(8) What is current asset and non-current asset ?

(9) What is current liability and non-current liability ?

(10) Show the classification of current assets as per schedule-III of Companies Act, 2013.

3. How will you show following balances in the balance sheet of a company as per schedule-III of Companies Act, 2013 ?

(1) Creditors
(2) Security premium
(3) Bond
(4) Goodwill
(5) Bank overdraft
(6) Bills receivable
(7) Equity share capital
(8) Copyright
(9) Debenture discount (To be written of during next year)
(10) Calls in advance
(11) Cash
(12) Provident fund
(13) Debentures
(14) Trademark
(15) Loose tools
(16) Loan (Repayable during next year)
(17) Bills payable
(18) General reserve
(19) Public deposit
(20) Debtors
(21) Patent
(22) Calls in arrears
(23) Debenture redemption fund investment
(24) Stores and spare parts
(25) Licence
(26) Closing stock
(27) Bank balance
(28) Surplus as per statement of profit and loss
(29) Deposit in electricity company
(30) Premium on redemption of preference shares

4. Following balances are taken from the books of Seema Ltd. on 31-3-2017. Prepare statement indicating assets of balance sheet as at 31-3-2017 as per schedule-III of Companies Act, 2013.

	Balance	**(₹)**
(1)	Current investments	12,000
(2)	Short-term loans and advances	16,000
(3)	Other current assets	7200
(4)	Fixed assets - tangible	5,60,000
(5)	Cash and cash equivalents	14,000
(6)	Inventory	46,000
(7)	Trade receivables	15,800
(8)	Other non-current assets	18,000
(9)	Non-current investments	26,000
(10)	Fixed assets - intangible	1,20,000
(11)	Long-term loans and advances	22,000

5. Following balances are taken from the books of Yuva Ltd. on 31-3-2017. Prepare statement indicating equity and liabilities of balance sheet as at 31-3-2017 as per schedule-III of Companies Act, 2013.

Balance	Amt. (₹)
(1) 1,30,000 equity shares of ₹ 5 each	6,50,000
(2) General reserve	70,000
(3) Provident fund	3,60,000
(4) Creditors	86,000
(5) Public deposit	3,26,000
(6) Outstanding rent	13,000
(7) Provision for tax	68,000
(8) Other long-term liabilities	15,000
(9) Temporary loan (Credit balance)	12,000

6. Following balance are taken from the books of Moon Ltd. Prepare balance sheet as at 31-3-2017 as per schedule-III of Companies Act, 2013.

Balance	Amt. (₹)
(1) Interest accrued	30,000
(2) Plant-machinery	15,00,000
(3) Equity share capital	15,00,000
(4) Bank balance and cash	67,500
(5) General reserve	30,000
(6) Closing stock	2,70,000
(7) Creditors	6,00,000
(8) Debtors	3,45,000
(9) Provision for tax	90,000
(10) 12 % bank loan	1,95,000
(11) Non-current investments	45,000
(12) Electricity deposit	1,87,500
(13) Provident fund	30,000

7. Under which head, will you show following balances in the statement of profit and loss as per schedule III of Companies Act, 2013 ?

(1) Sales
(2) Salary
(3) Depreciation
(4) Bad debt recovered
(5) Debenture interest
(6) Audit fee
(7) Income from scrap
(8) Profit on sale of asset
(9) Advertisement expenses
(10) Contribution to provident fund
(11) Interest on bank overdraft
(12) Bank charges
(13) Bonus to employees
(14) Debenture discount written off

8. Following balance is taken from the books of Patel Ltd. Prepare statement of profit and loss for the year ending 31-3-2017 as per schedule-III of Companies Act, 2013.

Balance	Amt. (₹)
(1) Sales of scrap	10,500
(2) Cost of material consumed	1,87,500
(3) Salary	78,000
(4) Interest paid	9000
(5) Sales	3,81,000
(6) Change in stock of finished goods	12,000
(7) Office and administration expenses	15,600
(8) Depreciation	84,000
(9) Provision for tax on profit is 30 %	

9. Following is the balance sheet of Keyur Ltd. as on 31-3-2017 :

Particulars	Debit (₹)	Credit (₹)
Equity share capital		2,40,000
Office and sales expenses	24,000	
Purchase	4,26,000	
10 % Debenture		1,20,000
Sales		9,60,000
Software	1,20,000	
Wages	24,000	
Debenture interest	12,000	
Salary	3,00,000	
Bank overdraft		14,400
Land-building	2,28,000	
Opening stock	36,000	
Discount received		15,600
Debtors	1,80,000	
	13,50,000	**13,50,000**

Other information :

(1) Closing stock ₹ 42,000

(2) Make provision for tax at 50 % of net profit.

From the above information, prepare final accounts of the company for the year ending on 31st March, 2017 as per schedule-III and Companies Act, 2013. Notes to the accounts are not required.

10. Following is the trial balance of Parth Ltd. as on 31-3-2017 :

Particulars	Debit (₹)	Credit (₹)
Sales		11,25,000
Employee benefit expenses	1,95,000	
Inventories	1,65,000	
Finance costs	26,250	
Security premium		60,000
Fixed assets - tangible	12,00,000	
Trade payables		90,000
Equity share capital		7,50,000
Trade receivables	60,000	
Other income		30,000
Long-term borrowings		5,25,000
Cash and bank balance	90,000	
Depreciation	33,750	
Cost of goods sold	6,00,000	
Non-current investments	2,10,000	
	25,80,000	**25,80,000**

From the above information, prepare final accounts of the company for the year ended on 31-3-2017 as per schedule-III of Companies Act, 2013. Notes to the accounts are not required.

4

Analysis of Financial Statements

1. Introduction

Business and non-business enterprise undertakes financial transactions. These financial transactions are recorded as per rules and principles of accounting. These financial transactions pass through different stages of accounting. The commencement of these stages is from journal entry. At the end of these stages, final accounts are prepared. We have undertaken that study in 11th standard in this regard. In previous chapter we have studied final accounts of company. The components of final accounts are trading account, profit and loss account (which is also known as income statement) and balance sheet. These three are financial statements. Besides, cash flow statement, fund flow statement are included in financial statements. These financial statements disclose the results of financial transactions of particular period of time. e.g. What is the amount of gross profit ? What is the amount of net profit ? What is the amount of non-current liability ? This kind of information can be ascertained from them. Financial statements represent historical information. These financial statements represent results of financial transactions of accounting period. In brief, profit and loss account discloses result of business enterprise and balance sheet discloses financial status of the business. Cash flow statement related discussion is undertaken in subsequent chapter. (Cash flow statement also discloses the result of difference between cash inflow and cash outflow of financial activities of the business.)

Financial statements disclose what is the result of business; but do not disclose why this result ? Factors responsible to such result can not be ascertained. What type of relationship is there between different components of financial statements also can not be asertained from financial statements. (However, the objectives of financial statements are pre determined and for respective objectives financial statements are prepared.) E.g. sale of a company is ₹ 80,000. Closing stock is ₹ 20,000. Opening stock is ₹ 10,000. Purchase is ₹ 50,000, consequently gross profit of the company will be ₹ 40,000. The computation is shown on page no. 154 :

Trading Account

Dr Cr

Particulars	Amt. (₹)	Particulars	Amt. (₹)
To Opening stock	10,000	By Sales	80,000
To Purchase	50,000	By Closing stock	20,000
To Gross profit	40,000		
	1,00,000		**1,00,000**

Here, gross profit is the result of purcahse-sales transactions. Trading account discloses information about result of ₹ 40,000.

These transactions can be represented in the following form. The information presented in this form, can be interpreted. The process of interpretation and analysis is given below.

Particulars		(₹)
Sales		80,000
Less : Cost of goods sold		
Opening stock	10,000	
+ Purchase	50,000	
	60,000	
− Closing stock	20,000	40,000
Gross profit		**40,000**

Here, (i) There is a profit of ₹ 40,000 because goods of ₹ 40,000 are sold for ₹ 80,000. ₹ 40,000 is result. But the factors of this result creation are sales, closing stock, purchase and opening stock. Even a small change in one factor leads to the change in result. e.g. in above mentioned problem if the value of closing stock is ₹ 24,000 instead of ₹ 20,000, the cost of goods sold will be ₹ 36,000 instead of ₹ 40,000. Consequently gross profit will be ₹ 44,000 instead of ₹ 40,000. So through analysis the information pertaining to affecting factors is asertainable.

(ii) The creation of gross profit is from sales. Therefore, the proportion of gross profit to sales will be $\frac{40{,}000 \text{ Gross profit}}{80{,}000 \text{ Sales}} \times 100 = 50\ \%$.

Gross profit has relation with sales. The gross profit increases due to the increase in sales if other factors remain constant. Hence, quantum of gross profit would increase. In case of above mentioned illustration if sales is ₹ 1,00,000 and there is no change in other factors i.e. cost of goods sold remains ₹ 40,000, this will give gross profit of ₹ 60,000. So, there is direct effect of change in sales on gross profit. This kind of information can be availed through analysis.

How the gross profit of ₹ 40,000 is earned ? What is the proportion of gross profit to sales ? This is ascertained through the interpretation of information disclosed in financial statements or by presenting the results in a different manner. This process of interpretation is known as an analysis.

Thus, the interpretation of the information or result given in financial statements is known as analysis.

- **Analysis of financial statements :**

Which tools are used ?

Which procedure is used for analysis ?

To whom, is it useful ?

What are its objectives ?

Answers pertaining to these questions are to be studied in this chapter.

In the previous chapter we have studied the financial statements of company. In the 11th standard also the study of entities is done in chapter 5 of part 2. So we do not discuss it again here.

The information in the content of financial statements analysis is as follows :

2. Meaning of Financial Statements

Business or non-business entities maintain their accounts. For preparation of these accounts, rules, principles, traditions and assumptions of accounting are considered.

Financial statements are those statements which provide the results of different financial aspects of the entity .

Financial statements are an organised report which disclose detailed financial condition of the business entity .

3. Objectives and Types of Financial Statements

- **Objectives :**

Different financial statements are prepared under the accounting system. Every financial statement has its own, independent existence and use. Financial statements like income statement, balance sheet and cash flow statements are prepared. (There are some other financial statements also, that are not included in syllabus). Each financial statement is prepared with specific purpose. It's explanation in brief is as follows :

(1) To know the profit or loss of the business entity : Business entity undertakes revenue activities through out the year. These activities are of two types. Receipt and Payment. If receipts are more than payments, difference is known as profit. If payments are more than receipts, difference it is known as loss. The information for such profit or loss is available from the prescribed financial statement. This statement is called as income statement. Therefore the first objective of the financial statement is to ascertain the profit or loss of the business.

(2) To know the financial position of the business entity : The financial position of the business entity is determined on the basis of difference of assets and liabilities. When the value of assets are more than liabilities, it is called as good financial positoin. When the value of assets is less than liabilities it is called as weak financial position. This information is available from the prescribed statement. Which is known as balance sheet. The second objective of preparation of financial statements is to know financial position.

(3) To know the cash position of the business entity : The business undertakes transactions of cash receipt and payment during the year. The information about different sources of cash and application of cash is available from the prescribed statement. This statement is known as cash flow statement. The third objective of preparing the financial statement is to know cash inflow and outflow of the business.

In brief,

Sr.	Financial Statement	Objective
(1)	Income statement (Profit and loss account)	To know the profit or loss of any specific period of the business entity, this statement is prepared.
(2)	Balance sheet	To know the financial position on a specific day of the business, this statement is prepared.
(3)	Cash flow statement	To know the cash inflow and outflow of any specific period of the business entity, this statement is prepared.

4. Significance of Financial Statements

The information disclosed in the financial statements is useful to the existing and potential stakeholders. The financial statements are prepared to satisfy the different types of requirements of managment, existing and potential investors, fund providers, short-term creditors, employees, customers, governments and other different agencies. The financial statements are important for these stakeholders but the analysis of financial statements accelarates the significance of these statements.

5. Meaning of Financial Analysis

The objectives of preparing the financial statements are predetermined. Financial statements represent information and results. But "after preparation of financial statements, they are rearranged in such a way that they become comparable. The different stakeholders take their decisions on the basis of financial statements, which are prepared in a comparable form". This entire process is known as analysis.

6. Types of Financial Analysis

Financial analysis is done for internal and external purpose. This can be done in the horizontal form, vertical form, for short-term and for long-term. Discussion pertaining to this is as follows :

We can present different types of financial analysis :

(1) On the basis of stakeholders : (i) External analysis
(ii) Internal analysis

(2) Horizontal-vertical form : (i) Horizontal analysis
(ii) Vertical analysis

(3) On the basis of duration : (i) Long-term analysis
(ii) Short-term analysis

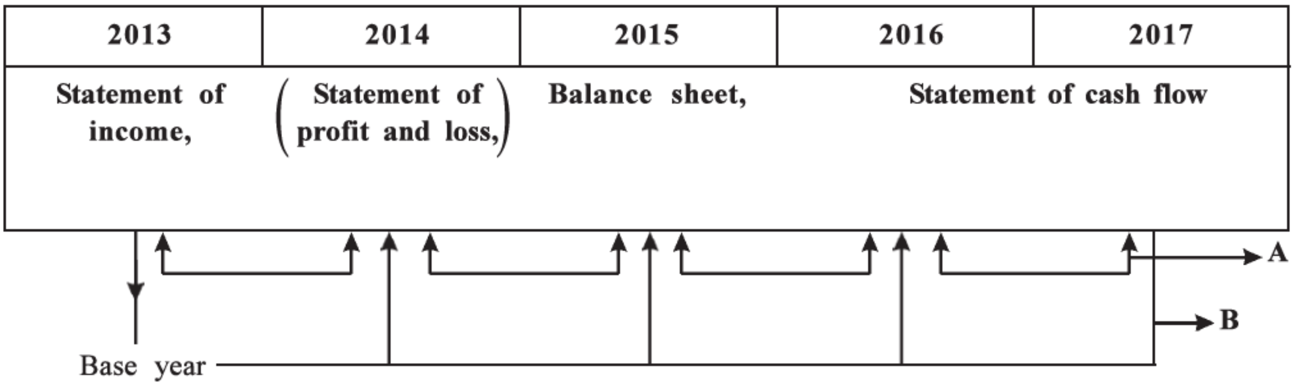
(1) On the Basis of Stakeholders : Financial statements of a business entity are used by various stakeholders. These stakeholders can be categorised into two categories : (i) External party (ii) Internal party.

(i) External analysis : When published accounts like income statement, balance sheet, report of an auditor or directors are analysed by external parties like potential investors, financial institutions, government agencies, credit rating agencies, researchers etc for their investment related decision or for any other decision, it is known as external analysis.

(ii) Internal analysis : The management of the business take their decision from accounts prepared by them. The base of these decisions is analysis. When financial statements are analysed by the management for their decisions is known as internal analysis. The information available for this kind of analysis is accurate and elaborate.

(2) Horizontal or Vertical Form : This kind of analysis can be done in two ways : (i) In the horizontal form and (ii) In the vertical form.

(i) Horizontal analysis : Financial statements are prepared every year. The comparison of financial statements of different years is known as horizontal analysis. This analysis is done for long term planning. This analysis is useful to know the current trend. This analysis is known as time series analysis.



From the figure above under A type analysis year 2013 can be compared with 2014 and year 2014 with 2015. i.e. performance of each current year can be compared with its previous year.

In the same manner under B type analysis, the year 2013 is treated as base year and the performance of each subsequent year is comparable with the base year 2013.

Both the above mentioned types of analysis are horizontal analysis. e.g. As compared to 2013 whether the profit of 2014 is increased or decreased ? Whether assets are increased or decreased ? This kind of trend can also be checked. The comparison of the statement of one year with the others known as horizontal analysis.

(ii) Vertical analysis : This kind of analysis is used to compare financial statements of one year. This analysis is used to compare the performance of different uints or departments of one year with the help of different pre determined ratios.

Financial statements of different units for the year 2017 :

Company X	Company Y	Company Z
Statement of income	Statement of income	Statement of income
↓	↓	↓
Balance sheet	Balance sheet	Balance sheet
↓	↓	↓
Statement of cash flow	Statement of cash flow	Statement of cash flow

The comparative analysis for one year among different units of different financial statements can be called as vertical analysis.

(3) On the Basis of Duration : One significant concept of accounting is Going Concern. As per this concept the existence of business entity is permanent. While preparing the accounts the concept of periodicity is also considered. It is generally of 12 months. We have acquired information about this in 11th standard, chapter no. 6 of part II. The analysis of accounts of business can be done for short-term and long-term. It's explanation is as follows :

(i) Long-term analysis : Many stakeholders like debenture holders, financial institutions, potential investors undertake long-term analysis of financial statements before investing their funds in the corporate form of business. For this analysis information of more than one year is needed. Under this analysis, these stakeholders determine the present and future long-term solvency, profitability, liquidity and efficiency of the borrowers. In brief, under long-term analysis the evaluation of above mentioned dimensions is done with the help of financial statements of more than one year.

(ii) Short-term analysis : This kind of analysis is used to measure short-term solvency or liquidity of the business entity. This kind of analysis is done by the short-term lenders as well as the suppliers of row materials.

As discussed above, the analysis of financial statements is done in different ways for different purposes. For analysis of financial statements, financial statements of one year or more than one years are considered. On the basis of analysis, different stakeholders make their rational decisions. Now, we will study the objectives of financial statements analysis.

7. Objectives of Financial Analysis

Financial analysis has different objectives for different stakeholders. Important objectives of financial analysis are as follows :

(1) Evaluation of Earning Capacity : Generally, financial statements are prepared for the duration of 12 months. What is the earning capacity of entity during this period ? This analysis is made with the help of different accounting ratios. Besides this, the future earning capacity of the entity also can be forecasted. Mostly all stakeholders for thier investment decisions, gather information of present and future earning through analysis.

(2) Efficiency Evaluation : Business entity acquires different assets as per the nature of business. With the help of this assets production and sales are done and services are provided. The use of these assets should be at maximum level. Maximum use of assets, generate more earning. Through financial analysis, the evaluation of the efficient use of assets can be done.

(3) Solvency Evaluation : Solvency of the entity is categorised into two types, which we have studied in 11th standard : Short-term solvency and long-term solvency. Different parties provide goods and services to business entities on credit. The payment of these goods and services is to be made in short-term period. Therefore the providers of goods and services measure the short-term solvency of the business. Financial institutions and banks also provide long-term advances to the business entities. They undertake evaluation and forecast of long-term solvency of business entities. Through financial analysis evaluation of short-term and long-term solvency of that business can be done.

(4) **Evaluation of Managerial Efficiency :** The owners and the management are two different entities in the company form of business. Funds of shareholders are managed by the board of directors. Besides, officers excute the decisions taken by the board of directors. Therefore, through financial analysis evaluation of effectiveness and fairness of the decisions of the board of directors can be done. The performance evaluation of the officers can also be done through this analysis.

(5) **Planning for Budget :** Budget means the quantitative planning or statistical planning of future objectives in present. What will be the future sales ? How much purchase is required ? How much will be the production ? Howmuch cash will be required ? What will be the revenue expenses ? What will be the capital expenses ? etc. are estimated. Analysis of financial statement is useful to make the process of budget effective.

(6) **Comparative Study :** Two types of comparisons can be done through financial analysis. In the first comparison, the business entity can compare its current accounts with the accounts of past. Different aspects of business entity like profitability, liquidity, solvency and efficiency etc. of the current year can be compared with the previous years to know the growth of the above mentioned aspects. In the second comparison all these aspects of business entity are compared with the results of competitors. This is known as interfirm comparison. Whether business entity is strong or weak as compared to its competitors can be ascertained through financial statement analysis.

(7) **Simplicity to Understand Accounts :** Financial accounts are prepared on the basis of determined rules, principles and terminology. It is possible that all the users of financial accounts may not have full knowledge pertaining to financial accounts. Under these circumstances, financial statements analysis helps to understand the financial accounts. In financial analysis the presentation of financial accounts is done in various ways. It provides simplicity to the users to understand financial accounts. Therefore, they can make their investments and other decisions. In brief, the financial analysis assists to understand the financial accounts.

Due to the analysis of financial statements different objectives can be achieved. These objectives explain the significance of the analysis of financial statements.

8. Uses of Financial Analysis

Generally four different aspects are analysed from the analysis of financial statements :

(1) Analysis of profitability : This discloses the earning capacity of business entity.

(2) Analysis of liquidity : This discloses the short-term solvency of business entity.

(3) Analysis of solvency : This discloses the long-term solvency of business entity.

(4) Analysis of efficiency : This explains the degree of use of assets.

(The discussion in detail about this is done in next chapter of ratio analysis.)

From the above studied objectives different stakeholders make their different decisions, that can be described in brief, as under :

(1) **For Dividend Decision :** In the company form dividend decision is analysed by different stakeholders - like existing investors, potential investors and company itself. What amount of dividend can be paid is decided by the management of the company. What amount of dividend will be received is estimated by the investors. The dividend decision is determined through profitability analysis.

The payment of dividend is based on earning capacity. This can be decided by profitability analysis. For dividend payment decision, financial statement analysis is useful.

(2) **For Investment Decision :** Investors invest their funds in a company for two purposes : (i) To receive regular income of dividend or interest (ii) For capital appreciation. The information pertaining to both the purposes can be availed from profitability and solvency analysis respectively. Thus, investors use this analysis for their decisions.

(3) **For Lending Decision :** Short-term and long-term loan and advances are provided to the bueinsss entities by banks and financial institutions. To know how far their advances are safe, the analysis for examination of short-term and long-term solvency is useful.

(4) **For Borrowing Decision :** This decision is useful to the business entity itself. From their analysis of financial statements, business entity can estimate its own borrowing capacity to borrow funds from the market. On the basis of this evaluation, the opportunities for new investment can be explored.

9. Users of Financial Analysis

The information disclosed in the financials statements can be used directly by the stakeholders. But after having analysis of financial statements, the information of financial statements become more precise and understandable. Therefore, all the stakeholders can take their appropriate decisions. This analysis is :

- For internal purpose
- For external users
- For short-term decisions
- For long-term decisions
- For existing investors
- For potential investors

10. Limitations of Analysis of Financial Statements

The analysis of financial statements is done in various ways. This is useful to different parties. Different stakeholders acquire appropriate information about good and weak aspects of business entity, through this analysis. However, there are some limitations of financial statement analysis. Thus, as and when financial statement analysis is undertaken, the following limitations should also be considered.

(1) **Historical Data :** Financial accounts are prepared on the basis of past transactions. Thus, financial accounts are known as historical accounts. The analysis of financial statements is based on historical information. From this analysis the future can be forecasted. The shareholders and other parties are more concerned with the future of business entity. Which cannot be availed from this analysis but the estimation of future can be made.

(2) **Ignorance of Inflation :** Due to inflation information disclosed in financial statement does not represent the real status. Specifically, at the time of the valuation of assets the impact of inflation is ignored in financial statements. Assets are disclosed at their old value and replacement cost which is higher is not considered. Income statement is prepared at current prices and balance sheet discloses

actual prices of past. Thus, one statement is prepared as per current price and other financial statement is prepared as per the historical price. In brief the value of money is not considered comprehensively. Therefore the result as per financial statement analysis might fail to provide guidance.

(3) **Absence of Qualitative Aspect :** During financial statement analysis only quantifiable items are considered. But factors like contribution of workers for development of business and loyality of management towards business entity, honesty, expertise etc. are not considered. All these factors have relation with efficiency of business. But these are ignored. This can also be considered as a limitation of financial statements analysis.

(4) **Based on Presentation of Financial Statements :** The operation of analysis is done on the basis of information provided in financial statements. The correct and fair analysis and interpretation are entirely based on information disclosed in the financial statement. There is a direct relation between true and fair information and effective and efficient analysis. Thus, if information of financial statements is incorrect or inadequate, the true and fair analysis of information can not be done. Here, the financial analysis is a dependent variable, which is based on the appropriateness of financial statements.

(5) **Personal Opinion :** There are options in accounting for preparing the accounts. e.g. use of depreciation method, inventory valuation method. Thus there is a possibility of personal opinion. Due to these options there is a room for subjectivity in preparation of accounts. This also creates hurdle for financial analysis. Thus it can be considered as a limitation.

(6) **Window Dressing :** As stated earlier fair financial analysis is based on the truthfulness of the financial statements. Many a times, the information disclosed in financial statements is not found to be correct. Accounts are prepared on the basis of incorrect information rather than correct information. Thus, decisions made by the stakeholders stand incorrect. This is also a limitation of financial analysis.

(7) **Discloses only Symptoms of Problem :** Financial analysis provides information of causes of the problems but does not provide the solution of it. For examle, if company has expected 30 % of gross profit and company earns 20 % gross profit, the reduced gross profit rate can be seen through financial statement analysis. But why gross profit is reduced can not be ascertained. The management has to find out the solutions and has to frame strategy accordingly.

From the above discussion it is concluded that the limitations of financial analysis are the result of limitations of financial statements. If the limitations of financial statements are eliminated, the limitations of financial analysis will be removed automatically.

11. Significance of Comparative Financial Statements

As stated earlier, financial statements are prepared on the basis of the principles and rules of accounting, and in the pre determined form. So that the financial accounts represent results with consistence base. To understand accounts easily by the stakeholders, financial statements are presented in rearranged form. Due to this process, the utility of financial statements increases. The importance of comparative statements can be described as under :

(1) **Intrafirm Comparison :** Every year financial statements are prepared by business enterprises. When the accounts of business entity of current year are compared with the accounts of previous years, it is known as intrafirm comparison. As compared to previous year whether the efficiency is increased or not ? Profitability is increased or not ? Whether the solvency is increased or not ? can be analysed. Besides, when one business entity has various departments, their financial performance evaluation is also done. This is also included in the category of intrafirm comparison.

(2) **Interfirm Comparison :** An industry comprises of various business entities. When financial statements of various business entities are compared with each other, it is known as interfirm comparison. Which business unit is financially strong or weak as compared to the other business unit can be ascertained. This information is ascertained through interfirm comparison. Different stakeholders may rethink on their investment decisions due to the interfirm comparison. So to undertake the financial condition comparison between two units, financial statements analysis is useful.

(3) **Indicates Trend :** Due to comparison of financial statements of different years and different sections of a business unit, the information of trend pertaining to financial position and profitability is ascertained. On the basis of this trend, different stakeholders undertake forecasting of their decisions. The trend of different aspects is disclosed by financial statements analysis. The trend helps to make decisions.

(4) **Useful to Creditors :** Creditors of business units are of long-term and short-term. Creditors determine creditworthiness of business units through analysis of financial statements. So it is also useful to the creditors.

(5) **Simple and Comparable Presentation of Information :** The information disclosed in the financial statements is prepared on the basis of rules of accounting. But when the information of the financial statements is rearranged it becomes simple to understand and analyse the financial statements. Generally, the information of financial statements is rearranged in the form of table. Thus, it becomes useful and simple to understand.

12. Stages of Analysis of Financial Statements

There are legal rules for the preparation of financial statements. Financial statements are prepared on the basis of rules. In the company form, financial accounts are prepared as per Companies Act, 2013. There is a provision for structure and nature of financial statements. Different stages are developed for the analysis of financial statements. Due to these stages an organised and scientific analysis can be done. These stages are as under :

(1) **New Structural Arrangement of Financial Statements :** Different tools are used for the analysis of financial statements which are prepared as per the legal provisions. Where common size financial statements, comparative statements, ratio analysis etc. are included. The information disclosed in financial statements is reclassified and rearranged to undertake use of these tools. This arrangement makes use of tools more favourable. e.g. to know the trend of net profit of last five years, the net profit rate is used. It's formula is $\frac{\text{Net profit}}{\text{Sales}} \times 100$.

For this analysis sales and profit of last five years is arranged in the form of table, which is as follows :

Table of Net Profit Rate

Year	Net Profit (₹)	Sales (₹)	Net Profit Rate (%)
1	60,000	5,00,000	12 %
2	77,000	5,50,000	14 %
3	1,10,500	8,50,000	13 %
4	80,000	5,00,000	16 %
5	84,000	5,60,000	15 %
Total	4,11,500	29,60,000	
÷ Years	5	5	
=Average	**82,300**	**5,92,000**	**14 %**

In the first stage of analysis, required information is to be obtained from the financial statement and subsequently to be reclassified and rearranged as mentioned above. To know the trend of net profits of the last five years, this information can be presented in this form.

(2) **Comparison :** In the second stage of financial analysis, reclassified and rearranged information is compared. The sales and net profit which are shown in above mentioned table, are compared with sales and net profit of its previous year i.e. the comparison of the results of the second year with the first year. Profit, sales and net profit rate are increased as compared to the first year in the second year. In this way, the results of the second year with the third year, of the third year with the fourth year and of the fourth year with the fifth can be compared. Analysis and interpretation is done on the basis of comparison.

(3) **Analysis and Interpretation :** Under point no. (2), the information is compared. Under this stage an attempt is made to explain information in quantitative manner along with quantitative form. Analysis means appropriate examination or evaluation of information, where information is categorised into different components and their relationship is tested. Interpretation gives explanation of this relationship. Net profit and sales shown in the above table are the components of the financial statements (income statement). There are two variables for computation of net profit rate and both are interrelated. Theoretically, the increase in sales leads to the increase in net profit. It means the sales and the net profit has positive relationship. As compared to the first year sales is increased from ₹ 5,00,000 to ₹ 5,50,000 in the second year and the profit is also increased from ₹ 60,000 to ₹ 77,000. In the third year, sales is increased - profit is also increased. In the fourth year sale is reduced - profit is also reduced. Again in the fifth year sales is increased, profit is also increased. (In practice it is possible that inspite of having increase in sales, there may be reduction in profit; or despite the decrease in sales the profit increases). This process is known as analysis.

As compared to the first year, net profit rate of second year is increased from 12 % to 14 %. It is good for the company. But in the third year sales is increased as compared to the second year; profit is also increased, but rate of net profit is reduced, which is 13 %. It can be said that profit earning capacity of the company is reduced during the third year as compared the second year. From the information of five years the total sales of five years is ₹ 29,60,000 and profit is ₹ 4,11,500. Their average respectively is ₹ 5,92,000 and ₹ 82,300. This is a kind of interpretation. In this way, the interpretation can be done each year. This process is known as interpretation.

Performance evaluation of a company is done on the basis of analysis and interpretation. From this evaluation it can be ascertained that whether company has good financial health or not. Different stakeholders make their decisions on the basis of this analysis and interpretation.

Now, let us take information on different tools of financial statement analysis where study pertaining to common size financial statements, comparative statements and ratio analysis is to be done.

13. Tools of Analysis of Financial Statements

The preparation of financial statements is the last stage under the financial accounting. In this stage the preparation of income statement and balance sheet are included. In the company form cash flow statement is also prepared. In these statement details of expense, income, assets, liability are disclosed in the form of rupees (In the form of currency of respective country). All these details are shown in the financial statements in legal form. Many a times it is difficult for a common man to understand them. In order to resolve this problem and to make information of financial statements more understandable the analysis of statement is done. For this analysis information of more than one years is used. For this process, different tools are developed in accounting; and analysis process is done with the use of them. Where common size financial statements, comparative statements and ratio analysis are included (Ratio analysis is disccussed in separate chapter). The explanation of comparative statements and common size statements is as follows :

Comparison of Financial Statements : The financial information of atleast two years is required. for comparison process. The development details of predetermined period is obtained through comparison. It can be known that which period shows good results and which shows weak results.

In comparative statements the details of income statements and/or balance sheets of two or more than two years are compared.

Comparison of Financial Statements

↓

↓	↓
Through comparative statements	Through common size statements
↓	↓
Profit-loss statement	Profit-loss statement
Balance sheet	Balance sheet

Financial statements are compared in two ways :

(1) **Through Comparative Statements :** Under this comparative statements, comparative balance sheet and comparative profit-loss statement (income statement) are prepared. This comparison is done in horizontal form. Thus, it is known as horizontal analysis of financial statements. Under this comparison, it can be ascertained that as compared to previous year what is increase/decrease in terms of rupees and in terms of percentage during the current year. The development trend of business entity can be seen from this kind of analysis.

e..g Equity share capital in the year 2016 was ₹ 3,00,000 and in the year 2017 it is ₹ 4,50,000. It means equity share capital is increased by ₹ 1,50,000 and in the form of percentage equity share capital is increased by 50 % as compared to previous year $\left(\frac{4{,}50{,}000 - 3{,}00{,}000}{3{,}00{,}000} \times 100\right)$. The statements which are prepared in this form are known as comparative statements.

(2) **Through Common Size Statements :** Balance sheets and profit-loss statements are considered for this kind of comparative statements also. This analysis is done in the vertical form, thus it is known as vertical analysis of financial statements. Under this comparison one base is used. For balance sheet, the total of balance sheet is considered as base. For profit-loss statement sales is considered as base. e.g. the total of balance sheet of 2016 is ₹ 1,00,000, where non-current assets are of ₹ 60,000 and current assets are of ₹ 40,000. While in the year 2017, the total of balance sheet is ₹ 1,50,000 and where non-current assets are of ₹ 75,000 and current assets are of ₹ 75,000. It's analysis and interpretation is as follows :

Analysis : During 2016 non-current assets are 60 % $\left(\frac{60,000}{1,00,000} \times 100\right)$ of total assets and current assets are 40 % $\left(\frac{40,000}{1,00,000} \times 100\right)$ of total assets.

During 2017 non-current assets are 50 % $\left(\frac{75,000}{1,50,000} \times 100\right)$ of total assets and current assets are also 50 % $\left(\frac{75,000}{1,50,000} \times 100\right)$ of total assets.

Interpretation : As compared to the previous year the proportion of the non-current assets is reduced from 60 % to 50 %, while the proportion of the current assets is increased from 40 % to 50 %.

The above explained analysis and the interpretation can be done with the help of comparative statements.

- **Characteristics of Comparative and Common Size Financial Statements :**

(1) There is information for two or more than two years.

(2) The comparison of the results of two or more than two years can be disclosed in the form of rupees.

(3) The comparison of the results of two or more than two years can be disclosed in the form of percentage.

(4) This comparison discloses either increase or decrease.

(5) The trend of any component of statement can be known through this comparison (e.g. the trend of share capital increase / decrease / no change).

(6) It can be presented in ratio form.

(7) Profit-loss statement and balance sheet of the previous year are compared respectively with the profit-loss statement and balance sheet of the current year. It means the comparison is done. The detailed information of tools of comparison of financial statements are as under :

(i) Comparative statements :

  (a) Comparative statement of profit-loss statement

  (b) Comparative statement of balance sheet

(ii) Common size statements :

  (a) Common size statement of profit-loss statement

  (b) Common size statement of balance sheet

14. Comparative Statements

(a) Comparative Profit and Loss Statement : The structure of comparative profit and loss statement is similar comparative balance sheet. There are total 6 columns. But the content of profit-loss statement and balance sheet are different. This analysis is known as the analysis of comparative statements. The comparison of details of two years of two components of annual accounts profit-loss statement and balance sheet are done. The growth of business entity can be seen through this analysis.

Explanation of comparative statement of profit-loss and comparative balance sheet is as under :

Structure of Comparative Profit-Loss Statement

Comparative Profit-Loss Statements for the Year Ending on 31-3-2016 and 31-3-2017

Particulars	Note No.	Previous Year (₹)	Current Year (₹)	Increase/ decrease (₹)	Increase/ decrease (%)
1	2	3	4	5(4 − 3)	6 $\left(\frac{5}{3} \times 100\right)$
(I) Sales revenue (II) Other income					
(III) Total revenue (I + II)					
(IV) Expenses : (i) Cost of goods consumed (ii) Net purchase of resale (iii) Changes in stock (iv) Employees benefit expenses (v) Financial cost (vi) Depreciation and Amortized expenses (vii) Other expenses					
Total expenses					
(V) Profit before tax (III – IV) (VI) Less : Income tax					
(VII) Profit after tax					
(V – VI)					

Note : A detailed information of profit-loss statement is obtained in the previous chapter.

There are two important components of profit and loss statement : (i) Total revenue and (ii) Total expenses. The result of earnings made during the year is available from the profit-loss statement. The increase in revenue indicates the increase in earning and the reduction in expenses also indicates the increase in earning. The reduction in revenue and increase in expenses indicate decrease in earning.

What is disclosed by the analysis of Profit and Loss Statement ? Profit-loss statement provides information of profitability of business entity. During the current year as compared to previous year what degree of profitability increase or decrease can be seen from comparative profit-loss statement. A detailed discussion regarding this is done in the chapter of ratio analysis.

In brief, during two periods how much total revenues and total expenses have changed (increase/ decrease) in terms of rupees and percentage can be ascertained from comparative profit-loss statement.

Whether the trend of all components of comparative profit-loss statement is

- fixed ?
- flexible ?
- decreasing ?
- increasing ? can be known through the comparative profit-loss statement.

The explanation of comparative profit-loss statement is given in illustrations :

Illustration 1 : Prepare comparative profit-loss statements from the following profit-loss statements of Vivekanand Ltd. for the year ending on 31-3-2016 and 31-3-2017.

Summarised Profit-Loss Statements for the Year Ending on 31-3-2016 and 31-3-2017

Particulars	Note No.	31-3-2017 (₹)	31-3-2016 (₹)
Sales revenue		16,00,000	14,00,000
Other income		3,00,000	2,50,000
Expenses		9,60,000	7,20,000

Ans. :

Comparative Profit-Loss Statement of Vivekanand Ltd.
for the Year Ending on 31-3-2016 and 31-3-2017

Particulars	Note No.	31-3-2016 (₹)	31-3-2017 (₹)	Increase/ Decrease (₹)	Increase/ Decrease (%)
1	2	3	4	5(4 − 3)	6 $\left(\frac{5}{3} \times 100\right)$
(I) Sales revenue		14,00,000	16,00,000	2,00,000	14.29
(II) Other income		2,50,000	3,00,000	50,000	20.00
(III) **Total income (I + II)**		**16,50,000**	**19,00,000**	**2,50,000**	**15.15**
(IV) Expenses :		7,20,000	9,60,000	2,40,000	33.33
(V) Profit before income tax (III − IV)		9,30,000	9,40,000	10,000	1.08

Illustration 2 : Profit-loss statements of Bright Ltd. for the year ending on 31-3-2016 and 31-3-2017 are as follows. On the basis of them prepare comparative profit-loss statement.

Summarised Profit-Loss Statements for the Year Ending on 31-3-2016 and 31-3-2017

Particulars	Note No.	31-3-2017 (₹)	31-3-2016 (₹)
Sales revenue		16,00,000	14,00,000
Other income		3,00,000	2,50,000
Expenses		9,60,000	7,20,000

Income tax rate is 30 %.

Ans. :

Comparative Profit-Loss Statement of Bright Ltd.
for the Year Ending on 31-3-2016 and 31-3-2017

Particulars 1	Note No. 2	31-3-2016 (₹) 3	31-3-2017 (₹) 4	Increase/ Decrease (₹) 5(4 − 3)	Increase/ Decrease (%) 6 $\left(\frac{5}{3} \times 100\right)$
(I) Sales revenue		14,00,000	16,00,000	2,00,000	14.29
(II) Other income		2,50,000	3,00,000	50,000	20.00
(III) **Total income (I + II)**		**16,50,000**	**19,00,000**	**2,50,000**	**15.15**
(IV) Expenses :		7,20,000	9,60,000	2,40,000	33.33
(V) Profit before tax (III − IV)		9,30,000	9,40,000	10,000	1.08
(VI) Less : Income tax (30 %)		2,79,000	2,82,000	3000	1.08
(VII) Profit after tax (V − VI)		6,51,000	6,58,000	7000	1.08

Note : When tax rate is identical for given both years, in this case increase/decrease in column no. 6 whould remain the same. in case of

– Profit before tax

– Income tax

– Profit after tax

Illustration 3 : Summarised profit and loss statements of Gujarat Ltd. for the year ending of 31-3-2016 and 31-3-2017 are as follows. Prepare comparative profit-loss statement.

Profit-Loss Statement of Gujarat Ltd.
for the Year Ending on 31-3-2016 and 31-3-2017

Particulars	Note No.	31-3-2017 (₹)	31-3-2016 (₹)
Sales revenue		9,00,000	8,00,000
Other income		2,00,000	1,00,000
Cost of goods consumed		3,30,000	3,00,000
Financial expenses		60,000	60,000
Depreciation		40,000	40,000
Other expenses		1,80,000	2,00,000

Income tax rate is 30 %

Ans. :

Comparative Profit-Loss Statement of Gujarat Ltd.
for the Year Ending on 31-3-2016 and 31-3-2017

Particulars	Note No.	31-3-2016 (₹)	31-3-2017 (₹)	Increase/ Decrease (₹)	Increase/ Decrease (%)
1	2	3	4	5(4 − 3)	6 $\left(\frac{5}{3} \times 100\right)$
(I) Sales revenue		8,00,000	9,00,000	1,00,000	12.50
(II) Other income		1,00,000	2,00,000	1,00,000	100.00
(III) **Total income (I + II)**		**9,00,000**	**11,00,000**	**2,00,000**	**22.22**
(IV) Expenses :					
(i) Cost of goods consumed		3,00,000	3,30,000	30,000	10
(ii) Financial expenses		60,000	60,000	–	–
(iii) Depreciation		40,000	40,000	–	–
(iv) Other expenses		2,00,000	1,80,000	(20,000)	(10)
Total expenses		**6,00,000**	**6,10,000**	**10,000**	**1.67**
(V) Profit before tax (III − IV)		3,00,000	4,90,000	1,90,000	63.33
(VI) Less : Income tax (30 %)		90,000	1,47,000	57,000	63.33
(VII) Profit after tax (V − VI)		**2,10,000**	**3,43,000**	**1,33,000**	**63.33**

Note : Decrease is shown in bracket.

Illustration 4 : From profit-loss statements of Bhavna Ltd. for the year ending on 31-3-2016 and 31-3-2017, prepare comparative profit-loss statement.

Profit-Loss Statement of Bhavna Ltd.
for the Year Ending on 31-3-2016 and 31-3-2017

Particulars	Note No.	31-3-2017 (₹)	31-3-2016 (₹)
Sales revenue		20,00,000	16,00,000
Other income		3,00,000	4,00,000
Expenses :			
Cost of goods consumed		9,00,000	8,00,000
Net purchase for resale		1,10,000	90,000
Changes in stock		50,000	50,000
Employees benefit expense		1,20,000	90,000
Financial cost		40,000	60,000
Depreciation and amortized amount		2,70,000	1,80,000

Income tax rate is 30 %.

Ans. :

Comparative Profit-Loss Statement of Bhavna Ltd.
for the Year Ending on 31-3-2016 and 31-3-2017

Particulars 1	Note No. 2	31-3-2016 (₹) 3	31-3-2017 (₹) 4	Increase/ Decrease (₹) 5(4 − 3)	Increase/ Decrease (%) 6 $\left(\frac{5}{3}\times 100\right)$
(I) Sales revenue		16,00,000	20,00,000	4,00,000	25
(II) Other income		4,00,000	3,00,000	(1,00,000)	(25)
(III) **Total income (I + II)**		**20,00,000**	**23,00,000**	**3,00,000**	**15**
(IV) Expenses :					
(i) Cost of goods consumed		8,00,000	9,00,000	1,00,000	12.5
(ii) Net purchase for resale		90,000	1,10,000	20,000	22.22
(iii) Changes in stock		50,000	50,000	–	–
(iv) Employees benefit expenses		90,000	1,20,000	30,000	33.33
(v) Financial cost		60,000	40,000	(20,000)	(33.33)
(vi) Depreciation and amortized amount		1,80,000	2,70,000	90,000	50
Total expenses		**12,70,000**	**14,90,000**	**2,20,000**	**17.32**
(V) Profit before tax (III − IV)		7,30,000	8,10,000	80,000	10.96
(VI) Less : Income tax (30 %)		2,19,000	2,43,000	24,000	10.96
(VII) Profit after tax (V − VI)		**5,11,000**	**5,67,000**	**56,000**	**10.96**

Illustration 5 : From the following information prepare comparative profit-loss statement :

Particulars	31-3-2017 (₹)	31-3-2016 (₹)
Sales revenue	15,00,000	9,00,000
Net purchase for resale	9,00,000	6,00,000
Changes in stock	50,000	50,000
Other Expenses (% of cost of sales)	10	12
Income tax	30 %	30 %

Note : Changes in stock means difference of opening and closing stock

(Changes in stock = Opening stock − Closing stock)

If difference is positive, will be added to cost of sales or will be deducted from revenue. If difference is negative, will be deducted from cost of sales or will be added to revenue.

Relation of opening stock and closing stock with cost of sales and revenue

Cost of sales and revenue \ Circumstances	Opening stock > Closing stock (Positive difference)	Opening stock < Closing stock (Negative difference)
Cost of sales	will be added	will be deducted
Revenue	will be deducted	will be added

e.g. Purchase ₹ 5,00,000 and opening stock and closing stock respectively ₹ 60,000 and ₹ 40,000. In this case cost of sales will be ₹ 5,00,000 + (₹ 60,000 − ₹ 40,000) = ₹ 5,20,000.

If opening and closing stock is respectively ₹ 40,000 and ₹ 60,000. In this case cost of sales will be ₹ 5,00,000 (₹ 40,000 − ₹ 60,000) = ₹ 4,80,000.

Ans. :

Comparative Profit-Loss Statement for the Year Ending on 31-3-2016 and 31-3-2017

Particulars 1	Note No. 2	31-3-2016 (₹) 3	31-3-2017 (₹) 4	Increase/ Decrease (₹) 5(4 − 3)	Increase/ Decrease (%) 6 $\left(\frac{5}{3}\times 100\right)$
(I) Sales revenue		9,00,000	15,00,000	6,00,000	66.67
(II) Expenses :					
(i) Net purchase for resale		6,00,000	9,00,000	3,00,000	50
(ii) Changes in stock		50,000	50,000	−	−
(iii) Other expenses		78,000	95,000	17,000	21.79
Total expenses		**7,28,000**	**10,45,000**	**3,17,000**	**43.54**
(III) Profit before tax		1,72,000	4,55,000	2,83,000	164.53
(IV) Less : Income tax (30 %)		51,600	1,36,500	84,900	164.53
(V) Profit after tax		**1,20,400**	**3,18,500**	**1,98,100**	**164.53**

Explanation : Other Expenses = % of cost of sales

∴ Cost of sales = Net purchase of resale + Changes in stock

2016 = 6,00,000 + 50,000

= 6,50,000

× 12 %

= ₹ 78,000

2017 = 9,00,000 + 50,000

= 9,50,000

× 10 %

= ₹ 95,000

Illustration 6 : Prepare comparative profit and loss statements from the given details.

Particulars	31-3-2017 (₹)	31-3-2016 (₹)
Sales revenue	15,00,000	18,00,000
Net purchase for resale	6,00,000	5,00,000
Changes in stock	1,60,000	1,00,000
Other expenses (% of sales)	45	40
Other income (% of sales)	12	10
Income tax rate	30 %	30 %

Ans. :

Comparative Profit and Loss Statement

Particulars	Note No.	31-3-2016 (₹)	31-3-2017 (₹)	Increase/ Decrease (₹)	Increase/ Decrease (%)
1	2	3	4	5(4 − 3)	6 $\left(\frac{5}{3} \times 100\right)$
(I) Sales revenue		18,00,000	15,00,000	(3,00,000)	(16.67)
(II) Other income		1,80,000	1,80,000	–	–
(III) Total income (I + II)		19,80,000	16,80,000	(3,00,000)	(15.15)
(IV) Expenses :					
(i) Net purchase for resale		5,00,000	6,00,000	1,00,000	20
(ii) Changes in stock		1,00,000	1,60,000	60,000	60
(iii) Other Expenses		7,20,000	6,75,000	(45,000)	(6.25)
Total Expenses		**13,20,000**	**14,35,000**	**1,15,000**	**8.71**
(V) Profit before tax		6,60,000	2,45,000	(4,15,000)	(62.88)
(VI) Less : Income tax (30 %)		1,98,000	73,500	(1,24,500)	(62.88)
(VII) Profit after tax		**4,62,000**	**1,71,500**	**(2,90,500)**	**(62.88)**

Explanation :

Expenses \ Years	2016	2017
(1) Other expenses (% of sales)	₹ 18,00,000 × 40 % = ₹ 7,20,000	₹ 15,00,000 × 45 % = ₹ 6,75,000
(2) Other income (% of sales)	₹ 18,00,000 × 10 % = ₹ 1,80,000	₹ 15,00,000 × 12 % = ₹ 1,80,000

(b) **Comparative Balance Sheet :**

Format of Comparative Balance Sheet

Balance Sheet as on ....

Particulars	Note No.	Previous Year (₹)	Current Year (₹)	Increase/ Decrease (₹)	Increase/ Decrease (%)
1	2	3	4	5(4 − 3)	6 $\left(\frac{5}{3} \times 100\right)$
(I) Equity and Liabilities					
(1) Shareholders' funds :					
(a) Share capital					
(i) Equity share capital					
(ii) Preference share capital					
(b) Reserves and surplus					
(2) Non-current liabilities					
(i) Long-term borrowings					
(ii) Long-term provisions					
(3) Current liabilities					
(i) Short-term borrowings					
(ii) Trade payable					
(iii) Other current liabilities					
(iv) Short-term provisions					
Total					
(II) Assets :					
(1) Non-current assets :					
(a) Fixed assets					
(i) Tangible assets					
(ii) Intangible assets					
(b) Non-current investments					
(c) Long-term loan and advances					
(d) Other non-current assets					
(2) Current assets :					
(i) Current investments					
(ii) Inventories					
(iii) Trade receivables					
(iv) Cash and cash equivalent					
(v) Short-term loans and advances					
(vi) Other Current assets					
Total					

Note : Only important heads of balance sheet are included so that students can undertake analysis and interpretation easily. No additional information is expected from students. The detailed study about structure of balance sheet is done in the previous chapter.

Analysis of balance sheet : There are two important components of balance sheet.

(1) Equity and liabilities and

(2) Assets

In the context of interpretation about these two components, following explanation can be given. This explaation makes the interpretation process simple.

Sr.No.	Equity and Liabilities	Assets
1.	It shows sources of finance.	It shows application of finance.
2.	It shows that from where finance is created.	It shows that where finance is applied.
3.	It is known as procurment of funds.	It shows investment in assets.
4.	Increase in amount shows addition in funds.	Increase in amount shows additional investment.
5.	Reduction in amount shows refund of funds or reduction in provisions.	Reduction in amount shows reduction in non-current assets or current assets.

What is Disclosed by Balance Sheet Analysis ? Balance sheet provides the information about the solvancy status of the business enterprise. As compared to the provious long-term and short-term solvancy of the business entity the current solvency is increased or decreased, can be known with the help of comparative balance sheet.

This is discussed in detail in the chapter of ratio analysis. Besides, the status of business expansion also is ascertained with the help of the analysis of balance sheet.

In brief, during two periods how much (i) Share capital, (ii) Reserves and surplus, (iii) Non-current liabilities, (iv) Current liabilities as well as (i) Non-current assets, (ii) Current assets are changed (increase/decrease) in terms of rupee and percentange can be ascertained from comperative balance sheets.

Whether the trend of all the components of comparative balance sheet is

– fixed
– flexible
– decreasing
– increasing etc. can be known through comparative balance sheet.

Illustration 7 : From balance sheets of Start up India Co. Ltd. of 31-3-2016 and 31-3-2017, prepare comparative balance sheet.

Balance Sheet as on 31-3-2016 and 31-3-2017

Particulars		Note No.	31-3-2017 (₹)	31-3-2016 (₹)
(I)	**Equity and Liabilities :**			
(1)	Shareholders' fund :			
	(a) Share capital			
	(i) Equity share capital		12,00,000	10,00,000
	(ii) Preference share capital		5,00,000	5,00,000
	(b) Reserves and surplus			
	Profit-loss account		1,80,000	1,00,000
(2)	Non-current liabilities			
	10 % debentures		2,50,000	2,00,000
(3)	Current liabilities			
	(i) Short-term borrowings		62,500	50,000
	(ii) Trade payable		40,000	40,000
	(iii) Short-term provisions		72,000	60,000
	Total		**23,04,500**	**19,50,000**
(II)	**Assets :**			
(1)	Non-current assets :			
	(a) Fixed assets			
	(i) Tangible assets		10,00,000	8,00,000
	(ii) Intangible assets		6,25,000	5,00,000
	(b) Long-term investments		3,79,500	4,00,000
(2)	Current assets		3,00,000	2,50,000
	Total		**23,04,500**	**19,50,000**

Ans. :

Comparative Balance Sheet of Start Up India Co. Ltd. as on 31-3-2016 and 31-3-2017

Particulars		Note No.	31-3-2016 (₹)	31-3-2017 (₹)	Increase/ Decrease (₹)	Increase/ Decrease (%)
1		2	3	4	5(4 − 3)	6 $\left(\frac{5}{3} \times 100\right)$
(I)	**Equity and Liabilities :**					
(1)	Shareholders' funds :					
	(a) Share capital					
	(i) Equity share capital		10,00,000	12,00,000	2,00,000	20
	(ii) Preference share capital		5,00,000	5,00,000	–	–
	(b) Reserves and surplus					
	Profit-loss account		1,00,000	1,80,000	80,000	80

Particulars	Note No.	31-3-2016 (₹)	31-3-2017 (₹)	Increase/ Decrease (₹)	Increase/ Decrease (%)
1	2	3	4	5(4 − 3)	6 $\left(\frac{5}{3} \times 100\right)$
(2) Non-current liabilities					
10 % debentures		2,00,000	2,50,000	50,000	25
(3) Current liabilities					
(i) Short-term borrowings		50,000	62,500	12,500	25
(ii) Trade payables		40,000	40,000	–	–
(iii) Short-term provisions		60,000	72,000	12,000	20
Total		**19,50,000**	**23,04,500**	**3,54,500**	**18.18**
(II) Assets :					
(1) Non-current assets :					
(a) Fixed assets					
(i) Tangible assets		8,00,000	10,00,000	2,00,000	25
(ii) Intangible assets		5,00,000	6,25,000	1,25,000	25
(b) Long-term investments		4,00,000	3,79,500	(20,500)	(5.13)
(2) Current assets :		2,50,000	3,00,000	50,000	20
Total		**19,50,000**	**23,04,500**	**3,54,500**	**18.18**

Note : Reduced amount is shown in bracket.It shows negative trend.

Explanation : (1) Balance sheet has two sides : Equity-liabilities and Assets. From where funds are raised and where funds are applied respectively can be seen from balance sheet. Thus total of both the sides remain identical. Likewise the total amount of changes of liability side and total amount of changes of assets side also remains identical. (2) If the change is negative, it will be negative on both the sides and if it is positive, it will be positive on both the sides. Here the change is of ₹ 3,54,500, which is a positive change. It indicates an increase in the current year as compared to the previous year. Both the sides it is ₹ 3,54,500. (3) The change in percentage form and is also equal at both the sides. Here the change in percentage form is 18.18 %. (4) The process of analysis is from the left side to the right side. Thus, it is known as the horizontal analysis.

Illustration 8 : The balance sheet of Skill India Company Ltd. as at 31-3-2016 and 31-3-2017 are as follows. Prepare comparative balance sheet.

Particulars	Note No.	31-3-2017 (₹)	31-3-2016 (₹)
(I) Equity and Liabilities :			
(1) Shareholders' funds :			
(a) Share capital			
(i) Equity Share capital		30,00,000	25,00,000
(ii) Preference Share capital		10,00,000	15,00,000

Particulars	Note No.	31-3-2017 (₹)	31-3-2016 (₹)
(b) Reserves and surplus			
(i) General reserve		3,00,000	5,00,000
(ii) Profit-loss account		6,00,000	8,00,000
(2) Non-current liabilities			
10 % bank loan		12,00,000	10,00,000
(3) Current liabilities			
(i) Short-term borrowings		1,50,000	3,00,000
(ii) Trade payables		70,000	1,00,000
(iii) Other current liabilities		1,80,000	1,00,000
Total		**65,00,000**	**68,00,000**
(II) Assets :			
(1) Non-current assets :			
(a) Fixed assets			
(i) Tangible assets : Land-building		13,50,000	20,00,000
Machines		22,50,000	18,00,000
(ii) Intangible assets : Patent		14,00,000	12,00,000
(b) Non-current investments		10,00,000	8,00,000
(2) Current assets :			
(i) Material		2,00,000	4,00,000
(ii) Current investments		1,50,000	3,00,000
(iii) Trade receivables		50,000	2,00,000
(iv) Cash and cash equivalent		1,00,000	1,00,000
Total		**65,00,000**	**68,00,000**

Ans. :

Comparative Balance Sheets of Skill India Ltd. as on 31-3-2016 and 2017

Particulars	Note No.	31-3-2016 (₹)	31-3-2017 (₹)	Increase/ Decrease (₹)	Increase/ Decrease (%)
1	2	3	4	5(4 − 3)	6 $\left(\frac{5}{3}\times 100\right)$
(I) Equity and Liabilities :					
(1) Shareholders' funds :					
(a) Share capital					
(i) Equity share capital		25,00,000	30,00,000	5,00,000	20
(ii) Preference share capital		15,00,000	10,00,000	(5,00,000)	(33.33)
(b) Reserves and surplus					
(i) General reserve		5,00,000	3,00,000	(2,00,000)	(40)
(ii) Profit-loss account		8,00,000	6,00,000	(2,00,000)	(25)

Particulars	Note No.	31-3-2016 (₹)	31-3-2017 (₹)	Increase/ Decrease (₹)	Increase/ Decrease (%)
1	2	3	4	5(4 − 3)	6 $\left(\frac{5}{3}\times 100\right)$
(2) Non-current liabilities					
10 % bank loan		10,00,000	12,00,000	2,00,000	20
(3) Current liabilities					
(i) Short-term borrowings		3,00,000	1,50,000	(1,50,000)	(50)
(ii) Trade payables		1,00,000	70,000	(30,000)	(30)
(iii) Other Current liabilities		1,00,000	1,80,000	80,000	80
Total		**68,00,000**	**65,00,000**	**(3,00,000)**	**(4.411)**
(II) Assets :					
(1) Non-current assets :					
(a) Fixed assets					
(i) Tangible :					
Land-Building		20,00,000	13,50,000	(6,50,000)	(32.5)
Machines		18,00,000	22,50,000	4,50,000	25
(ii) Intangible :					
Patent		12,00,000	14,00,000	2,00,000	16.67
(b) Non-current investments		8,00,000	10,00,000	2,00,000	25
(2) Current assets :					
(i) Materials		4,00,000	2,00,000	(2,00,000)	(50)
(ii) Current investments		3,00,000	1,50,000	(1,50,000)	(50)
(iii) Trade receivables		2,00,000	50,000	(1,50,000)	(75)
(iv) Cash - cash equivalent		1,00,000	1,00,000	–	–
Total		**68,00,000**	**65,00,000**	**(3,00,000)**	**(4.411)**

Illustrations of balancing figures for comparative statements :

Two types of balancing figures are required to calculate :

(1) To find out amount and change in amount of current year on the basis of amount and percentage change of previous year. The following formula can be used.

$$\text{Amount of current year} = \text{Amount of previous year} \times \frac{(100 + \text{change in percentage})}{100}$$ **or**

$$\text{Change in amount} = \text{Amount of previous year} \times \frac{\text{change in percentage}}{100}$$

(2) To find out amount and change in amount of previous year on the basis of amount and percentage change of current year. The following formulas can be used.

$$\text{Amount of previous year} = \text{Amount of current year} \times \frac{100}{(100 + \text{change in percentage})}$$ **or**

$$\text{Change in amount} = \text{Amount of current year} \times \frac{\text{change in percentage}}{(100 + \text{change in percentage})}$$

Illustration 9 : Find out balancing figures of comparative statement of Firoz Ltd. and prepare new comparative statement.

Particulars	Note No.	31-3-2016 (₹)	31-3-2017 (₹)	Increase/ Decrease (₹)	Increase/ Decrease (%)
1	2	3	4	5(4 – 3)	6 $\left(\frac{5}{3} \times 100\right)$
(I) Sales revenue		7,20,000	?	?	35
(II) Expenses :					
(i) Purchase		4,00,000	?	?	100
(ii) Changes in stock		40,000	?	?	(200)
(iii) Depreciation		40,000	?	?	55
Total Expenses		**4,80,000**	**?**	**?**	**71.25**
(III) Profit before tax		2,40,000	?	?	(37.50)
(IV) Less : Income tax (30 %)		72,000	?	?	(37.50)
(V) Profit after tax		**1,68,000**	**?**	**?**	**(37.50)**

Ans. :

Note : The balancing figuress are to be ascertained on the basis of amount and change in percentage of previous year.

$$\text{Amount of current year} = \text{Amount of previous year} \times \frac{(100 + \text{change in percentage})}{100}$$

(i) Sales revenue $= 7{,}20{,}000 \times \frac{(100 + 35)}{100}$ = ₹ 9,72,000

(ii) Purchase $= 4{,}00{,}000 \times \frac{(100 + 100)}{100}$ = ₹ 8,00,000

(iii) Stock $= 40{,}000 \times \frac{(100 - 200)}{100}$ = ₹ (–40,000)

(iv) Depreciation $= 40{,}000 \times \frac{(100 + 55)}{100}$ = ₹ 62,000

(v) Profit before tax $= 2{,}40{,}000 \times \frac{(100 - 37.5)}{100}$ = ₹ 1,50,000

(vi) Income tax $= 72{,}000 \times \frac{(100 - 37.5)}{100}$ = ₹ 45,000

(vii) Profit after tax $= 1{,}68{,}000 \times \frac{(100 - 37.5)}{100}$ = ₹ 1,05,000

Comparative Profit-Loss Statement of Firoz Ltd. for the Year Ending on 31-3-2016 and 31-3-2017

Particulars 1	Note No. 2	31-3-2016 (₹) 3	31-3-2017 (₹) 4	Increase/ Decrease (₹) 5(4 − 3)	Increase/ Decrease (%) 6 $\left(\frac{5}{3}\times 100\right)$
(I) Sales revenue		7,20,000	9,72,000	2,52,000	35
(II) Expenses :					
(i) Purchase		4,00,000	8,00,000	4,00,000	100
(ii) Changes in stock		40,000	(40,000)	(80,000)	(200)
(iii) Depreciation		40,000	62,000	22,000	55
Total Expenses		**4,80,000**	**8,22,000**	**3,42,000**	**71.25**
(III) Profit before tax		2,40,000	1,50,000	(90,000)	(37.5)
(IV) Less : Income tax (30 %)		72,000	45,000	(27,000)	(37.5)
(V) Profit after tax		**1,68,000**	**1,05,000**	**(63,000)**	**(37.5)**

Illustration 10 : Complete the comparative profit and loss statements of Dolly Limited for the year ending on 31-3-2016 and 31-3-2017.

Particulars 1	Note No. 2	31-3-2016 (₹) 3	31-3-2017 (₹) 4	Increase/ Decrease (₹) 5(4 − 3)	Increase/ Decrease (%) 6 $\left(\frac{5}{3}\times 100\right)$
(I) Sales revenue		?	10,00,000	?	25
(II) Other income		?	4,00,000	?	100
(III) **Total income (I + II)**		?	**14,00,000**	?	**40**
(IV) Expenses		?	4,00,000	?	100
(V) Profit before tax		?	10,00,000	?	25
(VI) Less : Income tax (30 %)		?	3,00,000	?	25
(VII) Profit after tax		?	**7,00,000**	?	25

Note : The balancing figures are to be ascertained on the basis of amount and change in percentage of current year.

$$\text{Amount of previous year} = \text{Amount of current year} \times \frac{100}{(100 + \text{change in percentage})}$$

(i) Sales revenue $= 10,00,000 \times \frac{100}{(100+25)} =$ ₹ 8,00,000

(ii) Other income $= 4,00,000 \times \frac{100}{(100+100)} =$ ₹ 2,00,000

(iii) Total income $= 14{,}00{,}000 \times \frac{100}{(100 + 40)}$ = ₹ 10,00,000

(iv) Expenses $= 4{,}00{,}000 \times \frac{100}{(100 + 100)}$ = ₹ 2,00,000

(v) Profit before tax $= 10{,}00{,}000 \times \frac{100}{(100 + 25)}$ = ₹ 8,00,000

(vi) Income tax $= 3{,}00{,}000 \times \frac{100}{(100 + 25)}$ = ₹ 2,40,000

(vii) Profit after tax $= 7{,}00{,}000 \times \frac{100}{(100 + 25)}$ = ₹ 5,60,000

or

$$\text{Amount of change} = \text{Amount of current year} \times \frac{\text{Change in percentage}}{(100 + \text{Change in percentage})}$$

Sales revenue $= 10{,}00{,}000 \times \frac{25}{125}$ = ₹ 2,00,000

$\therefore$ Amount of previous year = Amount of current year − Amount of change

= 10,00,000 − 2,00,000

= ₹ 8,00,000

The amount of each component can be calculated as mentioned above.

Comparative Profit and Loss Statements of Dolly Limited
for the Year Ending on 31-3-2016 and 31-3-2017

Particulars	Note No.	31-3-2016 (₹)	31-3-2017 (₹)	Increase/ Decrease (₹)	Increase/ Decrease (%)
1	2	3	4	5(4 − 3)	6 $\left(\frac{5}{3} \times 100\right)$
(I) Sales revenue		8,00,000	10,00,000	2,00,000	25
(II) Other income		2,00,000	4,00,000	2,00,000	100
(III) **Total income**		**10,00,000**	**14,00,000**	**4,00,000**	**40**
(IV) Expenses		2,00,000	4,00,000	2,00,000	100
(V) Profit before tax		8,00,000	10,00,000	2,00,000	25
(VI) Less : Income tax		2,40,000	3,00,000	60,000	25
(VII) Profit after tax		**5,60,000**	**7,00,000**	**1,40,000**	**25**

Illustration 11 : Complete the comparative statement of balance sheets of Reshma Company Limited for the year ending on 31-3-2016 and 31-3-2017.

Particulars	Note No.	31-3-2016 (₹)	31-3-2017 (₹)	Increase/ Decrease (₹)	Increase/ Decrease (%)
1	2	3	4	5(4 − 3)	6 $\left(\frac{5}{3} \times 100\right)$
(I) Equity and Liabilities					
(1) Shareholders' funds :					
(a) Share capital					
(i) Equity share capital		?	12,00,000	?	20
(ii) Preference share Capital		?	10,50,000	?	50
(b) Reserves and surplus		?	5,00,000	?	66.67
(2) Non-current liabilities					
10 % debentures		?	4,50,000	?	12.5
(3) Current liabilities		?	2,00,000	?	33.33
Total		**?**	**34,00,000**	**?**	**33.33**
(II) Assets :					
(1) Non-current assets :					
(a) Fixed assets					
(i) Tangible assets		12,00,000	?	?	41.67
(ii) Intangible assets		11,00,000	?	?	18.18
(2) Current assets		2,50,000	?	?	60
Total		**25,50,000**	**?**	**?**	**33.33**

Ans. :

(I) Equity and liabilities side : The balancing figures are to be ascertained on the basis of amount and change in percentage of current year.

Amount of previous year = Amount of current year $\times \dfrac{100}{(100 + \text{Change in percentage})}$

(i) Equity Share capital $= 12,00,000 \times \frac{100}{100+20}$ = ₹ 10,00,000

(ii) Preference Share capital $= 10,50,000 \times \frac{100}{100+50}$ = ₹ 7,00,000

(iii) Reserves and surplus $= 5,00,000 \times \frac{100}{100+66.66}$ = ₹ 3,00,000

(iv) 10 % debentures $= 4,50,000 \times \frac{100}{100+12.50}$ = ₹ 4,00,000

(v) Current liabilities $= 2,00,000 \times \frac{100}{100+33.33}$ = ₹ 1,50,000

(II) Assets side : The balancing figures are to be ascertained on the basis of amount of previous year and change in percentage.

Amount of current year = Amount of previous year × $\frac{(100 + \text{Change in percentage})}{100}$

(i) Tangible assets $= 12,00,000 \times \frac{(100 + 41.66...)}{100}$ = ₹ 17,00,000

(ii) Intangible assets $= 11,00,000 \times \frac{(100 + 18.1818...)}{100}$ = ₹ 13,00,000

(iii) Current assets $= 2,50,000 \times \frac{(100 + 60)}{100}$ = ₹ 4,00,000

Comparative Balance Sheets of Reshma Company Ltd.
as on 31-3-2016 and 31-3-2017

Particulars	Note No.	31-3-2016 (₹)	31-3-2017 (₹)	Increase/ Decrease (₹)	Increase/ Decrease (%)
1	2	3	4	5(4 − 3)	6 $\left(\frac{5}{3} \times 100\right)$
(I) Equity and Liabilities					
(1) Shareholders' funds :					
(a) Share capital					
(i) Equity share capital		10,00,000	12,00,000	2,00,000	20
(ii) Preference share capital		7,00,000	10,50,000	3,50,000	50
(b) Reserves and surplus		3,00,000	5,00,000	2,00,000	66.67
(2) Non-current liabilities					
10 % debentures		4,00,000	4,50,000	50,000	12.5
(3) Current liabilities		1,50,000	2,00,000	50,000	33.33
Total		**25,50,000**	**34,00,000**	**8,50,000**	**33.33**
(II) Assets :					
(1) Non-current assets :					
(a) Fixed assets					
(i) Tangible assets		12,00,000	17,00,000	5,00,000	41.67
(ii) Intangible assets		11,00,000	13,00,000	2,00,000	18.18
(2) Current assets		2,50,000	4,00,000	1,50,000	60
Total		**25,50,000**	**34,00,000**	**8,50,000**	**33.33**

Illustration 12 : Complete comparative balance sheets of Bharat Company Ltd. for the year ending on 31-3-2016 and 31-3-2017.

Particulars 1	Note No. 2	31-3-2016 (₹) 3	31-3-2017 (₹) 4	Increase/ Decrease (₹) 5(4 − 3)	Increase/ Decrease (%) 6 $\left(\frac{5}{3}\times 100\right)$
(I) Equity and Liabilities :					
(1) Shareholders' funds :					
(a) Share capital		15,00,000	?	?	(20)
(b) Reserves and surplus		6,00,000	?	?	33.33
(2) Non-current liabilities					
Bank loan		8,00,000	?	?	(25)
(3) Current liabilities		2,00,000	?	?	25
Total		**31,00,000**	?	?	?
(II) Assets :					
(1) Non-current assets :					
(a) Fixed assets					
(i) Tangible assets		?	8,00,000	?	(33.33)
(ii) Intangible assets		?	8,00,000	?	33.33
(b) Non-current investments		?	8,50,000	?	(15)
(2) Current assets		?	4,00,000	?	33.33
Total		?	**28,50,000**	?	?

Ans. :

(I) Equity-liabilities side : The balancing figures are to be ascertained on the basis of amount and change in percentage of previous year.

$$\text{Amount of current year} = \text{Amount of previous year} \times \frac{(100 + \text{Change in percentage})}{100}$$

(i) Share capital $= 15{,}00{,}000 \times \frac{(100 + (-20))}{100} = ₹\ 12{,}00{,}000$

(ii) Reserves and surplus $= 6{,}00{,}000 \times \frac{(100 + 33.33)}{100} = ₹\ 8{,}00{,}000$

(iii) Non-current liabilities $= 8{,}00{,}000 \times \frac{(100 + (-25))}{100} = ₹\ 6{,}00{,}000$

(iv) Current liabilities $= 2{,}00{,}000 \times \frac{(100 + 25)}{100} = ₹\ 2{,}50{,}000$

(II) Assets side : The balancing figures are to be ascertained on the basis of amount and change in percentage of current year.

$$\text{Amount of previous year} = \text{Amount of current year} \times \frac{100}{(100 + \text{Change in percentage})}$$

(i) Tangible assets $= 8{,}00{,}000 \times \frac{100}{100 + (-33.33)} = ₹\ 12{,}00{,}000$

(ii) Intangible assets $= 8{,}00{,}000 \times \frac{100}{100 + 33.33}$ = ₹ 6,00,000

(iii) Non-current investments $= 8{,}50{,}000 \times \frac{100}{100 + (-15)}$ = ₹ 10,00,000

(iv) Current assets $= 4{,}00{,}000 \times \frac{100}{100 + 33.33}$ = ₹ 3,00,000

Comparative Balance Sheets of Bharat Company Ltd.
as on 31-3-2016 and 31-3-2017

Particulars	Note No.	Previous Year (₹)	Current Year (₹)	Increase/ Decrease (₹)	Increase/ Decrease (%)
1	2	3	4	5(4 − 3)	6 $\left(\frac{5}{3} \times 100\right)$
(I) Equity and Liabilities					
(1) Shareholders' funds :					
(a) Share capital		15,00,000	12,00,000	(3,00,000)	(20)
(b) Reserves and surplus		6,00,000	8,00,000	2,00,000	33.33
(2) Non-current liabilities					
Bank loan		8,00,000	6,00,000	(2,00,000)	25
(3) Current liabilities		2,00,000	2,50,000	50,000	(20)
Total		**31,00,000**	**28,50,000**	**(2,50,000)**	**(8.06)**
(II) Assets :					
(1) Non-current assets :					
(a) Fixed assets					
(i) Tangible assets		12,00,000	8,00,000	(4,00,000)	(33.33)
(ii) Intangible assets		6,00,000	8,00,000	2,00,000	33.33
(b) Non-current investments		10,00,000	8,50,000	(1,50,000)	(15)
(2) Current assets		3,00,000	4,00,000	1,00,000	33.33
Total		**31,00,000**	**28,50,000**	**(2,50,000)**	**(8.06)**

15. Common Size Statements

The analysis of financial statements can be done through this tool also. Profit and loss statements and balance sheets of two years or more than two years can be compared with the financial statements of current year with the help of this method. Under this method the profit and loss statements of the current year are compared with the profit and loss statements of the previous years and the balance sheet of the current year is compared with the balance sheet of the previous years. This analysis is a vertical analysis.

Under this method one base is used. 100 is considered as the base. Net sales is the base for profit and loss statement. The main objective of every business unit is to earn maximum profit. The enhancement in profit is based on maximum sales and minimum cost. For generation of sales, expenses are incurred.

What is the proportion for each expense of sales can be availed from this analysis. Under this method the statements of two years are used, therefore it can be ascertained whether the proportion of expenses against sales is increased or reduced or remained stable ? Necessary causes are identified if the proportion of expenses is increased against the sales and necessary actions are taken so that the objective of maximization of profit can be achieved. Sales = 100 % is used for the profit and loss statement of every year. Here the percentage of all the items of profit and loss statement with sales are determined. e.g. During 2016 the sales is ₹ 20 lakhs. The purchase is of ₹ 8 lakhs and the other expenses are of ₹ 4 lakhs. So, here, the percentage of purchase and the other expenses with sales will be ($\frac{8}{20} \times 100 = 40$ % for purchase), ($\frac{4}{20} \times 100 = 20$ % for other expenses) 40 % and 20 % respectively. Assume sales of 2017 is ₹ 18 lakhs. Where the purchase and the other expenses are ₹ 6 lakhs and 3 lakhs respectively. The percentage against sales will be ($\frac{6}{18} \times 100 = 33\frac{1}{3}$ % and $\frac{3}{18} \times 100 = 16.67$ %) $33\frac{1}{3}$ % and 16.67 % respectively for purchase and other expenses.

In case of balance sheet as a base, the total of balance sheet is considered. This total is assumed 100 %. The total of balance sheet of every year has the base of 100 %. e.g. the total of the assets side of 2016 is ₹ 50 lakhs. Where non-current assets are of ₹ 35 lakhs and the current assets are of ₹ 15 lakhs, the percentage respectively are 70 % and 30 % ($\frac{35}{50} \times 100 = 70$ % and $\frac{15}{50} \times 100 = 30$ %). If the total of 2017 is of ₹ 55 lakhs and the non-current assets are of ₹ 35 lakhs and the current assets are of 20 lakhs, their proportion will be ($\frac{35}{55} \times 100 = 63.64$ % and $\frac{20}{55} \times 100 = 36.36$ %) 63.64 % and 36.36 % respectively.

The Structure of Common Size Statement : This statement also has six columns like comparative statement. In the first column the information of different components of profit and loss statement and balance sheet are disclosed.

The third and the fourth columns disclose the amount of expenses / revenues / liabilities / assets of the previous and the current years.

In the fifth and sixth columns of profit and loss statements, the percentage of revenues / expenses of two years are calculated and disclosed. In the same manner in case of balance sheet the percentage of assets / liabilities of two years are calculated and disclosed. The difference between these two percentages of two years are used for the analysis and interpretation.

The formula to determine percentage :

(1) For profit and loss statement : $\dfrac{\text{Amount of expense / revenue}}{\text{Amount of net sales}} \times 100$

(2) For balance sheet : $\dfrac{\text{Amount of liability / assets}}{\text{Total of balance sheet}} \times 100$

Common size statement of profit and loss statement : The structure for this is given below. All details of profit and loss statements are disclosed as it is. The amounts of two years are disclosed. The comparison is feasible if the information of two or more than two years is available. As stated earlier the percentage of every revenue and expenses to sales are calculated and disclosed. Here, the proportion is determined in the vertical form. This will be clarified from illustration no. 13.

The speciman of common size statement of profit and loss statement :

Common Size Statement of Profit and Loss Statement for the Year Ending on .... and ....

Particulars	Note No.	Amount (₹)		Percentage to Sales	
		Figures of previous year (₹)	Figures of current year (₹)	Percentage of previous year	Percentage of current year
(I) Sales revenue					
(II) Other income					
(III) Total income (I + II)					
(IV) Expenses :					
(i) Cost of goods sold					
(ii) Net purchase for resale					
(iii) Changes in stock					
(iv) Employees' benefit expenses					
(v) Financial cost					
(vi) Depreciation and amortized amount					
(vii) Other expenses					
Total Expenses					
(V) Profit before tax					
(VI) Less : Income tax					
(VII) Profit after tax					

Illustration 13 : Prepare common size profit and loss statement from the given profit and loss statement.

Particulars	Note No.	31-3-2017 (₹)	31-3-2016 (₹)
(I) Sales revenue		37,50,000	30,00,000
(II) Expenses :			
(i) Purchase for resale		20,62,500	15,00,000
(ii) Employees' benefit expenses		2,50,000	3,00,000
(iii) Financial expenses		2,25,000	1,80,000
(iv) Depreciation and amortized amount		3,00,000	2,70,000
Total Expenses		**28,37,500**	**22,50,000**
(III) Profit before tax		9,12,500	7,50,000
(IV) Less : Income tax 30 %		2,73,750	2,25,000
(V) Profit after tax		**6,38,750**	**5,25,000**

Ans. :

Common Size Statements of Profit and Loss Statement for the Year Ending on 31-3-2016 and 31-3-2017

Particulars	Note No.	Amount (₹) 31-3-2016 (₹)	Amount (₹) 31-3-2017 (₹)	Percentage to Sales 31-3-2016	Percentage to Sales 31-3-2017
(I) Sales revenue		30,00,000	37,50,000	100	100
(II) Expenses :					
(i) Net purchase for resale		15,00,000	20,62,500	50	55
(ii) Employee benefit Expenses		3,00,000	2,50,000	10	6.67
(iii) Financial cost		1,80,000	2,25,000	6	6
(vi) Depreciation and amount amortized		2,70,000	3,00,000	9	8
Total Expenses		**22,50,000**	**28,37,500**	**75**	**75.67**
(III) Profit before tax		7,50,000	9,12,500	25	24.33
(IV) Less : Income tax 30 %		2,25,000	2,73,750	7.5	7.30
(V) **Profit after tax**		**5,25,000**	**6,38,750**	**17.5**	**17.03**

Note : In this illustration no other incomes are given except sales revenue. Thus, the total percentages of expenses and percentage of profit before tax will be equal to 100 % (In 2016 75 + 25 = 100 and in 2017 75.67 + 24.33 = 100). If other incomes along with sales are given, the total will not be equal to 100 %. This is explained in the subsequent illustration.

Explanation : (1) Purchase for resale : This expense is increased by 5 % as compared to the previous year. This increase in the expense affect the profit and the profit get decreased. Necessary steps are taken, to arrest the increase in the expense.

(2) The percentage in employee benefit expenses : Depreciation and amount amortized are reduced. Due to the reduction in the expense, the profit is increased. No change in the percentage of the financial cost.

(3) There is an insignificant increase in the total expenses by 0.67 %.

(4) Since the proportion of expenses is increased, the profit is reduced. Consequently, the percentage of tax also is reduced from 7.5 % to 7.3 %.

(5) Finally, the percentage of profit after tax is reduced due to the increase in the proportion of expense. The profit after tax is reduced from 17.5 % to 17.03 %.

The above stated analysis can be done as per the common size profit and loss statement.

Illustration 14 : The profit and loss statements of two years of Himani Limited are given as follows.

On the basis of these statements, prepare common size profit and loss statements.

Particulars	Note No.	31-3-2017 (₹)	31-3-2016 (₹)
(I) Sales revenue		32,00,000	28,00,000
(II) Other income		6,00,000	4,00,000
(III) **Total income**		**38,00,000**	**32,00,000**
(IV) Expenses :			
(i) Cost of goods consumed		16,80,000	14,50,000
(ii) Net purchase for resale		3,00,000	2,80,000
(iii) Changes in stock		(70,000)	3,70,000
(iv) Employees' benefit expense		2,00,000	1,80,000
(v) Financial cost		1,40,000	90,000
(vi) Depreciation and amount amortized		1,00,000	1,00,000
Total expenses		**23,50,000**	**24,70,000**
(V) Profit before tax		14,50,000	7,30,000
(VI) Less : Income tax 30 %		4,35,000	2,19,000
(VII) Profit after tax		**10,15,000**	**5,11,000**

Ans. :

Common Size Profit and Loss Statement for the Year Ending on 31-3-2016 and 31-3-2017

Particulars	Note No.	Amount (₹)		Percentage to Sales	
		31-3-2016 (₹)	31-3-2017 (₹)	31-3-2016	31-3-2017
(I) Sales revenue		28,00,000	32,00,000	100	100
(II) Other income		4,00,000	6,00,000	14.29	18.75
(III) **Total income**		**32,00,000**	**38,00,000**	**114.29**	**118.75**
(IV) Expenses :					
(i) Cost of goods consumed		14,50,000	16,80,000	51.79	52.50
(ii) Net purchase for resale		2,80,000	3,00,000	10.00	9.38
(iii) Changes in stock		3,70,000	(70,000)	13.21	(2.19)
(iv) Employees' benefit expense		1,80,000	2,00,000	6.43	6.25
(v) Financial cost		90,000	1,40,000	3.21	4.38
(vi) Depreciation and amount amortized		1,00,000	1,00,000	3.57	3.13
Total expenses		**24,70,000**	**23,50,000**	**88.21**	**73.44**
(V) Profit before tax		7,30,000	14,50,000	26.07	45.31
(VI) Less : Income tax 30 %		2,19,000	4,35,000	7.82	13.59
(VII) **Profit after tax**		**5,11,000**	**10,15,000**	**18.25**	**31.72**

Note : (1) The percentage of the other income is also ascertained against sales.

(2) The changes in stock is (−70,000). It indicates that the closing stock is higher than the opening stock. The closing stock is always credited to trading account, which reduces the cost.

(3) Other incomes are included in the profit before income tax as the sales and other incomes are given in this illustration.

	Particulars	2016	2017	
	Profit before tax	7,30,000	14,50,000	(including other income)
−	Other income	4,00,000	6,00,000	
	Profit before tax	3,30,000	8,50,000	(excluding other income)
÷	Sales × 100	28,00,000	32,00,000	
	Percentage of profit before income	11.79	26.56	
+	Total percentage of expenses	88.21	73.44	
	Total percentage	100	100	

Therefore, the total of the percentage of the total expense and the percentage of net profit before tax is not 100 %. The explanation regarding this is as under.

Common Size Statement of Balance Sheet : It's structure is as follows. All the details of balance sheet are disclosed as it is. The amount of two years are disclosed. The comparison is possible only if the details of two or more than two years are available. The total of balance sheet is considered as the base, and liabilities and assets of respective year are disclosed in their proportion to total of balance sheet. Here, the proportions are determined in vertical form. This will be clarified from illustration no. 15.

Format of common size statement of balance sheet.

Common Size Statement of Balance Sheets as on .... and ....

Particulars	Note No.	Amount (₹)		Percentage to total of balance sheet	
		Figures of previous year (₹)	Figures of current year (₹)	Percentage of previous year	Percentage of current year
(I) Equity and Liabilities					
(1) Shareholders' funds :					
(a) Share capital					
(i) Equity share capital					
(ii) Preference share capital					
(b) Reserves and surplus					
(2) Non-current liabilities					
(i) Long-term borrowings					
(ii) Long-term provisions					

Particulars	Note No.	Amount (₹)		Percentage to total of balance sheet	
		Figures of previous year (₹)	Figures of current year (₹)	Percentage of previous year	Percentage of current year
(3) Current liabilities					
(i) Short-term payables					
(ii) Trade payables					
(iii) Other current liabilities					
(iv) Short-term provisions					
Total					
(II) Assets :					
(1) Non-current assets :					
(a) Fixed assets					
(i) Tangible assets					
(ii) Intangible assets					
(b) Non-current investments					
(c) Long-term loan and advance					
(2) Current assets :					
(i) Current assets					
(ii) Stock					
(ii) Trade receivables					
(iv) Cash - cash equivalent					
(v) Short-term loan and advances					
(vi) Other Current assets					
Total					

Illustration 15 : From the following given abridge balance sheet as on 31-3-2016 and 31-3-2017. Prepare common size statement of balance sheet.

Balance Sheet as on 31-3-2016 and 31-3-2017

Particulars	Note No.	31-3-2017 (₹)	31-3-2016 (₹)
(I) Equity and Liabilities			
(1) Shareholders' funds :			
(a) Share capital		8,00,000	12,00,000
(b) Reserves and surplus		4,00,000	3,00,000
(2) Non-current liabilities			
Long-term borrowings		6,00,000	4,00,000
(3) Current liabilities			
Trade payables		2,00,000	1,00,000
Total		**20,00,000**	**20,00,000**

Particulars	Note No.	31-3-2017 (₹)	31-3-2016 (₹)
(II) Assets :			
(1) Non-current assets :			
Fixed assets – tangible assets		16,00,000	18,00,000
(2) Current assets :			
(i) Stock		2,50,000	1,25,000
(ii) Cash and cash equivalent		1,50,000	75,000
Total		**20,00,000**	**20,00,000**

Ans. :

Common Size Statements of Balance Sheet as on 31-3-2016 and 31-3-2017

Particulars	Note No.	Amount (₹)		Percentage to total of balance sheet	
		31-3-2016 (₹)	31-3-2017 (₹)	31-3-2016 (%)	31-3-2017 (%)
(I) Equity and Liabilities					
(1) Shareholders' funds :					
(a) Share capital		12,00,000	8,00,000	60	40
(b) Reserves and surplus		3,00,000	4,00,000	15	20
(2) Non-current liabilities					
Long-term borrowings		4,00,000	6,00,000	20	30
(3) Current liabilities					
Trade payables		1,00,000	2,00,000	05	10
Total		**20,00,000**	**20,00,000**	**100**	**100**
(II) Assets :					
(1) Non-current assets :					
Fixed assets – tangible assets		18,00,000	16,00,000	90	80
(2) Current assets :					
(i) Stock		1,25,000	2,50,000	6.25	12.50
(ii) Cash - cash equivalent		75,000	1,50,000	3.75	7.50
Total		**20,00,000**	**20,00,000**	**100**	**100**

Explanation :

(1) Total of balance sheet of both the years is identical.

(2) As compared to the previous year the proportion of share capital is reduced from 60 % to 40 %.

(3) As compared to the previous year the reserves and surplus, the long-term borrowings and the current liabilities are increased.

(4) The proportion of the non-current assets is reduced but the proportion of current assets is increased.

Illustration 16 : Balance sheets of Ahmedabad Limited as at 31-3-2016 and 31-3-2017 are as follows. Prepare common size statement of balance sheets.

Balance Sheets as on 31-3-2016 and 31-3-2017

Particulars	**Note No.**	**31-3-2017 (₹)**	**31-3-2016 (₹)**
(I) Equity and Liabilities			
(1) Shareholders' funds :			
(a) Share capital			
(i) Equity share capital		15,00,000	12,00,000
(ii) Preference share capital		10,00,000	10,00,000
(b) Reserves and surplus			
(i) General reserve		6,00,000	5,00,000
(ii) Profit-loss account		7,00,000	6,00,000
(2) Non-current liabilities			
Long-term borrowings		4,00,000	5,00,000
(3) Current liabilities			
(i) Short-term borrowings		5,00,000	4,00,000
(ii) Other current liabilities		3,00,000	3,00,000
Total		**50,00,000**	**45,00,000**
(II) Assets :			
(1) Non-current assets :			
(a) Fixed assets			
(i) Tangible assets : Land-building		12,00,000	8,00,000
Plant-machines		8,00,000	9,00,000
(ii) Intangible assets : Patent		6,00,000	7,00,000
Trademark		9,00,000	7,00,000
(b) Non-current investments		5,00,000	5,00,000
(2) Current assets :			
(i) Current investments		5,00,000	4,00,000
(ii) Stock		3,00,000	3,00,000
(ii) Trade receivables		1,00,000	1,00,000
(iv) Cash and cash equivalent		1,00,000	1,00,000
Total		**50,00,000**	**45,00,000**

Ans. :

Common Size Statement of Balance Sheet of Ahmedabad Limited as on 31-3-2016 and 31-3-2017

Particulars	Note No.	Amount (₹) 31-3-2016 (₹)	Amount (₹) 31-3-2017 (₹)	Percentage to total of balance sheet 31-3-2016 (%)	Percentage to total of balance sheet 31-3-2017 (%)
(I) Equity and Liabilities					
(1) Shareholders' funds :					
(a) Share capital					
(i) Equity share capital		12,00,000	15,00,000	26.67	30.00
(ii) Preference share capital		10,00,000	10,00,000	22.22	20.00
(b) Reserves and surplus					
(i) General reserve		5,00,000	6,00,000	11.11	12.00
(ii) Profit-loss account		6,00,000	7,00,000	13.33	14.00
(2) Non-current liabilities					
Long-term borrowings		5,00,000	4,00,000	11.11	8.00
(3) Current liabilities					
(i) Short-term borrowings		4,00,000	5,00,000	8.89	10.00
(ii) Other current liabilities		3,00,000	3,00,000	6.67	6.00
Total		**45,00,000**	**50,00,000**	**100**	**100**
(II) Assets :					
(1) Non-current assets :					
(a) Fixed assets					
(i) Tangible assets :					
Land-building		8,00,000	12,00,000	17.77	24.00
Plant-machines		9,00,000	8,00,000	20.00	16.00
(ii) Intangible assets :					
Patent		7,00,000	6,00,000	15.56	12.00
Trademark		7,00,000	9,00,000	15.56	18.00
(b) Non-current investments		5,00,000	5,00,000	11.11	10.00
(2) Current assets :					
(i) Current investments		4,00,000	5,00,000	8.89	10.00
(ii) Stock		3,00,000	3,00,000	6.67	6.00
(ii) Trade receivables		1,00,000	1,00,000	2.22	2.00
(iv) Cash - cash equivalent		1,00,000	1,00,000	2.22	2.00
Total		**45,00,000**	**50,00,000**	**100**	**100**

Illustrations of balancing figures for common size statements.

Illustration 17 :

Common Size Profit and Loss Statement of Shri Ram Limited

Year Ending on 31-3-2016 and 31-3-2017

Particulars	Note No.	Amount (₹)		Percentage to sales	
		31-3-2016 (₹)	31-3-2017 (₹)	31-3-2016 (%)	31-3-2017 (%)
(I) Sales revenue		25,00,000	30,00,000	100	100
(II) Expenses :					
(i) Cost of goods consumed		?	?	75	78
(ii) Financial expenses		?	?	9.6	8
(iii) Depreciation		?	?	3	4
Total expenses		**21,90,000**	**27,00,000**	**87.6**	**90**
(III) Profit before tax		3,10,000	3,00,000	12.4	10
(IV) Less : Income tax 30 %		?	90,000	3.72	3
(V) **Profit after tax**		?	**2,10,000**	**8.68**	**7**

Complete the above mentioned common size statements.

Ans. :

Explanation : The sales is the base of all the revenues and expenses for the common size profit and loss statement. The proportion of the other income and expenses to sales is ascertained. It's formula is as follows :

$$\text{Proportion of revenue/expense to sales} = \frac{\text{Amount of revenue/expense in rupees}}{\text{Amount of sales in rupees}} \times 100$$

Here, in place of the amount of expenses their percentages to sales are given. On the basis of percentage, the amount will be determined, This will be calculated as follows :

$$\text{Revenue/expense amount in rupees} = \frac{\text{Net sales} \times \text{Percentage of revanue/expense/tax}}{100}$$

No.	Particulars	2016	2017
(1)	Cost of goods consumed	$\frac{25,00,000 \times 75}{100}$ = ₹ 18,75,000	$\frac{30,00,000 \times 78}{100}$ = ₹ 23,40,000
(2)	Financial cost	$\frac{25,00,000 \times 9.6}{100}$ = ₹ 2,40,000	$\frac{30,00,000 \times 8}{100}$ = ₹ 2,40,000
(3)	Depreciation	$\frac{25,00,000 \times 3}{100}$ = ₹ 75,000	$\frac{30,00,000 \times 4}{100}$ = ₹ 1,20,000
(4)	Income tax	$\frac{25,00,000 \times 3.72}{100}$ = ₹ 93,000	–
(5)	Profit after tax	$\frac{25,00,000 \times 8.68}{100}$ = ₹ 2,17,000	–

Common Size Statement of Profit and Loss

for the Year Ending on 31-3-2016 and 31-3-2017

Particulars	Note No.	Amount (₹) 31-3-2016 (₹)	Amount (₹) 31-3-2017 (₹)	Percentage to sales 31-3-2016 (%)	Percentage to sales 31-3-2017 (%)
(I) Sales revenue		25,00,000	30,00,000	100	100
(II) Expenses :					
(i) Cost of goods consumed		18,75,000	23,40,000	75	78
(ii) Financial cost		2,40,000	2,40,000	9.6	8
(iii) Depreciation		75,000	1,20,000	3	4
Total expenses		**21,90,000**	**27,00,000**	**87.6**	**90**
(III) Profit before tax		3,10,000	3,00,000	12.4	10
(IV) Less : Income tax 30 %		93,000	90,000	3.72	3
(V) **Profit after tax**		**2,17,000**	**2,10,000**	**8.68**	**7**

Illustration 18 : Following are the common size statement of profit and loss for the year ending on 31-3-2016 and 31-3-2017 of Shahnawaz Limited. Prepare complete common size statement by ascertaining balancing figures.

Common Size Statement of Profit and Loss for the Year Ending on 31-3-2016 and 31-3-2017

Particulars	Note No.	Amount (₹) 31-3-2016 (₹)	Amount (₹) 31-3-2017 (₹)	Percentage to sales 31-3-2016 (%)	Percentage to sales 31-3-2017 (%)
(I) Sales revenue		9,00,000	16,00,000	100	100
(II) Other income		?	2,40,000	10	15
(III) **Total income (I + II)**		**?**	**18,40,000**	**110**	**115**
(IV) Expenses :					
(i) Net purchase		?	11,20,000	68	70
(ii) Changes in stock		?	(1,12,000)	(05)	(07)
(iii) Depreciation		?	1,92,000	7	12
(iv) Other expenses		?	1,60,000	8	10
Total expenses		**?**	**13,60,000**	**78**	**85**
(V) Profit before tax		2,88,000	?	32	30
(VI) Less : Income tax 30 %		86,400	?	9.6	9
(VII) Profit after tax		**2,01,600**	**?**	**22.4**	**21**

Ans. :

Explanation : Necessary calculation :

No.	Particulars	2016	No.	Particulars	2017
(1)	Other income	$\frac{9,00,000 \times 10}{100}$ = ₹ 90,000	(1)	Profit before tax	$\frac{16,00,000 \times 30}{100}$ = ₹ 4,80,000
(2)	Net purchase	$\frac{9,00,000 \times 68}{100}$ = ₹ 6,12,000	(2)	Income tax	$\frac{16,00,000 \times 9}{100}$ = ₹ 1,44,000
(3)	Changes in stock	$\frac{9,00,000 \times (5)}{100}$ = (₹ 45,000)	(3)	Profit after tax	$\frac{16,00,000 \times 21}{100}$ = ₹ 3,36,000
(4)	Depreciation	$\frac{9,00,000 \times 7}{100}$ = ₹ 63,000			
(5)	Other expenses	$\frac{9,00,000 \times 8}{100}$ = ₹ 72,000			
(6)	Total expenses	$\frac{9,00,000 \times 78}{100}$ = ₹ 7,02,000			

Common Size Statement of Profit and Loss for the Year Ending 31-3-2016 and 31-3-2017 of Shahnawaz Limited

Particulars	Note No.	Amount (₹)		Percentage to sales	
		31-3-2016 (₹)	31-3-2017 (₹)	31-3-2016 (%)	31-3-2017 (%)
(I) Sales revenue		9,00,000	16,00,000	100	100
(II) Other income		90,000	2,40,000	10	15
(III) **Total income (I + II)**		**9,90,000**	**18,40,000**	**110**	**115**
(IV) Expenses :					
(i) Net purchase		6,12,000	11,20,000	68	70
(ii) Change in stock		(45,000)	(1,12,000)	(05)	(07)
(iii) Depreciation		63,000	1,92,000	7	12
(iv) Other expenses		72,000	1,60,000	8	10
Total expenses		**7,02,000**	**13,60,000**	**78**	**85**
(V) Profit before tax		2,88,000	4,80,000	32	30
(VI) Less : Income tax 30 %		86,400	1,44,000	9.6	9
(VII) **Profit after tax**		**2,01,600**	**3,36,000**	**22.4**	**21**

Note : To check whether all the calculations are correct or not, ascertain figure of any component on the basis of amount of another component. e.g. the percentage of net purchase of 2017 is 70 % and which is ₹ 11,20,000. On the basis of the percentage of income tax, the amount of income tax can be determined as follows :

$$= \frac{\text{Amount of net purchase}}{\text{Percentage of net purchase}} \times \text{Percentage of income tax}$$

$$= \frac{11,20,000}{70} \times 9 = ₹\ 1,44,000$$

Likewise the amount of depreciation can be calculated.

$$= \frac{11,20,000}{70} \times 12 = ₹\ 1,92,000$$

Illustration 19 : The common size balance sheets as at 31-3-2016 and 31-3-2017 with balancing figures of Amarnath Limited are as follows. Ascertain balancing figures and complete common size balance sheet.

Particulars	Note No.	Amount (₹) 31-3-2016 (₹)	31-3-2017 (₹)	Percentage to total of balance sheet 31-3-2016 (%)	31-3-2017 (%)
(I) Equity and Liabilities					
(1) Shareholders' funds :					
(a) Share capital		14,00,000	?	50	50
(b) Reserves and surplus		3,50,000	?	12.5	10
(2) Non-current liabilities					
Long-term borrowings		7,00,000	?	25	30
(3) Current liabilities					
(i) Trade payables		2,00,000	?	7.14	8
(ii) Other liabilities		1,50,000	?	5.36	2
Total		**28,00,000**	**42,00,000**	**100**	**100**
(II) Assets :					
(1) Non-current assets :					
(a) Fixed assets					
(i) Tangible assets		?	20,00,000	45	47.62
(ii) Intangible assets		?	15,70,000	40	37.38
(2) Current assets :					
(i) Trade receivables		?	5,00,000	10	11.90
(ii) Cash and cash equivalent		?	1,30,000	5	3.10
Total		**28,00,000**	**42,00,000**	**100**	**100**

Explanation : The total of balance sheet is the base of all assets and liabilities for common size balance sheets. The proportion of the assets and liabilities is ascertained as the total of balance sheet. It's formula is as follows :

Proportion liabilities/assets to total of balance sheet $= \frac{\text{Amount of liability in rupee/asset}}{\text{Amount of total of balance sheet in rupee}} \times 100$

Here, in place of amount, their percentage to total of balance sheet are given. On the basis of percentage the amount will be determined. This will be calculated as follows :

Amount of liability/assets of respective year =

$$\frac{\text{Total of balance sheet of respective year} \times \text{Percentage of respective liability/asset}}{100}$$

Ans. :

Explanation : Necessary calculation :

No.	Particulars	2017 (Equity-liabilities side)	No.	Particulars	2016 (Assets side)
(1)	Share capital	$\frac{42,00,000 \times 50}{100}$ = ₹ 21,00,000	(1)	Tangible assets	$\frac{28,00,000 \times 45}{100}$ = ₹ 12,60,000
(2)	Reserves and surplus	$\frac{42,00,000 \times 10}{100}$ = ₹ 4,20,000	(2)	Intangible assets	$\frac{28,00,000 \times 40}{100}$ = ₹ 11,20,000
(3)	Long-term borrowings	$\frac{42,00,000 \times 30}{100}$ = ₹ 12,60,000	(3)	Trade receivables	$\frac{28,00,000 \times 10}{100}$ = ₹ 2,80,000
(4)	Trade payables	$\frac{42,00,000 \times 8}{100}$ = ₹ 3,36,000	(4)	Cash and cash equivalent	$\frac{28,00,000 \times 5}{100}$ = ₹ 1,40,000
(5)	Other liabilities	$\frac{42,00,000 \times 2}{100}$ = ₹ 84,000			

Common Size Balance Sheet

as on 31-3-2016 and 31-3-2017 of Amarnath Limited

Particulars	Note No.	Amount (₹) 31-3-2016	Amount (₹) 31-3-2017	Percentage to total of balance sheet 31-3-2016	Percentage to total of balance sheet 31-3-2017
(I) Equity and Liabilities					
(1) Shareholders' funds :					
(a) Share capital		14,00,000	21,00,000	50	50
(b) Reserves and surplus		3,50,000	4,20,000	12.5	10
(2) Non-current liabilities					
Long-term borrowings		7,00,000	12,60,000	25	30
(3) Current liabilities					
(i) Trade payables		2,00,000	3,36,000	7.14	8
(ii) Other liabilities		1,50,000	84,000	5.36	2
Total		**28,00,000**	**42,00,000**	**100**	**100**

Particulars	Note No.	Amount (₹)		Percentage to total of balance sheet	
		31-3-2016	31-3-2017	31-3-2016	31-3-2017
(II) Assets :					
(1) Non-current assets :					
(a) Fixed assets					
(i) Tangible assets		12,60,000	20,00,000	45	47.62
(ii) Intangible assets		11,20,000	15,70,000	40	37.38
(2) Current assets :					
(i) Trade receivables		2,80,000	5,00,000	10	11.90
(ii) Cash - cash equivalent		1,40,000	1,30,000	5	3.10
Total		**28,00,000**	**42,00,000**	**100**	**100**

Illustration 20 : Find out balancing figures of common size balance sheet as at 31-3-2016 and 31-3-2017 of Dahod Ltd.

Particulars	Note No.	Amount (₹)		Percentage to total of balance sheet	
		31-3-2016	31-3-2017	31-3-2016	31-3-2017
(I) Equity and Liabilities					
(1) Shareholders' funds :					
(a) Share capital					
(i) Equity share capital		?	14,52,000	20	22
(ii) Preference share capital		?	7,26,000	10	11
(b) Reserves and surplus					
(i) General reserve		?	3,63,000	10	5.5
(ii) Profit-loss account		?	14,52,000	20	22
(2) Non-current liabilities					
(i) 15 % debentures		?	7,26,000	10	11
(ii) Loan of BOB		?	7,26,000	10	11
(3) Current liabilities					
(i) Short-term borrowings		?	3,63,000	8	5.5
(ii) Other current liabilities		?	3,63,000	7	5.5
(iii) Short-term provisions		?	4,29,000	5	6.5
Total		**50,00,000**	**66,00,000**	**100**	**100**

Particulars	Note No.	Amount (₹)		Percentage to total of balance sheet	
		31-3-2016	31-3-2017	31-3-2016	31-3-2017
(II) Assets :					
(1) Non-current assets :					
(a) Fixed assets					
(i) Tangible assets					
Land		15,00,000	19,80,000	30	?
Plant-machines		5,00,000	6,60,000	10	?
Building		7,50,000	11,88,000	15	?
(b) Non-current investments		10,00,000	7,92,000	20	?
(2) Current assets :					
(i) Current investments		5,00,000	9,90,000	10	?
(ii) Stock		5,00,000	6,60,000	10	?
(iii) Cash - cash equivalent		2,50,000	3,30,000	5	?
Total		**50,00,000**	**66,00,000**	**100**	**100**

Explanation :

This illustration is mixed in nature.

(1) Amount-liability side is to be found out from percentage for 2016. For this, the following formula will be used :

Amount in rupees for equity and liabilities side of year 2016 $= \dfrac{\text{Total of balance sheet of 2016} \times \text{Percentage of respective liability}}{100}$

(2) Percentage of assets side is to be found out from amount for 2017. For this, the following formula will be used :

Percentage of assets with the total of the balance shset $= \dfrac{\text{Amount of respective asset}}{\text{Total of balance sheet}} \times 100$

Necessary calculation :

No.	Particulars	2016 (Equity liability side) (₹)	No.	Particulars	2017 (Assets side) (%)
(1)	Equity share capital	$\dfrac{50,00,000 \times 20}{100}$ = ₹ 10,00,000	(1)	Land	$\dfrac{19,80,000}{66,00,000} \times 100$ = 30 %
(2)	Preference share capital	$\dfrac{50,00,000 \times 10}{100}$ = ₹ 5,00,000	(2)	Plant-machines	$\dfrac{6,60,000}{66,00,000} \times 100$ = 10 %
(3)	General reserve	$\dfrac{50,00,000 \times 10}{100}$ = ₹ 5,00,000	(3)	Building	$\dfrac{11,88,000}{66,00,000} \times 100$ = 18 %

No.	Particulars	2016 (Equity liability side) (₹)	No.	Particulars	2017 (Assets side) (%)
(4)	Profit-loss account	$\frac{50,00,000 \times 20}{100}$ = ₹ 10,00,000	(4)	Non-current investments	$\frac{7,92,000}{66,00,000} \times 100$ = 12 %
(5)	15 % debentures	$\frac{50,00,000 \times 10}{100}$ = ₹ 5,00,000	(5)	Current investments	$\frac{9,90,000}{66,00,000} \times 100$ = 15 %
(6)	Loan of BOB	$\frac{50,00,000 \times 10}{100}$ = ₹ 5,00,000	(6)	Stock	$\frac{6,60,000}{66,00,000} \times 100$ = 10 %
(7)	Short-term borrowings	$\frac{50,00,000 \times 8}{100}$ = ₹ 4,00,000	(7)	Cash and cash equivalent	$\frac{3,30,000}{66,00,000} \times 100$ = 5 %
(8)	Other current liabilities	$\frac{50,00,000 \times 7}{100}$ = ₹ 3,50,000			
(9)	Long-term provisions	$\frac{50,00,000 \times 5}{100}$ = ₹ 2,50,000			

Exercise

1. Choose the correct option for every question :

(1) Which of the following analysis shows stakeholder-based classification ?

(a) External analysis (b) Horizontal analysis
(c) Short-term analysis (d) Vertical analysis

(2) How many assets are analysed in the financial statement analysis ?

(a) 1 (b) 2
(c) 3 (d) 4

(3) The information regarding the use of assets gives the analysis of ....

(a) profitability (b) liquidity
(c) solvency (d) efficiency

(4) The analysis of the financial statements ....

(a) presents only results (b) provides historical information
(c) makes interpretation (d) none of the above

(5) The expenses of the current year of a company is ₹ 6,00,000; and if it is increased by 20 % compared to the previous year, what would be the expenses of the previous year ?

(a) ₹ 1,20,000 (b) ₹ 5,00,000
(c) ₹ 7,20,000 (d) None of these

2. **Answer the following questions in one setence :**

(1) What is financial analysis ?

(2) Describe the types of financial analysis on the basis of parties.

(3) Describe the types of financial analysis on the basis of time.

(4) What is horizontal analysis ?

(5) What is vertical analysis ?

3. **Answer in brief :**

(1) Describe the different types of financial analysis.

(2) Discuss any three objectives of financial analysis.

(3) Discuss any three uses of financial analysis.

(4) Discuss any three limitations of financial analysis.

(5) State the users of financial analysis.

(6) Explain the significance of comparative financial statements.

(7) Discuss in brief the steps of financial analysis.

(8) Explain comparative statements.

(9) Explain common size statements.

4. The abridged profit and loss statement ending on 31-3-2016 and 31-3-2017 of Saman Company Limited are given as follows. Prepare comparative statement of profit and loss.

Particulars	**Note No.**	**31-3-2017 (₹)**	**31-3-2016 (₹)**
Sales revenue		33,00,000	22,00,000
Other income		2,25,000	1,50,000
Expenses		23,76,000	15,40,000
Income tax rate 30 %			

5. The abridged profit and loss statement ending on 31-3-2016 and 31-3-2017 of Srushti Company Limited are given as follows. Prepare comparative statement of profit and loss :

Particulars	**Note No.**	**31-3-2017 (₹)**	**31-3-2016 (₹)**
Sales revenue		25,35,000	19,50,000
Other income		2,85,000	1,90,000
Cost of goods consumed		11,40,000	9,50,000
Financial cost		90,000	1,50,000
Depreciation		60,000	60,000
Other expenses		4,25,000	3,40,000
Income tax rate is 30 %.			

6. Profit and loss statement for the year ending on 31-3-2016 and 31-3-2017 of Shankar Limited are given as follows. Prepare comparative statement of profit and loss.

Particulars	**Note No.**	**31-3-2017 (₹)**	**31-3-2016 (₹)**
Sales revenue		60,75,000	45,00,000
Other income		7,00,000	10,00,000
Expenses :			
Cost of goods consumed		36,00,000	30,00,000
Net purchase for resale		2,70,000	2,00,000
Changes in stock		90,000	70,000
Employee benefit expenses		5,60,000	4,00,000
Financial cost		1,35,000	90,000
Depreciation and amortized amount		1,05,000	70,000
Income tax rate 30 %			

7. Profit and loss statement for the year ending on 31-3-2016 and 31-3-2017 of Mina Company Limited are as follows. Prepare comparative profit and loss statement.

Particulars	**Note No.**	**31-3-2017 (₹)**	**31-3-2016 (₹)**
Sales revenue		45,00,000	52,00,000
Other income		2,00,000	10,00,000
Net purchase		32,00,000	38,00,000
Other Expenses (% of sales)		22 %	18 %
Changes in stock		(2,00,000)	(1,00,000)
Income tax rate 30 %			

8. Find out balancing figures of comparative statement of Kalpana Company Limited.

Particulars 1	**Note No.** 2	**31-3-2016 (₹)** 3	**31-3-2017 (₹)** 4	**Increase/ Decrease (₹)** 5(4 − 3)	**Increase/ Decrease (%)** 6 $\left(\frac{5}{3} \times 100\right)$
(I) Sales revenue		?	15,00,000	5,00,000	50
(II) Expenses :					
(i) Purchase		?	7,20,000	1,20,000	20
(ii) Changes in stock		?	1,50,000	–	–
(iii) Depreciation		?	1,00,000	50,000	100
Total Expenses		?	**9,70,000**	**1,70,000**	**21.25**
(III) Profit before tax		?	5,30,000	3,30,000	165
(IV) Less : Income tax (30 %)		?	1,59,000	99,000	165
(V) Profit after tax		?	**3,71,000**	**2,31,000**	165

9. Balance sheet of Small Company Ltd. as at 31-3-2016 and 31-3-2017 are as follows. Prepare comparative balance sheet.

Particulars	Note No.	31-3-2017 (₹)	31-3-2016 (₹)
(I) Equity and Liabilities			
(1) Shareholders' funds :			
(a) Share capital			
(i) Equity share capital		22,00,000	17,00,000
(ii) Preference share capital		10,00,000	12,00,000
(b) Reserves and surplus			
(i) General reserve		2,40,000	2,00,000
(ii) Profit-loss account		2,10,000	1,80,000
(2) Non-current liabilities			
10 % debentures		6,00,000	8,00,000
(3) Current liabilities			
(i) Short-term borrowings		90,000	45,000
(ii) Trade payables		90,000	1,35,000
(iii) Other current liabilities		70,000	70,000
Total		**45,00,000**	**43,30,000**
(II) Assets :			
(1) Non-current assets :			
(a) Fixed assets			
(i) Tangible assets : Machines		16,00,000	15,00,000
Furniture		6,00,000	5,00,000
(ii) Intangible assets : Goodwill		80,000	1,00,000
Patent		7,50,000	7,30,000
(b) Non-current investments		9,00,000	8,00,000
(2) Current assets :			
(i) Stock		1,80,000	1,60,000
(ii) Trade receivables		1,80,000	2,00,000
(iii) Current investments		1,40,000	2,70,000
(iv) Cash and cash equivalent		70,000	70,000
Total		**45,00,000**	**43,30,000**

10. You are provided comparative balance sheets as at 31-3-2016 and 31-3-2017 of Shivani Company Limited ascertain balancing figures :

Particulars	Note No.	31-3-2016 (₹)	31-3-2017 (₹)	Increase/ Decrease (₹)	Increase/ Decrease (%)
1	2	3	4	5(4 − 3)	6 $\left(\frac{5}{3} \times 100\right)$
(I) Equity and Liabilities					
(1) Shareholders' funds :					
(a) Share capital					
Equity share capital		24,00,000	?	?	25.00
(b) Reserves and surplus		12,00,000	?	?	25.00
(2) Non-current liabilities					
(i) 10 % debentures		10,00,000	?	?	20.00
(ii) 11 % bank loan		12,00,000	?	?	25.00
(3) Current liabilities		2,00,000	?	?	5.00
Total		**60,00,000**	**?**	**?**	**23.50**
(II) Assets :					
(1) Non-current assets :					
(i) Tangible assets		?	32,10,000	2,10,000	?
(ii) Intangible assets		?	22,00,000	2,00,000	?
(2) Current assets		?	20,00,000	10,00,000	?
Total		**?**	**74,10,000**	**14,10,000**	**?**

11. Prepare common size statement of profit and loss from the following profit and loss statements of two years.

Particulars	Note No.	31-3-2017 (₹)	31-3-2016 (₹)
(I) Sales revenue		48,00,000	40,00,000
(II) Other income		4,80,000	2,40,000
(III) **Total income**		**52,80,000**	**42,40,000**
(IV) **Expenses :**			
(i) Cost of goods consumed		26,40,000	20,80,000
(ii) Net purchase for resale		2,40,000	1,60,000
(iii) Changes in stock		(2,40,000)	1,20,000
(iv) Employees benefit expenses		7,20,000	6,00,000
(v) Financial cost		4,80,000	4,80,000
(vi) Depreciation		5,76,000	4,00,000
Total Expenses		**44,16,000**	**38,40,000**
(V) Profit before tax		8,64,000	4,00,000
(VI) Less : Income tax 30 %		2,59,200	1,20,000
(VII) Profit after tax		**6,04,800**	**2,80,000**

12. Find out balancing figures of common size profit and loss statements of two years :

Particulars	Note No.	Amount (₹)		Percentage to sales	
		31-3-2017 (₹)	31-3-2016 (₹)	31-3-2017 (%)	31-3-2016 (%)
(I) Sales revenue		45,00,000	60,00,000	100	100
(II) Expenses :					
(i) Cost of goods		?	?	68	70
(ii) Financial cost		?	?	10	12
(iii) Depreciation		?	?	2	3
Total Expenses		**36,00,000**	**51,00,000**	**80**	**85**
(III) Profit before tax		9,00,000	9,00,000	20	15
(IV) Less : Income tax 30 %		?	?	?	?
(V) **Profit after tax**		**?**	**?**	**?**	**?**

13. Balance sheets of two years of Saurashtra Limited are as follows. Prepare common size statements.

Particulars	Note No.	31-3-2017 (₹)	31-3-2016 (₹)
(I) Equity and Liabilities			
(1) Shareholders' funds :			
(a) Share capital			
(i) Equity share capital		25,00,000	25,00,000
(ii) Preference share capital		15,00,000	–
(b) Reserves and surplus			
(i) General reserve		8,00,000	6,00,000
(ii) Profit-loss account		4,50,000	6,00,000
(2) Non-current liabilities			
9 % bank loan		15,00,000	15,00,000
(3) Current liabilities			
(i) Short-term borrowings		6,00,000	2,00,000
(ii) Other current liabilities		1,50,000	6,00,000
Total		**75,00,000**	**60,00,000**

Particulars	Note No.	31-3-2017 (₹)	31-3-2016 (₹)
(II) Assets :			
(1) Non-current assets :			
(a) Fixed assets			
(i) Tangible assets : Machines		15,00,000	20,00,000
Land-building		25,00,000	15,00,000
(ii) Intangible assets : Trademark		5,00,000	3,40,000
Goodwill		4,50,000	–
(b) Non-current investments		15,00,000	15,00,000
(2) Current assets :			
(i) Debtors		3,75,000	3,00,000
(ii) Stock		3,75,000	2,40,000
(iii) Cash and cash equivalent		3,00,000	1,20,000
Total		**75,00,000**	**60,00,000**

14. Balance sheets of two years of Shyam Limited are as follows. Ascertain balancing figures.

Particulars	Note No.	Amount (₹)		Percentage to total of balance sheet	
		31-3-2016	31-3-2017	31-3-2016	31-3-2017
(I) Equity and Liabilities					
(1) Shareholders' funds :					
(a) Share capital					
(i) Equity share capital		?	20,00,000	40	?
(ii) Preference share capital		?	10,00,000	20	?
(b) Reserves and surplus Profit-loss account		?	8,00,000	15	?
(2) Non-current liabilities 10 % debentures		?	10,00,000	20	?
(3) Current liabilities					
(i) Trade payables		?	1,00,000	3	?
(ii) Other liabilities		?	1,00,000	2	?
Total		**34,00,000**	**50,00,000**	**100**	**100**

Particulars	Note No.	Amount (₹)		Percentage to total of balance sheet	
		31-3-2016	31-3-2017	31-3-2016	31-3-2017
(II) Assets :					
(1) Non-current assets :					
(a) Fixed assets					
(i) Tangible assets		10,20,000	?	?	35
(ii) Intangible assets		6,80,000	?	?	30
(b) Non-current investments		8,50,000	?	?	22
(2) Current assets					
(i) Trade receivables		3,40,000	?	?	3
(ii) Stock		2,38,000	?	?	8
(iii) Cash - cash equivalent		2,72,000	?	?	2
Total		**34,00,000**	**50,00,000**	**100**	**100**

●

5

Accounting Ratios and Analysis

1. Introduction

The financial statements analysis assists to understand the information disclosed in the financial statements of the business entity easily. Due to this simplicity, different stakeholders find it very convenient to make their investment decision. In this context, comparative statements and common size financial statements information is obtained in the previous chapter. Ratio analysis is included as another tool of financial analysis. Ratio analysis is a traditional and widely used tool.

Definition and Explanation :

I. M. Pandey says that, "The relationship between two accounting figures, expressed mathematically, is known as financial ratio". Ratios help to summarise the large quantities of financial data and to make qualitative judgement about firm's financial performance.

Financial statements show accounting statistics. Gross profit, net profit, sales, equity share capital, equity shareholders' funds, current liabilities, current assets etc. are included as a component of financial statements. Accounting analysis is done between two relevent components based on a specific relation. As discussed earlier, the gross profit and sales are two relevant components. There is a relation between these two from the view point of accounting. Assume sales is ₹ 3,00,000 and gross profit is ₹ 90,000.

Here, ₹ 90,000 shows accounting information. This figure does not explain the interpretation of any analysis. If this information is to be presented in the form of ratio it can be presented as follows :

$$\text{Gross profit } (\%) = \frac{\text{Gross profit}}{\text{Sales}} \times 100$$

$$\text{So, Gross profit ratio} = \frac{90{,}000}{3{,}00{,}000} \times 100$$

$$= 30\ \%$$

This analysis shows that for every sale of ₹ 100, gross profit is ₹ 30. Due to the ratios, accounting figures can be presented in useable form. Detailed discussion in this regard is given subsequently.

2. Peculiarity of Ratios :

In ratio analysis comparison is done for useful interpretation of financial statements. An individual ratio does not indicate any favourable or adverse situtation. It is to be compared with a standard ratio. e.g. Above stated gross profit ratio 30 % does not indicate any favourable or adverse situation. It represents result only. Thus, when ratios are compared with any standards than the utility of it is proved. These standards can be as under. By comparing these standards, the information of good-bad results can be obtained.

(i) The comparison with ratios calculated based on past financial statements

(ii) The comparison with ratios developed by the business entity

(iii) The comparison with ratios of industry

(iv) The comparison with ratios of competitors

Gross profit ratio is revenue ratio. Assume that it was 25 % in the previous year and 30 % during the current year. It shows that there is a growth in the condition of gross profit of the business. If the ratio of the previous year is 40 %, it means the gross profit condition is reported adverse in the current year.

3. The Objectives of Ratio Analysis :

The objectives of ratio explain its significance. Due to ratio analysis the information of financial statements can easily, be understood briefly and scientifically. Ratio analysis is useful to different users of financial statements, to make their decisions. Their objectives or significance is as follows :

(1) **For financial statement analysis :** Only accounting statistics information is available from details disclosed in financial statements. These figures do not represent any analysis. Ratio analysis works as indicator to the users of financial statements. Different stakeholders undertake analysis of profit and loss statement and balance sheet. To make this analysis meaningful and useful, ratio analysis is used.

(2) **For simple presentation of accounting information :** Ratio analysis represents accounting figures in more simple, in brief and in scientific form. The components of financial statements have specific relation with each other and the ratio analysis clarifies the meaning of this relation. e.g. Debt-equity ratio. This ratio shows the proportion of equity against debt. Many components depend on the other component. e.g. Net profit-ratio. Here, the creation of profit is from sales. This ratio shows the proportion of net profit to sales.

Ratio analysis represents the relation between two related components and their simple understanding to the users.

(3) **To know profitability status of the entity :** The basic objective of a business is to earn profit. In accounting the profitability of the business can be measured by applying the ratio analysis in different forms where gross profit ratio, net profit ratio, return on capital employed, rate of return on equity share capital etc. are included here.

(4) **To know liquidity status of the entity :** The liquidity ratio explains the capacity to meet short-term liabilities of the entity. From the liquidity short-term solvency of the business can be measured, where current ratio, liquid ratio etc. are included.

(5) **To know long-term solvency of the entity :** The long-term solvency of a business entity is measured by deducting total liabilities from total assets. Higher the positive difference, higher the solvency. This is the ideal measurement for the entity to obtain borrowings. The lenders of the business

entity focus on solvency. The analytical presentation in this context is availed by ratio analysis, where debt-equity ratio, total assets-debt raito etc. are included.

(6) **To know operating efficiency of business entity :** Different types of assets are acquired by the business entity. For measurement of effective and efficient use of assets, ratio analysis is useful. For this, turnover ratios are used. e.g. stock turnover ratio.

(7) **For forecasting :** The trend of respective item can be seen by ratio analysis. e.g. during last 5 years the gross profit rate is 20 %, 23 %, 24 %, 26 % and 29 % respectively. Here, it is observed that there is a growth in the gross profit ratio during the last five years. This indicates favourable trend for a company. This trend can be useful to the company to undertake planning and forecast.

(8) **The information about weak aspect :** There may be over all good result of the business entity. Out of different aspects like profitability, liquidity, solvency or efficiency, there may be weak performance of any one aspects and good performance of any other aspects. Thus the average result will be satisfactory. But under ratio analysis each aspects is evaluated individually. So the information for weak aspect can be obtained and necessary remedies can be undertaken.

(9) **For interfirm and intrafirm comparison :** The comparison of the operating performance of a business entity with the other business entities is known as interfirm comparison. This ratio analysis assists to know how and to what extent a business entity is strong or weak as compared to the other business entity. This can be obtained by ratio analysis. When the comparison among different divisions of a business entity is done, it is known as intrafirm comparison. This ratio analysis is useful to know which division is strong and which one is weak as compared to the other division of the business entity.

Ratio analysis is used for different objectives. The uses of ratio analysis, explain its significance.

4. Limitations of Ratio Analysis

Ratio analysis is a traditional tool for measurement of different aspects of a business. Through it, the strengths and weaknesses of business entity are measured. This tool has limitations also. They are discussed as under :

(1) **Dependent on results of financial statements :** Under ratio analysis the evaluation of different aspects is done on the basis of information of financial statements. The success of this analysis is based on information disclosed in the financial statements. If true and fair information is not disclosed by the financial statements, the analysis would also present incorrect picture.

(2) **Absence of standard ratios :** Any individual ratio does not provide any analysis or interpretation. The use of ratio can be established only when the standard ratios are available for comparison. If standard ratios are not determined, the computed ratios become useless. Thus, the absence of standard ratios show uselessness of ratio analysis.

(3) **Influence of price changes :** The base of ratio analysis is financial statements. Financial statements are prepared with historical information. In historical information, the effect of inflation is not considered. Thus, price changes are not considered in ratio analysis also. This is also a limitation.

(4) Avoidance of qualitative factors : Ratio analysis is a method of quantitative analysis. Ratio analysis is purely based on quantitative information, but the qualitative aspects for measurement of operating results like honesty, loyalty, tempo which are strongly associated with employees or officers or management are ignored. These factors also have influence on the operation of the business entity.

(5) Difficulty in comparison : When two business entities, follow different accounting policies, the information obtained by ratio analysis becomes useless. e.g. the use of different methods like depreciation or stock valuation by two business entities. In these circumstances, the use of ratio analysis does not become useful.

5. Presentation of Ratios

The presentation of ratios can be done in different ways. These forms are as follows :

(1) In terms of proportion : Under this form two amounts are used on the basis of their relation. One amount is used as numerator and the other one is as denominator and then the proportion is determined. e.g. To measure liquidity current ratio is used, its formula is as follows.

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

e.g. current assets are of ₹ 3,00,000 and current liabilities of ₹ 2,00,000.

$$= \frac{3,00,000}{2,00,000}$$

∴ Current ratio is 1.5.

It means current ratio is 1.5:1. It explains that, where against current assets of ₹ 1.5, current liability is ₹ 1.

(2) In terms of percentage : In this form also two variables are used on the basis of their relation; one amount is used as numerator, another one as denominator and then percentages are determined. e.g. Net profit ratio, its formula is as follows :

$$\text{Net profit ratio} = \frac{\text{Net profit}}{\text{Sales}} \times 100$$

e.g. sales is of ₹ 3,00,000 and net profit is of ₹ 60,000

$$= \frac{60,000}{3,00,000} \times 100 = 20\ \%$$

∴ Net profit ratio is 20 %. It shows that ₹ 20 profit is earned from the sales of ₹ 100.

(3) In terms of times : Like proportion, here also one amount is disclosed as numerator and another is disclosed as denominator. But here the interpretation of ratio is in terms of time. This term is used for special type of components of accounting. e.g. stock turnover, its formula is as follows :

$$\text{Stock turnover} = \frac{\text{Cost of goods sold}}{\text{Average stock}}$$

e.g. cost of goods sold is ₹ 3,00,000 and average stock is ₹ 1,00,000.

$$= \frac{3,00,000}{1,00,000} = 3 \text{ times}$$

Stock turnover is 3 times, it means the stock of business is converted 3 times into cost of goods sold.

.(4) **In terms of fraction :** To determine the proportion of one component against the other component, this form is used. e.g. The share capital of business unit is ₹ 5,00,000. Non-current assets of business are $\frac{2}{5}$ of share capital.

In these circumstances,

$$\text{Non-current assets} = \text{Share capital} \times \text{Share of non-current assets in share capital}$$

$$= 5{,}00{,}000 \times \frac{2}{5}$$

$$= ₹\ 2{,}00{,}000$$

(5) **In terms of days/weeks/months :** In accounting, through certain ratios time period is determined. This time period is calculated in terms of days, weeks and months. This ratio provides information about collection period and payment period. e.g. the formula of collection period is as follows :

$$\text{Collection period} = \frac{\text{Debtors + Bills receivables}}{\text{Credit sales}} \times 365$$

e.g. Debtors are of ₹ 50,000, bills receivable ₹ 23,000 and credit sales ₹ 7,30,000

$$= \frac{50{,}000 + 23{,}000}{7{,}30{,}000} \times 365$$

$$= \frac{73{,}000}{7{,}30{,}000} \times 365 = 36.5 \text{ days means } 37 \text{ days}$$

The collection period is 37 days. It shows that the amount of every credit sales will be paid by debtors on 37th day from the date of sales.

Thus the computation or presentation of the ratios can be done in different ways. It is imporatant to note that all ratios can not be computed in all forms. e.g. The ratios of proportion can not be disclosed in the time form and vice versa. The detailed discussion in this regard is done under the head classification of ratios.

6. Classification of Ratios

The classification of ratios can be done into two categories :

(i) Traditional classification

(ii) Functional classification

The detailed explanation is as folllows :

(i) **Traditional Classification :** The computation of accounting ratios is done on the basis of financial statements. In these statements, trading account, profit and loss account and balance sheet are included. (Now in the company form income statement and balance sheet are prepared.) As per traditional classification,

(1) Ratios of trading A/c and profit and loss A/c

(2) Ratios of balance sheet

(3) Composite ratios are covered.

For computation of ratios of trading A/c and profit and loss A/c, both numerator and denominator are from trading A/c and profit and loss A/c. e.g. Net profit ratio, net profit and sales both components are from trading A/c and profit and loss A/c. For computation of ratios of balance sheet, both numerator and denominator are from balance sheet. e.g. Debt-equity ratio. Both components are of balance sheet. In case of third type, one component is from trading A/c or profit and loss A/c and second component is from the balance sheet. e.g. Fixed assets turnover. In this ratio assets are from balance sheet and sales is from trading A/c.

(ii) Functional Classification : To measure financial health or to acquire information about different aspects of accounting of business entity, ratio analysis is used. These aspects include

(1) Profitability

(2) Liquidity

(3) Solvency

(4) Efficiency

This aspects measure performance of the business entity according to their name. This classification is known as functional classification. In this classification profitability ratios, liquidity ratios, solvency ratios and efficiency ratios are included. Each aspect is a result of specific performance. In practice this classification is widely used. In this book explanation is given as per functional classification. Only functional classification is expected. On the basis of this classification all ratios are explained as under.

7. Profitability Ratios

The main objective of every business is to earn profit. The earning capacity of the company is known as profitability. There are diffirent ratios to measure profitability.

As per the syllabus, the following profitability ratios are to be studied. Generally these ratios are calculated in terms of percentage.

(i) Gross profit ratio

(ii) Operating ratio

(iii) Operating profit ratio

(iv) Net profit ratio

(i) Gross profit ratio :

Meaning : Gross profit ratio discloses the relation between gross profit and total net sales. Gross profit ratio is an income based ratio. Where gross profit is an income and its proportion to sales (is also income) is determined. This ratio indicates percentage of gross profit to sales. Sales means revenue from operation. Operating income means the income which is generated from the business in which company deals. Sales means net sales (sales less sales return).

What is total sales ? Credit sales + Cash sales

What is gross profit ? Gross profit means excess of sales over cost of goods sold.

What is cost of goods sold ? Cost of goods sold is determined as follows :

	Opening stock of raw metarial	✓
+	Purchase of raw metarial	✓
+	Purchase expense	✓
		✓
–	Closing stock of raw material	✓
	Cost of goods consumed	✓
+	Wages	✓
+	Factory expenses	✓
	Cost of goods sold	✓

Note : (1) For determination of cost of goods sold, production expenses are considered for manufacturing units. Trading units do not have production expenses. Therefore for trading units cost of goodsconsumed is treated as cost of goods sold. (2) Instead of disclosure of opening stock and closing stock, how changes in stock are disclosed is discussed in the previous chapter.

(1) Change in stock = Opening stock > Closing stock

Positive difference : Added to cost of goods sold or deducted from income

(2) Change in stock = Opening stock < Closing stock

Negative difference : Deducted from cost of goods sold or added to income

Note : Negative amount (figures) are shown in bracket.

Gross profit = Total net sales − Cost of goods sold

Formula : Gross profit ratio = $\frac{\text{Gross profit}}{\text{Total net sales}} \times 100$

Objective : Gross profitability of the business can be measured through gross profit ratio.

Trend : It is income based ratio. Thus it's increasing trend indicates enhancement in profitability.

Illustration 1 : Calculate gross profit ratio from the given information of **'Z'** Co. Ltd.

Particulars	**2016 (₹)**	**2017 (₹)**
Sales	4,80,000	6,00,000
Gross profit	1,20,000	1,80,000

Note : Question can also be asked on the basis of information of one year.

Ans. :

Gross profit ratio = $\frac{\text{Gross profit}}{\text{Net sales}} \times 100$

$= \frac{1,20,000}{4,80,000} \times 100$ $\qquad$ $= \frac{1,80,000}{6,00,000} \times 100$

25 % $\qquad$ 30 %

Interpretation : (i) As compared to previous year gross profit ratio is increased from 25 % to 30 %. It indicates growth in gross profitability.

(ii) Gross profit = Sales − Cost of goods sold

2016 : 25 % = 100 % − 75 %

2017 : 30 % = 100 % − 70 %

It can be said that as compared to the previous year cost of goods sold is reduced in current year from 75 % to 70 %. Therefore gross profit rate is increased.

Illustration 2 : From the given information of **'O'** business entity calculate gross profit ratio.

Particulars	**2016 (₹)**	**2017 (₹)**
Sales	8,00,000	12,00,000
Cost of goods sold	6,00,000	10,00,000

Ans. :

Gross profit is not provided. Thus gross profit is required to be calculated.

Gross profit = Sales − Cost of goods sold

2016 : 2,00,000 = 8,00,000 − 6,00,000

2017 : 2,00,000 = 12,00,000 − 10,00,000

$$\text{Gross profit ratio} = \frac{\text{Gross profit}}{\text{Total net Sales}} \times 100$$

2016	2017
$= \frac{2,00,000}{8,00,000} \times 100$	$= \frac{2,00,000}{12,00,000} \times 100$
= 25 %	$= 16\frac{2}{3}$ % (16.66... %)

Illustration 3 : Information of two years of **'Q'** company is as follows. Calculate gross profit ratio.

Particulars	**2016 (₹)**	**2017 (₹)**
Sales	10,20,000	15,50,000
Sales return	20,000	50,000
Opening stock	1,40,000	1,60,000
Purchase	6,00,000	8,00,000
Purchase expenses	30,000	40,000
Closing stock	1,60,000	1,50,000

Ans. :

To calculate gross profit ratio, gross profit is to be ascertained by preparing income statement :

Particulars	**2016**		**2017**	
Net sales : Sales	10,20,000		15,50,000	
Less : Sales return	20,000	10,00,000	50,000	15,00,000
Less : Cost of goods consumed				
Opening stock	1,40,000		1,60,000	
Purchase	6,00,000		8,00,000	
Purchase expenses	30,000		40,000	
	7,70,000		10,00,000	
Less : Closing stock	1,60,000	6,10,000	1,50,000	8,50,000
Gross profit		**3,90,000**		**6,50,000**

$$\text{Gross profit ratio} = \frac{\text{Gross profit}}{\text{Net sales}} \times 100$$

$$= \frac{3,90,000}{10,00,000} \times 100 \qquad = \frac{6,50,000}{15,00,000} \times 100$$

$$= 39\ \% \qquad = 43.33\ \%$$

Illustration 4 : Two years information of **'F'** & Co. is given below. Calculate gross profit ratio.

Particulars	**2016 (₹)**	**2017 (₹)**
Sales	10,20,000	15,50,000
Sales return	20,000	50,000
Purchase	6,00,000	8,00,000
Purchase expenses	30,000	40,000
Changes in stock	(20,000)	10,000

Ans. :

To calculate gross profit ratio, gross profit is to be ascertained by preparing income statement.

Particulars	**2016**		**2017**	
Net Sales : Sales	10,20,000		15,50,000	
Less : Sales return	20,000	10,00,000	50,000	15,00,000
Less : Cost of goods consumed				
Purchase	6,00,000		8,00,000	
Purchase expenses	30,000		40,000	
Changes in stock	(20,000)	6,10,000	10,000	8,50,000
Gross profit		**3,90,000**		**6,50,000**

$$\text{Gross profit ratio} = \frac{\text{Gross profit}}{\text{Sales}} \times 100 \qquad \frac{3,90,000}{10,00,000} \times 100 \qquad \frac{6,50,000}{15,00,000} \times 100$$

$$= 39\ \% \qquad = 43.33\ \%$$

Note : To explain the treatment of stock, the details except stock of illustration 3 and 4 are kept identical.

(ii) Operating ratio :

Meaning : Operating ratio discloses the relation of operating cost and sales. Operating ratio is cost (expense) based ratio. This ratio shows proportion of operating cost to sales.

What is operating cost ? Operating cost = Cost of goods sold + Operating expenses

What are the operating expenses ? Operating expenses are those expenses which are incurred for operating activities of business, where office expenses (administrative expense), sales distribution expenses, employees benefit expenses, depreciation, amount written off etc. are included.

Note : Non-operating incomes like interest received, dividend received, profit on sales of asset are not considered during the determination of operating cost. The interest paid and loss on sale of assets are also not considered. Interest expense is financial expense, not an operating expense. Loss on sale of asset is other expense, not operating expense.

To avoid the dilemma of students, non-operating expenses and incomes should be clearly stated.

Formula : Operating ratio $= \dfrac{\text{Cost of goods sold + Operating expenses}}{\text{Net sales}} \times 100$

Objective : This ratio explains the operating cost of business entity, the business in which the unit is engaged. e.g. A company manufactures and sales textile, would acquire information about production cost of textile. If production cost is more than pre determined cost, necessary efforts are made to control it.

Trend : The decreasing trend of this ratio is favourable which indicates increasing operating profitability.

Illustration 5 : From the following information calculate operating ratio of **'E'** Company.

Cost of goods sold ₹ 4,80,000, operating expenses ₹ 1,20,000, financial expenses ₹ 1,00,000 and sales ₹ 8,00,000.

Ans. : Operating ratio $= \dfrac{\text{Cost of goods sold + Operating expenses}}{\text{Net sales}} \times 100$

$= \dfrac{4{,}80{,}000 + 1{,}20{,}000}{8{,}00{,}000} \times 100$

$= 75\ \%$

Note : Financial expenses are not considered as operating expenses.

Illustration 6 : From the given information of **'K'** & Company Limited calculate operating ratios of two years :

Particulars	**2016 (₹)**	**2017 (₹)**
Sales	15,00,000	20,00,000
Cost of goods sold	7,50,000	9,00,000
Administrative expenses	1,00,000	1,50,000
Sales expenses	2,50,000	3,00,000
Depreciation	1,00,000	1,00,000
Financial expenses	1,00,000	1,00,000
Income of interest - Dividend	2,00,000	2,00,000
Other expenses (Non-operating)	50,000	50,000

Ans. :

Computation of Operating Expenses

Particulars	**2016 (₹)**	**2017 (₹)**
Administrative expenses	1,00,000	1,50,000
Sales expenses	2,50,000	3,00,000
Depreciation	1,00,000	1,00,000
	4,50,000	**5,50,000**

$$\text{Operating ratio} = \frac{\text{Cost of goods sold} + \text{Operating expenses}}{\text{Net sales}} \times 100$$

$$= \frac{7{,}50{,}000 + 4{,}50{,}000}{15{,}00{,}000} \times 100 \qquad = \frac{9{,}00{,}000 + 5{,}50{,}000}{20{,}00{,}000} \times 100$$

$$= \frac{12{,}00{,}000}{15{,}00{,}000} \times 100 \qquad = \frac{14{,}50{,}000}{20{,}00{,}000} \times 100$$

$$= 80\ \% \qquad = 72.5\ \%$$

As compared to the previous year, reduction in operating ratio, it discloses increase in profit.

Illustration 7 : From the following information of **'S'** Limited calculate operating ratio.

Net sales ₹ 28,00,000; cost of goods sold ₹ 18,00,000; salary ₹ 1,20,000; other administrative expenses ₹ 1,80,000; sales expenses ₹ 1,50,000; interest on loan ₹ 1,25,000; loss due to fire ₹ 25,000; interest income on investments ₹ 1,80,000

Ans. :

$$\text{Operating ratio} = \frac{\text{Cost of goods sold} + \text{Operating expenses}}{\text{Net sales}} \times 100$$

Operating expenses =	Salary	₹ 1,20,000
	Other administrative expenses	₹ 1,80,000
	Sales expenses	₹ 1,50,000
		₹ 4,50,000

$$= \frac{18{,}00{,}000 + 4{,}50{,}000}{28{,}00{,}000} \times 100$$

$$= \frac{22{,}50{,}000}{28{,}00{,}000} \times 100$$

$$= 80.36\ \%$$

(iii) Operating Profit Ratio :

Meaning : This ratio discloses relationship between operating profit and sales. This is an income based ratio. This ratio shows the proportion of operating profit to sales.

What is the operating profit ? Sales − Operating cost

Formula : Operating profit ratio $= \dfrac{\text{Operating profit}}{\text{Net sales}} \times 100$

Objective : This ratio indicates that how much is profit earned by the unit, from the business in which unit deals. To determine this ratio in alternative way, assume the sales as 100 % and deduct operating ratio from it, the remaining percentage will be operating profit ratio.

Trend : Since this ratio is income based, the increasing trend of it indicates enhancement in profit.

Illustration 8 : From the following information of **'H'** Limited, calculate operating profit ratio.

Sales ₹ 7,50,000, cost of goods sold ₹ 3,00,000, operating expenses ₹ 1,50,000

Ans. :

$$\text{Operating profit ratio} = \frac{\text{Operating profit}}{\text{Sales}} \times 100$$

Operating profit = Sales − Operating cost

Operating cost =	Cost of goods sold	₹ 3,00,000
	+ Operating expenses	₹ 1,50,000
		₹ 4,50,000

= ₹ 7,50,000 − ₹ 4,50,000

= ₹ 3,00,000

$$\frac{3{,}00{,}000}{7{,}50{,}000} \times 100 = 40\ \%$$

OR

Operating profit ratio = 100 % − Operating ratio

$$\text{Operating ratio} = \frac{\text{Cost of goods sold + Operating expenses}}{\text{Sales}} \times 100$$

$$= \frac{4{,}50{,}000}{7{,}50{,}000} \times 100 = 60\ \%$$

= 100 % − 60 % = 40 %

Illustration 9 : From the information of **'J'** Company Ltd. given below, calculate operating profit ratio.

Opening stock ₹ 60,000, purchase ₹ 5,00,000, purchase expenses ₹ 20,000, office expenses ₹ 50,000, interest paid ₹ 15,000, dividend received ₹ 15,000, Depreciation ₹ 40,000, loss due to accident ₹ 10,000, sales ₹ 8,00,000, closing stock ₹ 70,000, sales return ₹ 30,000, income tax rate 30 %.

Ans. :

$$\text{Operating profit ratio} = \frac{\text{Operating profit}}{\text{Sales}} \times 100$$

Operating profit = Net Sales − Operating cost

Net Sales = Sales − Sales return

= 8,00,000 − 30,000

= ₹ 7,70,000

Operating cost =	Opening stock	₹ 60,000
	+ Purchase	₹ 5,00,000
	+ Purchase expenses	₹ 20,000
		₹ 5,80,000
	− Closing stock	₹ 70,000
	Cost of goods sold	₹ 5,10,000
	+ Office expenses	₹ 50,000
	+ Depreciation	₹ 40,000
		₹ 6,00,000

= 7,70,000 − 6,00,000

= ₹ 1,70,000

$$= \frac{1{,}70{,}000}{7{,}70{,}000} \times 100 = 22.08\ \%$$

(iv) Net Profit Ratio :

Meaning : This ratio discloses the relationship between net profit and sales. This is an income based ratio. This ratio shows the percentage of net profit to sales.

What is net profit ? The amount remaining after deducting all the expenses from the total income. This profit can be calculated as under :

Particulars	(₹)	(₹)
Sales	✓	
Less : Sales return	✓	
Net sales		✓
Add : Non-operating income		✓
Total income		✓
Less : Cost of goods sold	✓	
Operating expenses	✓	
Financial expenses	✓	
Non-operating expenses	✓	✓
Profit before tax		✓
Less : Income tax		✓
Profit after tax		✓

Formula : $\text{Net profit ratio} = \dfrac{\text{Net profit after tax}}{\text{Net sales}} \times 100$

Objective : The overall profitability of business can be seen through this ratio. All incomes and expenses are considered.

Trend : Since this ratio is income based, increasing trend of it indicates enhancement in total profitability. (Net profitability)

Illustration 10 : From the given information in illustration no. 9, calculate net profit ratio.

$\text{Net profit ratio} = \dfrac{\text{Net profit after tax}}{\text{Net sales}} \times 100$

	(₹)	(₹)
Sales	8,00,000	
Less : Sales return	30,000	
Net sales		7,70,000
Add : Non-operating income : Dividend		15,000
Total income		7,85,000
Less : Cost of goods sold		
Opening stock	60,000	
+ Purchase	5,00,000	
+ Purchase expenses	20,000	
	5,80,000	
− Closing stock	70,000	
	5,10,000	

+ Operating expenses :		
Office expenses	50,000	
Depreciation	40,000	
+ Financial expenses :		
Interest	15,000	
+ Other expenses :		
Loss due to accident	10,000	6,25,000
Profit before tax		1,60,000
Less : Tax 30 %		48,000
Profit after tax		**1,12,000**

$\frac{1,12,000}{7,70,000} \times 100 = 14.55\ \%$

8. Liquidity Ratios

The basic objective of every business is to earn profit. The creditworthiness provides fuel to the earning capacity of the business. The credit worthiness depends upon the financial solvency of the company. In accounting the solvency is determined with two view points : (i) long-term solvency and (ii) short-term solvency. Short-term solvency is known as liquidity. Liquidity means the ability of business unit to pay short-term liabilities. Short-term liabilities means current liabilities. As per the syllabus the following ratios are to be studied. Generally, these ratios are presented in terms of proportion.

(i) Current Ratio

(ii) Liquid Ratio

(i) Current Ratio :

Meaning : Current ratio shows relation between current assets and current liabilities. What is the proportion of current liabilities against current assets is indicated by this ratio. It can be said that the liquidity position of business entity is good, if the proportion of current assets is higher than current liabilities. More liquidity means more short-term solvency.

Formula : Current ratio $= \frac{\text{Current assets}}{\text{Current liabilities}}$

Current assets means which is in the cash form or cash equivalent or which can be converted into cash within 12 months or which can be converted into cash equivalent. The following can be included in it.

Current investments, stock (excluding loose tools), trade receivables (bills receivable and debtors after deduction of bad debts reserve) cash and cash equivalent (cash on hand, bank balance, cheque/ draft on hand), short-term lending and advances, expenses paid in advance, incomes outstanding, taxes paid in advance etc.

Current liabilities means such liabilities which are payable within the time period of 12 months.

Short-term borrowings, trade payables (bills payable and creditors), interest payable on long-term liabilities, due but not paid liability, due but not paid interest, expenses outstanding, uncalled dividend, instalments received in advance, short-term provisions are included in current liabilities.

Objective : The objective of this ratio is to know the capacity of the business unit to pay short-term obligation.

Trend : The proportion of this ratio varies industry to industry. Generally 2:1 proportion of this ratio is considered to be an ideal. If this ratio is greater than the standard, it indicates the loss of interest and the lower ratio than the standard creates interruption in manufacturing process. Thus, its standard proportion is desirable.

The difference of current assets and current liabilities is known as working capital. Working capital also used for the measurement of liquidity.

In brief, Current assets / Current liabilities = Current ratio (in proportion)

Current assets − Current liabilities = Working capital (₹)

Illustration 11 : From the following information of **'P'** Company Ltd., calculate current ratio.

Debtors ₹ 1,80,000, bills receivables ₹ 30,000, bad debts reserve ₹ 10,000, stock ₹ 30,000, cash and cash equivalent ₹ 45,000, machinery ₹ 1,20,000, furniture ₹ 90,000, bills payable ₹ 20,000, short-term loan ₹ 90,000, outstanding expenses ₹ 27,500.

Ans. :

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

	(₹)	(₹)
Current assets : Debtors	1,80,000	
Bills receivables	30,000	
	2,10,000	
− Bad debts reserve	10,000	2,00,000
Stock		30,000
Cash and cash equivalent		45,000
		2,75,000
Current liabilities : Bills payables	20,000	
Short-term loan	90,000	
Outstanding expenses	27,500	
		1,37,500

$$= \frac{2,75,000}{1,37,500} = 2:1$$

Analysis : 'P' Company has the current assets of ₹ 2 to pay the current liabilities of ₹ 1. The receivable is ₹ 2 and the payable is ₹ 1. When the current assets are more than the current liabilities, it indicates short-term solvency. Here the answer of current ratio is shown 2:1. If only 2 was disclosed, then also the meaning does not change. When the numerator is divided by the denominator and the answer arrived at is 1, which is always for the denominator. Here the denominator is 1 against which the proportion of numerator 2.

Illustration 12 : From the following information of **'R. K.'** Ltd., calculate current ratio and working capital.

Particulars	(₹)	**Particulars**	(₹)
Debtors	90,000	Bills receivables	30,000
Land-building	5,00,000	Furniture	60,000
Outstanding expenses	40,000	Non-current investments	70,000
Current investments	30,000	Cash and cash equivalent	30,000
Creditors	60,000	Bills payables	20,000
Bad debts reserve	20,000	Stock	60,000

Ans. :

Current ratio $= \dfrac{\text{Current assets}}{\text{Current liabilities}}$

	(₹)	(₹)
Current assets : Debtors	90,000	
Bills receivables	30,000	
	1,20,000	
− Bad debts reserve	20,000	1,00,000
Current investments		30,000
Cash and cash equivalent		30,000
Stock		60,000
		2,20,000
Current liabilities : Outstanding expenses		40,000
Creditors		60,000
Bills payables		20,000
		1,20,000

$= \dfrac{2{,}20{,}000}{1{,}20{,}000} = 1.83$

Working capital = Current assets − Current liabilities

= ₹ 2,20,000 − ₹ 1,20,000

= ₹ 1,00,000

Illustration 13 : From the following information of **'M'** Ltd., calculate current ratio.

Current assets ₹ 1,50,000, working capital ₹ 60,000

Ans. :

Current ratio $= \dfrac{\text{Current assets}}{\text{Current liabilities}}$

Current assets are of ₹ 1,50,000

Current liabilities are not given, but working capital is given.

Working capital = Current assets − Current liabilities

₹ 60,000 = ₹ 1,50,000 − Current liabilities

∴ Current liabilities = Current assets − Working capital

∴ Current liabilities = ₹ 1,50,000 − ₹ 60,000

∴ Current liabilities = ₹ 90,000

$\dfrac{1{,}50{,}000}{90{,}000} = 1.67 : 1$

(ii) Liquid Ratio :

Meaning : Liquid ratio shows relation between liquid assets and current liabilities. This ratio indicates the proportion of liquid assets against current liabilities. This ratio also discloses the liquidity of the business entity. From the current assets the stock and expenses paid in advance are deducted, the balancing figure is liquid assets.

Note : Here, current assets excluding stock and expenses paid in advance are considered to determine liquid assets.

Formula : Liquid ratio $= \dfrac{\text{Liquid assets}}{\text{Current liabilities}}$

Liquid assets are such assets which are easily convertible in cash and cash equivalent.

Current liabilities which are considered for current ratio, are also considered for this ratio.

Objective : The objective of this ratio is also to measure liquidity. The purpose is to measure capacity to pay short-term liabilities. This ratio indicate batter capacity in paying short-term liabilities than the current ratio. This ratio is also known as quick ratio. There is no time period of 12 months prescribed for the conversion of assets into cash. Thus, this ratio is faster than current ratio to pay short-term liabilities.

Trend : Generally, the proportion of this ratio 1:1 is desirable.

Illustration 14 : From the following information of **'S. L.'** Limited, calculate liquid ratio.

Particulars	(₹)	Particulars	(₹)
Current liabilities	1,60,000	Current assets	2,00,000
Stock	30,000	Expenses paid in advance	10,000
Debtors	20,000	Bills receivables	15,000

Ans. :

Liquid ratio $= \dfrac{\text{Liquid assets}}{\text{Current liabilities}}$

	(₹)	(₹)
Liquid assets : Current assets		2,00,000
Less : Stock	30,000	
Expenses paid in advance	10,000	40,000
		1,60,000

$= \dfrac{1,60,000}{1,60,000} = 1:1$

Illustration 15 : From the following information of **'I'** Limited, calculate current ratio and liquid ratio.

Particulars	(₹)	Particulars	(₹)
Cash and cash equivalent	1,80,000	Creditors	2,00,000
Debtors	1,20,000	Bills payables	1,00,000
Bills receivables	60,000	Outstanding expenses	80,000
Stock	1,40,000	Taxation provision	80,000
Current investments	1,00,000		

Ans. :

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

	(₹)	(₹)
Current assets : Cash	1,80,000	
Debtors	1,20,000	
Bills receivables	60,000	
Current investments	1,00,000	
Stock	1,40,000	
	6,00,000	
Current liabilities : Creditors	2,00,000	
Bills payables	1,00,000	
Outstanding expenses	80,000	
Taxation provision	80,000	
	4,60,000	

$$= \frac{6,00,000}{4,60,000} = 1.30 : 1$$

$$\text{Liquid ratio} = \frac{\text{Liquid assets}}{\text{Current liabilities}}$$

	(₹)	(₹)
Liquid assets : Current assets		6,00,000
Less : Stock		1,40,000
		4,60,000

$$= \frac{4,60,000}{4,60,000} = 1 : 1$$

Relation of current assets and current liabilities with current ratio :

The current ratio emerges from two variables : (i) current assets and (ii) current liabilities. Thus, there is an influence of change in current assets and current liabilities on current ratio. This influence is as follows :

Increase in current assets → Increase in current ratio
Decrease in current assets → Decrease in current ratio

This relation shows that there is a direct relation between the current assets and the current ratio.

Increase in current liabilities → Decrease in current ratio
Decrease in current liabilities → Increase in current ratio

This relation shows that there is an inverse relation between the current liabilities and the current ratio.

Note : The relation between the liquid assets and the current liabilities with liquid ratio is also the same.

Increase in liquid assets → Increase in liquid ratio
Decrease in liquid assets → Decrease in liquid ratio
and
Increase in current liabilities → Decrease in liquid ratio
Decrease in current liabilities → Increase in liquid ratio

9. Solvency Ratios

Generally economic or financial solvency is considered in the context of long-term. Solvency is used to measure economic health of business entity. This ratio is used to measure how far the business entity is competent enough to pay long-term liabilities. This ratio is computed for economic aspects. As per the syllabus the following ratios are to be studied. These ratios are disclosed in terms of proportion.

(i) Debt to equity ratio

(ii) Total assets to debt ratio

(iii) Proprietory ratio

(iv) Interest coverage ratio

(i) Debt to equity ratio :

Meaning : Debt to equity ratio shows relation between debt and equity (shareholders' funds). This ratio indicates the proportion of equity against debt. Here, equity means shareholders' funds. Equity share capital and reserves and surplus are included in shareholders' funds. A business entity is considered as solvent, when the proportion of equity is greater than debt, business entity is considered as less solvent when the proportion of the equity is less than the debt.

$$\text{Formula : } \frac{\text{Debt (Non-current / long-term liabilities)}}{\text{Equity (Shareholders' funds)}}$$

The equity and liabilities side of balance sheet shows three divisions.

(1) Shareholders' funds (2) Non-current liabilities (3) Current liabilities

Shareholders' funds and non-current liabilities are the long-term sources of funds of a business entity. That remains for long-time in business. These are not proccured every year. But shareholders' funds are owners' funds and non-current liabilities are the liabilities towards external parties. Both are long-term sources of finance but are different from ownership viewpoint.

Here, liabilities means long-term liabilities where (i) long-term borrowings (ii) deferred tax liability (iii) other long-term liability and (iv) long-term provisions are included. **(But for computation of this ratio deferred tax liability and other long-term liabilities will not be considered. Thus, these two items should not be included.)**

Shareholders' funds = Equity share capital + Preference share capital + Reserves and surplus

If debit balance of profit and loss account is appeared in the balance sheet, it will be deducted for the determination of shareholders' funds. Then the arrived amount of shareholders' funds will be used to compute this ratio. Preference share capital is included in shareholders' funds.

Objectives : The objective of this ratio is to know the proportion of owners capital (shareholders' funds) and borrowed funds (non-current liabilities) which are acquired by the business as a long-term sources of finance.

Trend : There is no standard measure for this ratio. This varies industry to industry. If this ratio is higher, it indicates that the business unit is more dependent on the borrowed funds and if this ratio is lower, it indicates that the business unit is less dependent on the borrowed capital. If this ratio is reported high, it is risky for the lenders and if it is reported low, it is less risky for the lenders to lend their funds.

Balance Sheet

Equity-Liabilities	Companies		
	X	Y	Z
(A) Shareholders' funds	25 %	37.5 %	50 %
(B) Nonc-urrent liabilities	50 %	37.5 %	25 %
(C) Current liabilities	25 %	25 %	25 %
Total	**100 %**	**100 %**	**100 %**
Assets	**Companies**		
	X	Y	Z
(A) Non-current assets (B) Current assets	100 %	100 %	100 %
Total	**100 %**	**100 %**	**100 %**

Debt-Equity ratio $= \dfrac{\text{Liabilities (Long-term liabilities)}}{\text{Shareholders' funds}}$

(1) In case of X company, the proportion debt is higher against shareholders' funds, thus it is less solvent than Y and Z.

(2) Y company has less debt than that of X, thus it is more solvent against X company but less solvent against Z company.

(3) Z has the lowest debts against all companies, thus it is more solvent.

X	Y	Z
$\frac{50}{25}$	$\frac{37.5}{37.5}$	$\frac{25}{50}$
2 : 1	1 : 1	0.50 : 1

When in question total liabilities are given with a view to arrive at non-current liabilities deduct current liabilities from it.

Illustration 16 : From the following information of **'F. L.'** Ltd., calculate debt equity ratio.

Particulars	(₹)	Particulars	(₹)
Equity share capital	10,00,000	Outstanding expenses	1,00,000
General reserve	6,00,000	Long-term loan	2,00,000
Profit-loss A/c	4,00,000	Long-term provisions	2,00,000

Ans. :

$$\text{Debt to Equity ratio} = \frac{\text{Liabilities (Long-term liabilities)}}{\text{Equity (Shareholders' funds)}}$$

Liabilities : (Non-current liabilities)

Long-term loan	₹	2,00,000
Long-term provisions	₹	2,00,000
	₹	**4,00,000**

Equity (Shareholders' funds) :

Equity share capital	₹	10,00,000
General reserve	₹	6,00,000
Profit-loss A/c	₹	4,00,000
	₹	**20,00,000**

$$\frac{4,00,000}{20,00,000} = 0.20 : 1$$

Against owners' funds of ₹ 1 of the business entity, non-current liability is ₹ 0.20.

Note : Outstanding expenses and current liability, will not be included in debt-equity. Only non-current liabilities will be considered.

Illustration 17 : From the following information of **'N'** Company, calculate debt-equity ratio.

Total Assets ₹ 25,00,000, Long-term loan ₹ 6,00,000

Long-term provisions ₹ 4,00,000, Current liabilities ₹ 5,00,000

Ans. :

$$\text{Debt-Equity ratio} = \frac{\text{Debt (Long-term liabilities)}}{\text{Equity (Shareholders' funds)}}$$

	₹	₹
Non-current liabilities : Long-term loan		6,00,000
Long-term provisions		4,00,000
		10,00,000
Equity (Shareholders' funds) :		
Total Assets		**25,00,000**
Less :		
Long-term loan	6,00,000	
Long-term provisions	4,00,000	
Current liabilities	5,00,000	15,00,000
		10,00,000

$$\frac{10,00,000}{10,00,000} = 1 : 1$$

Explanation : Equity (shareholders' funds) can also be calculated by preparing balance sheet.

Balance Sheet

Equity-Liabilities	Amt. (₹)	Assets	Amt. (₹)
Equity shareholders' funds	10,00,000	Assets	25,00,000
Non-current liabilities	6,00,000		
Long-term provisions	4,00,000		
Current liabilities	5,00,000		
	25,00,000		**25,00,000**

Illustration 18 : From the following information of **'R'** Co. Ltd., calculate debt-equity ratio.

Particulars	(₹)	Particulars	(₹)
Non-current assets	28,00,000	Creditors	90,000
Current assets	17,00,000	Bills payables	40,000
Total liabilities	15,00,000	Outstanding expenses	70,000

Ans. :

$$\text{Debt-Equity ratio} = \frac{\text{Debt (Long-term liabilities)}}{\text{Equity (Shareholders' funds)}}$$

Debt : Non-current liabilities (Long-term liabilities)

	₹	₹
Total debts		15,00,000
Current liabilities :		
Less : Creditors	90,000	
Bills payables	40,000	
Outstanding expenses	70,000	2,00,000
		13,00,000

Equity = Total Assets − Total liabilities

	₹	₹
Non-current assets		28,00,000
Current assets		17,00,000
		45,00,000
Less : Total liabilities		15,00,000
		30,00,000

$$\frac{13,00,000}{30,00,000} = 0.43 : 1$$

Explanation : Computation through balance sheet.

Balance Sheet

Equity-Liabilities	Amt. (₹)	Assets	Amt. (₹)
Equity Shareholders' funds	30,00,000	Non-current assets	28,00,000
Non-current liabilities	13,00,000	Current assets	17,00,000
(See working given above)			
Current liabilities	2,00,000		
	45,00,000		**45,00,000**

(ii) Total Assets to Debt Ratio :

Meaning : Total Assets to debt ratio shows relation between total Assets and debt (Non-current liabilities). Out of total assets, the proportion of assets acquired by debt, can be ascertained from this ratio.

Formula : Total Assets to Debt ratio $= \dfrac{\text{Total Assets}}{\text{Debt (Long-term liabilities)}}$

To determine total assets, other non-current assets are not to be considered. (e.g. trade receivables of more than 12 months, expenses not written off etc.)

To determine debt, non-current liabilities are to be considered but other long-term liabilities are not to be considered. (e.g. payables of more than 12 months, debenture redemption premium (when debentures are disclosed under the head of long-term liabilities.)).

Objectives : It can be ascertained that out of total assets, what proportion of total assets is acquired through non-current liabilities.

Trend : There is no standard measure for this ratio. This ratio indicates reverse trend to trend of debt euqity ratio. Generally, when this ratio is higher, it is less risky to the lenders to lend their funds and if it is lower it is more risky to lend funds.

Balance Sheet

Equity-Liabilities	Companies		
	X	Y	Z
(A) Shareholders' funds	25 %	37.5 %	50 %
(B) Liabilities (Non-current liabilities)	50 %	37.5 %	25 %
(C) Current liabilities	25 %	25 %	25 %
Total	**100 %**	**100 %**	**100 %**
Assets	**Companies**		
	X	Y	Z
Non-current assets and Current assets	100 %	100 %	100 %
Total	**100 %**	**100 %**	**100 %**

Total assets-debt ratio $= \dfrac{\text{Total Assets}}{\text{Debt (Long-term liabilities)}}$

(1) X company has acquired 50 % assets from debt, X company is less solvent as compared to Y and Z company.

(2) Y company has less debt, thus it is more solvent as compared to X company.

(3) The quantum of debt is lowest in case of Z company, thus it is the most solvent.

X	**Y**	**Z**
$\frac{100}{50}$	$\frac{100}{37.5}$	$\frac{100}{25}$
2 : 1	2.67 : 1	4 : 1

Illustration 19 : From the following information of **'U'** Ltd., calculate total assets to debt ratio.

Share capital ₹ 30,00,000; reserves and surplus ₹ 5,00,000; non-current liabilities ₹ 10,00,000; current liabilities ₹ 5,00,000

Ans. :

$$\text{Total Assets to Debt ratio} = \frac{\text{Total Assets}}{\text{Debt (Long-term liabilities)(Non-current liabilities)}}$$

Total assets are not given but all items of equity-liabilities sides are given. Thus the total of equity-liabilities is total of assets side.

Total of equity-liabilities = Total Assets

Equity share capital	₹	30,00,000	
Reserve and surplus	₹	5,00,000	
Non-current liabilities	₹	10,00,000	
Current liabilities	₹	5,00,000	
		50,00,000	**= 50,00,000**

$$\frac{50,00,000}{10,00,000} = 5 : 1$$

It can be interpreted that out of total assets of ₹ 5, the assets of ₹ 1 are purchased from debt (non-current liabilities). It means the remaining assets of ₹ 4 are purchased from shareholders' funds.

Illustration 20 : From the following information of **'D. V.'** Co. Ltd., calculate total assets to debt ratio.

	(₹)
Non-current assets (Gross)	28,00,000
Accumulated depreciation on fixed assets	3,00,000
Current assets	5,00,000
Equity share capital	18,00,000
Reserves and surplus	5,00,000
Total liabilities	7,00,000
Current liabilities	1,00,000

Ans. :

$$\text{Total Assets to debt ratio} = \frac{\text{Total Assets}}{\text{Debt (Long-term liabilities)}}$$

Total Assets =

	(₹)
Non-current assets (Gross)	28,00,000
Less : Depreciation	3,00,000
	25,00,000
Add : Current assets	5,00,000
	30,00,000

Debt =

	(₹)
Total liabilities	7,00,000
Less : Current liabilities	1,00,000
	6,00,000

Total Assets-Debt ratio $= \frac{30,00,000}{6,00,000} = 5:1$

(iii) Proprietary Ratio :

Meaning : Proprietary ratio shows relation between the total assets and the owners' funds (shareholders' funds).

There are two approaches used to determine the owners funds. Under both the approaches, owners' funds remain identical.

Approaches of Owners' Funds

↓

Liabilities based approach		Assets based approach		
owners funds =		owners funds =		
Equity share capital	✓	Non-current assets		✓
+ Preference share capital	✓	+ Current assets		✓
+ Reserve and surplus	✓			✓
	✓	Less : Non-current liabilities	✓	
		+ Current liabilities	✓	✓
				✓

Formula : Proprietary ratio $= \frac{\text{Owners' funds}}{\text{Total Assets}}$

Objective : This ratio shows what proportion of total assets is acquired by owners funds. It is further assumed that remaining assets are acquired by borrowed funds.

Trend : This ratio provides information of economic solvency and margin of safety to the creditors of business. The higher the ratio higher the economic margin of safety and the lower the ratio the lower the economic margin of safety.

Illustration 21 : From the following information of **'M'** Ltd., calculate Proprietary ratio.

Balance Sheet as on 31-3-2017

Particulars	**Amt. (₹)**	**Amt. (₹)**
(I) Equity and Liabilities :		
(1) Shareholders' funds :		
Equity share capital	20,00,000	
Preference share capital	10,00,000	
Reserves and surplus	15,00,000	45,00,000
(2) Non-current liabilities		15,00,000
(3) Current liabilities		10,00,000
Total		**70,00,000**
(II) Assets :		
(1) Non-current assets		50,00,000
(2) Current assets		20,00,000
Total		**70,00,000**

Ans. :

$$\text{Proprietary ratio} = \frac{\text{Proprietor's fund (Owner's funds)}}{\text{Total Assets}}$$

To determine total assets either liabilities based approach or assets based approach can be used.

Liabilities Based Approach	**Amt. (₹)**	**Assets Based Approach**		**Amt. (₹)**
Equity share capital	20,00,000	Non-current assets	50,00,000	
Preference share capital	10,00,000	+ Current assets	20,00,000	70,00,000
Reserves and surplus	15,00,000	Less :		
		Non-current liabilities	15,00,000	
		Current liabilities	10,00,000	25,00,000
	45,00,000			**45,00,000**

$$\text{Proprietary ratio} = \frac{\text{Proprietor's fund}}{\text{Total Assets}}$$

$$= \frac{45,00,000}{70,00,000}$$

$$= 0.64 : 1$$

₹	1.00	Assets
– ₹	0.64	Assets from owners fund
₹	0.36	Assets from borrowed funds

Out of assets of ₹ 1, assets of ₹ 0.64 are acquired through owners funds and remaining assets of ₹ 0.36 are obatined through borrowed funds.

(iv) Interest Coverage Ratio :

Meaning : This ratio shows the relation between the earning before interest and tax and the interest on the long-term debt. This ratio shows earning capacity, thus if calculated in terms of times.

$$\text{Formula : Interest coverage ratio} = \frac{\text{Earning before interest and tax}}{\text{Interest on long-term debt}}$$

Earning before interest and tax = Earning after tax	✓
+ Tax	✓
+ Interest	✓
	✓

Objectives : There are two ways to provide capital to the business. Capital provided by the owners and capital borrowed from the external parties. No interest is paid on the owners' capital but the interest is paid on the borrowed capital. Before lending funds to the business, lenders examines the interest payment capacity of the business enterprise. To examine status of interest payment capacity, this ratio is used.

Trend : This ratio indicates the interest payment capacity of the business. Thus higher the ratio higher the interest payment capacity of the business and vice versa.

Illustration 22 : From the following information of **'N. K.'** Company Ltd., calculate interest coverage ratio.

10 % debentures ₹ 10,00,000, 12 % bank loan ₹ 30,00,000, Earning before interest and tax ₹ 20,70,000

Ans. :

$$\text{Interest coverage ratio} = \frac{\text{Earning before interest and tax}}{\text{Interest on long-term liabilities}}$$

Interest on long-term liabilities =

10 % debentures ₹ 10,00,000	= 1,00,000
12 % bank loan ₹ 30,00,000	= 3,60,000
	4,60,000

$$\frac{20,70,000}{4,60,000} = 4.5 \text{ times}$$

Company has 4.5 times earnings to pay interest. This indicates good earning.

Illustration 23 : From the following information of **'R. J.'** Company, calculate interest coverage ratio.

Profit after tax ₹ 10,50,000; tax at 30 % ₹ 4,50,000; 10 % loan of ₹ 50,00,000

Ans. :

$$\text{Interest coverage ratio} = \frac{\text{Profit before interest and tax}}{\text{Interest on long-term liabilities}}$$

Profit before interest and tax =	(₹)
Profit after tax	10,50,000
+ Tax	4,50,000
+ Interest (50,00,000 × 10 %)	5,00,000
	20,00,000

$$\frac{20,00,000}{5,00,000} = 4 \text{ times}$$

10. Efficiency (Activity) Ratios :

The profitability of the business increases, when all resources and equipments acquired by the business entity are used efficiently. In this context efficiency or activity ratios are developed. The following ratios are covered in the syllabus. These ratios are calculated in terms of times. Another ratio in this category are debtors' turnover and creditors' turnover. From these two ratios debtors' collection period and creditors' payment periods are determined. This period may be in terms of days, weeks or months.

(i) Stock turnover

(ii) Working capital turnover

(iii) Debtors turnover

(iv) Creditors turnover

(i) Stock turnover ratio :

Meaning : This ratio shows relation between the cost of goods sold and average stock. How many times stock is converted into production and sales, can be ascertained by this ratio.

Formula : $\text{Stock turnover} = \dfrac{\text{Cost of goods sold}}{\text{Average stock}}$

How to determine cost of goods sold, is already studied under the gross profit ratio determination. It is again represented as follows.

Cost of goods sold :

	Opening stock of raw material	✓
+	Purchase of raw material	✓
+	Purchase expenses	✓
		✓
−	Closing stock of raw material	✓
	Cost of goods consumed	✓
+	Wages	✓
+	Factory expenses	✓
	Cost of goods sold	✓

Cost of goods sold can be determined also as follows :

Gross profit = Sales − Cost of goods sold. This formula can be modified as follows :

Cost of goods sold = Sales − Gross profit

In case of gross loss

Cost of goods sold = Sales + Gross loss

$\text{Average stock} = \dfrac{\text{Opening stock} + \text{Closing stock}}{2}$

Objective : This ratio is the measurement of efficiency for the conversion of stock in to sales.

Trend : Generally, the increasing trend is acceptable. The increasing trend shows that very often the stock is converted into cost of goods sold and finally into sales. Generally, it is established that higher the ratio - higher the sales - higher the profit.

Theoretically higher ratio can be a result of deficit (shortage) of working capital and lower ratio can be the result of unnecessary investment in working capital. Thus it is desirable to maintain optimum level of stock.

Illustration 24 : From the following information of **'H. N.'** Limited, calculate stock turnover ratio.

Sales ₹ 25,00,000; gross profit ₹ 4,00,000; opening stock ₹ 4,00,000 and closing stock ₹ 3,00,000

Ans. :

$$\text{Stock turnover} = \frac{\text{Cost of goods sold}}{\text{Average stock}}$$

Cost of goods sold =

	(₹)
Sales	25,00,000
− Gross profit	4,00,000
	21,00,000

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

$$= \frac{4{,}00{,}000 + 3{,}00{,}000}{2}$$

$$= ₹\ 3{,}50{,}000$$

$$\frac{21{,}00{,}000}{3{,}50{,}000} = 6 \text{ times}$$

Illustration 25 : From the following information of **'D. D.'** Company Ltd., calculate stock turnover ratio.

Particulars	**(₹)**	**Particulars**	**(₹)**
Opening stock	30,000	Closing stock	40,000
Purchase	4,80,000	Purchase expenses	20,000

Ans. :

$$\text{Stock turnover} = \frac{\text{Cost of goods sold}}{\text{Average stock}}$$

Cost of goods sold =

	(₹)
Opening stock	30,000
+ Purchase	4,80,000
+ Purchase expenses	20,000
	5,30,000
− Closing stock	40,000
	4,90,000

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

$$= \frac{30{,}000 + 40{,}000}{2}$$

$$= ₹\ 35{,}000$$

$$\frac{4{,}90{,}000}{35{,}000} = 14 \text{ times}$$

(ii) Working Capital Turn-over Ratio :

Meaning : This ratio shows the relation between sales and working capital. If sales is not available, the relation between the cost of goods sold and the working capital is examined. From this ratio it is ascertained that how many times the working capital generates sales.

Formula : Working capital turnover $= \dfrac{\text{Sales (or cost of goods sold)}}{\text{Working capital}}$

When sales is not given in the question the ratio is to be calculated on the basis of cost of goods sold.

Objective : The purpose to invest in working capital is to yield revenue. This ratio is used to examine the efficiency of working capital. As compared to stock turnover ratio this ratio gives better results for efficiency measurement. In stock turnover, only stock is considered, but for this ratio working capital is considered.

Trend : Generally, the increasing trend is favourable. Theoretically, the increasing trend shows the efficient use of working capital, which is the cause of higher sales and consequently of higher profit.

Illustration 26 : From the following information of **'H. R.'** Limited, calculate working capital turnover.

Total sales ₹ 22,20,000; Sales return ₹ 20,000

Current assets ₹ 6,00,000; Current liabilities ₹ 2,00,000

Ans. :

Working capital turnover $= \dfrac{\text{Sales}}{\text{Working capital}}$

	(₹)
Sales :	
Total Sales	22,20,000
Less : Sales return	20,000
	22,00,000
Working capital :	
Current assets	6,00,000
Less : Current liabilities	2,00,000
	4,00,000

$= \dfrac{22,00,000}{4,00,000} = 5.5$ times

Illustration 27 : From the following information of **'M. N.'** Limited, calculate working capital turnover.

Working capital ₹ 3,00,000, Cost of goods sold ₹ 15,00,000, Gross profit rate 25 %.

Ans. :

Working capital turnover $= \dfrac{\text{Sales}}{\text{Working capital}}$

Sales : Cost of goods sold + Gross profit

Assume sales 100 = 75 % + 25 %

$\boxed{20,00,000}$ = 15,00,000 + 5,00,000

$= \dfrac{20,00,000}{3,00,000} = 6.67$ times

On the basis of cost of goods sold :

$= \dfrac{15,00,000}{3,00,000} = 5$ times

Illustration 28 : From the following information of **'M. M.'** Company Ltd., calculate working capital turnover.

Total assets ₹ 45,00,000, Non-current assets ₹ 30,00,000, Total liabilities ₹ 20,00,000

Non-current liabilities ₹ 10,00,000, Sales ₹ 25,00,000

Ans. :

$$\text{Working capital turnover} = \frac{\text{Sales}}{\text{Working capital}}$$

Working capital : Current assets − Current liabilities

Current assets = Total Assets − Non-current assets

= 45,00,000 − 30,00,000

= ₹ 15,00,000

Current liabilities = Total liabilities − Non-current liabilities

= 20,00,000 − 10,00,000

= ₹ 10,00,000

= ₹ 15,00,000 − 10,00,000

= ₹ 5,00,000

$$= \frac{25,00,000}{5,00,000} = 5 \text{ times}$$

(iii) Debtors Turnover Ratio :

Meaning : This ratio is known as receivable turnover ratio also. From this ratio it can be ascertained that how many times debtors and receivables emerge from credit sales. This ratio shows relation between credit sales and trade receivables.

Formula : $\text{Debtors turnover} = \dfrac{\text{Credit sales}}{\text{Average trade receivables}}$

Trade receivables means average of debtors and bills receivables of credit sales.

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

Note : During determination of trade receivables, bad debts reserve should not be deducted from the debtors. This ratio is for collection period not for receivable amount.

Objectives : From this ratio it can be ascertained that how many times debtors and bills receivables are emerged due to credit sales. This turnover shows that how quickly the collection is converted into cash or cash equivalent.

Trend : This is performance measurement ratio. Higher ratio shows higher collection efficiency and lower investment in debtors and bills receivable, while lower ratio shows lower collection efficiency and high investment in debtors and bills receivables.

The collection period is determined from this ratio. As stated above the high turnover of debtors gives quick collection and the low turnover of debtors gives slow collection. This time period can be in terms of days, weeks and months. Formulas pertaining to this is as follows :

$$\text{Collection period in months} = \frac{12}{\text{Debtors turnover}}$$

$$\text{Collection period in weeks} = \frac{52}{\text{Debtors turnover}}$$

$$\text{Collection period in days} = \frac{365}{\text{Debtors turnover}}$$

Note : To compute this ratio clear instruction should be given to the students. e.g. 12 months, 52 weeks or 365 days.

Illustration 29 : From the following information of **'R. R.'** Limited determine debtors turnover and collection period in months, weeks and days.

Particulars	**(₹)**	**Particulars**	**(₹)**
Total Sales	40,00,000	Cash Sales	3,50,000
Opening debtors and bills receivables	4,00,000	Closing debtors and bills receivables	3,30,000

Ans. : This kind of problems are solved in two stages, which are as follows :

(A) Debtors turnover : $\dfrac{\text{Credit sales}}{\text{Average trade receivables}}$

Credit sales :

	(₹)
Total sales	40,00,000
− Cash sales	3,50,000
	36,50,000

$$\textbf{Average trade receivables} = \frac{\text{Opening debtors and bills receivables} + \text{Closing debtors and bills receivables}}{2}$$

$$= \frac{4{,}00{,}000 + 3{,}30{,}000}{2}$$

$$= ₹\ 3{,}65{,}000$$

$$\frac{36{,}50{,}000}{3{,}65{,}000} = 10 \text{ times}$$

(B) Collection period :

In months	**In weeks**	**In days**
(A)	(B)	(C)
$\dfrac{12}{\text{Debtors turnover}}$	$\dfrac{52}{\text{Debtors turnover}}$	$\dfrac{365}{\text{Debtors turnover}}$
$\dfrac{12}{10}$	$\dfrac{52}{10}$	$\dfrac{365}{10}$
1.2 months	5.2 weeks	36.5 days (37 days)

Note : The above stated figures indicate that if collection period is calculated in terms of months, the collection will be received within 1.2 months. If it is calculated in terms of weeks, the collection will be received within 5.2 weeks and in terms of days the collection will be received within 36.5 days.

Illustration 30 : From the following information of **'R. H.'** Company Limited, calculate debtors turnover and collection period in days.

Particulars	(₹)	Particulars	(₹)
Cost of goods sold	48,00,000	Gross profit	12,00,000
Cash Sales	12,00,000	Closing trade receivables	1,70,000
Opening trade receivables	2,30,000		

Ans. :

(A) Debtors turnover : $\frac{\text{Credit sales}}{\text{Average trade receivables}}$

Credit sales : Total sales − Cash sales

Total sales = Cost of good sold + Gross profit

= 48,00,000 + 12,00,000

= ₹ 60,00,000

= ₹ 60,00,000 − ₹ 12,00,000 = ₹ 48,00,000

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

= $\frac{2,30,000 + 1,70,000}{2}$

= ₹ 2,00,000

$\frac{48,00,000}{2,00,000}$ = 24 times

(B) Collection period = $\frac{\text{365 days}}{\text{Debtors turnover}}$

= $\frac{365}{24}$

= 15.21 days = 15 days

(iv) Creditors' Turnover Ratio :

Meaning : This ratio is known as payable turnover ratio also. From this ratio it can be ascertained that how many times creditors and bills payables are emerged by credit purchase. This ratio shows the relation between the credit purchase and trade payables.

Formula : Creditors turnover = $\frac{\text{Credit purchase}}{\text{Average trade payables}}$

Average trade payables means average of creditors and bills payables of credit purchase.

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

Objectives : From this ratio it can be ascertained that how many times creditors and bills payables are emerged due to credit purchase. This ratio indicates, how quickly the payment is made.

Trend : This is a performance measurement ratio. Lower ratio shows higher payment efficiency. Owner has to spare his own capital in low quantum due to creditors and bills payables. Higher ratio shows lower payment efficiency.

The payment period is determined from this ratio. This time period can be in months, weeks and days. Formula in this context similar to collection period, are as follows :

$$\text{The payment period in months} = \frac{12}{\text{Creditors turnover}}$$

$$\text{The payment period in weeks} = \frac{52}{\text{Creditors turnover}}$$

$$\text{The payment period in days} = \frac{365}{\text{Creditors turnover}}$$

Illustration 31 : From the following information of **'A. B.'** Company Ltd., calculate creditors turnover and payment period in months, weeks and days.

Particulars	**(₹)**	**Particulars**	**(₹)**
Total purchase	30,00,000	Cash purchase	4,00,000
Opening trade payables	3,60,000	Closing trade payables	4,80,000

Ans. :

(A) Creditors turnover : $\frac{\text{Credit purchase}}{\text{Average trade payables}}$

Credit purchase :

	(₹)
Total Purchase	30,00,000
– Cash Purchase	4,00,000
	26,00,000

$$\textbf{Average trade payables} = \frac{\text{Opening trade payables} + \text{Closing trade payables}}{2}$$

$$= \frac{3,60,000 + 4,80,000}{2}$$

$$= ₹\ 4,20,000$$

$$\frac{26,00,000}{4,20,000} = 6.19 \text{ times}$$

(B) Payment period :

In months	**In weeks**	**In days**
(A)	(B)	(C)
$\frac{12}{\text{Creditors turnover}}$	$\frac{52}{\text{Creditors turnover}}$	$\frac{365}{\text{Creditors turnover}}$
$\frac{12}{6.19}$	$\frac{52}{6.19}$	$\frac{365}{6.19}$
1.94 months	8.40 weeks	58.97 days
		(59 days)

Illustration 32 : From the following information of **'A. A.'** Company Ltd., calculate creditors turnover and payment period in days.

Particulars	(₹)	Particulars	(₹)
Total purchase	35,00,000	Cash purchase	3,00,000
Purchase return	2,00,000	Opening trade payables	5,40,000
Closing trade payables	4,60,000		

Ans. :

(A) **Creditors turnover :** $\dfrac{\text{Credit purchase}}{\text{Average trade payables}}$

Credit purchase :

	(₹)
Total purchase	35,00,000
− Purchase return	2,00,000
	33,00,000
− Cash purchase	3,00,000
	30,00,000

Average trade payables $= \dfrac{\text{Opening trade payables} + \text{Closing trade payables}}{2}$

$= \dfrac{5{,}40{,}000 + 4{,}60{,}000}{2}$

$=$ ₹ 5,00,000

$\dfrac{30{,}00{,}000}{5{,}00{,}000} = 6$ times

(B) **Payment period in days** $= \dfrac{365}{\text{Creditors turnover}}$

$= \dfrac{365}{6} = 60.83$

$= 61$ days

Exercise

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1. **Select appropriate option for each question :**

(1) Which of the following is correct for accounting ratios ?

(a) Comparison with ratios developed by the firm

(b) Comparison with ratios of industry

(c) Comparison with ratios of competitors

(d) All of the above

(2) In which terms ratios are presented ?

(a) Proportion (b) Percentage

(c) Time (d) All of the above

(3) For which of the following items the ratio is computed in days ?

(a) For total purchase (b) For credit sales

(c) For credit purchase (d) Both (b) and (c)

(4) Which of the following ratios are included in traditional classification ?

(a) Composite ratios (b) Liquidity ratios

(c) Profitability ratios (d) Solvency ratios

(5) Which of the following ratios is revenue based profitability ratio ?

(a) Gross profit ratio (b) Net profit ratio

(c) Operating ratio (d) Both (a) and (b)

(6) A company has the purchase of ₹ 90,000, the purchase expenses of ₹ 15,000, the changes in stock (₹ 15,000) and sales of ₹ 1,50,000. Determine the gross profit ratio.

(a) 40 % (b) 13.33 %

(c) 20 % (d) None of the above

(7) Which of the following is not included in operating expense ?

(a) Loss on sale of asset (b) Loss due to fire

(c) Interest paid (d) All of the above

(8) The cost of goods sold of a company is ₹ 10,00,000. Operating expenses are ₹ 2,00,000. Non-operating expenses are ₹ 3,00,000. Financial expenses are ₹ 1,00,000. If total sales is ₹ 20,00,000, determine operating profit ratio.

(a) 20 % (b) 40 %

(c) 30 % (d) 28 %

(9) Liquidity ratio is ....

(a) measurement of solvency (b) measurement of short-term profitability

(c) measurement of profitability (d) measurement of liquidity

(10) Which of the following is not included to compute current ratio ?

(a) Debtors (b) Stock

(c) Bills receivables (d) Furniture

(11) Working capital means ....

(a) difference between current assets and non-current assets

(b) difference between current liabilities and non-current assets

(c) difference between current assets and non-current liabilities

(d) difference between current assets and current liabilities

(12) To arrive at liquid assets which of the following is deducted from current assets ?

(a) Stock (b) Cash and cash equivalent

(c) Debtors (d) Bills receivables

2. **Answer the following questions in one sentence :**

(1) What is ratio ?

(2) When ratio is useful ?

(3) In which forms ratios can be presented ?

(4) What is the cost of goods sold ?

(5) The gross profit ratio and the net profit ratios are revenue based ratios or expense based ratios ?

(6) When the changes in stock is positive, whether it will be added to cost of goods sold or deducted ?

(7) Give one illustration of financial expense.

(8) Are financial expenses included to determine operating ratio ?

(9) What is indicated by liquidity ratios ?

(10) Will the current ratio increase or decrease when the current assets increase and the current liabilities remain unchanged ?

(11) What is the shareholders' funds ?

(12) What is indicated by interest coverage ratio ?

(13) Which is better out of high interest coverage ratio and low interest coverage ratio ?

(14) By which ratios efficiency is measured ?

(15) In order to arrive at trade receivables is bad debts reserve deducted from debtors ?

3. **Answer the following questions in brief :**

(1) Explain three objectives of ratio analysis.

(2) Describe three limitations of ratio analysis.

(3) When are the computed ratios useful ?

(4) Explain the traditional classification of ratios.

(5) Explain the functional classification of ratios.

(6) Explain any one ratio of profitability.

(7) Explain any one ratio of liquidity.

(8) Explain any one ratio of solvency.

(9) Explain any one ratio of efficiency.

(10) What are included in operating expenses ?

(11) Explain non-operating incomes.

(12) Do we consider current investment for current ratio ?

(13) Explain the approaches of proprietary funds.

4. Determine gross profit ratio :

(1) Sales ₹ 10,00,000, Gross profit ₹ 3,00,000

(2) Sales ₹ 15,00,000, Cost of goods sold ₹ 12,00,000

(3) Sales ₹ 20,00,000 Sales return ₹ 2,00,000

Opening stock ₹ 2,50,000, Closing stock ₹ 3,50,000

Purchase ₹ 12,00,000 Purchase expenses ₹ 50,000

5. From the following information calculate operating ratio :

Particulars	(₹)	**Particulars**	(₹)
Non-operating other expenses	35,000	Income of Interest-dividend	45,000
Depreciation	48,000	Sales expenses	52,000
Administrative expenses	75,000	Cost of goods sold	3,25,000
Sales	6,00,000	Financial expenses	85,000
Tax rate	30 %		

6. From the following information calculate (i) operating ratio and (ii) operating profit ratio :

Particulars	(₹)	**Particulars**	(₹)
Sales	39,00,000	Wages	2,00,000
Cost of goods consumed	25,00,000	Administrative expenses	1,75,000
Sales expenses	75,000	Interest on loan	60,000
Loss due to accident	40,000	Dividend received on investments	1,00,000
Factory expenses including depreciation	50,000	Tax rate	30 %

7. Calculate net profit ratio from information of question no. 5 and 6.

8. From the following information calculate current ratio and liquid ratio :

Particulars	(₹)	**Particulars**	(₹)
Stock	3,00,000	Bills receivables	75,000
Debtors	2,50,000	Bad debts reserve	20,000
Cash and cash equivalent	1,20,000	Expenses paid in advance	60,000
Furniture	1,60,000	Creditors	2,00,000
Bills payable	60,000	Outstanding expenses	50,000
Short-term loan	40,000		

9. From the following information of **'H'** Limited, calculate debt-equity ratio :

Particulars	(₹)	**Particulars**	(₹)
Long-term liabilities	8,00,000	Equity share capital	8,00,000
Long-term provisions	4,00,000	Preference share capital	2,00,000
Debit balance of profit-loss A/c	50,000	Creditors	1,25,000
Bills payables	25,000	Outstanding expenses	10,000

10. From the following information of **'M'** Limited, calculate debt-equity ratio :

Particulars	(₹)	**Particulars**	(₹)
Current liabilities	4,50,000	Long-term liabilities	8,00,000
Long-term provisions	6,00,000	Total assets	30,00,000

11. From the following information of 'N' Company Limited, calculate debt-equity ratio :

Particulars	(₹)	Particulars	(₹)
Creditors	1,60,000	Non-current assets	12,00,000
Bills payables	1,40,000	Current assets	10,00,000
Outstanding expenses	1,00,000	Total liabilities	10,00,000

12. From the following information of 'R' Company Limited, calculate total assets-debt ratio.

Particulars	(₹)	Particulars	(₹)
Preference Share capital	6,00,000	Non-current liabilities	4,00,000
Equity Share capital	10,00,000	Current liabilities	4,00,000
Reserves and surplus	2,00,000		

13. From the following information of 'T' Company Ltd., calculate proprietary ratio :

Particulars	(₹)	Particulars	(₹)
Equity share capital	12,00,000	Current liabilities	4,00,000
Preference share capital	8,00,000	Non-current assets	12,00,000
Reserves and surplus	4,00,000	Current assets	24,00,000
Non-current liabilities	8,00,000		

14. From the following information of 'K' Company Ltd., calculate interest coverage ratio :

Particulars	(₹)	Particulars	(₹)
Profit after tax	7,50,000	Taxes paid	2,50,000
10 % debentures	20,00,000	12 % loan	10,00,000

15. Calculate stock turnover ratio, from the following information of 'L' Company Ltd. :

Particulars	(₹)	Particulars	(₹)
Sales	30,00,000	Opening stock	3,50,000
Closing stock	2,50,000	Purchases	12,00,000
Gross profit rate	30 %		

16. Calculate stock turnover ratio from the following information of 'Y' Company Ltd. :

Particulars	(₹)	Particulars	(₹)
Opening stock	2,00,000	Closing stock	1,50,000
Sales	40,00,000	Purchases	22,00,000
Purchase expenses	1,00,000	Wages	2,50,000

17. Calculate working capital turnover ratio (based on sales and cost of goods sold), from the following information of 'Z' Company Ltd. :

Particulars	(₹)	Particulars	(₹)
Cost of goods sold	32,00,000	Gross profit	8,00,000
Non-current assets	10,00,000	Current assets	5,00,000
Non-current liabilities	6,00,000	Current liabilities	3,00,000

18. From the following information of **'B'** Company Ltd., calculate debtors turnover and collection period in days. What will be answer if collection period is calculated in terms of weeks and months ? (Assume 360 days of the year)

Particulars	**(₹)**	**Particulars**	**(₹)**
Total Sales	4,50,000	Credit sales	3,65,000
Opening debtors	70,000	Closing debtors	50,000
Opening bills receivables	20,000	Closing bills receivables	6000
Opening creditors	45,000	Closing creditors	48,000

19. From the following information of **'C'** Company Ltd., calculate creditors turnover and payment period in days. What will be answer if payment period is calculated in terms of weeks and months ? (Assume 360 days of the year)

Particulars	**(₹)**	**Particulars**	**(₹)**
Opening balances :		Credit sales	6,00,000
Creditors	45,000	Cash sales	4,00,000
Bills payables	15,000	Total sales	10,00,000
Bills receivables	30,000	Total purchase	6,00,000
Debtors	30,000	Cash purchase	2,40,000
Closing balances :			
Creditors	40,000		
Bills payables	20,000		
Bills receivables	40,000		
Debtors	20,000		

●

6

Cash Flow Statement

1. Introduction

Profit and loss statement and balance sheet are included in financial accounts. Both the statements are prepared for predetermined objectives. It's preparation process is also predetermined. These statements are prepared on mercantile base. Where actual expenses and actual incomes (of respective year - whether paid in cash or not, whether received in cash or not) are recorded in the profit and loss statement. Revenue expenses and revenue incomes are disclosed in profit and loss statement. Equity-liabilities and assets are disclosed in balance sheet.

In brief, profit and loss account which is prepared on mercantile base, shows profitability of the business. Balance sheet provides information about economic solvency.

Besides, profit and loss statement and balance sheet, cash flow statement is also included as a component of financial accounts. Amongst all assets of the business, cash is the most liquid asset. Cash does not given any direct - return, unless it is invested. e.g. you have ₹ 1,00,000 and for one year you have kept it in locker, this will not give you any return. If this ₹ 1,00,000 is deposited in a bank, invested in share or debentures or invested in any other opportunity, would generate interest, dividend or profit. Thus, the investment of cash is very essential creation of reward and earnings.

The sources of cash and application of cash, both the decisions are very important. It is desirable to procure cash from an appropriate source at the same time it is important to invest cash in appropriate opportunity. This information is not disclosed by profit and loss statement and balance sheet. There are different objectives to prepare these statements. What are the sources of cash ? Where cash is invested ? This information is available from cash flow statement. Therefore the preparation of cash flow is mandatory for certain business enterprises. So that investors can take their decisions in appropriate manner.

As per accounting standard 3 disclosure of cash flow statement is mandatory from 1-4-2004 and onwards for certain business enterprises. The disclosure of cash flow statement is mandatory for those business entities whose equity or debt securities are listed or in the process of being listed on the Indian and foreign stock exchanges. As per accounting standard 3, these business enterprises have to prepare the cash flow statements under indirect method.

Under section 2(40) of Companites Act, 2013, the cash flow statement is included in the definition of financial statements.

2. Meaning of Terminologies

(1) Cash flow : There are two types of cash flows : (a) cash inflow and (b) cash outflow. Here cash flow means receipt-payment of cash and cash equivalent. A transaction due to which cash or cash equivalent increases is known as cash inflow. A transaction due to which cash or cash equivalent decrease is known as cash outflow.

The difference of cash inflow and cash outflow is called as net cash flow. This difference can be as follows :

			₹
•	Cash inflow	✓	1,00,000
	Less : Cash outflow	✓	85,000
	Net cash inflow	✓	15,000
•	Cash inflow	✓	85,000
	Less : Cash outflow	✓	1,00,000
	Net cash outflow	✓	(15,000)

(2) Cash : Cash means cash on hand, bank balance.

(3) Cash equivalent : Cash equivalent means,

(i) highly liquid short-term investments

(ii) such investments which can be quickly and with accurate estimated price convertible into cash

(iii) The investment in which the risk of changes in the price is very rare.

e.g. (i) Government securities (ii) Any securities having above stated features.

(4) Cash flow statement : Three types of activities are disclosed in cash flow statement.

– Operating activities – Investing activities – Financing activities

There can be cash inflow and/or cash outflow in each activity. The opening balance of cash and cash equivalent is added to cash flows generated through these three activities. At the end whatever amount would arrive will be closing balance of cash and cash equivalent. Cash flow generated from these activities can be positive or negative.

3. Classification of Cash Flow Activities :

Profit and Loss Account

Dr Cr

Particulars	**Amt. (₹)**	**Particulars**	**Amt. (₹)**
Opening stock Purchase Purchase expenses Operating expenses in cash		Operating incomes	
Non-cash operating expenses →	Will be added to operating profit	Non-operating incomes →	will be deducted from operating profit
Financial expenses and appropriation →			
Net profit			

Balance Sheet

Equity-Liabilities	Amt. (₹)	Assets	Amt. (₹)
Shareholders' funds → Non-current liabilities →	Financial activities	Non-current assets →	Investing activities
Current liabilities		Current assets	

Operating activities

In cash flow statement, activities of specific period are classified into three categories :

(1) Operating activities and cash flow from operating activities

(2) Investing activities and cash flow from investing activities

(3) Financing activities and cash flow from financing activities

Their detailed explanation is as follows :

(1) Operating activities and cash flow from operating activities :

Operating activities : Operating activities are activities that emerge from profit and loss statement. Transactions recorded in profit and loss statments are classified for these activities. In this context operating expenses related discussion is done in the previous chapter of ratio analysis. Operating profit is computed as follows :

Definition : "Operating activities means main activities of business to earn income, which are neither investing activities nor financing activities.

These are those activities on the basis of which main income of the business is created.

The identification of operating activities is determined on the basis of the nature of industry of a business unit. The identification of operating activities of each business is based on the nature of business. This discussion is pertaining to main activities of income generation. e.g.

(1) Trading Company : For this kind of company, activities of purchase - sales of goods are main activities of income generation.

(2) Insurance Company : For this kind of company premium income and payment of claims are main activities of income generation.

(3) Bank : For this kind of business unit lending of loan and acceptance of deposits are main activities of income generation.

Generally by dividing forms of company into two categories, clarity can be obtained.

(1) Non-finance companies (2) Finance companies

The cash flow emerging given the operating activities of both the types of companies can be narrated as under :

Cash Flow from Operating Activities

For Non-finance Companies

- Incomes/Receipts from sale of goods/services
- Incomes/Receipts from commission or royalty
- Any other income which is not arised from investing activities
- Collection from debtors and bills receivables
- Payment for purchase of goods/services
- Payment to creditors and for bills payables
- Salary, wages or any amount paid to employees. e.g. Bonus
- Sales-distribution expenses
- Receipt of income tax refund or payment of tax on other than investing and financing activities

For Finance Companies

- Purchase of securities
- Interest paid on deposits/loan
- Sale of securities
- Interest received on securities
- Interest received on lended loan
- Salary or amount paid to employees e.g. Bonus
- Receipt of income tax refund or payment of tax on other than investing and financing activities

Illustration 1 : Identify operating activities from the following transactions of Meena Company.

(1) Salary paid
(2) Wages paid
(3) Loan borrowed
(4) Debentures redeemed
(5) Received from debtors
(6) Paid for bills payables
(7) Sale of machine on cash
(8) Brokerage received
(9) Purchase of furniture
(10) Interest received on investments
(11) Paid interest on loan
(12) Income tax refund

Ans. :

No.	Transactions	Explanation
(1)	Salary paid	Operating activity - Transaction of profit and loss statement
(2)	Wages paid	Operating activity - Transaction of profit and loss statement
(3)	Loan borrowed	Not operating activity - Transaction of equity and liabilities
(4)	Debentures redeemed	Not operating activity - Transaction of equity and liabilities
(5)	Received from debtors	Operating activity - Debtors are arised from sales Sales is operating activity.
(6)	Paid for bills payables	Operating activity - Bills payables arised from creditors and creditors from credit purchase - Purchase is operating activity.
(7)	Sale of machine on cash	Not operating activity - Transaction of assets
(8)	Brokerage received	Operating activity - Transaction of profit and loss statement

(9)	Purchase of furniture	Not operating activity - Transaction of assets
(10)	Interest received on investments	Not operating activity - Investments are assets. Interest arised on it is part of investment. Transaction of assets
(11)	Paid interest on loan	Not operating activity - Loan is liability. It's paid interest is result of liability. Transaction of equity and liabilities
(12)	Income tax refund	Operating activity - (When no clarification is provided whether it is refund of financing or investing activity, will be treated as operating activity.)

Note : There are certain transactions which are always included in operating activities. e.g. Salary, wages, bonus to workers, employees welfare expenses etc.

(2) Investing Activities :

Investing activities, arise from transactions of assets side of balance sheet. Investing activities means purchase-sale of long-term investments and other investments. Cash and cash equivalent are not included. Long-term assets are those assets which are not acquired for sale purpose. They are used for business activities. Purchase of such assets is treated as cash out flow and sale is treated as cash inflow. e.g. land-building, machines, furniture and other assets held for the generation of income are also included in investing activities. The income received due to these investments like interest, dividend or rent is also included in investing activities.

Cash Inflow and Outflow of Investing Activities

↓

Activities of Cash Inflow

- Sale of fixed tangible assets
- Sale of fixed intangible assets
- Sale of long-term investments (Investments of non-current assets) e.g. Share, debentures, bonds etc.
- Return of long-term lending

Activities of Cash Outflow

- Purchase of fixed tangible assets
- Purchase of fixed intangible assets
- Capitalised expenses
- Self constructed assets
- Purchase of long-term investments (Investments of non-current assets) e.g. Share, debentures, bonds etc.
- Long-term lending

Illustration 2 : From the following transactions of Rita Company identify investing activities. Also state whether the respective activity is cash inflow or cash outflow :

(1) Purchase of land
(2) Sale of machine
(3) Purchase of shares of X co.
(4) Sale of debentures of Y co.
(5) Assets constructed in factory
(6) Purchase of copy-rights
(7) Salary paid
(8) Carriage inward paid

Ans. :

No.	Transaction	Explanation
(1)	Purchase of land	Investing activity of cash outflow. Investment in asset is increased.
(2)	Sale of machine	Investing activity of cash inflow. Investment is reduced from assets.
(3)	Purchase of shares of X co.	Investing activity of cash outflow. Investment in assets is increased.
(4)	Sale of shares of Y co.	Investing activity of cash inflow. Investment is reduced from assets.
(5)	Assets constructed in factory	Investing activity of cash outflow. Investment is increased in assets.
(6)	Purchase of copy-rights	Investing activity of cash outflow. Investment is increased in assets.
(7)	Salary paid	Not investing activity. (Operating activity of cash outflow.)
(8)	Carriage inward paid	Not investing activity. (Operating activity of cash outflow.)

Note : There are certain transactions which are always included by investing activities for purchase of fixed (non-current) asset. (Investment in fixed assets) is not done for resale purpose. Thus these transactions are always considered as investing activities. e.g. purchase of patent, purchase of furniture etc. During transaction if cash/bank A/c is debited will be treated as cash inflow and if cash/bank A/c is credited will be treated as cash outflow.

(3) Financing Activities :

Financing activities, arise from the transactions of equity and liabilities (except those of current liabilities) side of balance sheet. "Financing activities are such activities due to which size and/or composition of owners' capital (including preference share capital) and borrowed capital of business get changed."

Financing activities have relation with increase or decrease of equity share capital, preference share capital, debentures, loan etc. It means that the increase in long-term owners' capital and borrowed capital shows cash inflow and their reduction shows cash outflow of financing activities.

Cash Inflow and Cash Outflow of Financing Activities

Activities of Cash Inflow

- Issue of equity share
- Issue of preference share
- Issue of debentures
- Procurement of loan and creation of long-term liabilities
- Increase in bank overdraft

Activities of Cash Outflow

- Buy back of equity shares
- Redemption of preference share
- Redemption of debentures
- Redemption of loan or any other long-term liabilities
- Dividend payment on equity share capital and preference share capital
- Reduction in bank overdraft
- Interest paid on debt

Illustration 3 : From the following transactions of Nayana Company identify financing activities. Also state whether the respective activity is cash inflow or cash outflow.

(1) Redemption of preference share
(2) Issue of debentures
(3) Payment of dividend
(4) Loan borrowed for 3 years from BOB
(5) Sale of machine
(6) Wages paid
(7) Commission received
(8) Interest received on investments

Ans. :

No.	Transactions	Explanation
(1)	Redemption of preference share	Financing activity of cash outflow. It reduces capital.
(2)	Issue of debentures	Financing activity of cash inflow. It increases liabilities.
(3)	Payment of dividend	Financing activity of cash outflow. Dividend paid in share capital. Thus it is financing activity.
(4)	Loan borrowed for 3 years from BOB	Financing activity of cash inflow. Liability is increased.
(5)	Sale of machine	Not financing activity. (Investing activity of cash inflow.)
(6)	Wages paid	Not financing activity. (Operating activity of cash outflow.)
(7)	Commission received	Not financing activity. (Operating activity of cash inflow.)
(8)	Interest received on investments.	Not financing activity. (Interest received on investments is investing activity of cash inflow.)

Note : There are certain transactions which are always included in financing activities. e.g. Dividend paid on share capital. This transaction is linked with capital, thus considered as financing activity.

4. Special Activities :

(1) Two activities from one transaction : Two types of payments are included in each instalment of hire purchase - payment towards principal amount and interest amount.

- Payment towards principal (Payment towards cash price) — It is investing activity. Value of assets is increased. Investing activity of cash outflow.
- Interest payment — It is return of liability, thus it is a financing activity. Financing activity of cash outflow.

(2) Cash transaction but no cash inflow - outflow :

Cash deposited with bank → cash reduced, bank balance increased
Cash withdrawn from bank → cash increased, bank balance reduced

Cash balance and bank balance are shown at the same place in cash flow statement. It is known as cash and cash equivalent. This transaction has relation with cash, but does not influence cash and cash equivalent.

(3) Non-cash transactions and provisions : Many transactions of business are not done in cash form. Thus during preparation of cash flow these transactions are not considered as cash flow. e.g. Depreciation charged on tangible assets, amount amortized on intangible assets, issue of equity share and debenture without cash consideration, conversion of debentures into equity.

Illsutration 4 : Following transactions of Bharati Company classified into operating, investing and financing activities.

(1) Issue of equity share
(2) Redemption of preference share
(3) Long-term loan from bank
(4) Cash balance
(5) Bank balance
(6) Quickly saleable short-term securities

(7) Short-term bank deposit
(8) Commission received
(9) Amount received from debtors
(10) Payment to creditors
(11) Sale of machine
(12) Purchase of furniture
(13) Manufacturing expenses
(14) Commission paid
(15) Income tax paid
(16) Purchase of investments (Non-current)
(17) Sales-distribution expenses
(18) Factory expenses
(19) Paid for trademark
(20) Paid for goodwill
(21) Dividend payment
(22) Interest received
(23) Income tax refund
(24) Purchase of raw material
(25) Rent received
(26) Rent paid

Ans. :

No.	Activities	Transaction Number
(1)	Operating activity	8, 9, 10, 13, 14, 15, 17, 18, 23, 24, 26
(2)	Investing activity	11, 12, 16, 19, 20, 22, 25
(3)	Financing activity	1, 2, 3, 21
(4)	Cash and cash equivalent	4, 5, 6, 7

No.	Transaction	Explanation	Cash Flow
(1)	Issue of equity share	Financing activity	Cash inflow
(2)	Redemption of preference share	Financing activity	Cash outflow
(3)	Long-term loan from bank	Financing activity	Cash inflow
(4)	Cash balance	Non-financing activity	Cash equivalent
(5)	Bank balance	Non-financing activity	Cash equivalent
(6)	Quickly saleable short-term securities	Non-financing activity	Cash equivalent
(7)	Short-term bank deposit	Non-financing activity	Cash equivalent
(8)	Commission received	Operating activity	Cash inflow
(9)	Amount received from debtors	Operating activity	Cash inflow
(10)	Payment to creditors	Operating activity	Cash outflow
(11)	Sale of machine	Investing activity	Cash inflow
(12)	Purchase of furniture	Investing activity	Cash outflow
(13)	Manufacturing expenses	Operating activity	Cash outflow
(14)	Commission paid	Operating activity	Cash outflow
(15)	Income tax paid	Operating activity	Cash outflow
(16)	Purchase of investments (Non-current)	Investing activity	Cash outflow

No.	Transaction	Explanation	Cash Flow
(17)	Sales-distribution expenses	Operating activity	Cash outflow
(18)	Factory expenses	Operating activity	Cash outflow
(19)	Paid for trademark	Investing activity	Cash outflow
(20)	Paid for goodwill	Investing activity	Cash outflow
(21)	Dividend payment	Financing activity	Cash outflow
(22)	Interest received	Investing activity	Cash inflow
(23)	Income tax refund	Operating activity	Cash inflow
(24)	Purchase of raw material	Operating activity	Cash outflow
(25)	Rent received	Investing activity	Cash inflow
(26)	Rent paid	Operating activity	Cash outflow

5. The Cash Flow Statement

The cash flow statement provides information about generation of cash flow from different activities. Cash flow is disclosed in terms of cash inflow and cash outflow. As discussed earlier cash inflow and outflow is dtermined on the basis of different activities.

Where (1) Cash flow from operating activities
(Prepared on the basis of profit and loss statement and profit and loss appropriation. Besides this, changes (increase/dcrease) in current asets and current-liabilities are considered.)

(2) Cash flow from investing activities
(Prepared on the basis of assets side of balance sheet and non-operating incomes of profit and loss statement.)

(3) Cash flow from financing activities
(Prepared on the basis of equity and liabilities side of balance sheet, profit and loss statement and profit and loss appropriation.)

- **The Format of Cash Flow Statement (Indirect Method) :**

The Cash Flow Statement for .... Co. Ltd. for the Year Ending on ....

	Particulars	(₹)	(₹)
A	Cash flow from operating activities		✓
	Net profit of current year		
	Less : Non-operating incomes		
	Profit on sale of investments	✓	
	Profit on sale of assets	✓	
	Interest received on investments	✓	
	Dividend received on investments	✓	
	Rent income on assets	✓	✓
			✓

Particulars	(₹)	(₹)
Add : Non-cash transactions, provisions and financial expenses :		
Depreciation written off	✓	
Intangible assets amortized	✓	
Fictitious assets written off	✓	
Loss on sale of asset	✓	
Taxation provision (of current year)	✓	
Transfer to general reserve	✓	
Proposed dividend (of current year)	✓	✓
		✓
Add : Financing expenses		
Dividend paid	✓	
Interest paid	✓	✓
Operating profit before changes in working capital		✓
Add : Decrease in current assets	✓	
Increase in current liabilities	✓	✓
		✓
Less : Increase in current assets	✓	
Decrease in current liabilities	✓	✓
		✓
Less : Tax paid of previous year		✓
Cash flow from operation		✓
B Cash flow from investing activities :		
Sale of assets (Tangible - Intangible)	✓	
Sale of non-current investments	✓	
Interest and dividend received	✓	
Rent received	✓	
Purchase of assets (Tangible - Intangible)	(✓)	
Purchase of non-current investments	(✓)	✓
Net cash flow from investing activities		✓
C Cash flow from financing activities :		
Issue of share - debentures	✓	
Proceeds from long-term borrowings	✓	
Short-term borrowings		
(i) Increase in bank overdraft and cash credit	✓	
(ii) Decrease in bank overdraft and cash credit	(✓)	
Payment of final dividend	(✓)	
Payment of interim dividend	(✓)	
Repayment of loan	(✓)	
Redemption of debentures / preference share	(✓)	
Interest paid on debentures / loan	(✓)	
Net cash flow from investing activities		✓
Net interest / decrease in cash - cash equivalent (A+B+C)		✓
Add : Cash - cash equivalent in the beginning of the year		✓
Cash - cash equivalent at the end of the year		✓

Note : Figures shown in ( ) are cash outflow.

From the following format of cash flow statement given on page no. 258 and 259, it can be ascertained that this statement is based on three activities. The information for each activity is as follows :

6. Cash Flow from Operating Activities :

Cash flow from operating activities is prepared on the basis of

(A) Details of profit and loss statement and appropriation of profit

(B) Changes in current assets and current liabilities (changes in working capital)

The cash flow from operating activities means the cash flow generated from the day to day transactions of a business entity.

(A) Details of Profit and Loss Statement and Appropriation of Profit :

Along with details of profit and loss statement, details of profit and loss appropriation are also included. Profit and loss appropriation statement is an extended form of profit and loss statement.

Details of this statement can be classified as follows :

Details of Profit and Loss Statement and Appropriation of Profit

- Incomes
  - Operating Incomes
  - Non-operating Incomes
- Expenses
  - Operating Expenses
  - Non-cash Transactions
  - Financial Expenses

The difference of above stated incomes and expenses is known as profit. In this profit non-operating incomes, non-cash transactions and financial transactions are included :

– Due to non-operating incomes profit increases (are added).

– Due to non-cash transactions profit decreases (are deducted).

– Due to financial expenses profit decreases (are deducted).

To determine cash flow from operating activities the above stated items of profit and loss statement will be given reserve effect.

Cash flow from operating activities is determined as follows :

Profit of current year as per profit and loss statement		✓
Less : Non-operating incomes	✓	
Add : Non-cash transactions (expenses) and appropriation	✓	
Add : Financial expenses	✓	✓
Cash flow generated from operating activities before the changes in working capital.		✓
		✓

- **What are Non-operating Incomes :**

These are such incomes which do not arise from the business in which company deals. They are not a part of operating profit. Thus they are not considered for computation of cash flow.

e.g. Profit on sale of investments, profit on sale of assets, interest on investments, dividend received on investments, rent for properties.

These kind of incomes are not considered to determine cash flow from operating activities during preparation of cash flow statement. These transactions are added in profit and loss statement. Thus, are deducted.

- **What are non-cash transactions, appropriation and provisions ?**

There are two types of non-cash transactions. These transactions are generally considered in reference to expenses.

Non-cash Transactions, Appropriation and Provisions

↓

Operating Trasactions	**Non-operating Transactions (Appropriation and Provision)**
• Depreciation written off	• Loss on sale of asset
• Intangible assets amortised	• Taxation provision
• Fictitious assets written off	• Transfer to general reserve
	• Proposed dividend

These kind of transactions do not generate cash flow (receipt / payment). Thus to determine cash flow from operating activities of cash flow statement, these are ignored. All these transactions will be added back because, these were debited to profit and loss account (statements).

- **What are the financial expenses ?**

Amounts which are paid as a return of capital are financial expenses. Capital is of two types : Owners capital and borrowed capital. Dividend is paid on equity share capital and preference share capital which are owners' capital while interest is paid on debt. Dividend and interest are expenses of capital. Thus it is financial expense. Thus to determine cash flow from operating activities of cash flow statement, these are ignored. Those are deducted from profit and loss statement and appropriation, so they are to be added back.

(B) Changes in Current Assets - Current Liabilities (Working Capital)

During determination of cash flow from operating activities, the effect of changes in current assets and current liabilities i.e. the working capital is considered. The effect of the incrase-decrease in current assets and current liabilities is recorded here.

Note : Cash and cash equivalent are not included in current assets. It's separate effect is given in the cash flow statement.

Relation of Cash and Cash Equivalent with Current Assets and Current Liabilities : Current assets and cash and cash equivalent has inverse relation. Increase in current assets leads to, decrease in cash and cash equivalent, decrease in current assets leads to, increase in cash and cash equivalent.

Current liabilities and cash and cash equivalent has direct relation. Increase in current liabilities, leads to increase in cash and cash equivalent, decrease in current liabilities leads, decrease in cash and cash equivalent.

e.g. opening balance of debtors was ₹ 50,000 and at the end of the year it was ₹ 75,000.

Explanation : In the opening of year ₹ 50,000 was invested in debtors and at the end it is increased to 75,000. The investment is increased by ₹ 25,000. Thus cash and cash equivalent (means cash balance or bank balance) would reduce. This is cash outflow. If opening balance of debtors was ₹ 75,000 and at the end it was ₹ 50,000, it means that the investment in debtors is reduced. Consequently cash or cash equivalent would increase, this is cash inflow. Current liabilities have opposite effect. Opening balance of creditors was ₹ 50,000 and at the end of the year it is ₹ 75,000.

Investment would reduce by ₹ 25,000 and thus cash and cash equivalent would increase. This is cash inflow. If opening balance of creditors was ₹ 75,000 and at the end of the year it is ₹ 50,000, the investment would reduce by ₹ 25,000 and this cash and cash equivalent would reduce. This is cash outflow.

Effect of increase/decrease in current assets and current liabilities on operating cash flow

No.	Particulars	Effect on Working Capital	Effect on Cash Flow
1.	Increase in current assets	Increase	Difference will be cash outflow.
2.	Decrease in current assets	Decrease	Difference will be cash inflow.
3.	Increase in current liabilities	Decrease	Difference will be cash inflow.
4.	Decrease in current liabilities	Increase	Difference will be cash outflow.

Stages for computation of cash flow from operating activities :

(1) Ascertain the difference of closing balance and opening balance of profit and loss account or reserve and surplus. Show this difference as a first item of statement. It is profit of current year.

(2) Add all non-cash transactions to profit of current year, stated in above (1).

(3) Add all financial expenses to profit of current year, stated in above (1).

(4) Deduct all non-operating incomes from profit of current year stated in above (1).

(5) Also consider adjustments (additional information) if it influences the operating cash flow.

Note :

(1) The following details are disclosed in profit and loss statement :

- Revenue incomes not received in cash
- Revenue expenses not paid in cash
- Depreciation on fixed assets
- Intangible assets amortized and fictitious assets written off
- Profit/loss on sale of non-current assets (investing activity)
- Interest on non-current liabilitiy (financing activity)
- Appropriation to reserves and provisions
- Appropriation - payment of dividend (financing activity)

Inspite of having disclose of those transactions in profit and loss statements, they do not have influence on cash flow from operating activities. Their special effect is incoporated in cash flow statement.

(2) Creditors and bills payables (current liabilities) emerge from credit purchase and debtors and bills receivables (current assets) emerge from credit sales.

So current assets and current liabilities are result of operating activities, therefore changes in their size have taken place during the current year, will be disclosed under cash flow from operating activities.

Illustration 5 : From the following transactions of Khushbu Company Ltd., calculate cash flow from operating activities.

Particulars	(₹)
Profit before taxes	1,32,000
Goodwill written off	28,000
Patent amortized	17,000
Depreciation wrtitten off	29,000
Transfer to general reserve	23,000
Interest received	12,000
Dividend received	9000
Interest paid	11,000
Dividend paid	25,000
Profit on sale of investments	13,000
Loss on sale of furniture	18,000

Ans. :

Therefore, computed amount is profit (cash flow) from operating activities before changes in working capital. In this question no information is provided for current assets and current liabilities.

Cash Flow from Operating Activities

Particulars	(₹)	(₹)
Profit before taxes		1,32,000
Add : Non-cash expenses, appropriation and provisions :		
Goodwill written off	28,000	
Patent amortized	17,000	
Depreciation written off	29,000	
Transfer to general reserve	23,000	
Interest paid	11,000	
Dividend paid	25,000	
Loss on sale of furniture	18,000	1,51,000
		2,83,000
Less : Non-operating incomes :		
Interest received	12,000	
Dividend received	9000	
Profit on sale of investments	13,000	34,000
Profit (cash flow) before changes in working capital		2,49,000

Illustration 6 : From the following information of Ami Company, calculate cash flow from operating activities.

Particulars	31-3-2017 (₹)	31-3-2016 (₹)
Profit and loss A/c	89,000	64,000
General reserve	34,000	18,000
Taxation provision	22,000	23,000
Depreciation	28,000	16,000
Goodwill	15,000	19,000
Debtors	38,000	18,000
Creditors	45,000	22,000
Bills receivable	8000	12,000
Bills payables	9000	15,000

Ans. :

Cash Flow from Operating Activities for the Year Ending On 31-3-2017

Particulars	(₹)	(₹)
Closing balance of profit and loss A/c	89,000	
Less : Opening balance of profit and loss A/c	64,000	
Profit of current year		25,000
Add : Non-cash expenses and provisions :		
General reserve	16,000	
Taxation provision (of current year)	22,000	
Depreciation (28,000 – 16,000)	12,000	
Goodwill written off (19,000 – 15,000)	4000	54,000
		79,000
Less : Non-operating incomes :		–
Profit (cash flow) before changes in working capital		79,000
Add : Decrease in current assets : Bills receivables	4000	
Increase in current liabilities : Creditors	23,000	27,000
		1,06,000
Less : Increase in current assets : Debtors	20,000	
Decrease in current liabilities : Bills payables	6000	26,000
		80,000
Less : Income-tax paid of previous year		23,000
Cash flow from operating activities		**57,000**

Illustration 7 : From the following information and balance sheets of two years of Nirav Company, calculate cash flow from operating activities.

Balance Sheets as at 31-3-2016 and 31-3-2017

Particulars	31-3-2017 (₹)	31-3-2016 (₹)
I Equity and Liabilities :		
(1) Shareholders' funds :		
(a) Share capital	5,00,000	3,00,000
(b) Profit and loss A/c	4,50,000	3,00,000
(2) Non-current liabilities		
12 % debentures	3,00,000	2,00,000
(3) Current liabilities :		
(a) Bank overdraft	40,000	60,000
(b) Trade payables (Creditors)	60,000	90,000
(c) Short-term provisions : Proposed dividend	50,000	30,000
Taxation provision	50,000	40,000
Total	**14,50,000**	**10,20,000**
II Assets :		
(1) Non-current assets :		
(a) Fixed assets		
(i) Tangible assets	8,00,000	4,00,000
(ii) Intangible assets	4,50,000	3,20,000
(2) Current assets	2,00,000	3,00,000
Total	**14,50,000**	**10,20,000**

Additional information :

Interim dividend paid ₹ 20,000.

New debentures are issued at the end of year.

Ans. :

Cash Flow from Operating Activities for the Year Ending on 31-3-2017

Particulars	**(₹)**	**(₹)**
Closing balance of profit and loss statement	4,50,000	
Less : Opening balance of profit and loss statement	3,00,000	
Difference of profit and loss statement		1,50,000
Add : Non-cash expenses (provisions)		
Proposed dividend (of current year)	50,000	
Taxation provision (of current year)	50,000	
Interim dividend (provisions)	20,000	
Debenture interest	24,000	
		1,44,000
		2,94,000
Less : Non-operating income		–
Operating profit before changes in working capital		**2,94,000**
Add : Decrease in current assets	1,00,000	
Increase in current liabilities	–	1,00,000
		3,94,000
Less : Increae in current assets	–	
Decrease in current liabilities : Trade payables	30,000	30,000
		3,64,000
Less : Payment of income tax		40,000
Cash flow from operating activities		**3,24,000**

Explanation :

(1) Interim dividend is given as additional information. Thus it will be paid after it is provided for. This additional information will have two effects.

(a) Provision of interim dividend will be added to profit.

(b) Interim dividend will be added in financial activities as cash outflow.

(2) Owners' funds and non-current liabilities of equity and liabilities side are components of financing activities. This will not be reported in cash flow from operating activities.

(3) All current liabilities excluding provisions will be shown as current liabilities in cash flow from operating activities.

(4) Under the head of current liabilities the proposed dividend and the taxation provision of the current year are added to profit to determine the cash flow from operating activities. A proposed dividend of previous year is paid and will be shown as cash outflow of financing activities. Taxation provision of previous year is paid during the current year.

(5) Non-current assets are disclosed under investing activities. If there is any amount of depreciation or written off it is added back to profit in operating statement.

(6) Changes in current assets are shown in cash flow statement from operating activities.

Illustration 8 : From the following details of Chirag Company compute cash flow from operating activities.

Particulars	(₹)
Profit of current year	3,20,000
Taxation provision	30,000
Proposed dividend	60,000
Goodwill written off	35,000
Depreciation charged	47,000
Loss on sale of asset	43,000
Rent received	45,000
Dividend received	65,000
Increase in current assets	1,00,000
Decrease in current liabilities	90,000

Ans. :

Cash Flow from Operating Activities

Particulars	(₹)	(₹)
Profit of current year		3,20,000
Add : Non-cash expenses and provisions :		
Taxation provision	30,000	
Proposed dividend	60,000	
Goodwill written off	35,000	
Depreciation charged	47,000	
Loss on sale of asset	43,000	2,15,000
		5,35,000
Less : Non-operating incomes :		
Rent received	45,000	
Dividend received	65,000	1,10,000
Operating profit before changes in working capital		**4,25,000**
Add : Decrease in current assets	–	
Increase in current liabilities	–	–
		4,25,000
Less : Increase in current assets	1,00,000	
Decrease in current liabilities	90,000	1,90,000
Cash flow from operating activities		**2,35,000**

Illustration 9 : From the following information of Gaurang Company, prepare statement of cash flow from operating activities.

Profit before changes in working capital ₹ 4,95,000; increase in debtors ₹ 75,000; decrease in bills receivables ₹ 40,000; decrease in stock ₹ 30,000; increase in prepaid expenses ₹ 25,000; outstanding expenses (increase) ₹ 15,000; decrease in creditors ₹ 20,000.

Ans. :

Cash Flow from Operating Activities

Particulars	(₹)	(₹)
Profit before changes in working capital		4,95,000
Add : Decrease in current assets :		
Bills receivable	40,000	
Stock	30,000	
Increase in current liabilities		
Outstanding expenses	15,000	85,000
		5,80,000
Less : Increase in current assets		
Debtors	75,000	
Prepaid expenses	25,000	
Decrease in current liabilities		
Creditors	20,000	1,20,000
Cash flow from operating activities		**4,60,000**

Illustration 10 : From the following details of Mira Limited, prepare cash flow statement of cash flow from operating activities.

Profit and Loss Statement for the Year Ending on 31-3-2017

Particulars	(₹)	(₹)
(I) Revenue from sales		28,00,000
(II) Other incomes :		
Income of rent	60,000	
Profit on sale of asset	40,000	
Interest income	90,000	1,90,000
(III) Total income		**29,90,000**

Particulars	(₹)	(₹)
(IV) Expenses :		
(a) Purchase of goods	21,20,000	
(b) Changes in stock		
(Opening stock 90,000, Closing stock 1,10,000)	(20,000)	
(c) Employees benefit expenses	1,48,000	
(d) Depreciation on fixed assets	25,000	
(e) Patent amortized	18,000	
(f) Loss on sale of asset	16,000	
(g) Manufacturing expenses	48,000	
(h) Insurance expense	6000	
(i) Salary expense	90,000	
(j) Administrative expense	63,000	
(k) Sales-distribution expenses	7000	25,21,000
(V) Profit before tax		**4,69,000**

Information of Current assets and Current liabilities :

Particulars	Closing balance (31-3-2017)(₹)	Opening balance (31-3-2016)(₹)
Debtors	90,000	78,000
Creditors	80,000	68,000
Bills payables	65,000	75,000
Bills receivables	8000	10,000
Stock	1,10,000	90,000
Outstanding salary	15,000	18,000
Prepaid insurance	7000	9000

Ans. : **Cash Flow from Operating Activities**

Particulars	(₹)	(₹)
Profit before tax		4,69,000
Add : Non-cash expenses and provisions :		
Depreciation on fixed assets	25,000	
Patent amortized	18,000	
Loss on sale of asset	16,000	59,000
		5,28,000
Less : Non-operating incomes :		
Income of rent	60,000	
Profit on sale of asset	40,000	
Interest income	90,000	1,90,000
Profit before changes in working capital		**3,38,000**

Particulars	(₹)	(₹)
Add : Decrease in current assets :		
Bills receivable	2000	
Prepaid insurance	2000	
Increase in current liabilities :		
Creditors	12,000	16,000
		3,54,000
Less : Increase in current assets :		
Debtors	12,000	
Stock	20,000	
Decrease in current liabilities :		
Bills payables	10,000	
Salary outstanding	3000	45,000
Cash flow from operating activities		**3,09,000**

7. Cash Flow From Investing Activities

Transactions of investing activities means changes in details of assets (excluding current assets) side of balance sheet and changes in assets related items. A detailed explanation in this regard is as follows :

Transactions of Investing Activities

↓

Changes in assets of balance sheet (Excluding current assets)

- Purchase-sale of non-current assets (Land, building, plant, machines, furnitures, patent, trademark)
- Purchase-sale of non-current investments
- Loan lended
- Receipt of lended loan

Details of profit and loss statement are to be cancelled from profit and loss statement and to be shown as investing activities, are as follows

- Interest received on investments
- Dividend received on investments
- Rent received on asset which are given hire. These are revenue incomes. But they emerge due to investment in assets. Thus, are disclosed in investing activity.

Fixed tangible assets are included as a part of non-current assets in investing activities. e.g. plant, machines, furniture (depreciable assets).

Many times in question,

- Price of purchased asset is not provided.
- Price of sold asset is not provided.
- Amount of depreciation is not provided.
- Profit of sold asset is not provided.
- Loss of sold asset is not provided.

All these details are essential for cash flow statement. These details are found out by preparing respective asset account. Let us understand it by illustration.

Illustration 11 : From the following information of Nirali Company Ltd. determine cash flow from investing activities.

Particulars	(₹)	Particulars	(₹)
Opening balance of machines	4,50,000	Depreciation provided on machines	50,000
Closing balance of machines	4,00,000	Selling price of machine	15,000
Book value of machine sold during the year	25,000		

Ans. : To find out investing activity, machine account will be prepared as follows :

Machine Account

Dr Cr

Particulars	Amt. (₹)	Particulars	Amt. (₹)
To Balance b/d	4,50,000	By Depreciation A/c	50,000
To Cash A/c (?) (Purchase)	25,000	By Cash A/c (Sale)	15,000
		By loss on sale of machine A/c	10,000
		By balance c/d	4,00,000
	4,75,000		**4,75,000**

Statement of Cash Flow from Investing Activities

Particulars	Amt. (₹)
Sale of machine	15,000
Purchase of machine	(25,000)
Cash outflow from investing activities	(10,000)

Explanation :

(1) Machine is an asset, thus it's balance is debit balance. Therefore it's opening balance is shown on debit side.

(2) Depreciation machine : Journal entry will be as follows :

Deprecaition A/c ...Dr 50,000

To Machine A/c 50,000

(3) Sale of machine : Book value ₹ 25,000

Selling price ₹ 15,000

Loss ₹ 10,000

Cash A/c ...Dr 15,000
Loss on sale of machine A/c...Dr 10,000
To Machine A/c 25,000

(4) When machine account is closed, difference is appeared on debit side, it is purchase of new machine :

No.	Activity	Effect
1.	Sale of machine ₹ 15,000 – investing activity	Cash inflow from investing activity
2.	Purchase of machine ₹ 25,000 – investing activity	Cash outflow from investing activity
3.	Depreciation ₹ 50,000 – operating activity	Non-cash transaction, will be added to operating profit
4.	Loss on sale of machine ₹ 10,000	Non-cash transaction, will be added back to operating profit

Illustration 12 : From the following details of Mansi Company Ltd., determine and explain transactions influencing operating profit and cash flow from investing activities.

Particulars	(₹)	Particulars	(₹)
Opening balance of furniture	12,00,000	Sale of furniture	4,00,000
Closing balance of furniture	18,00,000	Book value of furniture sold	3,20,000
Depreciation on furniture	2,00,000		

Ans. : To find out investing activities, furniture account will be prepared as follows :

Furniture Account

Dr Cr

Particulars	Amt. (₹)	Particulars	Amt. (₹)
To Balance b/d	12,00,000	By Cash A/c (Sale)	4,00,000
To Profit on sale of furniture	80,000	By Depreciation A/c	2,00,000
To Cash A/c (?) (Purchase)	11,20,000		
		By Balance c/d	18,00,000
	24,00,000		**24,00,000**

Statement of Cash Flow From Investing Activities

Particulars	Amt. (₹)
Sale of furniture	4,00,000
Purchase of furniture	(11,20,000)
Cash flow from investing activities	(7,20,000)

Explanation :

(1) Furniture is an asset, therefore it's opening balance is debit balance.

(2) Depreciation on furniture :

Depreciation A/c ...Dr 2,00,000

To Furniture A/c 2,00,000

(3) Sale of furnitue : :

	Book value	₹ 3,20,000
–	Selling price	₹ 4,00,000
	Profit	₹ 80,000

(a) Cash A/c ...Dr 4,00,000

To Furniture A/c 4,00,000

(b) Furniture A/c ...Dr 80,000

To Profit on sale of furniture A/c 80,000

(4) When furniture account is closed, difference is appeared on debit side, it is purchase of new furniture.

No.	Activity	Effect
1.	Sale of furniture ₹ 4,00,000 – Investing activity	Cash inflow from investing activity.
2.	Purchase of furniture ₹ 11,20,000 – Investing activity	Cash outflow from investing activity.
3.	Depreciation ₹ 2,00,000 – Operating activity	Non-cash transaction will be added to operating profit.
4.	Profit on sale of furniture ₹ 80,000	Non-cash transaction will be deducted from operating activity.

Illustration 13 : From the following details of Brijmohan Ltd., prepare statement showing cash flow from investing activities :

Particulars	31-3-2017 (₹)	31-3-2016 (₹)
Investment in 12 % debentures of X Co.	6,00,000	4,00,000
Machines	4,00,000	2,00,000
Land-building	6,00,000	6,00,000
Furniture	1,00,000	80,000
Patent	80,000	1,00,000
Goodwill	60,000	90,000

Additional Information :

(1) Provide 20 % depreciation on machines.

(2) Provide 10 % depreciation on furniture.

(3) In the beginning of the year, 40 % investments sold for ₹ 3,00,000.

(4) Interest received on investments ₹ 60,000.

Ans. : Accounts of machine, furniture and investments will be prepared.

Machine Account

Dr Cr

Particulars	Amt. (₹)	Particulars	Amt. (₹)
To Balance b/d	2,00,000	By Depreciation A/c, 20 %	40,000
To Cash A/c (Purchase)	2,40,000	By Balance c/d	4,00,000
	4,40,000		**4,40,000**

Furniture Account

Dr Cr

Particulars	Amt. (₹)	Particulars	Amt. (₹)
To Balance b/d	80,000	By Depreciation A/c, 10 %	8000
To Cash A/c (Purchase)	28,000	By Balance c/d	1,00,000
	1,08,000		**1,08,000**

Investments Account

Dr Cr

Particulars	Amt. (₹)	Particulars	Amt. (₹)
To Balance b/d	4,00,000	By Cash A/c	3,00,000
To profit on sale of investment A/c	1,40,000		
To Cash A/c (Purchase)	3,60,000	By Balance c/d	6,00,000
	9,00,000		**9,00,000**

Explanation :

(1) Opening balance of investments ₹ 4,00,000

Sale of 40 % (4,00,000 × 40 %)		₹ 1,60,000
Less : Selling price		₹ 3,00,000
Profit on sale of investments		₹ 1,40,000
(a) Cash A/c ...Dr	3,00,000	
To Investments A/c		3,00,000
(b) Investments A/c ...Dr	1,40,000	
To Profit on sale of investments A/c		1,40,000

Sale of investments ₹ 3,00,000 will be shown as cash inflow of investing activity. Profit on sale of investment will be deducted from operating profit.

(2) Depreciation on machine will be calculated on opening balance. Thus 20 % of ₹ 2,00,000 = ₹ 40,000, will be added to operating profit. Debit side difference of ₹ 2,40,000 is appeared, which is purchase of machine, it is shown as cash outflow from investing activity.

(3) Depreciation on furniture will be calculated on opening balance. Thus 10 % of ₹ 80,000 = ₹ 8000, will be added to operating profit. Debit side difference of ₹ 28,000 is appeared which is purchase of furniture, which is treated as cash outflow from investing activity.

(4) Interest on investment will be deducted from operating profit and will be shown cash inflow from investing activity.

(5) Closing balance of patent is ₹ 80,000 and opening balance is ₹ 1,00,000, this shows decrease of ₹ 20,000. This is non-cash transaction, which will be added to operating profit.

(6) Closing balance of goodwill is ₹ 60,000 and opening balance is ₹ 90,000. This shows decrease of ₹ 30,000. This is non-cash transaction, will be added to operating profit.

Statement of Cash Flow from Investing Activities

Particulars	(₹)
Sale of investments	3,00,000
Purchase of machine	(2,40,000)
Purchase of furniture	(28,000)
Interest on investments	60,000
Purchase of investments	(3,60,000)
Cash outflow from investing activities	(2,68,000)

Amounts other than brackets are cash inflow. Amounts shown in brackets are cash outflow.

8. Cash Flow from Financing Activities :

Transactions of financing activities means changes in details of equity and liabilities (excluding current liabilities) side of balance sheet and changes in equity and liabilities related items.

Details included in financing activities are as follows :

Transactions of Financing Activities

↓

Changes in equity and liabilities of balance sheet (Excluding current liabilities)

- Issue of equity and preference share
- Buy back of equity shares and redemption of preference share
- Issue of new debentures
- Redemption of debentures
- Borrowing through bank over draft or redemption of bank overdraft
- Borrowing through loan or redemption of loan

Details of profit and loss statment are to be cancelled from profit and loss statement and to be shown as financing activities are as follows :

- Equity share dividend
- Preference share dividend
- Interest on debentures or loan

These tansactions are expenses and appropriation. But for cash flow statement these are treated as return of capital. Thus, they are disclosed as financing activities.

- **Special Transactions :**

  (1) The following transactions show changes in size/composition of owners capital and borrowed capital of business entity. Still, these are not considered as cash flow from financing activities.

  (a) Increase in equity share capital due to issue of bonus share. This transaction shows capitalization of profit or reserve. Capitalization of profit and reserve means conversion of credit balance of profit and loss A/c, general reserve into equity share capital. This transaction gives increase in equity without cash.

  (b) There is a conversion of debentures into share. In this transaction also, there is no cash movement. Thus, there is no creation of cash flow.

  (2) (a) When issue of equity share and/or debentures is done at premium, the amount of premium is also considered as cash in flow from financing activities.

  (b) Under writing commission paid at the time of issue of share or debentures is also financing activity and is shown as cash outflow from financing activity.

  (3) Bank overdraft and cash credit, both are short-term borrowings but are treated as financing activities.

Illustration 14 : From the following information of Hetal Company Ltd., calculate cash flow from financing activities.

Particulars	**31-3-2017 (₹)**	**31-3-2016 (₹)**
Equity share capital	18,00,000	12,00,000
Preference share capital	8,00,000	10,00,000
Debenture	6,00,000	6,00,000

Additional information :

(1) Dividend paid : Equity share capital ₹ 2,00,000, Preference share capital ₹ 1,00,000

(2) Debenture interest paid ₹ 50,000

Ans. :

Statement of Cash Flow from Financing Activities

Particulars	**(₹)**
Equity share capital (Increase in capital)	6,00,000
Redemption of preference share capital (Reduction in share capital)	(2,00,000)
Debenture (No change)	–
Payment of equity share dividend	(2,00,000)
Payment of preference share dividend	(1,00,000)
Payment of debenture interest	(50,000)
Cash flow from financing activities	50,000

- **Stages for preparation of cash flow statement :**

  (1) First of all see adjustments (additional information) and accordingly prepare necessary accounts. As per the syllabus the fixed assets A/c, depreciation fund A/c and taxation provision A/c are included. Give accounting effects to the transactions of these accounts to the operating activities, investing activities or financing activities.

(2) Prepare cash flow statement :

(a) In the begining of this statement consider transactions pertaining to cash flow from operating activities. Add back non-cash expenses and provisions to the profit of current year. Deduct non-operating incomes from profit of current year.

After incorporation of accounting effects of these transactions, incorporate effects of changes in working capital. Add reduction in current assets and increase in current liabilities. Deduct increase in current assets and decrease in current liabilities. Deduct tax payment from profit, if any. Difference will be the cash flow from the operating activities.

(b) Incorporate accounting effect of cash flow transactions of investing activities, where sale of non-current assets will be shown as cash inflow and purchase of non-current assets as cash outflow.

(c) Finally, incorporate accounting effect of cash flow transactions to financing activities. Increase in share capital or increase in non-current liabilities, will be shown as cash inflow and reduction in share capital and non-current liabilities as cash outflow.

(d) The total of above stated activities

- Cash flow from operating activities
- Cash flow from investing activities and
- Cash flow from financing activities, will be receipt or payment of cash and cash equivalent.

  The addition of opening balance of cash and cash equivalent to this total would give closing balance of cash and cash equivalent.

When the final answer of these activities is identical to cash and cash equivalent to closing balance of cash and cash equivalent it shows possibilities of all correct calculations. The closing balance of cash and cash equivalent in cash flow statement establishes the correctness of answer.

Illustration 15 : Following are the balance sheets as at 31-3-2016 and 31-3-2017 of Dahod Company Ltd., prepare cash flow statement.

Particulars	**31-3-2017 (₹)**	**31-3-2016 (₹)**
I Equity and Liabilities :		
(1) Shareholders' Funds		
(a) Share capital	20,00,000	18,00,000
(b) Reserves and surplus	7,50,000	5,00,000
(2) Non-current Liabilities		
10 % debentures	5,00,000	7,00,000
(3) Current Liabilities	4,00,000	3,00,000
Total	**36,50,000**	**33,00,000**
II Assets :		
(1) Fixed assets		
(i) Tangible assets : Land-building	22,00,000	20,00,000
(ii) Intangible assets : Patent	6,00,000	6,00,000
(2) Current assets : (Excluding cash)	7,00,000	6,00,000
Cash and cash equivalent	1,50,000	1,00,000
Total	**36,50,000**	**33,00,000**

Note : Debentures are redeemed at the beginning of the year.

Ans. : Explanation :

No.	Transaction	Effect
1.	Increase in equity share capital ₹ 2,00,000 (₹ 20,00,000 – ₹ 18,00,000)	Cash inflow of financing activity
2.	Profit of current year ₹ 2,50,000 (₹ 7,50,000 – ₹ 5,00,000)	It will be considered for operating activities
3.	Reduction in 10 % debentures ₹ 2,00,000 (₹ 5,00,000 – ₹ 7,00,000)	Cash outflow of financing activities
4.	Increase in current liabilities ₹ 1,00,000 (₹ 4,00,000 – ₹ 3,00,000)	It will be added to operating activities
5.	Increase in fixed assets (Land-building) ₹ 2,00,000 (₹ 22,00,000 – ₹ 20,00,000)	Cash outflow of investing activities
6.	No change in fixed assets(Patent)	No effect
7.	Increase in current assets ₹ 1,00,000 (₹ 7,00,000 – ₹ 6,00,000)	It will be deducted from operating activities

Ans. : Cash Flow Statement as at 31-3-2017 of Dahod Company Limited

Particulars	(₹)	(₹)
(A) Cash flow from operating activities		
Closing balance of P & L A/c (Reserves and surplus)	7,50,000	
Less : Opening balance of P & L A/c (Reserves and surplus)	5,00,000	
Profit for the year		2,50,000
Add : Non-cash expenses (Provisions)		–
Interest on debentures		50,000
Less : Non-operating incomes		–
Operating profit before changes in working capital		3,00,000
Add : Decrease in current assets		–
Increase in current liabilities	1,00,000	
		1,00,000
		4,00,000
Less : Increase in current assets	1,00,000	
Decrease in current liabilities		1,00,000
(A)		3,00,000
(B) Cash flow from investing activities		
Purchase of land-building (B)	(2,00,000)	(2,00,000)
		1,00,000

Particulars	(₹)	(₹)
(C) Cash flow from financing activities :		
Increase in share capital	2,00,000	
Interest on debentures	(50,000)	
10 % debentures redeemed	(2,00,000)	(50,000)
(D) Increase in cash and cash equivalent (A + B + C)		50,000
Add : Opening balance of cash and cash equivalent		1,00,000
(E) Closing balance of cash and cash equivalent		1,50,000

Special Note : To provide comprehensive information of cash flow statement to the students, illustration no. 16 is given, where all three activities are covered. These kind of questions are not expected in exam.

Illustration 16 : From the following details of Somnath Company Ltd., prepare cash flow statement as at 31-3-2017.

Particulars	31-3-2017 (₹)	31-3-2016 (₹)
I Equity and Liabilities		
(1) Shareholders' Funds		
(a) Equity share capital	18,00,000	16,00,000
Preference share capital	2,00,000	–
(b) Reserves and surplus : General reserve	1,00,000	80,000
Profit and loss A/c	48,000	40,000
(2) Non-current Liabilities :		
14 % debentures	2,60,000	2,40,000
(3) Current Liabilities :		
Bank overdraft	2,72,000	5,00,000
Trade payables	4,40,000	4,80,000
Short-term provisions :		
Taxation provision	1,68,000	1,20,000
Proposed dividend	2,32,000	2,00,000
Total	**35,20,000**	**32,60,000**
II Assets :		
(1) Non-current assets :		
Fixed assets : Tangible	16,00,000	16,40,000
Less : Depreciation fund	6,00,000	4,40,000
	10,00,000	12,00,000
(2) Current assets :		
Trade payables	9,60,000	8,00,000
Stock	14,00,000	12,00,000
Cash and cash equivalent	1,60,000	60,000
Total	**35,20,000**	**32,60,000**

Additional information :

(1) Interest paid on debentures ₹ 36,000

(2) Taxes paid ₹ 1,68,000

Ans. : Explanation :

No.	Transactions	Effects
1.	Increase in equity share capital ₹ 2,00,000 (₹ 18,00,000 – ₹ 16,00,000)	Cash inflow of financing activity shown as cash inflow
2.	Increase in preference share capital ₹ 2,00,000 (₹ 2,00,000 – Zero)	Cash inflow of financing activity
3.	Increase in general reserve ₹ 20,000 (₹ 1,00,000 – ₹ 80,000)	It will be added to profit in operating statement under the head of provision
4.	Profit and loss A/c. Profit of current year ₹ 8000 (₹ 48,000 – ₹ 40,000)	It will be considered as operating activities
5.	Increase in 14 % debentures ₹ 20,000 (₹ 2,60,000 – ₹ 2,40,000)	Cash inflow of financing activities
6.	Current liabilities : – Decrease in bank overdraft ₹ 2,28,000 (₹ 2,72,000 – ₹ 5,00,000) – Decrease in trade payables ₹ 40,000 (₹ 4,40,000 – ₹ 4,80,000) – Taxation provision – Proposed dividend	Cash outflow of financing activities It will be deducted in operating statement In adjustment payment is given, so account will be opened and accordingly treatments will be given. Proposed dividend of last year will be shown as cash outflow of financing activities. Proposed dividend of current year will be added to net profit under cash flow from operating activities.
7.	Fixed assets (tangible) and Depreciation	Fixed assets A/c and depreciation A/c will be opened and treatments will be given accordingly
8.	Current assets : – Increase in trade receivables ₹ 1,60,000 (₹ 9,60,000 – ₹ 8,00,000) – Increase in stock ₹ 2,00,000 (₹ 16,00,000 – ₹ 14,00,000)	It will be deducted from operating cash flow statement It will be deducted from operating cash flow statement
9.	Debenture interest paid ₹ 36,000	It will be added back to profit in operating statement and will be shown as cash outflow of financing activity

Taxation Provision Account

Dr | | | Cr

Particulars	Amt. (₹)	Particulars	Amt. (₹)
To Cash A/c (Payment) (will be deducted from operating activity)	1,68,000	By Balance b/d	1,20,000
To Balance c/d	1,68,000	By P & L A/c (Provision) (Will be added to operating activity)	2,16,000
	3,36,000		**3,36,000**

Fixed Assects Account

Dr | | | Cr

Particulars	Amt. (₹)	Particulars	Amt. (₹)
To Balance b/d	16,40,000	By Cash A/c (Sale) (Cash inflow from investing activity)	40,000
		By Balance c/d	16,00,000
	16,40,000		**16,40,000**

Depreciation Fund Account

Dr | | | Cr

Particulars	Amt. (₹)	Particulars	Amt. (₹)
		By Balance b/d	4,40,000
To Balance c/d	6,00,000	By Profit and Loss A/c (Provision)	1,60,000
	6,00,000		**6,00,000**

– Taxation provision and depreciation fund have credit balance.

Tax :

(1) Taxation provision A/c ...Dr	1,68,000	
To Cash A/c		1,68,000
(2) Profit and loss A/c ...Dr	2,16,000	
To Taxation provision		2,16,000

Depreciation and fixed assets :

(1) Profit and loss ...Dr	1,60,000	
To Depreciation fund A/c		1,60,000
(2) Fixed assets A/c ...Dr	1,20,000	
To Cash A/c		1,20,000

Note : Journal entries are given for understanding of students. It is not required for examination purpose.

Cash Flow Statement as at 31-3-2017 of Somnath Limited

Particulars	(₹)	(₹)
(A) Cash flow from operating activities :		
Closing balance of profit and loss A/c	48,000	
Less : Opening balance of profit and loss A/c	40,000	
Profit of current year		8000
Add : Non-cash expenses (Provisions)		
Taxation provision	2,16,000	
Depreciation	1,60,000	
General reserve	20,000	
Proposed dividend	2,32,000	
Debenture Interest	36,000	6,64,000
		6,72,000
	–	–
Less : Non-operating income		6,72,000
Profit before changes in working capital		–
Add : Decrease in current assets		–
Increase in current liabilities		–
		6,72,000
Less : Increase in current assets		
Increase in trade receivables	1,60,000	
Increase in stock	2,00,000	
Decrease in current liabilities :		
Trade payables	40,000	4,00,000
		2,72,000
Less : Tax paid		1,68,000
		1,04,000
(B) Cash flow from investing activities :		
Sale of fixed assets	40,000	40,000
(C) Cash flow from financing activities :		1,44,000
Increase in equity share capital	2,00,000	
Increase in preference share capital	2,00,000	
Issued 14 % debentures	20,000	
Redemption of bank overdraft	(2,28,000)	
Proposed dividend	(2,00,000)	
Debenture interest paid	(36,000)	(44,000)
(D) Cash and cash equivalent		1,00,000
Add : Opening balance of cash and cash equivalent		60,000
Closing balance of cash and cash equivalent		1,60,000

Exercise

1. Select appropriate option for every question :

(1) How many activities are there in cash flow statement ?

(a) Five (b) Four

(c) Three (d) Two

(2) Cash equivalent has ....

(a) higher liquidity (b) higher solvency

(c) higher profitability (d) all of the above

(3) Decrease in current assets and increase in current liabilities ....

(a) are cash inflow and cash outflow respectively

(b) are cash outflow and cash inflow respectively

(c) both are cash inflows

(d) both are cash outflows

(4) Increased in current assets and decrease in current liabilties ....

(a) both are cash outflows

(b) both are cash inflows

(c) are cash outflow and cash inflow respectively

(d) are cash inflow and cash outflow respectively

(5) Collection of debtors and bills receivable is ....

(a) cash inflow of operating activity

(b) cash outflow of operating activity

(c) cash inflow of financing activity

(d) cash inflow of investing activity

(6) Which of the following transaction is always transaction of operating activity ?

(a) Interest paid on loan (b) Dividend received

(c) Dividend paid (d) Salary expense

(7) Dividend or interest received on investment is ....

(a) added to cash flow of operating activity

(b) deducted from cash flow of financing activity

(c) added to cash flow of investing activity

(d) deducted from cash flow of investing activity

(8) Bank overdraft ....

(a) is current liability but considered as financing activity

(b) is current liability but considered as operating activity

(c) is current liability but considered as investing activity

(d) is not activity of cash flow statement

(9) Rent received ....

(a) is added to operating activity and deducted from financing activity

(b) is added to operating activity and added to financing activity

(c) is added to operating activity and added to investing activity

(d) is deducted from operating activity and added to investing activity

(10) Reduction in goodwill in current year as compared to previous year is ....

(a) sale of goodwill (b) purchse of goodwill

(c) written off goodwill (d) all of the above

(11) Cash deposited in bank is ....

(a) cash outflow of operating activity

(b) cash outflow of financing activity

(c) cash outflow of investing activity

(d) not cash flow

(12) Which of the following is included in financial expense ?

(a) Factory expenses (b) Administrative expenses

(c) Sales expenses (d) Interest expenses

(13) Payment of interim dividend is ....

(a) deducted from operating statement and added to financing activity

(b) deducted from operating statement and added to investing activity

(c) added to operating statement and deducted from financing activity

(d) none of the above

2. Answer the following in one sentence :

(1) What is cash flow ?

(2) What is cash and cash equivalent ?

(3) What is cash flow statement ?

(4) What is operating activities ?

(5) What is investing activities ?

(6) What is financing activities ?

(7) Which transactions are always operating activities ?

(8) Which transactions are always investing activities ?

(9) Which transactions are always financing activities ?

(10) Give illustration of such transaction from where two activities are taking place.

(11) Give illulstration of is cash transaction but not cash flow'.

(12) Where are the self constructed assets recorded ?

(13) To which activity increase/decrease of bank overdraft is recorded ?

(14) For which activity underwriting commission paid is considered ?

(15) As which activity income tax payment and income tax refund are considered ? Why ?

(16) Give illustration of any two operating incomes.

(17) Where addition in general reserve is recorded ?

(18) Describe whether cash flow would increase or decrease due to following transactions ?

(i) Increase in current assets (ii) Decrease in current assets

(iii) Increase in current liabilities (iv) Decrease in current liabilities

(19) In which activity the received dividend and interest are recorded ?

(20) In which activity the paid dividend and interest are recorded ?

3. Answer the following questions in brief :

(1) Describe the operating activities for the following companies :

(i) Trading companies (ii) Insurance companies (iii) Bank

(2) Explain cash flow from operating transactions of non-finance companies and finance companies.

(3) From the following transactions, identify transactions of operating activities :

(i) Wages paid
(ii) Purchase of building
(iii) Sale of furniture
(iv) Payment to creditors
(v) Dividend paid
(vi) Rent paid
(vii) Paid office expenses
(viii) Paid sales-distribution expenses
(ix) Carriage inward
(x) Carriage outward
(xi) Royalty paid
(xii) Income tax paid

4. Explain cash flow transactions of investing activities.

5. From the following transactions, identify transactions of investing activities :

(i) Salary paid
(ii) Rent paid
(iii) Purchase of investments
(iv) Sale of land
(v) Purchase of building
(vi) Interest received on investments
(vii) Sale of furniture
(viii) Collection from debtors
(ix) Payment to creditors
(x) Issue of equity shares
(xi) Redemption of debentures
(xii) Dividend received on investments

6. Explain – Cash flow transactions of financing activities.

7. From the following transactions, identify transactions of financing activities :

(i) Sale of machine
(ii) Redemption of preference share capital
(iii) Dividend paid
(iv) Interest paid
(v) Dividend received
(vi) Borrowed bank overdraft
(vii) Purchase of investments
(viii) Issue new equity shares
(ix) Paid interim dividend
(x) Interest received
(xi) Borrowed bank loan
(xii) Commission received

8. What are non-cash transactions ? Give two illustrations.

9. What are non-operating incomes ? Give two illustrations.

10. Where interim dividend is recorded in cash flow statement ?

11. Where accounting treatments of taxation provision and tax payment are given in cash flow statement ?

12. Explain effect of bonus share in cash flow statement.

13. Where conversion of debentures into share is recorded in cash flow statement ?

14. Which kind of activity is the payment of underwritting commission ? Why ?

15. From the following transactions calculate cash flow from operating activities :

Particulars	(₹)
Profit before taxes	99,000
Income tax provision	29,000
Proposed dividend	39,000
Depreciation	22,000
Dividend received	21,000
Interest received	20,000
Interest paid	28,000
Goodwill written off	15,000
Profit on sale of asset	12,000

16. From the following information, calculate cash flow from operating activities :

Particulars	31-3-2017 (₹)	31-3-2016 (₹)
Profit and loss A/c	45,000	30,000
Depreciation	90,000	70,000
Goodwill	40,000	55,000
Stock	60,000	45,000
Debtors	50,000	90,000
Creditors	40,000	60,000
Bills payables	70,000	20,000
Prepaid expenses	10,000	15,000

Additional information :

(i) Dividend received ₹ 2000

(ii) Interest paid ₹ 3000

(iii) Rent received ₹ 10,000

17. From the following information calculate cash flow from operating activities :

Particulars	31-3-2017 (₹)	31-3-2016 (₹)
Profit and loss A/c	60,000	25,000
General reserve	45,000	35,000
Taxation provision	38,000	48,000
Depreciation fund	42,000	32,000
Goodwill	27,000	38,000
Debtors	49,000	39,000
Creditors	39,000	29,000
Outstanding expenses	12,000	17,000
Prepaid expenses	14,000	10,000

Additional information :

(i) Profit on sale of assets ₹ 15,000

(ii) Loss on sale of furniture ₹ 8000

(iii) Income of rent ₹ 48,000

(iv) Interest paid on debentures ₹ 32,000

(v) Dividend payment ₹ 10,000

18. From the following given information calculate cash flow from investing activities :

Particulars	(₹)
Sale of non-current investments	88,000
Purchase of land	1,48,000
Purchase of machine	98,000
Sale of furniture	45,000
Dividend received on investments	40,000
Paid for goodwill	32,000
Issue of shares	1,20,000
Redemption of debentures	45,000
Loan borrowed	28,000

19. From the following given details calculate cash flow from investing activities :

Particulars	31-3-2017 (₹)	31-3-2016 (₹)
Plant and machines	9,20,000	7,20,000
Depreciation fund on plant and machines	1,50,000	1,20,000
Goodwill	90,000	95,000
Patent	70,000	1,30,000
10 % investments	95,000	2,70,000
General reserve	45,000	30,000
Profit and loss A/c	60,000	40,000
Equity share capital	6,00,000	4,50,000
Bank loan	1,00,000	1,50,000
Current liabilities	90,000	60,000
Interest received on investments ₹ 18,000		
Some of the patents were sold during the year.		

20. From the following information calculate cash flow from financing activities :

Particulars	(₹)
Purchase of land	1,88,000
Equity shares issued	1,45,000
Redemption of preference shares	60,000
Redemption of debentures	70,000
Borrowed bank loan	90,000
Debenture interest paid	6000
Dividend paid	8000
Dividend-interest received	9000
Sale of furniture	32,000
Purchase of machine	68,000
Interest received on investments	13,000
Paid for patents	19,000

21. From the following information calculate cash flow from financing activities :

Particulars	31-3-2017 (₹)	31-3-2016 (₹)
10 % debentures	2,45,000	1,95,000
Equity share capital	3,45,000	2,50,000
12 % debentures	1,00,000	1,50,000
Preference share capital	80,000	1,00,000
Bank overdraft	45,000	68,000

Additional information :

(1) Debenture interest paid ₹ 12,000

(2) Paid ₹ 22,000 for equity share dividend and preference share dividend

(3) Paid bank overdraft ₹ 4000

●

Answers

Exercise 1

1. **Select appropriate option for each question :**

   (1) (c) (2) (b) (3) (a) (4) (c) (5) (d) (6) (d) (7) (b)
   (8) (c) (9) (a) (10) (c)

5. Share application amount received ₹ 22,50,000; Share allotment amount received ₹ 30,00,000; Share first and final call amount received ₹ 22,50,000.
6. Share application amount received ₹ 14,40,000; Amount returned on non-alloted shares ₹ 2,40,000; Share allotment amount received ₹ 9,00,000; Share final call amount received ₹ 8,94,000; amount of call in arrears ₹ 6000
7. Share application amount received ₹ 33,75,000; Application amount transferred to share capital ₹ 30,00,000, Amount returned to applicants ₹ 3,75,000; Share allotment amount received ₹ 30,00,000; Share first call amount received ₹ 23,98,080; Share second call amount received ₹ 35,93,520; Call in arrears received afterwards ₹ 8400 (1920 + 6480)
8. Share application amount received with call in advance ₹ 17,39,000; Share allotment amount received in advance with application ₹ 8000 and for call in advance ₹ 6000; Amount received on share allotment ₹ 19,99,500 (₹ 20,00,000 deduct amount of allotment received with application ₹ 8000 and add ₹ 7500 received for call with allotment amount); Share first and final call amount received ₹ 14,86,500 (₹ 15,00,000 - ₹ 7500 - ₹ 6000)
9. Amount received with application ₹ 14,00,000; Amount returned to applicants ₹ 2,00,000; Amount received for allotment ₹ 23,76,000; Share final call amount received ₹ 8,91,000.
10. Share application amount received ₹ 1,38,00,000; Amount returned to applicants ₹ 46,00,000; Amount received for allotment ₹ 1,35,83,000 (₹ 1,36,00,000 deduct ₹ 17,000 of Himmatbhai); Share final call amount received ₹ 51,89,600 (₹ 52,00,000 deduct ₹ 6500 Hemantbhai and ₹ 3900 of Hima).
11. Total amount of security premium with application ₹ 27,00,000;
    Total amount of security premium with allotment of ₹ 45,00,000;
    Total amount received for allotment ₹ 45,00,000;
    Total amount for allotment ₹ 62,91,600 (₹ 63,00,000 deduct ₹ 8400 of Abdul);
    Total amount received with share first and final call ₹ 8,98,000 (₹ 9,00,000 deduct ₹ 1200 of Abdul and ₹ 800 of Harun)
12. (i) Share forfeiture A/c credit ₹ 2400 at the time of share forfeiture; Share forfeiture A/c debit ₹ 1600 at the time reissue of shares; Credit balance of share forfeiture transfer to capital reserve ₹ 800.
    (ii) Share forfeiture A/c credit ₹ 3000, at the time of share forfeiture out of 600 share forfeited 400 shares are reissued, share forfeiture A/c Dr. ₹ 1600; The proportionate credit balance of share forfeiture account is transferred to capital reserve ₹ 400.
    (iii) Share forfeiture A/c credit ₹ 18,000, at the time of share forfeiture, share forfeiture A/c Dr ₹ 9000; at the time of reissue of forfeited shares, credit balance of share forfeiture transferred to capital reserve ₹ 9000.
13. (i) At the time of share forfeiture - Securities premium A/c Dr ₹ 12,000 and Share forfeiture A/c credited by ₹ 3600; When forfeited shares are reissued - bank A/c debit ₹ 8400, share forfeiture A/c debit ₹ 3600; there will be no balance to share forfeiture account.

(ii) At the time of share forfeiture - share capital A/c debit by ₹ 4500 (600 × ₹ 7.50) and credited to share forfeiture Ac/ ₹ 3300. When forfeited share are reissued - share forfeiture A/c debit by ₹ 2400. Credit balance of share forfeiture ₹ 900 will be transfefred to capital reserve.

(iii) At the time of share forfeiture - share capital A/c debit ₹ 24,000 (400 × ₹ 60), securities premium A/c debit ₹ 8000 (400 × ₹ 20) and share forfeiture A/c credit ₹ 12,000. When forfeited shares are reissued share forfeiture A/c debit ₹ 4000, calls in advance credit by ₹ 16,000. Credit balance of share forfeiture will be transferred to capital reserve ₹ 8000.

14. Amount received for share application ₹ 44,10,000; Amount returned to applicants ₹ 8,10,000; Share allotment amount received ₹ 47,92,000 (₹ 48,00,000 – ₹ 8000 of Akash); Share first and final call amount received ₹ 35,90,400 (₹ 36,00,000 – ₹ 6000 of Akash and ₹ 3600 of Sunny); When shares are forfeited, share forfeiture A/c credit by ₹ 14,400; At the time of reissue of forfeited shares, share forfeiture A/c debite by ₹ 9600; the credit balance of share forfeiture ₹ 4800 transferred to capital reserve.

15. Amount received with application ₹ 91,20,000; Allotment amount received ₹ 66,64,000; Amount received for final call ₹ 33,32,000; Securities premium debit ₹ 70,000 and ₹ 6000 credit to share forfeiture A/c, when shares are forfeited; Amount received along with premium on reissue of forfeited shares ₹ 28,000; Balance of share forfeiture account ₹ 6000 transfered to capital reserve account.

16. Total amount received with application ₹ 1,04,00,000; Amount received for allotment ₹ 1,83,65,500 (1,84,00,000 - 34,500 of Vipul); When 1500 shares of Vipul are forfeited - securities premium A/c Dr ₹ 30,000, Share capital A/c Dr. ₹ 9000 while share forfeiture credit ₹ 4500 and share allotment A/c credit ₹ 34,500; When forfeited shares are reissued share forfeiture A/c Dr ₹ 1500; Balance of share forfeiture ₹ 3000 transferred to capital reserve; Amount received for final call ₹ 31,98,000 (₹ 32,00,000 deduct ₹ 2000 of Hema); 500 Shares of Hema forfeited so share forfeiture A/c credit ₹ 3000 and share forfeited A/c debit by ₹ 3000 when forfeited shares are reissued. There will be no balance in share forfeiture A/c

17. Amount received with share applications ₹ 90,00,000; Amount returned to applicants for rejected applications ₹ 30,00,000; Amount received for share allotment ₹ 23,76,000 (₹ 24,00,000 deduct ₹ 24,000 of Sidharaj); When 6000 shares of Sidhraj are forfeited – share forfeiture A/c credited by ₹ 18,000; Amount received for final call ₹ 17,70,000 (₹ 17,82,000 deduct ₹ 12,000 of Jaysinh); when 4000 shares of Jaysinh forfeited – shares forfeiture A/c credited by ₹ 28,000; when 6000 forfeited shares are reissued – shares forfeiture A/c Dr ₹ 18,000; when 4000 forfeited shares are reissued – share forfeiture A/c Dr. ₹ 16,000; the credit balance of share forfeiture ₹ 12,000 transferred to capital reserve.

18. Total amount received with applications ₹ 36,00,000; Total amount received for allotment ₹ 27,00,000; Total amount received for first call ₹ 26,10,000; Total amount received for final call ₹ 26,10,000; when 4000 shares forfeited securities premium A/c debited by ₹ 1,60,000 and share forfeiture credited by ₹ 20,000. When forfeited shares are reissued total amount received ₹ 3,20,000, Balance of share forfeiture ₹ 20,000 transferred to capital reserve.

19. Total amount received with applications ₹ 5,40,000; Amount transferred to share capital from share application ₹ 3,60,000; Additional amount ₹ 72,000 transfer to share allotment and amount for rejected 36,000 shares ₹ 1,08,000 returned; Amount received for allotment ₹ 2,88,000 (₹ 3,60,000 deduct ₹ 72,000); Total amount received with share final call ₹ 4,80,000.

20. Amount received with application ₹ 18,60,000; Amount received for allotment ₹ 10,80,000, Amount received for first call ₹ 9,00,000; Amount received for final call ₹ 8,98,000; 1000 shares of Mahesh forfeited and share forfeiture A/c credited by ₹ 8000. When forfeited shares are reissued, share forfeiture A/c debited by ₹ 5000. Balance of share forfeiture ₹ 3000, transferred to capital reserve A/c.

21. Amount received with application ₹ 84,00,000; Amount returned to the applicants for rejected application ₹ 48,00,000; Amount received for share allotment ₹ 30,00,000 (₹ 42,00,000 – ₹ 12,00,000 received with application); amount received for first and final call of shares ₹ 18,00,000.

22. Amount received with applications ₹ 47,93,25,000; Total amount of share application and share allotment ₹ 69,72,00,000 will be debited to share application and allotment A/c. ₹ 4,35,75,000 will be returned for 1,50,000 shares at ₹ 290.50 per share. Amount received with application ₹ 26,14,50,000 (Amount called up for allotment ₹ 34,86,00,000 – allotment money received in advance ₹ 8,71,50,000)

23. Amount received with application ₹ 56,25,000; Amount received for allotment ₹ 15,00,000; Amount received for share final call ₹ 22,27,500; When 7500 shares of Vishal forfeited, share forfeiture A/c credited by ₹ 52,500; when forfeited shares are reissued – share forfeiture A/c Dr. ₹ 7500; the credit balance of share forfeiture ₹ 45,000 transferred to capital reserve.

24. Amount received with application ₹ 2,16,75,000; Amount received for first and final call ₹ 25,00,000 (Amount called for first and final call ₹ 67,50,000 – advance received with application ₹ 42,50,000)

Exercise 2

1. **Select appropriate option for each question :**
(1) (c) (2) (b) (3) (d) (4) (a) (5) (c) (6) (d) (7) (b)
(8) (b) (9) (c) (10) (b)

4. Amount received with debentures applications ₹ 4,50,000
Amount received for debentures allotment ₹ 5,40,000
Amount received for debentures call ₹ 3,00,000

5. Amount received with debentures applications ₹ 18,00,000
Amount received for debentures allotment ₹ 18,00,000
Amount received for debentures final call ₹ 12,00,000
Securities premium reserve A/c ₹ 12,00,000

6. Amount received with debentures applications ₹ 3,75,000
Debenture discount at the time of allotment ₹ 3,00,000
Amount received for debentures allotment ₹ 5,25,000
Amount received for debentures call ₹ 2,84,000

7. Amount received with debentures applications ₹ 10,50,000
Amount received for debentures allotment ₹ 12,09,000
Amount received in advance at the time of allotment ₹ 25,000 and calls not paid ₹ 16,000
Amount received for final call ₹ 7,15,000

8. Amount received with debentures applications ₹ 1,50,00,000
Amount received for debentures allotment ₹ 1,14,00,000
Amount called up for allotment ₹ 1,44,00,000 deduct received in advance for allotment with application ₹ 30,00,000

9. Debenture application and allotment are credited by ₹ 72,00,000;
Amount received for application and allotment ₹ 72,00,000 out of which to debenture A/c ₹ 50,00,000,
Transferred to securities premium ₹ 10,00,000 and to bank A/c ₹ 12,00,000

10. Amount received with debentures applications ₹ 3,15,000
Amount received for debentures allotment ₹ 2,80,000
Amount received for debenture final call ₹ 2,00,000
Debited to debenture issue expense ₹ 22,000
Deducted from profit and loss statement ₹ 20,400, debenture discount credited ₹ 16,000, debenture issue expenses crdited ₹ 4400

11. To shikhar Machinery Ltd. 9 % debeutre issued of ₹ 15,80,000 for ₹ 15,00,000, Consequently debenture discounted account debited by ₹ 80,000. While 9 % debentures issued of ₹ 14,10,000 for ₹ 15,00,000 to Shikhar Machinery, Securities premium reserve A/c will be credited by ₹ 90,000.

12. Net assets of ₹ 14,20,000, Purchase price ₹ 15,36,000, Goodwill ₹ 1,16,000; Purchase consideration 11 % debentures of ₹ 12,80,000 and securities premium reserve ₹ 2,56,000

13. (1) Two journal entries will be passed :
    (i) Bank A/c Dr ₹ 5,50,000, To Bank loan A/c ₹ 5,50,000
    (ii) Debenture suspense A/c Dr ₹ 5,00,000, To 10.5 % debenture A/c ₹ 5,00,000.
    (2) Only one journal entry : Bank A/c ...Dr ₹ 5,50,000, To Bank loan A/c ₹ 5,50,000

14. Amount received for application and allotment ₹ 18,00,000. Journal entry for interest on 30-9-2017 and 31-3-2018.
    Debenture interest A/c Dr ₹ 1,08,000, To Debentureholders A/c ₹ 86,400, To TDS payable ₹ 21,600. At the end of the year debenture interest debited to profit and loss A/c ₹ 2,16,000, To debenture interest A/c ₹ 2,16,000

15. (1) Amount received for debenture application and allotment ₹ 8,50,000
    (2) Amount received for debenture application and allotment ₹ 8,55,000, debited to debenture discount debited ₹ 95,000.
    (3) Amount received for debenture application and allotment ₹ 17,60,000 credited to securities premium reserve ₹ 1,60,000

16. Amount received for debenture application and allotment ₹ 12,00,000; loss on issue of debentures debited ₹ 1,80,000, debenture redemption premium credited ₹ 1,80,000. Total amount returnable to debenture holders ₹ 13,80,000.

17. Amount received for debenture application and allotment ₹ 19,00,000; debited to debenture discount A/c ₹ 1,00,000 and loss on issue of debentures ₹ 2,00,000. While ₹ 2,00,000 credited debenture redemption premium. Total amount returnable to debentureholders ₹ 22,00,000

18. Amount received for debenture applications and allotment ₹ 44,10,000; loss on issue of debenture debited ₹ 4,20,000. Credited to securities premium reserve A/c ₹ 2,10,000 and debenture redemption premium ₹ 4,20,000. Total amount returnable to debentureholders ₹ 46,20,000.

19. Total amount received with debenture application ₹ 25,00,000; amount received for debenture allotment ₹ 55,00,000; ₹ 9,60,000 will be credited to debenture redemption premium A/c

20. Total amount received with debenture application ₹ 9,60,000; amount received for debenture allotment ₹ 4,80,000, debenture discount debited ₹ 1,60,000 while credited to debenture redemption premium A/c ₹ 1,28,000

21. Amount received on debenture application and allotment ₹ 17,60,000; debenture redemption investment A/c debited ₹ 2,40,000 (15 % of 16,00,000); credited debenture redemption reserve ₹ 4,00,000 (25 % of 16,00,000); paid to debentureholders ₹ 16,00,000; balance of debenture redemption reserve A/c ₹ 4,00,000 transferred to general reserve A/c

22. Amount received for debenture application and allotment ₹ 21,20,000; securities premium reserve A/c and debenture redemption premium will be credit by ₹ 1,20,000 and ₹ 2,00,000 respectively. ₹ 3,00,000 for debenture redemption invesment, interest received on debenture redemption investment ₹ 19,250. ₹ 5,00,000 will be transferred to debenture redemption reserve, at the end of the year it will be transferred to general reserve. Interest received will be credited to profit and loss statement. Amount returned to debentureholders ₹ 22,00,000

23. Debenture redemption investment A/c ₹ 4,50,000; debenture redemption reserve A/c ₹ 30,00,000; Amount returned to debentureholders ₹ 33,60,000. The balance of debenture redemption reserve ₹ 30,00,000 transferred to general reserve A/c

24. Debenture redemption reserve ₹ 13,00,000 transferred from surplus of profit and loss statement. Investment for debenture redemption ₹ 3,60,000. Payment to debentureholders ₹ 25,92,000, the balance of debenture redemption reserve is transferred to general reserve ₹ 24,00,000

25. Own debentures purchased ₹ 1,44,000; Profit on redemption of debentures ₹ 6000.

26. Own debentures purchased ₹ 24,90,000; Loss on redemption of debentures ₹ 90,000.

27. Amount received on applications and allotment ₹ 18,00,000; Investment in own debentures ₹ 7,00,000; Profit on sale of investments ₹ 75,000, which is credited to profit and loss statement.

28. Amount received on application and allotment ₹ 48,00,000; Against debentureholders of ₹ 48,00,000, 3,20,000 equity shares are issued of ₹ 10 each of face value at premium of ₹ 5 per share.

29. Total amount returnable to debentureholders ₹ 8,48,000, where ₹ 48,000 for debenture redemption premium. 2703 preferance shares at ₹ 130 to 3315 debentureholders, 3600 debentureholders are given 3975, 7 % debentures at ₹ 96 per debentures and cash to 1085 debentureholders.

Exercise 3

1. **Select appropriate option for each question :**

(1) (d) (2) (b) (3) (c) (4) (d) (5) (b) (6) (d) (7) (d)
(8) (d) (9) (c)

3.

No.	Particulars	Head of Balance Sheet	Main Head	Sub Head
1.	Creditors	Equity-Liabilities	Current liabilities	Trade payables
2.	Security premium	Equity-Liabilities	Shareholders' funds	Reserve and surplus
3.	Bond	Equity-Liabilities	Non-current liabilities	Long-term borrowings
4.	Goodwill	Assets	Non-current assets	Fixed assets–intangible
5.	Bank overdraft	Equity-Liabilities	Current liabilities	Short-term borrowings
6.	Bills receivables	Assets	Current assets	Trade receivables
7.	Equity share capital	Equity-Liabilities	Shareholders' funds	Share capital
8.	Copyrights	Assets	Non-current assets	Fixed assets–intangible
9.	Debenture discount (To be written of during next year)	Assets	Current assets	Other current assets
10.	Calls in advance	Equity-Liabilities	Current liabilities	Other current liabilities
11.	Cash	Assets	Current assets	Cash - cash equivalent
12.	Provident fund	Equity-Liabilities	Non-current liabilities	Long-term liabilities
13.	Debentures	Equity-Liabilities	Non-current liabilities	Long-term borrowings
14.	Trademark	Assets	Non-current assets	Fixed assets–intangible
15.	Loose tools	Assets	Current assets	Inventory
16.	Loan (payable during next year)	Equity-Liabilities	Current liabilities	Other Current liabilities
17.	Bills payable	Equity-Liabilities	Current liabilities	Trade payables
18.	General reserve	Equity-Liabilities	Shareholders' funds	Reserve and surplus

No.	Particulars	Head of Balance Sheet	Main Head	Sub Head
19.	Public deposit	Equity-Liabilities	Non-current liabilities	Long-term borrowings
20.	Debtors	Assets	Current assets	Trade receivables
21.	Patents	Assets	Non-current assets	Fixed assets-intangible
22.	Calls in arrears	Equity-Liabilities	Shareholders' funds	Deducted from share capital
23.	Debenture redemption fund investment	Assets	Non-current assets	Non-current investments
24.	Stores and loose tools	Assets	Current assets	Inventory
25.	Licences	Assets	Non-current assets	Fixed assets-intangible
26.	Closing stock	Assets	Current assets	Inventory
27.	Bank balance	Assets	Current assets	Cash - cash equivalent
28.	Surplus as per statement of profit and loss	Equity-Liabilities	Shareholders' funds	Reserve and surplus
29.	Deposit in electricity co.	Assets	Non-current assets	Long-term loan and advances
30.	Premium on redemption of preference shares	Equity-Liabilities	Non-current liabilities	Other long-term liabilities

4. Non-current assets ₹ 7,46,000, Current assets ₹ 1,11,000, Total ₹ 8,57,000

5. Shareholders' funds ₹ 7,20,000, Non-current liabilities ₹ 7,01,000, Current liabilities ₹ 1,79,000, Total ₹ 16,00,000

6. Shareholders' funds ₹ 15,30,000, Non-current liabilities ₹ 2,25,000, Current liabilities ₹ 6,90,000, Non-current Assets ₹ 17,32,500, Current Assets ₹ 7,12,500, Total ₹ 24,45,000

7.

Particulars	Head of Profit and Loss Statement
(1) Sales	Revenue from operation
(2) Salary	Employees benefit expenses
(3) Depreciation	Depreciation and amortized expenses
(4) Debenture interest receipt	Other income
(5) Debenture interest paid	Financial cost (expense)
(6) Audit fee	Other expenses
(7) Sale of scrape	Other income
(8) Profit on sale of asset	Other income
(9) Advertisement expense	Other expenses
(10) Contribution to providend fund	Employees benefit expenses
(11) Interest on bank overdraft	Financial cost (expenses)
(12) Bank charges	Other expenses
(13) Goodwill	Will not be shown in profit and loss statement
(14) Bonus to employees	Employees benefit expenses
(15) Debenture discount written off	Depreciation and amortized expenses

8. Total incomes ₹ 3,91,500, Total expenses ₹ 3,86,100, Profit after tax ₹ 3780

9. Total incomes ₹ 9,75,600, Total expenses ₹ 7,80,000, Profit after tax ₹ 97,800, Shareholders' funds ₹ 3,37,800, Non-current liabilities ₹ 1,20,000, Current liabilities ₹ 1,12,200, Non-current assets ₹ 3,48,000, Current assets ₹ 2,22,000, Total ₹ 5,70,000

10. Total incomes ₹ 11,55,000, Total expenses ₹ 8,55,000, Profit after tax ₹ 3,00,000, Owners' fund ₹ 11,10,000, Non-current liabilities ₹ 5,25,000, Current liabilities ₹ 90,000, Non-current assets ₹ 14,10,000, Current assets ₹ 3,15,000, Total ₹ 17,25,000

Exercise 4

1. Select appropriate option for each question :

(1) (a) (2) (d) (3) (d) (4) (c) (5) (b)

4.

Particulars	Increase/ Decrease (₹)	Increase/ Decrease (%)
(I) Sales revenue	11,00,000	50.00
(II) Other income	75,000	50.00
(III) Total income	11,75,000	50.00
(IV) Expenses	8,36,000	54.29
(V) Profit before tax	3,39,000	41.85
(VI) Income tax	1,01,700	41.85
(VII) Profit after tax	2,37,300	41.85

5.

Particulars	Increase/ Decrease (₹)	Increase/ Decrease (%)
(I) Sales revenue	5,85,000	30.00
(II) Other income	95,000	50.00
(III) Total income	6,80,000	31.78
(IV) Expenses		
(i) Cost of goods consumed	1,90,000	20.00
(ii) Financial expenses	(60,000)	(40.00)
(iii) Depreciation	–	–
(iv) Other expenses	85,000	25.00
Total expenses	2,15,000	14.33
(V) Profit before tax	4,65,000	72.66
(VI) Income tax	1,39,500	72.66
(VII) Profit after tax	3,25,500	72.66

6.

Particulars	Increase/ Decrease (₹)	Increase/ Decrease (%)
(I) Sales revenue	15,75,000	35
(II) Other incomes	(3,00,000)	(30)
(III) Total incomes	12,75,000	23.18
(IV) Expenses		
(i) Cost of goods consumed	6,00,000	20.00
(ii) Net purchase for resale	70,000	35.00
(iii) Changes in stock	20,000	28.57
(iv) Employees benefit expenses	1,60,000	40.00
(v) Financial expenses	45,000	50.00
(vi) Depreciation and amortized amount	35,000	50.00
Total Expenses	9,30,000	24.28
(V) Profit before tax	3,45,000	20.66
(VI) Income tax	1,03,500	20.66
(VII) Profit after tax	2,41,500	20.66

7.

Particulars	Increase/ Decrease (₹)	Increase/ Decrease (%)
(I) Sales revenue	(7,00,000)	(13.46)
(II) Other incomes	(8,00,000)	(80.00)
(III) Total incomes	(15,00,000)	(24.19)
(IV) Expenses		
(i) Net purchase	(6,00,000)	(15.79)
(ii) Other expenses	54,000	5.77
(iii) Change in stock	(1,00,000)	(100.00)
Total expenses	(6,46,000)	(13.93)
(V) Profit before tax	(8,54,000)	(54.60)
(VI) Income tax	(2,56,200)	(54.60)
(VII) Profit after tax	(5,97,800)	(54.60)

8.

Particulars			31-3-2016 (₹)
(I)	Sales revenue		10,00,000
(II)	Expenses		
	(i)	Purchases	6,00,000
	(ii)	Changes in stock	1,50,000
	(iii)	Depreciation	50,000
		Total expenses	8,00,000
(III)	Profit before tax		2,00,000
(IV)	Income tax		60,000
(V)	Profit after tax		1,40,000

9.

Particulars		Increase/ Decrease (₹)	Increase/ Decrease (%)
(1)	Equity share capital	5,00,000	29.41
(2)	Preference share capital	(2,00,000)	(16.67)
(3)	General reserve	40,000	20.00
(4)	Profit and loss A/c	30,000	16.67
(5)	10 % debentures	(2,00,000)	(25.00)
(6)	Short-term liabilities	45,000	100.00
(7)	Trade payables	(45,000)	(33.33)
	Total	1,70,000	3.93
(8)	Tangible assets : (i) Machines	1,00,000	6.67
	(ii) Furniture	1,00,000	20.00
(9)	Intangible assets : (i) Goodwill	(20,000)	(20.00)
	(ii) Patent	20,000	2.74
(10)	Non-current invesments	1,00,000	12.5
(11)	Current assets : (i) Stock	20,000	12.5
	(ii) Trade receivables	(20,000)	(10.00)
	Current investments	(1,30,000)	(48.15)
	Total	1,70,000	3.93

10.

Particulars	31-3-2017 (4) (₹)	Increase/ Decrease (5)(₹)
(1) Equity share capital	30,00,000	6,00,000
(2) Reserves and surplus	15,00,000	3,00,000
(3) 10 % debentures	12,00,000	2,00,000
(4) 11 % bank loan	15,00,000	3,00,000
(5) Current liabilities	2,10,000	10,000
	31-3-2016 (3) (₹)	**Increase/ Decrease (6)(₹)**
(6) Tangible assets	30,00,000	7
(7) Intangible assets	20,00,000	10
(8) Current assets	10,00,000	100

11.

Particulars	% to sales	
	% of Previous year	**% of Current year**
(I) Sales revenue	100.00	100.00
(II) Other incomes	6.00	10.00
(III) Total incomes	106.00	110.00
(IV) Expenses		
(i) Cost of goods consumed	52.00	55.00
(ii) Net purchase	4.00	5.00
(iii) Changes in stock	3.00	(5.00)
(iv) Employees benefit expenses	15.00	15.00
(v) Financial expenses	12.00	10.00
(vi) Depreciation	10.00	12.00
Total expenses	96.00	92.00
(V) Profit before tax	10.00	18.00
(VI) Income tax	3.00	5.40
(VII) Profit after tax	7.00	12.60

12.

Particulars	Note No.	31-3-2017 (₹)	31-3-2016 (₹)	% to sales	
				31-3-2017 (%)	31-3-2016 (%)
1	2	3	4	5	6
(I) Sales revenue		–	–	–	–
(II) Expenses :					
(i) Cost of sales		30,60,000	42,00,000	–	–
(ii) Financial expenses		4,50,000	7,20,000	–	–
(iii) Depreciation		90,000	1,80,000	–	–
Total Expenses		**36,00,000**	**51,00,000**	**–**	**–**
(III) Profit before tax		–	–	–	–
(IV) Less : Income tax (30 %)		2,70,000	2,70,000	6	4.5
(V) Profit after tax		**6,30,000**	**6,30,000**	**14**	**10.5**

13.

Particulars	Note No.	% to Total of Balance Sheet	
		31-3-2016	31-3-2017
(I) Equity - Liabilities :			
Share capital : Equity share capital		41.67	33.33
Preference share capital		–	20.00
General reserve		10	10.67
Profit and loss A/c		10	6
Banl loan		25	20
Short-term liabilities		3.33	8
Other current liabilities		10	2
		100	100
(II) Assets :			
Machines		33.33	20
Land-building		25	33.33
Trademark		5.67	6.67
Goodwill		–	6.00
Non-current investment		25	20.00
Debtors		5	5
Stock		4	5
Cash and cash equivalent		2	4
		100	100

14.

Particulars	Note No.	31-3-2016 (₹)	31-3-2017 (₹)	% to Total of Balance Sheet 31-3-2016	31-3-2017
(I) Share Capital :					
(1) Equity share capital		13,60,000	–	–	40.00
(2) Preference share capital		6,80,000	–	–	20.00
(3) Profit and loss A/c		5,10,000	–	–	16.00
(4) 10 % debentures		6,80,000	–	–	20.00
(5) Trade payables		1,02,000	–	–	2.00
(6) Other liabilities		68,000	–	–	2.00
Total		**34,00,000**	**50,00,000**	**100.00**	**100.00**
(II) Assets :					
(1) Tangible assets		–	17,50,000	30.00	–
(2) Intangible assets		–	15,00,000	20.00	–
(3) Non-current investments		–	11,00,000	25.00	–
(4) Trade receivables		–	1,50,000	10.00	–
(5) Stock		–	4,00,000	7.00	–
(6) Cash - cash equivalent		–	1,00,000	8.00	–
Total		**34,00,000**	**50,00,000**	**100.00**	**100.00**

Exercise 5

1. **Select appropriate option for each question :**

(1) (d) (2) (d) (3) (d) (4) (a) (5) (d) (6) (a) (7) (d)

(8) (b) (9) (d) (10) (d) (11) (d) (12) (a)

4. (i) 30 % (ii) 20 % (iii) Cost of goods sold ₹ 11,50,000, 36.11 %
5. Operating expenses ₹ 1,75,000, Operating ratio 83.33 %
6. Operating expenses ₹ 3,00,000, Operating ratio 76.92 %, Operating profit ratio 23.08 %
7. Net profit after tax ₹ 17,500, Net profit ratio 2.92 % for question no. 5

   Net profit after tax ₹ 6,30,000, Net profit ratio 16.15 % for question no. 6
8. Current Assets ₹ 7,85,000, Current liabilities ₹ 3,50,000; Current ratio 2.24:1

   Liquid assets ₹ 4,25,000, Liquid ratio 1.21:1
9. Debit-equity ratio 1.26, Debt ₹ 12,00,000, Equity ₹ 9,50,000
10. Debt ₹ 14,00,000, Equity ₹ 11,50,000, Debt-equity ratio = 1.22:1
11. Debt ₹ 6,00,000, Equity ₹ 12,00,000, Debt-equity ratio 0.5:1

12. Total assets ₹ 26,00,000, Total assets - Debt-ratio 6.5:1

13. Proprietory funds ₹ 24,00,000, Total assets ₹ 36,00,000, Proprietory ratio = 0.66:1

14. Profit before tax ₹ 13,20,000, Interest ₹ 3,20,000, Interest coverage ratio = 4.125 times

15. Cost of goods sold ₹ 21,00,000, Average stock ₹ 3,00,000, Stock turnover 7 times

16. Cost of goods sold ₹ 26,00,000, Average stock ₹ 1,75,000, Stock turnover 14.85 times

17. Working capital ₹ 2,00,000, Working capital turnover (Based on cost of goods sold), ₹ 16 times
Working capital turnover (Based on sales) 20 times

18. Debtors turnover 5 times, Collection period 72 days, 10.4 weeks, 2.4 months

19. Creditors turnover 6 times, Payment period 60 days, 8.66 weeks, 2 months

Exercise 6

1. **Select appropriate option for each question :**

(1) (c)	(2) (a)	(3) (c)	(4) (a)	(5) (a)	(6) (d)	(7) (c)
(8) (a)	(9) (d)	(10) (c)	(11) (d)	(12) (d)	(13) (c)	

15. Cash flow from operating activities ₹ 1,79,000

16. Profit (cash flow) before changes in working capital ₹ 41,000;
Cash flow from operating activities ₹ 1,01,000

17. Profit (cash flow) before changes in working capital ₹ 91,000,
Cash flow from operating activities ₹ 34,000

18. Cash flow from investing activities (₹ 1,05,000) (Cash outflow)

19. Purchase of machine ₹ 2,00,000, Depreciation provision ₹ 30,000, Cash flow from investing activities ₹ 53,000

20. Cash flow from financing activities ₹ 91,000, Dividend - interest received, purchase of land, sale of furniture, purchase of machine, interest received on investments, payment for patents are investing activities.

21. Cash flow financing activities ₹ 14,000

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