000, Outstanding Expenses Rs. 10,000, Prepaid Expenses Rs. 10,000, and Bank Rs.20,000, Sundry Creditors Rs. 90,000, Provision for Tax Rs. 40,000, and Proposed Dividend 20,000

Answers:

Current ratio = Current Assets / Current Liabilities

Current Assets = Debtors + Marketable Securities+ Bills Receivables + Stock + Prepaid Expenses + Bank

= 80,000 + 50,000 +60,000 + 20,000 + 10,000 +20,000 = Rs. 2,40,000

Current Liabilities = Sundry Creditors + Bank Overdraft + Provision for Tax + Proposed Dividend + Outstanding Expenses

= 90,000 + 40,000 + 40,000 +20,000 + 10,000 = Rs.2,00,000

Therefore, current ratio = 2,40,000/2,00,000 = 1.2 times

Analysis: Current Ratio is more than 1: This implies that the firm has a surplus of assets over short-term debts and is a desirable situation.

Formula of **Quick Ratio** = (Cash + Marketable securities + Accounts receivable) / Current liabilities

Or

Quick Ratio = Current Assets - Stock + Prepaid Expenses / Current liabilities
Quick assets = Cash + Marketable securities + Accounts receivable (debtors + B/R)
= 20,000 + 50,000 + 80,000 +60,000 = 2,10,000

Current Liabilities = Sundry Creditors + Bank Overdraft + Provision for Tax + Proposed Dividend + Outstanding Expenses
= 90,000 + 40,000 + 40,000 +20,000 + 10,000 = Rs. 2,00,000

Therefore, Quick ratio = 2,10,000 / 2,00,000 = **1.05 times**

Analysis: Quick Ratio is more than 1: This implies that the firm has a surplus of quick assets over short-term debts and is a desirable situation. It simply means that current liabilities will be paid through quick assets.

Illustration: 7

The information of A Ltd. is given below. You are required to calculate the current ratio, Quick Ratio, Cash Ratio and Net Working Capital.

Debtors 90,000, Bills receivable 50,000, Marketable Securities 25,000, Cash and Bank 2,85,000, Bank Overdraft 90,000, Sundry Creditors 25,000, Outstanding Expenses 5,000, Provision for Tax 10,000 and stock 10,000.

Answers:

Current ratio = Current Assets / Current Liabilities
Current Assets = Debtors + Marketable Securities+ Bills Receivables + Stock + Bank
= 90,000 + 25,000 + 50,000 +10,000 + 2,85,000 = 4,60,000

Current Liabilities = Bank Overdraft + Outstanding Expenses + Provision for Tax + Sundry Creditors

= 90,000 + 5,000 + 10,000 + 25,000 = Rs.1,30,000

= 4,60,000/1,30,000= 3.53 times

Analysis: Current Ratio is more than 1 i.e. 3.53 times: This implies that the firm has a surplus of assets over short-term debts and is a desirable situation. And assets are three more than liabilities. In simple words, firms will discharge their liabilities three times.

Formula of **Quick Ratio** = (Cash + Marketable securities + Accounts receivable) / Current liabilities or Current Assets – (Stock + Prepaid Expenses) / Current Liabilities

Quick assets = Debtors + Bills receivables + Marketable Securities + Cash and Bank
= 90,000 + 50,000 + 25,000 + 2,85,000 = Rs.4,50,000

Current Liabilities = Bank Overdraft + Outstanding Expenses + Provision for Tax + Sundry Creditors
= 90,000 + 5,000 + 10,000 + 25,000 = Rs.1,30,000
= 4,50,000/1,30,000= 3.46 times

Analysis: Quick Ratio is more than 1 i.e. 3.46 times: This implies that the firm has a surplus of quick assets over short-term debts and is a desirable situation. It simply means that current liabilities will be paid three times instantly through quick assets.

Formula of **Cash ratio** = Cash and equivalent / Current liabilities

Cash and equivalent = Cash + marketable securities

= 2,85,000+25,000 = 3,10,000

Current Liabilities = Bank Overdraft + Outstanding Expenses + Provision for Tax + Sundry Creditors

= 90,000 + 5,000 + 10,000 + 25,000 = Rs.1,30,000

Cash ratio = 3,10,000/1,30,000= 2.38 times

Formula of **Net Working Capital** = Current Assets – Current Liabilities.

Current Assets = 4,60,000

Current Liabilities= 1,30,000

= 4,60,000 - 1,30,000 = 3,30,000

Exercise

Multiple choice questions (MCQ)

1. Current assets do not include:
   (a) Stock
   (b) Furniture
   (c) debtors
   (d) prepaid expenses
2. Current liabilities do not include:
   (a) Bills payable
   (b) Creditors
   (c) Debenture
   (d) Bank overdraft
3. How many types of Capital structures are there?
   (a) 1
   (b) 2
   (c) 3
   (d) 4
4. The mixed capital structure includes
   (a) Equity only
   (b) Liabilities only
   (c) A mixture of both Equity and liabilities
   (d) all of the above
5. Formula of Net working capital:
   (a) all current assets
   (b) current assets - current liabilities
   (c) current assets + current liabilities
   (d) none of these
6. Formula of EPS.
   (a) Profit to Equity Shareholders / No. of Equity Shares
   (b) Profit before interest and tax / No. of Equity Shares
   (c) Profit after tax / No. of Equity Shares
   (d) None of these
7. Formula of financial leverage.
   (a) EBIT/ EBT
   (b) C / EBT

(c) Fixed cost/ EBIT
(d) None of these

8. Formula of financial leverage.
   (a) Fixed Costs / (Fixed Costs + Variable Costs)
   (b) % Change in Operating Income / % Change in Sales
   (c) Contribution / EBIT
   (d) All of the above

9. Formula of Combined leverage.
   (a) Combined leverage = Operating leverage x financial leverage
   (b) C /EBT
   (c) **Both a and b**
   (d) None of these

Answers the following short and long questions.

1. Explain the meaning of Capital structure.
2. Explain the components of Capital structure.
3. Explain the Importance of Capital Structure.
4. Explain the Factors Determining Capital Structure.
5. Explain the Meaning of Leverage
6. Explain the types of Leverage
7. Write a short note on the following:
   1. Financial leverage,
   2. Operating leverage, and
   3. Combined leverage.
8. Explain the Meaning of Liquidity.
9. Explain the Types of Liquidity Ratio.

Practical sums

1. K Ltd. has a paid-up capital of Rs. 50,00,000 consisting of 5,00,000 equity shares of 10 each and profit before tax profit is Rs. 30,00,000 annually. The management wants to do extra production and approved a project which will cost Rs. 25,00,000 and income before tax of Rs. 20 lakhs per annum. Rate of income tax at 50%.

(a)To issue equity share capital for the entire additional amount. It is expected that new shares will be sold at a premium of 15 (face value 10).

(b) To issue 16% non-convertible debentures of 100 each for the entire amount.

(c) issue of equity capital for Rs. 12.5 lakhs Sold at a premium of 40 (face value 10) and 16% non-convertible debentures for the balance amount.

Calculate the additional capital that can be raised, keeping in mind that the management wants to maximize the earnings per share (EPS).

Ans: Profit after tax 25,00,000 23,00,000 24,00,000

EPS (PAT/ number of shares) 25,00,000/6,00,000 = 4.17

23,00,000/5,00,000 = 4.60
24,00,000/5,25,000 = 4.57

2. Calculate the EPS from the following option given below:

Option I:

Total Capital = Rs 60,00,000
Equity Capital = Rs 60,00,000 (6,00,000 shares @ Rs 10 each)
Tax rate = 30% p.a.
Earnings before interest and tax (EBIT) = Rs 10, 00,000

Option II:

Total Capital = Rs 60,00,000
Equity Capital = Rs 45,00,000 (4,50,000 shares @ Rs 10 each)
Debt = Rs 15,00,000
Tax rate = 30% p.a.
Interest on debt = 10%
Earnings before interest and tax (EBIT) = Rs 10, 00,000

Option III:

Total Capital= Rs 60,00,000
Equity Capital = Rs 35,00,000 (3,50,000 shares @ Rs 10 each)
Debt= Rs 20,50,000
Tax rate = 30% p.a.
Interest on debt = 10%
Earnings before interest and tax (EBIT) = Rs 10,00,000
Suggest which option is good in terms of EPS.

Ans: Profit after tax 7,00,000 5,95,000 5,56,500
EPS = (PAT/ number of shares) 7,00,000/ 6,00,000 = 1.17

5,95,000/ 4,50,000 = 1.32
5,56,500/ 3,50,000 = 1.59

3. The information of A Ltd. is given below. You are required to calculate the current ratio, Quick Ratio, Cash Ratio and Net Working Capital.

Debtors 180,000, Bills receivable 100,000, Marketable Securities 50,000, Cash and Bank 5,70,000, Bank Overdraft 180,000, Sundry Creditors 50,000, Outstanding Expenses 10,000, Provision for Tax 20,000 and stock 20,000.

Ans: current ratio = 3.53 times, Quick Ratio = 3.46, **Cash ratio** = 3,10,000/1,30,000 = 2.38 times Net Working Capital = 4,60,000 - 1,30,000 = 3,30,000.

4. Calculate Operating leverage, Financial leverage and Combined leverage from the following information given below:
Production and sales unit = 2,200 units
Selling price = Rs. 40 per unit
Fixed cost = Rs. 10,000
Variable cost = Rs. 20 per unit
Equity shares = 50,000@10 each = Rs. 5,00,000 and 10% debenture (15,00 @10) = Rs. 15,000
Earnings before interest and tax (EBIT) = Rs 12,000

Ans: Operating leverage = **C/ EBIT = 22,000/12000= 1.84**
financial leverage = **EBIT/ EBT = 12,000/ 10,500 = 1.14**
Combined leverage = **C/ EBT = 22,000/10,500 = 2.09**

5. The following information is available of Anika Ltd.
Sales Rs. 90,00,000
Variable Cost Rs. 45,00,000
Fixed Cost Rs. 8,00,000
9% Debentures Rs. 50,00,000
Equity Shares (Rs. 100 each) Rs. 60,00,000
Corporate Tax 50%
You are required to calculate:
1. Calculate ROI.
2. Calculate the Operating, Financial and Combined leverage.
3. Calculate EPS.

Ans: ROI = EBIT / Capital Employed x100 = 37,00,000/ 130,00,000 = 28.46%

Operating leverage = C/ EBIT = 45,00,000/37,00,000= 1.21
financial leverage = EBIT/ EBT = 37,00,000/ 32,50,000 = 1.14
Combined leverage = C/ EBT = 45,00,000/32,50,000 = 1.38

UNIT – 8 ANALYSIS OF INVESTMENT ENVIRONMENT

8.1 Introduction

Investment analysis is a broad term for many different methods of evaluating investments, industry sectors, and economic trends. It can include charting past returns to predict future performance, selecting the type of investment that best suits an investor's needs, or evaluating individual securities such as stocks and bonds to determine their risks, yield potential, or price movements.

Investment analysis aims to determine how an investment is likely to perform and how suitable it is for a particular investor. Key factors in investment analysis include the appropriate entry price, the expected time horizon for holding an investment, and the role the investment will play in the portfolio as a whole.

8.2 Meaning of Investment Environment

- The investment environment refers to the economic, political, and social conditions that affect the investment market and the performance of financial instruments. As part of treasury management, understanding the investment environment is critical to making informed investment decisions and managing investment risks.

- Overall, the investment environment is a complex and dynamic system that is influenced by a wide range of economic, political, and social factors. As part of treasury management, it is important to closely monitor these factors and adjust investment strategies as needed to optimize returns and minimize risk. By understanding the investment environment and its impact on the investment market, treasury management can make informed investment decisions and achieve its investment objectives.

- The term investment refers to an exchange of money wealth into some tangible wealth. The money wealth here refers to the money (savings) which an investor has and the term tangible wealth refers to the assets the investor acquires by sacrificing the money wealth. By investing, an investor commits the present

funds to one or more assets to be held for some time in expectation of some future return in terms of interest or capital gain. Investment can be defined as a commitment of funds that is expected to generate additional money.

- The term Investment Environment encompasses all types of investment opportunities and the market structure that facilitates buying and selling these investments. Different types of securities, institutional set-ups and market intermediaries are the components of the investment environment.

8.3 Judging An Investment Climate:

- Investment Climate: Investment climate refers to the economic, financial, and socio-political conditions in a country or region that impact whether individuals, banks, and institutions are willing to lend and acquire a stake (i.e., invest) in the businesses operating there.

- The investment climate is affected by several indirect factors, including poverty level, crime rate, infrastructure, workforce participation, national security considerations, political (in)stability, regime uncertainty, taxes, liquidity and stability of financial markets, rule of law, property rights, regulatory environment, government transparency, and government accountability.

- One difficult aspect of understanding and judging the investment climate of a country or region is that governance is a broad concept that can be practiced effectively in different ways. There are also different kinds of governance, from political governance (the type of political system, constitutional set-up, relations between state and society), economic governance (state institutions that regulate the economy, competition, property and contract rights), and corporate governance (national and company laws and practices that determine corporate conduct, shareholder rights, disclosure and transparency, accounting standards).To complicate matters, each different facet of governance plays off the other, so making judgments on any given investment climate must be done on a case-by-case basis.

- For individuals, banks, and institutions to feel comfortable investing in a given investment climate, they need to have reasonable expectations for conditions that will allow their investments to thrive and expand.

- In places where the state does not provide certain essential public business infrastructure—such as sound regulation, market-supporting laws that are implemented fairly by honest, well-trained and impartial judges, and a transparent procurement system—the level of required trust in the investment climate cannot be established. In short, the private sector needs an effective, enabling state to function efficiently and fairly.

- ❖ If the state cannot be trusted to provide that level of assurance, doing business at scale becomes problematic. Clear rules of the game are needed for how the state interacts with the private sector. There needs to be a level playing field and platforms for constructive dialogue between state agents and private businesses.

REASON FOR FLUCTUATION IN INVESTMENT CLIMATE:

1. The investment climate is a country's or region's socioeconomic and political landscape as it relates to favourability toward investing and lending.
2. When a potential investor faces many hindrances (such as in underdeveloped nations, which may be in part due to political instability or poor infrastructure), the investment climate may be deemed unfavourable.
3. Evaluating the investment climate combines both quantitative and qualitative assessments across a range of dimensions.
4. An unfavourable investment climate is one of the many hindrances faced by underdeveloped nations. Regulatory reform is often a key component of removing the barriers to investment. Several non-profit organizations have been established to improve the investment climate and spur economic development in these countries.

8.4 Factor Affecting of Analysis Investment Environment:

Some of the key factors that affect the investment environment include:

- **Economic conditions:** Economic conditions, such as interest rates, inflation rates, and GDP growth, can have a significant impact on the investment market. For example, rising interest rates may reduce the demand for stocks and increase the demand for bonds.

- **Political conditions**: Political conditions, such as changes in government policies, can also affect the investment market. For example, changes in tax laws or regulations may impact the attractiveness of certain investments.

- **Social conditions:** Social conditions, such as changes in consumer behavior or demographic trends, can also impact the investment market. For example, shifts in consumer preferences may affect the performance of certain industries or companies.

- **Global conditions:** The global investment environment can also have a significant impact on the investment market. For example, changes in global economic conditions or geopolitical risks may impact the performance of international investments.

- Other Important factors for assessing the investment potential of the region:

Resource	Raw material (weighted average supply of the main types of natural resources);
Production	General results of economic activity in the region
Consumption	Purchasing power of the population of the region
Infrastructure	Economic and geographical location of the region and its infrastructure
Intellectual	Education level of the population
Institutional	Level of development of leading institutions based on market economy
Innovative	The level of implementation of the achievements of scientific and technological development in the region.

8.5 Important Elements For Analysis Investment Environment

There are seven elements of the investment environment that one should be aware of:

1. **Assets and investment vehicles:** An investor usually has a plethora of existing types of assets to choose from – which include stocks, corporate bonds, government bonds (for example, US Treasury Bills – usually very safe in terms of default risk), municipal bonds, money market instruments (which are short-term, highly marketable and usually very low risk) derivatives, currencies, real estate and commodities. Further, an investor can choose among varied investment vehicles – mutual funds, hedge funds and Exchange Traded Funds (ETFs) among others.

2. **Financial markets:** It is a market where buyers and sellers of assets (such as stocks, bonds, currencies and derivatives) trade with each other. A notable feature of such markets is that it is market forces that determine the prices of asset classes. Typically, financial markets are characterized by transparent pricing and certain regulations with reference to trading, costs and fees, and represent a vast array of financial products. Financial markets include stock markets (primary and secondary markets), bond markets, cash or spot markets, derivatives markets (options, futures, swap agreements etc.), foreign exchange and interbank markets, and over-the-counter (OTC) markets.

3. **Market structure:** The same refers to the structure of the financial markets, which include the equity, debt, foreign exchange, mortgage and derivatives markets. The most widely followed market in the US is the stock market and from the point of view of economic activity, the debt market is very important as investors and borrowers in this market play a pivotal role in determining interest rates.

4. **Market intermediaries:** The same include insurance and pensions companies, investment banks, commercial banks (banks participate in the money and capital markets), primary dealers, brokers, financial advisors

5. **Investment process**: The same essentially outlines the steps required in creating an investment portfolio based on determining an investor's investment objectives and risk profile, asset allocation policy i.e. how an investor's investments are diversified among varied asset classes, which has a major influence on the overall, implementing an investment strategy and rebalancing of portfolio (that is consistent with an investor's chosen or desired asset allocation strategy).

6. **Regulation of securities market:** The securities market is a very important element of the investment environment. Across countries such as the US, the UK and others, trading in the financial markets is regulated through a plethora of laws, to ensure that investors and traders have adequate information to make well-informed investment-related decisions and to prevent fraudulent activities.

   For example, in the US, there are two government bodies for general regulatory oversight of financial markets – the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission. In addition, exchanges have their own regulatory groups. Regulation of stock and corporate bond markets are the most prominent examples of financial market regulation.

7. **Economy Analysis**: Developments in the domestic economy and the global economy relating to GDP, inflation, interest rates, fiscal deficit and monetary policy have a major impact on the prices of assets and related volatility (prices of financial assets, particularly stock prices are often very volatile). Further, asset allocation is the most important decision in the realm of asset management and contributes significantly to the performance of portfolios. Moreover, asset allocation and related investment decisions are critically based on analysing both the global and domestic economy and constructing various forward-looking macroeconomic scenarios.

8.6 Component of Investment Environment :

The investment Environment encompasses all types of investment opportunities and the market structure that facilitates buying and selling these investments. Different types of securities, institutional setups and market intermediaries are the components of the investment environment. In India, the spread of banking in rural areas has helped in enlarging the scope of the formal financial system. The formal financial system consists of four segments or components. These are financial institutions, financial markets, financial instruments, and financial services.

1. Financial securities:

Financial securities is a claim against a person or an institution for payment, at a future date, of a sum of money and/or a periodic payment in the form of interest or dividend.

The term 'and/or' implies that either of the payments will be sufficient but both of them may be promised. Financial instruments represent paper wealth shares, and debentures, like bonds and notes. Many financial instruments are marketable as they are denominated in small amounts and traded in organized markets. This distinct feature of financial securities (instruments) has enabled people to hold a portfolio of different financial assets which, in turn, helps in reducing risk. Different types of financial instruments can be designed to suit the risk and return preferences of different classes of investors.

Savings and investments are linked through a wide variety of complex financial instruments known as "securities, Securities are defined in the Securities Contracts Regulation Act (SCRA), 1956 as including shares, scrips, stocks, bonds, debentures, debenture stocks or other marketable securities of a similar nature or of any incorporated company or body corporate, government securities, derivatives of securities, units of a collective investment scheme, security receipts, interest and rights in securities, or any other instruments so declared by the central government.

Financial securities are financial instruments that are negotiable and tradeable. Financial securities may be primary or secondary securities. Primary securities are also termed as direct securities as they are directly issued by the ultimate borrowers of funds to the ultimate savers. Examples of primary or direct securities include equity shares and debentures, Secondary securities are also referred to as indirect securities, as they are issued by the financial intermediaries to the ultimate savers. Bank deposits, mutual fund units, and insurance policies are secondary securities.

Financial securities are different in terms of marketability, liquidity, reversibility, type of options, return, risk, and transaction costs. Financial instruments help financial markets and financial intermediaries perform the important role of channelling funds from lenders to borrowers. The availability of different varieties of financial instruments helps financial intermediaries to improve their own risk management.

2. Financial Institutions and intermediaries set up:

These are intermediaries that mobilize savings and efficiently facilitate the allocation of funds. Financial institutions can be classified as banking and non-banking financial institutions. Banking institutions are creators and purveyors of credit while non-banking financial institutions are purveyors of credit. While the liabilities of banks are part of the money supply, this may not be true of non-banking financial institutions. In India, non-banking financial institutions, namely,

Developmental Financial Institutions (DFIs), and Non-Banking Financial Companies (NBFCs) as well as Housing Finance Companies (HFCs) are the major institutional purveyors of credit.

Financial institutions can also be classified as term-finance institutions such as the Industrial Development Bank of India (IDBI),

- the Industrial Credit and Investment Corporation of India (ICICI),
- the Industrial Financial Corporation of India (IFCI),
- the Small Industries Development Bank of India (SIDBI),
- and the Industrial Investment Bank of India (IIBI).

Financial institutions can be specialized finance institutions like the

- Export-Import Bank of India (EXIM),
- the Tourism Finance Corporation of India (TFCI),
- ICICI Venture,
- the Infrastructure Development Finance Company (IDFC), and
- Sectoral financial institutions such as the National Bank for Agricultural and Rural Development (NABARD) and
- the National Housing Bank (NHB)

Investment institutions in the business of mutual funds Unit Trust of India (UTI), public sector and private sector mutual funds and insurance activity of Life Insurance Corporation (LIC), General Insurance Corporation (GIC) and its subsidiaries are classified as financial institutions.

There are state-level financial institutions such as the State Financial Corporations (SFCs) and State Industrial Development Corporations (SIDCs) which are owned and managed by the State governments. In the post-reform era, the role and nature of activity of these financial institutions have undergone a tremendous change. Banks have now undertaken non-bank activities and financial institutions have taken up banking functions. Most of the financial institutions now resort to financial markets for raising funds.

3. Financial Markets for investment:

Financial markets are a mechanism enabling participants to deal with financial claims. The markets also provide a facility in which their demands and requirements interact to set a price for such claims. The main organized financial markets in India are the money market and the capital market. The first is a market for short-term securities while the second is a market for long-term securities, i.e., securities having a maturity period of one year or more.

Financial markets can also be classified as primary and secondary markets. While the primary market deals with new issues, the secondary market is meant for trading in outstanding or existing securities. There are two components of the secondary market: the over-the-counter (OTC) market and the exchange-traded market. The government securities market is an OTC market. In an OTC market, spot trades are negotiated and traded for immediate delivery and payment while in the exchange-traded market, trading takes place over a trading cycle in stock exchanges. Recently, the derivatives market (exchange traded) has come into existence.

Financial Services :

These are those that help with borrowing and funding, lending and investing, buying and selling securities, making and enabling payments and settlements, and managing risk exposures in financial markets. The major categories of financial services are funds intermediation, payment mechanisms, provision of liquidity, risk management, and financial engineering.

Funds intermediating services link the saver and borrower which, in turn, leads to capital formation. New channels of financial intermediation have come into existence as a result

of information technology. Payment services enable quick, safe, and convenient transfer of funds and settlement of transactions.

Liquidity is essential for the smooth functioning of a financial system. Financial liquidity of financial claims is enhanced through trading in securities. Liquidity is provided by brokers who act as dealers by assisting sellers and buyers and also by market makers who provide buy and sell quotes.

Financial services are necessary for the management of risk in the increasingly complex global economy. They enable risk transfer and protection from risk. Risk can be defined as a chance of loss. Risk transfer of services helps the financial market participants to move unwanted risks to others who will accept them. The speculators who take on the risk need a trading platform to transfer this risk to other speculators. In addition, market participants need financial insurance to protect themselves from various types of risks such as interest rate fluctuations and exchange rate risk.

8.7 Limitation /Difficulties of Analysis Investment Environment

Analysing the investment environment is crucial for making informed investment decisions but it comes with its limitations. Some of the limitations include:

1. **Incomplete Information:** One of the primary limitations of analysing the investment environment is the availability of incomplete or inaccurate information. Financial markets are complex and constantly changing, making it difficult to obtain all the necessary data for a comprehensive analysis.
2. **Unforeseen Events:** The investment environment is subject to various unforeseen events such as natural disasters, political instability, economic crises, or pandemics. These events can have a significant impact on investments but are often difficult to predict or incorporate into analysis.
3. **Market Volatility**: Financial markets can be volatile, with prices fluctuating rapidly due to various factors such as economic indicators, geopolitical events, or investor sentiment. This volatility can make it challenging to accurately predict market movements.
4. **Assumptions and Biases**: Analysts may rely on assumptions and have biases that can affect the accuracy of their analysis. These biases can lead to flawed decision-making and may not reflect the true investment environment accurately.
5. **Regulatory Changes:** Changes in regulations and government policies can have a significant impact on the investment environment. These changes can be difficult to anticipate and may disrupt investment strategies.
6. **Global Interconnectedness:** In today's globalized world, events in one part of the world can have far-reaching effects on investments worldwide. Analysing the interconnectedness of global markets is complex and challenging.
7. **Black Swan Events:** Black swan events are rare and unpredictable occurrences that have severe consequences. These events, such as the 2008 financial crisis or the COVID-19 pandemic, can disrupt the investment environment in ways that traditional analysis may not account for.

It's essential for investors to be aware of these limitations and to use a combination of thorough analysis, risk management strategies, and diversification to navigate the complexities of the investment environment.

❖ **EXERCISE :**

Long Questions

1. What is Investment And Investment Environment?
2. What is the Investment Environment? Explain Judging An Investment Climate.
3. What is the Factor Affecting of Analysis Investment Environment?
4. What are the important elements for the Analysis of Investment Environment?
5. What is the component of Investment Environment?
6. Which type of difficulties are faced during an analysis of the Investment Environment?
7. **Explain:**
   1. Financial market 2. Investment 3. Investment Environment 4. Financial Securities
   5. Financial Institution 6. Regulations For Market 7. Financial Services

8. Give full form below short form:

SEBI	SEC	RBI	SICRA	IRDA	NBFC	UTI	LIC	OTC
NSE	BSE	SIDBI	IDFC	NABARD	ICICI	GIC	HDFC	MCX

Answer the following question by selecting an appropriate answer.

1. Which of the following is not a component of the investment process?
   A) Capital allocation decision B) security selection
   B) portfolio reshuffling decision **D) selection of fund manager**

2. What are derivatives instruments?
   A) Future and forward B) option
   C) warrants and rights **D) all of the above**

3. What are derivatives instruments?
   A) Future and forward B) option
   D) warrants and rights **D) all of the above**

4. What difficulties are faced during the analysis of the investment environment?
   A) Unforeseen Events B) Market Volatility
   C) Regulatory Changes **D) All of the above**

5 Which is not an important element of the investment environment?
   A) Market structure B) Market intermediaries
   C) Investment process **D) portfolio selection**

UNIT – 9

CASE STUDIES - FINANCIAL REPORTING

9.1 Introduction

Accounting is the language of business. The primary function of the discipline of accounting is to provide financial information to the users of the financial statements. For this purpose, it is required to record the transactions entered into by a concern during an accounting period in different books of accounts.

Financial reporting is the process of communicating a company's financial performance to investors and other interested parties, such as regulators or the public.

9.2 Importance of Financial Reporting

It is important as it provides insights into a company's financial health. This information related to financial position can be used to make investment decisions or to assess the risk of investing in a particular company. Financial statements can be also used to assess whether a company is meeting its financial obligations or not.

9.3 Definition of Financial Reporting

Financial reporting is defined as the disclosure of the financial status of the company to management, directors, and other stakeholders. If the company is public, it will also be to the members of the public.

In other words, it can be thought of as the process of communicating financial information about a company to shareholders, regulatory authorities, and other interested parties. Financial reports typically include three core statements:

- The Balance Sheet
- The Income Statement
- The Cash Flow Statement

- **The Balance Sheet:** This statement provides an overview of a company's assets, liabilities, and equity at a specific point in time. It can be thought of as a snapshot of a company's financial position. It provides insights into what is owned by a company, how it has been financed (i.e. financed through investors' own funds

and/or through borrowing), what the company's net worth is, and what it owes to creditors.

- **The Income Statement:** The income statement shows a company's revenue, expenses, and net income for a specific period. It provides insights into a company's profitability and how efficiently it is generating revenue and managing expenses.
- **The Cash Flow Statement:** The cash flow statement shows a company's cash inflows and outflows for a specific period. It provides insights into how well a company is managing its money. In other words, the cash flow statement can help to discover the company's ability to generate cash and manage its need for cash.

However, different organizations may practice it in different ways. Thus, to ensure uniformity among different entities and to ensure consistency over a period of time, a framework has been developed. This framework is referred to as 'Generally Accepted Accounting Principles' **(GAAP).**

Indian GAAP is nothing but a set of accounting standards that every company operating in India has to follow when reporting its financial results. Generally Acceptable Accounting Standards differ for each country as they incorporate policies and procedures that have to be followed for financial disclosures as per the standards set in each country. The Institute of Chartered Accountants of India (ICAI), and the Ministry of Corporate Affairs (MCA) are the bodies in India that have set the accounting standards (Indian Accounting Standards) that need to be followed while financial reporting, so Indian Accounting Standards are termed as Indian GAAP.

9.4 Meaning of GAAP

The various factors that have led to differences in accounting practices comprise widely of culture, traditions, economic development, economic growth mode, inflation, legal system etc. The diversity demands unification to the extent possible to develop Generally Accepted Accounting Practices (GAAP).

GAAP are the common set of accounting principles, standards and procedures that are used by accountants to prepare the financial statements. They are derived from practice, and on being useful get accepted into the accounting system.

Generally Accepted Accounting Principles (GAAP) refer to accounting policies and procedures that are widely used in practice. It incorporates the body of principles that governs the accounting for financial transactions underlying the preparation of a set of financial statements.

These principles are developed by the professional accounting bodies of different countries of the world, to attain uniformity in accounting practiced by the entities of the respective countries. As such different GAAP have developed in different countries of the world.

9.5 The Principles Governed By GAAP

- **Recognition:** It deals with the items that should be recognized in the financial statements (e.g. assets, liabilities, revenues, and expenses).

- **Measurement:** It determines the amounts that should be reported for each of the elements included in financial statements.
- **Presentation**: It states that the line items, subtotals and totals should be displayed in the financial statements and how might items be aggregated within the financial statements.
- **Disclosure:** It states about the specific information that is most important to the users of the financial statements.

9.6 Need for GAAP For Financial Reporting

The accounting standards developed and established by the standard-setting bodies determine how those financial statements are prepared. The standards are known collectively as Generally Accepted Accounting Principles or GAAP. GAAP is based on established concepts, objectives, standards and conventions that have evolved over time to guide how financial statements are prepared and presented. GAAP is set with the objective of providing information that is useful to investors, lenders, or others that provide or may potentially provide resources to a profit-seeking concern or not-for-profit organization. Investors, lenders, and other users of financial information rely on financial reporting based on GAAP to make decisions about how to allocate their capital and to help financial markets operate as efficiently as possible. While establishing GAAP, the standard-setting bodies are mainly concerned about the end users of financial statements. End users include people like investors, banks, and lenders who use third-party financial statements to evaluate business decisions. For instance, an investor will look at a company's financial statements in order to decide whether to invest. The standard-setting bodies want to make consistent standards that help end users understand and use the company's financial data. GAAP's primary intent is not to help businesses. It is intended to help the end users. All of the objectives that MCA and the prior accounting standard-setting body (ICAI) wanted to accomplish can be simplified to one main objective: to make financial statements universally understandable and usable for all of their users.

9.7 User of Accounting Information

1. **Investors:** The information needed by this group primarily relates to the decision-making of buying, holding or sales of the entity's share. Also, the dividend paying ability of the entity is a matter of interest.
2. **Employees:** Need to know about the stability and continued profitability of the employer which would ensure payment of remuneration, employee opportunities and retirement benefits.
3. **Lenders:** Interested in debt servicing ability.
4. **Suppliers and other trade creditors:** Interested in information about the entity's ability in the short run to pay their dues. Of course, they are interested in the long-term viability of the entity, if it is the major customer.
5. **Customers:** Seek information about the continuation of the entity, especially if the entity is the major supplier.
6. **Government and their agencies:** They have manifold interests like taxation, the entity's contribution to the employment generation and economic activities of the nation, and the infrastructural facilities to be provided to serve the entity's needs commensurate with its contribution to society.

7. **Public:** Mostly interested in employment generation and societal contribution

9.8 Case Study of ONGC

The following financial statement of ONGC from the financial year 2013-14 to 2022-23 The balance sheet (vertical) presented below has been prepared in compliance with Schedule III of the Companies Act, 2013 from the year 2014-15 to 2022-23. It would be obligatory on the part of companies to abide with the provisions of the Companies Act provisions whenever they are presenting the financial statements to the various stakeholders of the company. The disclosure of the financial statement as per the Ind AS is to be taken care of. The following financial statement of ONGC will be the perfect example of financial reporting done by the company, reflecting every aspect of its business.

Standalone Performance at a Glance

(₹ in Million unless otherwise stated)	2022-23	2021-22	2020-21	2019-20*	2018-19*	2017-18	2016-17	2015-16*	2014-15	2013-14
PHYSICAL										
Quantity Sold (Other than Trading)										
-Crude Oil (MMT)	19.19	20.30	20.71	21.34	22.50	23.67	23.86	24.15	24.11	23.61
-Natural Gas (MMM3)	16,677	16,753	17,694	19,423	20,485	19,494	17,935	17,100	17,983	19,633
-LPG (000' Tonnes)	884	883	1,011	1,011	1,109	1,186	1,352	1,191	1,090	1,073
-Naphtha/ARN (000' Tonnes)	921	964	915	1,177	1,154	1,180	1,087	1,065	1,124	1,379
- Ethane-Propane (C2-C3)/Ethane/ Propane / Butane (000' Tonnes)	628	1,127	1,005	1,225	1,192	914	673	401	337	428
FINANCIAL										
Revenue from Operations	1,555,173	1,103,454	681,411	962,136	1,096,546	850,041	779,078	777,417	830,935	842,028
Dividend Income	25,007	42,519	30,630	24,664	31,054	37,810	16,969	5,712	4,890	3,744
Other Non Operating Income	51,259	22,637	40,795	41,438	41,598	41,026	59,794	64,382	48,775	63,388
Total Revenues	1,631,439	1,168,610	752,836	1,028,238	1,169,198	928,877	855,841	847,511	884,600	909,160
Statutory Levies	452,842	279,322	164,237	225,708	265,004	200,984	208,658	195,306	230,993	229,607
Operating Expenses ^	287,400	224,749	189,047	243,558	236,852	208,863	210,345	202,995	168,176	167,582
Exploration Costs written off	99,945	55,083	63,855	86,837	87,569	70,318	50,545	56,643	1,05,224	78,357
Purchases	-	-	-	-	-	-	26	72	44	32
Profit Before Interest, Depreciation & Tax (PBIDT)	791,252	609,456	335,697	472,135	579,773	448,712	386,267	392,495	380,163	433,582
Depreciation, Depletion, Amortisation and Impairment	167,952	175,457	163,274	186,169	154,561	144,702	121,895	110,999	114,583	109,259
Profit Before Interest & Tax (PBIT)	623,300	433,999	172,423	285,966	425,212	304,010	264,372	281,496	265,580	324,323
Finance Cost	26,996	23,599	22,145	33,097	24,921	15,085	12,217	13,242	28	4

Profit before Tax and Exceptional Items	596,304	410,400	150,278	252,869	400,291	288,925	252,155	268,254	265,552	324,319
Exceptional items	(92,351)	-	13,750	(48,990)	-	-	-	(32,266)	-	
Profit before Tax	503,953	410,400	164,028	203,879	400,291	288,925	252,155	235,988	265,552	324,319
Corporate Tax	115,664	7,343	51,564	69,242	132,645	89,472	73,155	74,589	88,222	103,371
Net Profit (PAT)	388,289	403,057	112,464	134,637	267,646	199,453	179,000	161,399	177,330	220,948
Dividend	176,125	114,481	22,015	72,337	95,952	77,642	95,180	49,194	81,277	81,277
Tax on Dividend	-	-	-	12,014	16,845	11,521	19,354	10,005	16,256	13,807
Share Capital	62,901	62,901	62,901	62,902	62,902	64,166	64,166	42,778	42,778	42,778
Reserve & Surplus	2,379,323	2,167,506	1,879,201	1,789,084	1,754,295	1,653,940	1,544,524	1,504,433	1,403,232	1,324,472
Net Worth (Equity)	2,578,458	2,371,481	2,045,586	1,930,948	2,017,896	1,933,847	1,855,384	1,657,747	1,436,229	1,356,311
Borrowings	72,188	63,969	1,50,226	1,39,491	2,15,936	2,55,922	-	-	13,930	-
Working Capital	119,277	(6,750)	(50,524)	(210,589)	(183,718)	(278,453)	70,395	98,942	94,232	104,061
Capital Employed	1,542,206	1,349,661	1,159,394	1,062,842	1,091,861	984,459	1,185,309	1,112,137	1,144,996	1,094,411
Internal Resources Generation	537,312	363,701	249,075	382,274	334,020	353,474	281,916	404,040	218,699	327,545
Capex	302,084	277,413	268,593	295,385	294,498	729,016	280,064	301,104	299,975	324,695
Contribution to Exchequer	746,402	493,316	260,773	411,019	518,714	376,088	387,341	345,192	421,074	405,750
Expenditure on Employees	106,207	110,821	101,265	115,124	121,130	113,811	115,508	86,970	86,299	104,051
Number of Employees	25,993	27,165	28,479	30,105	31,065	32,265	33,660	33,927	33,185	33,911
FINANCIAL PERFORMANCE RATIOS										
PBIDT to Turnover (%)	50.9	55.2	49.3	49.1	52.9	52.8	49.6	50.5	45.8	51.5
PBDT to Turnover (%)	49.1	53.1	46.0	45.6	50.6	51.0	48.0	48.8	45.7	51.5
Profit Margin(%)- incl. exceptional item	25.0	36.5	16.5	14.0	24.4	23.5	23.0	20.8	21.3	26.2

(₹ in Million unless otherwise stated)	2022-23	2021-22	2020-21	2019-20*	2018-19*	2017-18	2016-17	2015-16*	2014-15	2013-14
Contribution to Exchequer to Turnover (%)	48.0	44.7	38.3	42.7	47.3	44.2	49.7	44.4	50.7	48.2
Return on Capital Employed (%) (ROCE)	38.79	29.01	12.23	24.59	36.10	27.04	20.87	24.80	22.77	29.29
Return on Capital Employed (%) (ROCE) -incl. exceptional items	32.81	29.01	13.42	19.98	36.10	27.04	20.87	21.90	22.77	29.29
Net Profit to Equity (%)- incl. exceptional item	15.1	17.0	5.5	7.0	13.3	10.3	9.6	9.7	12.3	16.3
BALANCE SHEET RATIOS										
Current Ratio	1.29 : 1	0.98 : 1	0.86 : 1	0.56 : 1	0.61 : 1	0.44 : 1	1.55:1	1.72:1	1.46:1	1.55:1
Debt Equity Ratio	0.03 : 1	0.03 : 1	0.07 : 1	0.07 : 1	0.11 : 1	0.13 : 1	-	-	0.0096:1	-
Debtors Turnover Ratio(Days)	26	32	34	25	27	31	28	45	48	33
PER SHARE DATA										
Earning Per Share (₹) #	30.86	32.04	8.94	10.7	20.9	15.54	13.95	12.58	13.82	17.22
Dividend (%)	225	210	72	100	140	132	121	170	190	190
Book Value Per Share (₹)(Restated) #	205	189	163	153	160	151	145	129	112	106

*** Restated**

** The figures of FY 2015-16 to FY 2022-23 are given as per requirement of Ind AS Compliant Schedule-III to the Companies Act, 20
Figures of 2014-15 are given as per requirements of Schedule-III to the Companies Act, 2013, figures for FY 2013-14 are given as per
requirement of revised Schedule VI to the Companies Act, 1956.

In accordance with Ind AS 33 'Earnings per Share', earnings per equity share have been adjusted for bonus issue and split for all yea
The book value per share has also been adjusted post bonus & split.

^ Includes Accretion/ Decretion in stock, Provisions & Write-offs.

Note:

1. Turnover = Revenue from Operations.
2. Capital Employed = Net Working Capital + Current maturities of non-current borrowings + Net Non-current Assets excluding Cap
work in progress, Exploratory/Developments wells & Investments.
3. Equity (Net Worth) = Equity Share Capital & Other Equity attributable to Owners of the Company.
4. Borrowings = Non-current Borrowings + Current Borrowings.
5. Profit Margin (%) = Profit after tax for the year/Turnover.
6. Working Capital = Current Assets (Excluding Investment) - Current Liablities.
7. ROCE = Profit Before Interest, Dividend Income & Tax (PBIT excluding Dividend income) / Capital Employed.
8. Current Ratio = Current Assets (Including Current Investment) / Current Liablities.
9. Debt Equity Ratio = Total Debt (Non-current & current) / Equity (Net Worth).
10. Net Profit to Equity (%) = Profit after tax for the year / Equity (Net Worth).
11. Debtor Turnover Ratio (days) = (Average Receivables/Revenue from Operations)*365
12. Earning per share = Profit after Tax attributable to Owners of the Company / No. of Equity Shares.
13. Book vale per share = Equity (Net Worth) / No. of Equity Shares.

Statement of Income and Retained Earnings

(₹ in Million)	2022-23	2021-22	2020-21	2019-20 *	2018-19 *	2017-18	2016-17	2015-16 *	2014-15	2013-14
REVENUES										
Sales #										
Crude Oil(Including Condensate)	1,030,076	836,612	479,338	648,363	775,729	603,899	548,036	511,316	536,638	525,734
Natural Gas (incl. Gas Marketing Margin)	374,168	124,414	114,216	193,556	188,389	137,372	139,398	182,239	187,381	183,291
Liquified Petroleum Gas (LPG)-Domestic Market	55,543	46,752	31,973	36,038	43,490	40,352	37,276	34,951	34,380	30,145
Ethane-Propane (C2-C3)/Ethane/ Propane / Butane	31,601	36,715	23,962	32,551	32,590	24,226	17,264	9,441	10,064	14,837
Naphtha	49,614	50,640	26,081	39,863	46,861	38,084	30,455	30,609	50,835	75,743
Kerosene (SKO)	67	880	837	2,465	3,355	1,178	1,321	2,118	2,771	2,779
HSD	1,366	1,018	1,531	2,390	1,155	-	421	406	312	522
LSHS (Low sulpher heavy stock)/RCO (Residual Crude oil)	1,218	839	538	747	694	482	562	412	705	1,295
Aviation Turbine Fuel	3,692	1,544	336	889	519	-	-	-	286	220
Others	196	209	97	152	217	209	131	76	56	87
Sub- Total	1,547,541	1,099,623	678,909	957,014	1,092,999	845,802	774,864	771,568	823,428	834,653
Sale of Traded Products	-	-	-	-	-	-	31	84	60	44
Other Operating Income	7,632	3,831	2,502	5,122	3,547	4,239	4,183	5,765	7,447	7,331
Revenue from Operations	**1,555,173**	**1,103,454**	**681,411**	**962,136**	**1,096,546**	**850,041**	**779,078**	**777,417**	**830,935**	**842,028**
Dividend Income	25,007	42,519	30,630	24,664	31,054	37,810	16,969	5,712	4,890	3,744
Other Non Operating Income	51,259	22,637	40,795	41,438	41,598	41,026	59,794	64,382	48,775	63,388
Total Revenues	1,631,439	1,168,610	752,836	1,028,238	1,169,198	928,877	855,841	847,511	884,600	909,160
EXPENSES										
Royalty	182,077	136,057	81,354	115,076	134,600	99,090	115,748	89,591	116,079	114,890
OIDB Cess	159,294	141,261	80,187	107,878	128,568	99,638	89,045	101,916	102,535	99,734
Motor Spirit Cess	-	-	-	-	-	-	-	-	-	3
Natural Calamity Contingent Duty	933	974	989	1,020	1,063	1,122	1,129	1,137	1,123	1,097
Excise Duty	110,039	265	539	478	268	410	2,093	1,990	2,206	3,076
Road and Infrastructure Cess	151	222	734	910	183					
Sales Tax #	-	-	-	-	-	-	-	-	2,586	3,123
Service Tax	-	-	-	-	-	334	289	339	290	439
Education cess	-	-	-	-	-	-	-	-	91	2,348
Octroi and Port Trust Charges #	348	543	434	346	322	390	354	333	6,083	4,897
Sub-total	**452,842**	**279,322**	**164,237**	**225,708**	**265,004**	**200,984**	**208,658**	**195,306**	**230,993**	**229,607**
Operating Expenses	249,219	217,889	189,525	215,840	226,386	206,602	210,082	197,672	163,654	165,833
Exchange Loss-Net	10,047	2,984	-	16,772	4,769	-	-	1,033	241	1,021
Purchases	-	-	-	-	-	-	26	72	44	32
(Accretion) / Decretion in stock	(4,817)	(1,429)	(4,264)	2,470	(1,665)	(630)	(1,329)	352	(1,674)	1,043
Exploration Costs written off										
-Survey Costs	39,397	17,644	17,245	16,879	18,514	14,801	17,549	15,274	19,146	15,912
-Exploratory well Costs	60,548	37,439	46,610	69,958	69,055	55,517	32,996	41,369	86,078	62,445
Depreciation, Depletion, Amortisation and Impairment	167,952	175,457	163,274	186,169	154,561	144,702	121,895	110,999	114,583	109,259
Provisions and Write-offs	32,951	5,305	3,786	8,476	7,362	2,891	1,592	3,938	2,116	2,189
Prior Period Expenses (Net)	-	-	-	-	-	-	-	-	3,839	(2,504)
Total Expenses	**1,008,139**	**734,611**	**580,413**	**742,272**	**743,986**	**624,867**	**591,469**	**566,015**	**619,020**	**584,837**

(₹ in Million)	2022-23	2021-22	2020-21	2019-20 *	2018-19 *	2017-18	2016-17	2015-16 *	2014-15	2013-14
Operating Income Before Interest & Tax	623,300	433,999	172,423	285,966	425,212	304,010	264,372	281,496	265,580	324,323
Finance Cost	26,996	23,599	22,145	33,097	24,921	15,085	12,217	13,242	28	4
Profit before Tax and Exceptional Items	596,304	410,400	150,278	252,869	400,291	288,925	252,155	268,254	265,552	324,319
Exceptional items	(92,351)	-	13,750	(48,990)	-	-	-	(32,266)	-	-
Profit before Tax	503,953	410,400	164,028	203,879	400,291	288,925	252,155	235,988	265,552	324,319
Corporate Tax (Net)	115,664	7,343	51,564	69,242	132,645	89,472	73,155	74,589	88,222	103,371
Profit after Tax	388,289	403,057	112,464	134,637	267,646	199,453	179,000	161,399	177,330	220,948
Other comprehensive income (OCI)	(5,187)	37,319	24,189	(1,24,609)	(17,988)	(31,827)	1,33,171	6,120	-	-
Total Comprehensive Income for the year	**383,102**	**440,376**	**136,653**	**10,028**	**249,658**	**167,626**	**312,171**	**167,519**	**177,330**	**220,948**
Retained Earnings at beginning of the year*	8,920	9,191	(5,525)	9,779	24,831	25,704	28,692	(691)	-	-
Effect of Restatement	-	-	-	(12,625)	(12,518)	-	-	-	-	-
Profit after tax for the year	388,289	403,057	112,464	134,637	267,646	199,453	179,000	161,399	177,330	220,948
Other comprehensive income arising from re-measurement of defined benefit obligation, net of income tax	(347)	(271)	(333)	(2,871)	(2,946)	(873)	(2,988)	(297)	-	-
Dividend	176,125	114,481	22,015	72,337	95,952	77,642	95,180	49,194	81,277	81,277
Tax on Dividend	-	-	-	12,014	16,845	11,521	19,354	10,005	16,256	13,807
Expenses relating to buyback of equity shares	-	-	-	-	75					
Transfer to General Reserve	212,164	288,576	75,400	50,094	154,362	110,290	64,466	72,520	79,797	125,864
Retained Earnings at end of the year	8,573	8,920	9,191	(5,525)	9,780	24,831	25,704	28,692	-	-

* Restated

** The figures of FY 2015-16 to FY 2022-23 are given as per requirement of Ind AS Compliant Schedule-III to the Companies Act, 2013. Figures of 2014-15 are given as per requirements of Schedule-III to the Companies Act, 2013, figures for FY 2013-14 are given as per the requirement of revised Schedule VI to the Companies Act, 1956.

Sales are presented net of sales tax and Octroi with effect from 2015-16 as per the requirements of Indian Accounting Standards.

Statement of Financial Position

(₹ in Million)	As at March 31, 2023	As at March 31, 2022	As at March 31, 2021	As at March 31, 2020*	As at March 31, 2019*	As at March 31, 2018	As at March 31, 2017	As at March 31, 2016*
RESOURCES								
A. Own (Net Worth)								
1) Equity								
i) Equity share capital	62,901	62,901	62,901	62,902	62,902	64,166	64,166	42,778
ii) Other Equity								
(a) Reserve for equity instruments through other Comprehensive income	136,234	141,074	103,484	78,962	200,699	215,741	246,694	110,536
(b) Others	2,379,323	2,167,506	1,879,201	1,789,084	1,754,295	1,653,940	1,544,524	1,504,433
Total other equity	**2,515,557**	**2,308,580**	**1,982,685**	**1,868,046**	**1,954,994**	**1,869,681**	**1,791,218**	**1,614,969**
Net worth (A) #	**2,578,458**	**2,371,481**	**2,045,586**	**1,930,948**	**2,017,896**	**1,933,847**	**1,855,384**	**1,657,747**
B. Non-current Borrowings	39,499	**63,969**	**63,275**	**22,451**	-	-	-	-
C. Deferred Tax Liability (net)	217,612	197,333	274,734	263,441	274,261	262,592	221,632	192,973
TOTAL RESOURCES (A+ B + C)	**2,835,569**	**2,632,783**	**2,383,595**	**2,216,840**	**2,292,157**	**2,196,439**	**2,077,016**	**1,850,720**
DISPOSITION OF RESOURCES								
A. Non-current assets								
1) Block Capital								
a) Oil and Gas Assets ^	1,223,495	1,168,778	1,106,791	1,084,767	1,121,178	1,102,648	955,312	856,787
b) Other Property, Plant and Equipment ^	104,814	97,605	90,681	92,216	96,435	92,507	91,875	85,339
c) Intangible assets	1,677	1,824	2,172	1,810	1,745	1,129	883	665
d) Right-of-use assets	86,162	1,01,149	1,07,354	98,198	-			
Total Block Capital	**1,416,148**	**1,369,356**	**1,306,998**	**1,276,991**	**1,219,358**	**1,196,284**	**1,048,070**	**942,791**
2) Financial assets								
a) Loans	16,965	14,471	11,761	11,825	10,461	21,335	28,071	41,488
b) Deposit under Site Restoration Fund Scheme	264,106	246,306	233,587	221,522	180,926	159,912	145,387	135,592
c) Others	3,796	1,672	2,684	1,504	2,649	1,647	1,418	1,486
Total Financial assets	**284,867**	**262,449**	**248,032**	**234,851**	**194,036**	**182,894**	**174,876**	**178,566**
3) Other non-current assets (excl, capital advances)	3,851	14,182	10,972	7,232	5,667	6,495	7,349	6,789
4) Non-current tax assets (net)	114,966	84,270	76,558	90,431	94,272	99,464	87,763	74,316
Subtotal (A)	**1,819,832**	**1,730,257**	**1,642,560**	**1,609,505**	**1,513,333**	**1,485,137**	**1,318,058**	**1,202,462**
B. Non-current Liabilities								
(a) Financial liabilities	48,378	71,677	1,26,887	56,294	1,181	1,494	2,583	2,313
(b) Provisions	374,738	301,862	305,352	279,392	236,247	213,018	192,852	186,843
(c) Other non-current liabilities	186	307	403	388	326	7,713	7,709	111
Subtotal (B)	**423,302**	**373,846**	**432,642**	**336,074**	**237,754**	**222,225**	**203,144**	**189,267**
C. Net Non Current Assets (A)-(B)	**1,396,530**	**1,356,411**	**1,209,918**	**1,273,431**	**1,275,579**	**1,262,912**	**1,114,914**	**1,013,195**

(₹ in Million)	As at March 31, 2023	As at March 31, 2022	As at March 31, 2021	As at March 31, 2020*	As at March 31, 2019*	As at March 31, 2018	As at March 31, 2017	As at March 31, 2016*
D. Working Capital								
1) Current Assets								
a) Inventories	83,195	78,614	84,745	85,666	77,039	66,889	61,653	56,256
b) Financial assets								
i) Trade receivables	102,503	117,885	77,973	47,774	84,400	77,726	64,762	54,314
ii) Cash and Bank Balances	216,340	2,362	3,026	9,682	5,041	10,127	95,108	99,566
iii) Loans	2,591	2,442	2,254	5,117	6,339	14,021	14,269	10,272
iv) Others	69,240	26,770	35,480	27,739	46,175	30,418	11,347	23,202
c) Other current assets	56,907	131,191	114,297	93,881	63,303	15,984	15,591	34,113
Assets classified as held for sale	-	-	-	-	1,154	-	-	-
Subtotal (1)	**530,776**	**359,264**	**317,775**	**269,859**	**283,451**	**215,165**	**262,730**	**277,723**
2) Current liabilities								
a) Financial liabilities								
i) Current Borrowings	32,689	-	86,951	117,040	215,936	255,922	-	-
ii) Trade payables	62,556	61,547	63,767	71,136	88,250	73,345	51,548	51,264
iii) Others	266,121	235,796	180,206	262,135	122,472	122,513	94,969	95,693
b) Other current liabilities	30,806	35,202	23,189	18,663	24,155	22,893	18,361	16,390
c) Short-term provisions	19,327	33,469	13,858	10,975	15,857	12,582	21,328	7,043
d) Current tax liabilities (net)	-	-	328	499	499	6,363	6,129	8,391
Subtotal (2)	**411,499**	**366,014**	**368,299**	**480,448**	**467,169**	**493,618**	**192,335**	**178,781**
Working Capital (D)= (1)-(2)	**119,277**	**(6,750)**	**(50,524)**	**(210,589)**	**(183,718)**	**(278,453)**	**70,395**	**98,942**
E. Current maturities of non-current borrowings	26,399	-	-	-	-	-	-	-
F. CAPITAL EMPLOYED (C+D+E)	**1,542,206**	**1,349,661**	**1,159,394**	**1,062,842**	**1,091,861**	**984,459**	**1,185,309**	**1,112,137**
G. Investments								
i) Current investments	-	-	-	-	-	-	36,343	30,032
ii) Non-current investments	849,856	851,732	813,764	790,855	848,815	857,308	505,154	368,278
H. Capital work-in-progress (incl, capital advances)	241,164	233,087	194,089	151,833	116,253	113,835	126,122	132,686
I. Exploratory/Development Wells in Progress	228,742	198,303	216,348	211,310	235,228	240,837	224,088	207,587
TOTAL DISPOSITION (C+D+G+H+I)	**2,835,569**	**2,632,783**	**2,383,595**	**2,216,840**	**2,292,157**	**2,196,439**	**2,077,016**	**1,850,720**

* Restated

** The figures of FY 2015-16 to FY 2022-23 are given as per requirement of Ind AS Compliant Schedule-III to the Companies Act, 2013. Figures of 2014-15 are given as per requirements of Schedule-III to the Companies Act, 2013, figures for FY 2013-14 are given as per the requirement of revised Schedule VI to the Companies Act, 1956.

Includes reserve for equity instruments through other comprehensive income

^ Note: As on transition date 1 April 2015, carrying value of assets pertaining to production & allied facilities have been regrouped from other Property Plant and Equipment to "Oil and Gas Assets" to reflect the aggregate amount of Oil and Gas Assets.

Exercise

- **Fill in the blanks:**

1. _____ is the process of communicating a company's financial performance to investors and other interested parties, such as regulators or the public. **(Financial reporting)**
2. _____ is defined as the disclosure of the financial status of the company to management directors, and other stakeholders. (**Financial reporting**)
3. _____ typically include three core statements. **(Financial reports)**
4. This statement provides an overview of a company's assets, liabilities, and equity at a specific point in time. (**The Balance Sheet)**
5. The income statement shows a company's revenue, expenses, and net income for a specific period of time. (**The Income Statement)**
6. _____ can help to discover the company's ability to generate cash and manage its need for cash. **(The cash flow statement)**
7. A framework has been developed over time to ensure uniformity among different entities and consistency over a period of time. This framework is referred to as _____ **('Generally Accepted Accounting Principles' (GAAP).**

- **Answer the following questions:**

1. Explain the principles governed by GAAP.
2. Write down the importance of financial reporting.
3. Note down briefly about the core financial statements.
4. Explain in detail the users of financial statements.
5. Why the need for GAAP?

- **Write down the full form of the following:**

1. ICAI
2. MCA
3. GAAP

UNIT – 10 INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS)

10.1 Historical Background of IFRS (Constituents of IFRS Literature)

International Financial Reporting Standards (IFRS) are designed as a common global language for business affairs so that company accounts are understandable and comparable across international boundaries. They are a consequence of growing international shareholding and trade and are particularly important for companies that have dealings in several countries. They are progressively replacing many different national accounting standards. IFRSs began as an attempt to harmonize accounting across the European Union but the value of harmonization quickly made the concept attractive around the world. They are sometimes still called by the original name of International Accounting Standards (IAS).

IAS was issued between 1973 and 2001 by the Board of the International Accounting Standards Committee (IASC). On 1 April 2001, the new International Accounting Standards Board (IASB) took over from the IASC the responsibility for setting

International Accounting Standards. During its first meeting, the new Board adopted existing IAS and Standing Interpretations Committee standards (SICs). The IASB has continued to develop standards calling the new standards International Financial Reporting Standards.

International Accounting Standards (IASs) were issued by the IASC from 1973 to 2000. The IASB replaced the IASC in 2001. Since then the IASB has amended some IASs and has proposed to amend others, has replaced some IASs with New International Financial Reporting Standards and has adopted or proposed certain new IFRSs on topics for which there was no previous IAS. Through committees, both the IASC and the IASB also have issued Interpretations of standards. Interpretations issued by IASC are called SIC and those by IASB are called IFRIC.

The preface to International Financial Reporting Standards sets out IASBs mission and objectives, the scope of International Financial Reporting Standards (IFRS), the due process for developing IFRSs and Interpretations, and policies on effective dates, and language for IFRSs.

10.2 Meaning of International Financial Reporting Standards (IFRS):

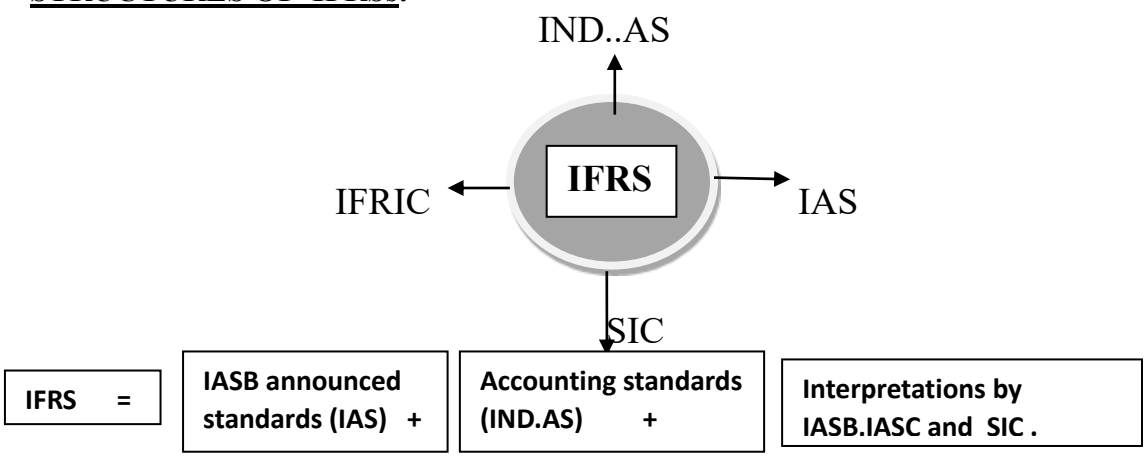
- International Financial Reporting Standards (IFRS) are a set of international accounting standards stating how particular types of transactions and other events should be reported in financial statements. IFRS are issued by the International Accounting Standards Board. The goal of IFRS is to make international comparisons as easy as possible. This is difficult because, to a large extent, each country has its own set of rules. For example, U.S. GAAP is different from Canadian GAAP. Synchronizing accounting standards across the globe is an ongoing process in the international accounting community.
- The IFRS (International Financial Reporting Standard) framework was issued in April 1989. This Framework deals with the Objective of the Financial statement, Qualitative characteristics, elements of the financial statement, Concept of Capital and capital maintenance.
- IFRS is required or permitted for use in over 90 Countries for Financial reporting, EU has recently mandated the application of IFRS for all listed Companies affecting over 7000 companies.
- The term International Financial Reporting Standards (IFRSs) has both a narrow and a broad meaning. Narrowly, IFRSs refer to the new numbered series of pronouncements that the IASB is issuing as distinct from the International Accounting Standards (IAS) series issued by its predecessor. More broadly, IFRSs refer to the entire body of IASB pronouncements including standards and interpretations approved by the IASB and IASs and SIC interpretations approved by the predecessor International Accounting Standards Committee.
- Broadly, IFRS consists of:

International Financial Reporting Standards (IFRS)	18
International Accounting Standard (IAS)	28
International Financial Reporting Interpretation committee (IFRIC)	18

Interpretations	
Standard Interpretation Committee (SIC) Interpretation.	08
Total	72

10.3 Conceptual Framework of IFRS

- **STRUCTURES OF IFRSs:**



- International Accounting Standards(IAS)
- IFRS (International Financial Reporting Standard)
- SIC Interpretations (Standard Interpretation Committee)
- IFRIC Interpretations (International Financial Reporting Interpretations Committee)
- Global standards
- Ind. AS (Indian Accounting Standard)

10.4 The Characteristics of IFRS

- These are global accounting standards.
- These standards are 'principle-based', and not 'rule-based.
- IFRS are developed and maintained by the IASB.
- Every standard has a specific structure to ensure uniformity and facilitate reading, interpretation and application. They are the Introduction, Standards, Basis of Conclusion, Implementation Guidelines Illustrative Examples, and Dissenting Opinions of Board Members.

10.5 Objectives of IFRS

The objectives of IFRS are as follows:

1. To develop in the public interest, a single set of high quality, understandable, enforceable and globally accepted financial reporting standards based upon clearly articulated principles.
2. To ensure high quality, transparent and comparable information in financial statements and other financial reporting to help investors, other participants in the world's capital markets and other users of financial information make economic decisions.
3. To promote the use and rigorous application of those standards

1. 4 To promote and facilitate the adoption of International Financial Reporting Standards (IFRSs), being the standards and interpretations issued by the IASB, through the convergence of national accounting standards and IFRSs.
4. To make a common platform for a better understanding of accounting, internationally.
5. Synchronization of accounting standards across the globe.
6. To create comparable, reliable and transparent financial statements.
7. To facilitate greater cross-border capital raising and trade.
8. To have a company-wide one accounting language that has subsidiaries in different countries.

10.6 Scope of IFRS

- All International Accounting Standards (IAs) and Interpretations haul the former IASC (International Accounting Standard Committee) and Standard Interpretation Committee continue to be applicable unless and until they are amended or withdrawn.
- IFRS set out recognition measurement, presentation and disclosure requirements of transactions and events in general pumps final statements.
- IFRS apply to the general purpose financial statements and other financial reporting by profit-oriented entities engaged in commercial Industrial, financial, and similar activities, regardless of their legal form.
- Entities other than profit-oriented business entities may also be found.
- General purpose financial statements are intended to meet the common needs of shareholders, creditors, employees and information about an entity's financial position, performance, and cash flows.
- Other financial reporting includes information provided outside financial statements that assists in the interpretation of complete financial statements or improves users' ability to make efficient economic decisions
- IFRS apply to Individual company and consolidated financial statements.
- A complete set of financial statements includes a statement of financial position, a statement of comprehensive income, a statement of cash flows, a statement showing either all changes in equity or changes in equity other than those arising from investments by and distributions to owners and summary of accounting policies, and explanatory notes and IFRS allow both a ‘benchmark and an allowed alternative treatment’.
- Financial statements may be described as conforming to IFRS whichever treatment is followed. In developing Standards, IASB intends not to permit choices in accounting Treatment. Further, IASB intends to reconsider the choices in existing International Accounting Standards with a view to reducing the number of those choices.

10.7 Requirement for IFRS

- For accounting standards worldwide acceptance they must be universally applied. Comparability is essential if "in accordance with IFRS" means that the same or

similar transactions are accounted for the same way everywhere, producing financial statements in accordance with IFRS will add value.

- Investors would no longer need to waste time and effort to reconcile financial information as they compare similar companies from different countries.
- Capital would flow more efficiently, at less cost to more companies in more places.
- A single system of financial reporting would benefit a host of constituents. With quality standards, consistently applied, investor understanding and confidence rises. That translates to strong, stable, liquid markets. With quality reporting, investors wouldn't need to compensate for a lack of understanding by demanding a risk premium. With consistent application and the resulting comparability investors and analysts have an easier time knowing how to best allocate capital. Having one financial language reduces preparation and audit costs. No longer is there a need to learn different standards or keep current in them, at the expense of more fruitful pursuits.
- Regulation can be easier if properly coordinated. Education and training become easier and more focused.
- The convergence of accounting standards has played a major role in the growing acceptance of IFRS. As the differences narrow between IFRS and other widely accepted accounting systems, resistance to IFRS is beginning to fall away.

10.8 Advantages of IFRS:

- IFRS provides better financial information for the shareholders and regulatory system in India.
- IFRS enhance the global ability and improve transparency of results.
- IFRS users can increase the ability to secure cross-border listing of their companies.
- With the help of IFRS, one can improve the management of global operations and better access the capital market.
- IFRS eliminates multiple reporting, likewise, Infosys, Tata, Birla, and Reliance firstly register in India and then outside India before implementing the IFRS system.
- IFRS facilitate global investment opportunities inbound and outbound and also reduces the cost of capital.
- It Reduces barriers to entering the global market and lowers the risk associated with the filing of accounts.
- IFRS provides new and enhanced services, especially in the field of business process outsourcing and professional services firms.
- With the help of IFRS, one can conduct a once-only review of financial reporting and information systems for control.
- Uniform accounting standard enabled investors to understand investment opportunity against two different sets of national standards.
- With the help of IFRS, corporate and investors would know its true worth because fair valuation is mandated for many balance sheet items.

10.9 Arguments In Favour of IFRS

- **Growth in International Business:** As international business and investment multiplies, accounting international dimension broadens and it becomes more important as the tool of communication among businessmen, entrepreneurs, financiers and investors. If accounting wants to serve as a universal means of communication then there must be uniformity in accounting practices and that can be achieved through IFRS.
- **Globalisation of Capital Markets:** Today companies are going globally to acquire the funds. Like companies acquiring funds through ADRs, GDRs, etc. Now if there is an accounting difference then the investor cannot analyse the accounts of other countries. So IFRS help in reducing these accounting differences.
- **Investors:** Nowadays investors want to invest outside their country. Investors include both types of investors, transnational company companies investing directly into other country or Individual investors. Now if accounts are comparable then they can make sound decisions. If accounts are different then they cannot make sound decisions. Now if there is no harmonisation then it is difficult to assess the relative merit of investment opportunities.
- **Multinational Companies**: A major force in the movement towards the adoption of IFRS has been the economic self-interest of multinational companies. With diversity in Accounting Standards from country to country, these firms face a lot of accounting requirements from the countries in which they operate. Now due to the adoption of IFRS, there would be fewer burdens on their financial reporting structure. Due to IFRS, they can easily consolidate their subsidiaries and as they are taking funds from many countries, investors across different countries can understand their financial statements.
- **International Auditing Firms:** Another major force in the movement towards IFRS was the economic self-interest of international auditing firms like PWC, Deloitte, KPMG, Ernst & Young, etc., so they can sell their service as experts in different countries.
- **Developing Countries**: Countries that do not have any domestic Accounting Standards would benefit from international standards since it will enable them to adopt a readymade system.
- **Other Interest Groups:** Such as tax authorities or the government will find it easier to tax foreign concerns if their accounts are prepared by following IFRS.

10.10 Significance of Global Standards

1. **Reduction in Variations**: Global Standards reduce to a reasonable extent or eliminate altogether the variations in accounting and reporting practices on a global basis.
2. **Facilitates Comparison:** Global Standards facilitate the comparison of financial statements of companies situated in different parts of the world and also of different companies situated in the same country.

3. **Global Standards Facilitate:**

   (a) Globalization and Liberalization
   (b) Transparency of financial statements.
   (c) Enhanced Disclosure requirements.
   (d) Cross-border flow of money through ADRs, GDRs, etc. and global listing.
   (e) The tax authorities to tax foreign operations in an effective manner.
   (f) Free flow of global investment and achieves substantial benefits for all capital market stakeholders.
4. Global Standards eliminate some costly requirements say reinstatement of financial statements.
5. Global Standards serve the economic self-interest of multinational companies.
6. Global Standards improve the ability of investors to compare investments on a global basis and, thus, lower their risk of errors of judgment.

10.11 Need For Ind. As With IFRS

- The Indian environment and the Global environment are different which leads to a huge gap between AS issued by ICAI & IFRS issued by IASB. To bridge the gap between AS & IFRS, ICAI issued Indian Accounting Standard converged with IFRS (formally known as Ind. AS).
- The Need for Change is to have a common set of accounting standards. The benefits of having common standards for financial reporting are the reasons that attract such change.
- **Better Comparability**: Following a common set of standards will help the stakeholders to compare the organisations globally.
- **Better Transparency:** The users of accounts will benefit from this as the same accounting standards will help them understand the fundamentals of the organisation which will generate better transparency.
- **Saving time & Cost on the Finance Department**: Many companies with a subsidiary or holding a company in different countries are required to follow a dual set of accounting standards, local standards on one hand & global standards on the other hand. The transition will be helpful in saving time & cost on the finance department.

  For example, Swiss pharmaceutical giant ROCHE group, which operates in more than 100 countries is likely to save more than $100 million through Convergence.
- **Attract Foreign Investment:** Since investors can compare with other organisations globally, it will help them make investment decisions; at the same time, it will help the organisation present their financial position in a more efficient way to the world, in a language that all can understand.

10.12 Disadvantages of IFRS

The disadvantages of IFRS are:

- Indian GAAP is different from US GAAP. Due to this, it has become difficult to synchronise the financial statements of the two.

- IFRS implementation brings a change in new standards, it has become complex for users to finalize the old and new accounting data.
- When preparing financial statements using IFRS, the old and new standards seem confusing.
- In India there is no separate committee for the implementation, follow up and feedback process of IFRS.
- Lack of proper training and guidance programs in India postponed the process of IFRS implementation.
- The new system always considers the value of money, so it becomes mandatory for companies to find out cost-benefit analysis.
- Taxation system also impacts after implementation process of IFRS in India.
- As we know GAAP and the regulatory body of each country have different sets of rules so it is the biggest hurdle for companies to adopt uniform accounting standards for the whole world.
- IFRS is simply a principle set by IASC but it does not provide detailed rules to follow up. IFRS mainly focuses on presenting its financial statement and the focus is very less on the users of accounting standards.
- One of the biggest threats to adopting IFRS is the mandatory adaptation of uniform standard for each country's business but it reduces the competition from the market and without competition, there is a threat of monopoly.
- Lack of awareness among users about international financial reporting practices.
- IFRS uses fair value and market value as measurement base before its asset is valued as per book value. Due to this financial statement of any company is impacted significantly.
- Lack of proper data impacts the effective implementation of the IFRS process.
- For comparison purposes, IFRS need to convert historical data into market value due to this IFRS become more subjective.
- Co-ordination with different countries for IFRS implementation is a challenging task.
- Lack of proper resources also affects the IFRS implementation successfully.

10.13 Arguments against IFRS

- **Nationalism:** Many countries believe that their views are superior to those of others. Due to this behaviour, there is great difficulty in achieving a common solution.
- **Difference in Economic and Social Environment**: Standard setting on an international level is adversely affected by the difference in the economic and social environment in which accounting has a role to play. In some countries, the information needs of government may dominate the accounting structure and in some countries need of investors may dominate the accounting structure.
- **Diverse Accounting Practices:** There is a wide divergence in worldwide accounting practices. Each practice has its own justification. However, this creates difficulty in arriving at commonality.
- **Gaps Between Developed and Developing Countries**: Developing and developed countries differ in various aspects. In fact, most developing countries have little chance to evolve accounting systems that truly reflect the needs and circumstances of

their countries. Now copying the model of developed countries will not fill their needs.

10.14 Difficulties In Enforcement of IFRS

- Difference in Tax Laws of Nations.
- Difference in Corporate Laws.
- Principles and Practice of Accounting for CA Foundation Course
- Disclosure requirements under any other statute.
- Existence of Local Standards.
- Competition among International Standard-setting agencies like OECD.
- Unethical conduct by Corporate houses like Satyam, Enron, etc.

10.15 Suggestion for More Effective Adoption of IFRS

1. Enlarge representation on IASB.
2. Avoid political pressure.
3. IASB should publicise its standard worldwide and try to get support from accounting professionals, member countries, corporations and investors all over the world.
4. Every country should pass legislation to enforce IFRS.
5. The UN should recognise IASB as the body qualified to set up international standards and give authority to force universal acceptance of IFRS.
6. In each country, securities exchange should take appropriate action that the company registering with them is required to comply with IFRS.
7. Continuous research is needed.

10.16 IFRS Adoption/IFRS Convergence

Convergence implies that all standards setters around the world should agree on a single, high-quality accounting standard. Convergence can be achieved in two ways:

(1) Either by adopting International Financial Reporting Standards (IFRS) or
(2) Adopt IFRS to formulate the country's own Indian accounting standards.

The Government of India in consultation with the ICAI decided to converge and not to adopt IFRSs issued by the IASB. The decision of convergence rather than adoption was taken after a detailed analysis of IFRS requirements and extensive discussion with various stakeholders. Accordingly, while formulating IFRS-converged Indian Accounting Standards (Ind. AS), efforts have been made to keep these Standards, as far as possible, in line with the corresponding IAS/ IFRS and departures have been made where considered absolutely essential. As per the notification, Indian Accounting Standards (Ind. AS) converged with International Financial Reporting Standards (IFRS) shall be implemented voluntarily from 1st April 2015 and mandatorily from 1st April 2016. Separate roadmaps have been prescribed for the implementation of Ind. AS to Banking, Insurance companies and NBFCs respectively. In India, the aim of ICAI, the Government authorities and various regulators such as SEBI and ABI is to comply with the IFRS to the extent possible with the objective of formulating sound financial reporting standards.

IFRS “convergence" means the accounting standards of a country converged with IFRS, i.e., Indian accounting standards are more or less in line with the IFRS, in short convergence means to achieve harmony with IFRS. The inception of the idea of convergence of Indian GAAP with IFRS was made by India's commitment in G20 to align Indian Accounting Standards with IFRS. ICAI has decided to converge its Accounting Standards with IFRS for accounting periods commencing on or after 1 April 2011 in a phased manner as envisaged in the roadmap to IFRS formulated by MCA.

10.17 Process of Setting Standards (Due Process)

IFRS are developed through an international due process that involves accountants, financial analysts, and other users of financial statements like the business community, stock exchanges, etc. from around the world. IASB in consultation with SAC, decides the agenda on which work is undertaken. Several key areas that IASB considers in adding an agenda item are relevance and reliability of information to users, consistency with the IASB's organisational objectives and plans, increasing convergence of accounting standards, and deficiency of current guidance, for example, where there is diversity, International standards or where no guidance exists, Resource constraint. The due process comprises six stages, with the Trustees having the opportunity to ensure compliance at various points throughout:

- Setting the agenda
- Planning the project
- Developing and publishing the discussion paper
- Developing and publishing the exposure draft
- Developing and publishing the standard
- After the standard is issued

After an agenda is added, IASB may form an advisory group to advise on the project. The board develops and publishes a discussion paper that sets out all of the key issues for discussion and poses a series of questions to which the public isnvited to respond, to which the Board may include their own responses to particular questions. After analysis of the public committee, the board issues an exposure draft.

The Exposure Draft should include a basis for conclusions and highlight any dissenting opinions that arose during the approval process. The Board may use public hearings to discuss proposed standards. The Board may "field test" a particular draft Standard in "live" situations across different countries to ensure that its proposals are practical and effective.

10.18 Main Differences between IFRSs and Indian GAAP

Basis	**IFRSs**	**Indian GAAP**
1.Mechanism of Financial Statements	Comprises of Balance Sheet, P&L A/c, Cash Flow State- ment, Changes in Equity and Accounting Policy and	Comprises of Balance Sheet, P&L A/c, Cash Flow Statement and Notes to Accounts.

	Notes to Accounts.	
2.Format of Balance Sheet	No particular Format prescribed for B/S.	Prescribed format given in Schedule VI should be followed for balance sheet.
3. Depreciation	Over the useful life of an asset.	Over the useful life of an asset OR Rate of Schedule XIV (whichever is higher).
4.Earning Per Share (EPS)	Disclosure of EPS to be made in only consolidated financials.	Disclosure of EPS to be made in both consolidated financials and separate financials.
5.Key Management Personnel (KMP)	It includes executive and non- executive directors.	It includes only executive directors.
6.Disclosure of extra ordinary items	There is no place for these items in IFRSs.	Disclosure of extra-ordinary items can be made in Notes.
7.Methods of Cash Flow Statement	Direct or Indirect methods can be used for Cash Flow Statement.	Only Indirect method can be used for Cash Flow Statement.
8. Treatment for Borrowing Costs	May be treated as Expenses or to be Capitalized.	Only treated as Capitali-zation.
9.Format Income Statement	There is no particular format prescribed for Income Statement.	Prescribed format is given in Schedule VI should be followed for Income Statement.

10.19 List of IFRS, Accounting Standard and Ind. As

Listing of International Financial Reporting Standards is developed by the International Accounting Standards Board.

IFRSs	Title of IFRS	Particulars	Issued year
IFRS 1	First-time Adoption of International Financial Reporting Standards:	This standard sets out the requirements for an entity that is preparing its financial statements for the first time using IFRS. It provides guidance on recognising and measuring assets, liabilities, equity, income, and expenses at the date of transition to IFRS	2008
IFRS 2	Share-based Payment	This standard sets out the accounting treatment for share-based payment transactions, including the recognition and measurement of equity-settled and cash-settled share-based payment transactions.	2004
IFRS 3	Business Combinations:	This standard sets out the accounting treatment for business combinations, including the	2008

		recognition and measurement of the assets and liabilities acquired, the determination of the consideration transferred, and the recognition of goodwill or a gain on a bargain purchase.	
IFRS 4	Insurance contacts	Insurance contacts.	2005
IFRS 5	Non-current Assets Held for Sale and Discontinued Operations:	This standard sets out the accounting treatment for non-current assets held for sale and discontinued operations, including the recognition and measurement of such assets and the presentation of the results of discontinued operations in the financial statements.	2004
IFRS 6	Exploration for and Evaluation of Mineral Resources:	This standard sets out the accounting treatment for exploration and evaluation activities in the mining and oil and gas industries, including the recognition and measurement of exploration and evaluation assets and the recognition of exploration and evaluation expenditure.	2004
IFRS 7	Financial Instruments: Disclosures	This standard sets out the disclosure requirements for financial instruments, including information about the nature and extent of risks arising from financial instruments and the extent to which the entity manages those risks. Issued 2005	2005
IFRS 8	Operating Segments:	This standard sets out the requirements for the disclosure of information about an entity's operating segments, including the identification of operating segments, the measurement of segment profit or loss, and the disclosure of segment assets and liabilities.	2006
IFRS 9	Financial Instruments:	This standard sets out the requirements for the recognition and measurement of financial instruments, including the classification and measurement of financial assets and liabilities, the impairment of financial assets, and the hedge accounting of financial instruments.	2014
IFRS 10	Consolidated Financial Statements	This standard sets out the principles for preparing and presenting consolidated financial statements for a group of entities under the control of a parent company. It replaces IAS 27 Consolidated and Separate Financial Statements.	2011
IFRS 11	Joint Arrangements:	This standard sets out the accounting treatment for joint arrangements, in which two or more parties have joint control. It specifies the criteria for determining whether an arrangement is a joint venture or a joint operation, and the accounting treatment for each type of joint arrangement. Issued 2011.	2011
IFRS 12	Disclosure of Interests in Other Entities:	This standard sets out the disclosure requirements for interests in other entities, including information about the entity's nature, the risks associated with the entity, and the	2011

		entity's financial position and performance.	
IFRS 13	Fair Value Measurement:	This standard sets out the principles for measuring fair value and the required disclosures about fair value measurements. It applies to the measurement of fair value in the context of IFRS, but not to determining fair value to establish the selling price in a transaction between willing parties.	2011
IFRS 14	Regulatory Deferral Accounts:	This standard sets out the accounting treatment for regulatory deferral accounts, which are assets or liabilities that arise from recognising deferred income or expenses in the financial statements required by regulatory authorities.	2014
IFRS 15	Revenue from Contracts with Customers:	This standard sets out the principles for the recognition of revenue from contracts with customers, including the determination of the transaction price, the allocation of the transaction price to the performance obligations in the contract, and the recognition of revenue when (or as) the entity satisfies a performance obligation. It replaces IAS 11 Construction Contracts and IAS.	2014
IFRS 16	Leases:	This standard sets out the accounting treatment for leases, including lessees' recognition of lease assets and lease liabilities and the presentation of leased and leased liabilities on the balance sheet. It replaces IAS 17 Leases.	2016
IFRS 17	Insurance Contracts:	This standard sets out the accounting treatment for insurance contracts, including the recognition of insurance contract assets and insurance contract liabilities, the measurement of insurance contract assets and insurance contract liabilities, and the presentation of the results of insurance contracts in the financial statements. It replaces IFRS 4 Insurance Contracts.	2017
IFRS 18:	Presentation and Disclosure in Financial Statements effective from Jan 1, 2027	Presentation and Disclosure in Financial Statements effective from Jan 1, 2027	1.1.2027

LIST OF IND.AS:

1. Ind. AS 101 - First-time Adoption of Indian Accounting Standards
2. Ind. AS 102 - Share-based Payment
3. Ind. AS 103 - Business Combinations
4. Ind. AS 104 - Insurance Contracts
5. Ind. AS 105 – Non-current Assets Held for Sale and Discontinued Operations
6. Ind. AS 106 - Exploration for and Evaluation of Mineral Resources

7. Ind. AS 107 - Financial Instruments: Disclosures
8. Ind. AS 108 - Operating Segments
9 Ind. AS 109 - Financial Instruments
10. Ind. AS 110 - Consolidated Financial Statements
11. Ind. AS 111 - Joint Arrangements
12. Ind. AS 112 - Disclosure of Interests in Other Entities
13. Ind. AS 113 - Fair Value Measurement
14. Ind. AS 114 - Regulatory Deferral Accounts
15. Ind. AS 115 - Revenue from Contracts with Customers
16. Ind. AS 116 - Leases
17. Ind. AS 1 - Presentation of Financial Statements
18. Ind. AS 2 -Inventories
19. Ind. AS 7 - Statement of Cash Flows
20. Ind. AS 8 - Accounting Policies, Changes in Accounting Estimates and Errors
21. Ind. AS 10 - Events after the Reporting Period
22. Ind. AS 12 - Income Taxes
23. Ind. AS 16 - Property, Plant and Equipment
24. Ind. AS 19 - Employee Benefits
25. Ind. AS 20 - Accounting for Government Grants and Disclosure of 3.12 Principles and Practice of Accounting for CA Foundation Course
26. Ind. AS 21 - The Effects of Changes in Foreign Exchange Rates
27. Ind. AS 23 - Borrowing Costs
28. Ind. AS 24 - Related Party Disclosures
29. Ind. AS 27 - Separate Financial Statements
30. Ind. AS 28 - Investments in Associates & Joint Ventures
31. Ind. AS 29 - Financial Reporting in Hyperinflationary Economies
32. Ind. AS 32 - Financial Instruments: Presentation
33. Ind. AS 33 - Earnings per Share
34. Ind. AS 34 - Interim Financial Reporting
35. Ind. AS 36 - Impairment of Assets
36. Ind. AS 37 - Provisions, Contingent Liabilities and Contingent Assets
37. Ind. AS 38 - Intangible Assets
38. Ind. AS 40 - Investment Property
39. Ind. AS 41 - Agriculture Assistance

List of Accounting Standards issued by ICAI

AS 1 - Accounting policies Mandatory from accounting period beginning on 1st April, 1991
AS 2 - Valuation of Inventories-1st April, 1999
AS 3 - Cash flow statement-1st April, 2000
AS 4 - Contingencies and Events occurring After the Balance Sheet Date-1st April, 1995
AS 5 - Net Profit or Loss for the Period, Prior Period Items and Changes in Accounting Policies- 1st Jan, 1987
AS 6 - Depreciation Accounting -1st April, 1995
AS 7- Accounting for Construction Contracts-1st April, 1991
AS 8 - Accounting for Research and Development-1st April, 1991
AS 9 - Revenue Recognition -1st April, 1991

AS 10 - Accounting for Fixed Assets -1st April, 1991
AS 11 - Accounting for the effects of changes in Foreign Exchange Rates 1st April, 1995
AS 12 - Accounting for Government Grants 1st April, 1994
AS 13 - Accounting Investments
AS 14 - Accounting for Amalgamations-1st April, 1995
AS 15 - Accounting for Retirement Benefits in the Financial Statements of Employers 1st April, 1995
AS 16 - Borrowing Costs 1st April, 2000
AS 17 - Accounting Standard 17 on segment reporting-1st April, 2001
AS 18 - Accounting Standard 18, related party disclosures-1st April, 2001
AS 19 - Leases -1st April, 2001
AS 20 - Earning per share- 1st April, 2001
AS 21 - Consolidated financial statements-1st April, 2001
AS 22 - Accounting for taxes on income -1st April, 2001
AS 23 - Accounting for investments in associates in consolidated Financial statement-1st April, 2002
AS 24 - Discounting operations-1st April, 2002
AS 25 - Interim financial reporting 1st April, 2002
AS 26 - Intangible assets -1st April, 2003
AS 27 - Financial reporting of interests in joint venture -1st April, 2002
AS 28 - Important of assets -1st April, 2004
AS 29 - Provisions, Contingent Liabilities and Contingent Assets
AS 30 - Financial Instruments: Recognition and Measurement
AS 31 - Financial Instruments: Presentation
AS 32 - Financial Instruments: Disclosures

10.20 Difference Concepts under IFRSs:

Some Important Concepts of IFRS:

Double Entry System: IFRS like Indian Accounting Standards issued by ICAI are based on a double entry system. The double-entry bookkeeping system was started in the 13th century and refers to a set of rules to record financial information in a financial accounting system wherein every transaction or event impacts at least two different accounts one on the debit side and the other on the credit side. In other words, every debit has equivalent credit and vice versa.

FUNCTION OF IFRS:

IFRS like any other reporting standard sets out the principle of Recognition measurement, presentation and disclosures of financial events and transactions of an entity in its financial reports to its stakeholders.

COMPONENTS OR ELEMENTS OF IFRSs:

As stated above, the IFRS sets out principles of financial reporting for financial events and transactions. These events and transactions to be brought under books of accounts must have an impact on one or more of the elements of IFRs which are assets, liabilities, income & gains, expenses & losses or equity. All the literature on IFRS as mentioned above deals with the recognition, measurement, presentation and

disclosures of one or more of these elements. If, however, nothing has been specifically provided for any item of these elements in any particular IFRS or interpretations, guidance can be sought for the recognition and measurement principles set out for each element in the framework.

COMPONENTS OF FINANCIAL REPORTS PREPARED UNDER IFRS:

A complete set of financial statements should include: [IAS 1.]

- A statement of financial position (what we call in India balance sheet) at the end of the period.
- A statement of comprehensive income for the period (or an income statement and a statement of comprehensive income)
- A statement of changes in equity for the period.
- A statement of cash flows for the period.
- Notes, comprising a summary of accounting policies and other explanatory notes.

When an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements or when it reclassifies items in its financial statements, it must also present a statement of financial position (balance sheet) as at the beginning of the earliest comparative period.

The structure and content of financial statements in IFRS should clearly identify:

- The financial statements
- The reporting enterprise
- Whether the statements are for the enterprise or for a group
- The date or period covered
- The presentation currency
- The level of precision (thousands, millions, etc.)

GLOBAL STANDARDS AND IFRS

Modern economies rely on cross-border transactions and the free flow of international capital. More than a third of all financial transactions occur across borders, and that number is expected to grow. Investors seek diversification and investment opportunities across the world, while companies raise capital, undertake transactions or have international operations and subsidiaries in multiple countries. In the past, such cross-border activities were complicated by different countries maintaining their own sets of national accounting standards. This patchwork of accounting requirements often added cost, complexity and ultimately risk - both to companies preparing financial statements and investors and others using those financial statements to make economic decisions.

Applying national accounting standards meant amounts reported in financial statements might be calculated on a different basis. Unpicking this complexity involved studying the multinational accounting standards, because even a small difference in requirements could have a major impact on a company's reported financial performance and financial position, for example, a company may recognize profits under one set of national accounting standards and losses under another.

IFRS Standards are set by the International Accounting Standards Board (Board) and are used primarily by publicly accountable companies listed on a stock exchange and by financial institutions, such as banks. Authoritative interpretations of the Standards, which provide further guidance on how to apply them, are developed by the IFRS Interpretations Committee and called IFRIC Interpretations.

Standards set by the Board's predecessor body, the International Accounting Standards Committee, are called IAS Standards. These Standards have the same status as the IFRS Standards. Authoritative interpretations of those Standards, developed by the Standing Interpretations Committee, are called SIC Interpretations. The Board has also developed the IFRS for SMEs Standard, which is used by small and medium-sized companies without public accountability.

FINANCIAL STATEMENT AND IFRS:

A financial statement is said to be IFRS compliant only if it adheres to the principle prescribed by IFRS literature in all its standards, interpretations and framework. A financial statement is not IFRS compliant if it complies with some standards and not with all in virtually all circumstances, compliance with applicable IFRSs will enable the financial statements to give a fair presentation. In extremely rare circumstances, a departure from IFRSs is permitted to achieve such a fair presentation, in which case comprehensive disclosure requirements are imposed.

IMPORTANT INSTITUTION FOR IFRS

International Accounting Standard Committee (IASC):

In 1973, the International Accounting Standard Committee (IASC) was set up to push up harmonisation. It was composed of members of the developed nations. Its main objectives were:

- To formulate and publish in the public interest accounting standards to be observed in the presentation of the financial statements and to promote their worldwide acceptance and observance.
- To work generally for the improvement and harmonisation of the accounting standard

International Financial Reporting Standard Foundation:

- However, nothing happened from 1973-2000. As a consequence, IASC itself approved constitutional changes necessary for its restructuring and a new IFRS foundation was incorporated and its trustees were appointed. The IFRS Foundation is an independent, not-for-profit private sector organisation working in the public interest:
- To develop a single set of high quality, understandable, enforceable and globally accepted international financial reporting standards (IFRSs) through its standard-setting body, the IASB.
- To promote the use and rigorous application of those standards.
- To take account of the financial reporting needs of emerging economies and small and medium-sized entities (SMEs).

- To bring about the convergence of national accounting standards and IFRSs to high-quality solutions.

International Accounting Standard Board (IASB):

The IASB is the independent standard-setting body of the IFRS Foundation with the following objectives:

- To develop in the public interest, a single set of high quality, understandable and enforceable accounting standards that require high quality, transparent and comparable financial information.
- To promote the use and rigorous application of these accounting standards.
- To bring about convergence.
- The methodology is that the board will formulate their own accounting standards and the countries will follow them.

❖ **EXERCISE :**

SECTION –A

1. Discuss the historical background of IFRS.
2. What is IFRS? Discuss conceptual framework IFRS?
3. What are the characteristics of IFRS?
4. **Write short note on:**
    1. Objectives of IFRS
    2. Scope of IFRS
    3. Requirement for IFRS
    4. Advantages of IFRS
    5. Arguments in favour of IFRS
    6. Significance of global standards
    7. Need for Ind. as and IFRS
    8. Disadvantages of IFRS
    9. Arguments against IFRS
    10. Suggestion for more effective adoption of IFRS
    11. Process of setting IFRS standards (due process)
5. What are the main differences between IFRSs and Indian GAAP?
6. Explain the any Five IFRSs.

Section – B

Write Appropriate Answers Out of Alternatives Given For Each Question:

1. **The standard-setting procedure of the Accounting Standards Board cannot be outlined as:**

   (A) Identification of broad areas by ASB for formulation of AS.

   (B) Constitution of study groups by ASB to consider specific projects and to prepare preliminary drafts of the proposed Accounting Standards. The draft normally includes the objective and scope of the standard, definitions of the terms used in the standard, recognition and measurement principles, wherever applicable, and presentation and disclosure requirements.

   (C) Consideration of the preliminary draft prepared by the study group of ASB and revision, if any, of the draft on the basis of deliberations.

   (D) Presentation of transactions and events in the financial statements in a manner that is meaningful and understandable to the reader.

   Answer**: D**

1. As per IFRS disclosure is to be made in only the consolidated financials of the parent company for

(A) Intangible Assets
(B) Earnings per Share
(C) Market Price per Share
(D) Dividends

Answer: **B**

2. In case there is any conflict between provisions of any applicable Act and Accounting Standards, the..... shall prevail.

(A) Accounting Standard
(B) Provisions of the Act
(C) Above (A) & (B), both
(D) None of the above

Answer: **B**

3. Trustees of the IFRS Foundation have been appointed for a:

(A) Renewable period of 5 years
(B) Non-renewable period of 5 years
(C) Renewable period of 3 years
(D) Non-Renewable period of 3 years

Answer: **C**

4. Members of the IFRS Advisory Council are appointed by the:

(A) Board of Directors
(B) Trustees
(C) Board of Directors and Trustees jointly
(D) Chairperson of the Foundation

Answer: **D**

5. Ind AS shall be adopted by specific classes of companies based on their:

(A) Net worth
(B) Listing Status
(C) Net worth or Listing Status
(D) Net worth and Listing Status

Answer: **D**

6. **From 1st April 2019 if Net worth is more than or equal to 250 crore but less than 500 crore it becomes mandatory to apply Ind AS for**
   (A) NBFC
   (B) All Banks
   (C) Insurance Companies
   (D) Listed Companies
   Answer: **A**

7. **In the case of financial enterprises, cash flows arising from interest paid should be classified as cash flow from**
   (A) Operating Activities
   (B) Investing Activities
   (C) Financing Activities
   (D) Cash Activities
   Answer: **A**

8. **The IFRS Advisory Council is the formal advisory body to the:**
   (A) International Accounting Standards Board
   (B) Trustees of the IFRS Foundation
   (C) IFRS Foundation Monitoring Board
   (D) Both (A) and (B)
   Answer: **D**

9. **The Association of International Certified Professional Accountants launched in 2017, bringing together the expertise and capabilities of the**
   (A) CIMA and FASB
   (B) AICPA and CIMA
   (C) AICPA and FASB
   (D) IFRS Foundation and FASB
   Answer: **B**

10. **External Reporting Board (XRB) belongs to:**
    (A) The UK
    (B) The USA
    (C) Australia
    (D) New Zealand
    Answer: **D**

11. **Public Interest Committee (PIC) established by International Public Sector Accounting Standards Board (IPSASB) consists of individuals from the:**
    (A) International Monetary Fund
    (B) International Organization of Supreme Audit Institutions
    (C) World Bank Group
    (D) All of the above
    Answer: **D**

12. **Financial Reporting Council (FRC) of the UK is a/an.....**
    (A) Unlimited company
    (B) Company limited by guarantee
    (C) Subsidiary company of IFRS
    (D) Associate company of the Institute of Chartered Accountants of England & Wales
    Answer: **A**

13. **Who notified the adoption and applicability of Indian Accounting Standards (Ind ASs) to Indian companies?**
    (A) Ministry of Finance, GOI
    (B) Ministry of Commerce, GOI

(C) Ministry of Corporate Affairs, GOI
(D) Accounting Standards Board ICAI

Answer: **C**

14. Member of which organization can be appointed as statutory auditor of a company under the Companies Act, 2013.

(A) Member of ICSI
(B) Member of ICAI
(C) Member of ICWAI
(D) Any of the above

Answer: **B**

15. The IFRS Foundation has a governance structure

(A) Three-tier
(B) Two-tier
(C) Four-tier
(D) three-fourth

Answer: **A**

16. IFRS are issued by

(A) IASC
(B) IASB
(C) ICAI
(D) IASCF

Answer: **B**

17. IFRS are based on

(A) Rules
(B) Principles
(C) (a) and (b) both
(D) None of these

Answer: **B**

18. Accounting standards are issued by _____in India.

(a) SEBI (b) RBI (c) ICAI (d) ICSI

Answer: **C**

19. Full form of SIC is

(A) Standard Interpretation Committee
(B) Standard Interpretation Convergence
(C) Standing Interpretation Committee
(D) None of these

Answer: **A**

20. IFRS-2 is related to

(A) Share-based payment
(B) Business combinations
(C) Operating segments
(D) Financial Instruments

Answer: **A**

21. Acceptance of IFRS by any nation to make common Accounting standards is known as

(A) GAAP
(B)Ind AS
(C) Convergence
(D) International Accounting Standards

Answer: **C**

Section: C

State whether the following statements are true or false:

1. International accounting has a different set of principles and conventions than domestic accounting.
2. "No international business transaction, no need of international accounting."
3. International accounting is not affected by international capital market.
4. IASC stands for International Accountancy Standards Committee.
5. Implementation of IFRS is a useless exercise.
6. The working place of FASB is Canada.
7. India had decided to converge its IAS with IFRS in 3 phases starting 1st April 2011.
8. IFRS are considered “principles based” set of standards wherein they establish board rules as well as dictate specific treatment.
9. IFRS improve investor confidence across the world with transparency and comparability.
10. FASB board was established in 1991.

Answer: 1. True 2. True 3. False 4. False 5.False 6. True 7.True 8. False 9. True 10. False

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Education for All

યુનિવર્સિટી ગીત

સ્વાધ્યાયઃ પરમં તપઃ
સ્વાધ્યાયઃ પરમં તપઃ
સ્વાધ્યાયઃ પરમં તપઃ

શિક્ષણ, સંસ્કૃતિ, સદ્‌ભાવ, દિવ્યબોધનું ધામ
ડૉ. બાબાસાહેબ આંબેડકર ઓપન યુનિવર્સિટી નામ;
સૌને સૌની પાંખ મળે, ને સૌને સૌનું આભ,
દશે દિશામાં સ્મિત વહે હો દશે દિશે શુભ-લાભ.

અભણ રહી અજ્ઞાનના શાને, અંધકારને પીવો ?
કહે બુદ્ધ આંબેડકર કહે, તું થા તારો દીવો;
શારદીય અજવાળા પહોંચ્યાં ગુર્જર ગામે ગામ
ધ્રુવ તારકની જેમ ઝળહળે એકલવ્યની શાન.

સરસ્વતીના મયૂર તમારે ફળિયે આવી ગહેકે
અંધકારને હડસેલીને ઉજાસના ફૂલ મહેંકે;
બંધન નહીં કો સ્થાન સમયના જવું ન ઘરથી દૂર
ઘર આવી મા હરે શારદા દૈન્ય તિમિરના પૂર.

સંસ્કારોની સુગંધ મહેંકે, મન મંદિરને ધામે
સુખની ટપાલ પહોંચે સૌને પોતાને સરનામે;
સમાજ કેરે દરિયે હાંકી શિક્ષણ કેરું વહાણ,
આવો કરીયે આપણ સૌ
ભવ્ય રાષ્ટ્ર નિર્માણ...
દિવ્ય રાષ્ટ્ર નિર્માણ...
ભવ્ય રાષ્ટ્ર નિર્માણ

DR. BABASAHEB AMBEDKAR OPEN UNIVERSITY
(Established by Government of Gujarat)
'Jyotirmay' Parisar,
Sarkhej-Gandhinagar Highway, Chharodi, Ahmedabad-382 481
Website : www.baou.edu.in