



**S.Y.B.COM.
(ACCOUNTING & FINANCE)
SEMESTER - IV**

**MANAGEMENT ACCOUNTING
(INTRODUCTION TO
MANAGEMENT ACCOUNTING)**

SUBJECT CODE : UA_FFSIV.2

Prin. Dr. Ajay Bhamare Offg. Pro Vice-Chancellor, University of Mumbai	Prof.(Dr.) D. T. Shirke Offg. Vice-Chancellor, University of Mumbai
	Prof. Prakash Mahanwar Director, IDOL, University of Mumbai

Programme Co-ordinator	: Prof. Rajashri Pandit Asst. Prof. in Economic, Incharge Head Faculty of Commerce, IDOL, University of Mumbai, Mumbai
Course Co-ordinator	: Mr. Vinayak Vijay Joshi Asst. Professor in Accountancy IDOL, University of Mumbai, Mumbai
Editor	: Dr. Neha Bhatia Assistant Professor, PTVA's Institute of Management, ChitrakarKetkar Marg, Vile Parle (E), Mumbai
Course Writer	: Mr. Vinayak Joshi Assistant Professor, IDOL, University of Mumbai, Mumbai
	: Dr. Prakash Rodiya Rajarshi Shahu Mahavidyalaya, Autonomous, Chandra Nagar, Latur
	: Ms. Priya Shetty Ramniranjan Jhunjhunwala College, Ghatkopar (West) Mumbai
	: Ms. Samina Shaikh Assistant Professor, IDOL, University of Mumbai, Mumbai
	: Ms. Shilpi Jain SVKM's Narsee Monjee College of Commerce and Economics, Vile Parle (West), Mumbai
	: Dr. Madhura Kulkarni Asst. Professor in Accountancy, IDOL, University of Mumbai, Mumbai

May 2023, Print - 1

Published by	: Director, Institute of Distance and Open Learning , University of Mumbai, Vidyanagari, Mumbai - 400 098.
---------------------	--

DTP Composed & Printed	: Mumbai University Press Vidyanagri, Santacruz (E), Mumbai - 400098
---------------------------------------	---

CONTENTS

Unit No.	Title	Page No.
1.	Introduction to Management Accounting	1
2.	Analysis of Financial Statements	9
3.	Comparative Statements, Common Size Statements & Trend Analysis Comparative Balance Sheet	65
4.	Ratio Analysis	105
5.	Sources of Finance and Cash Flow Analysis	140
6.	Working Capital Management - I	204
7.	Working Capital Management - II	213



***Revised Syllabus of Courses of B.Com. (Accounting and Finance)
Programme at Semester IV
with Effect from the Academic Year 2022-2023***

1. Elective Courses (EC)

**Management Accounting
(Introduction to Management Accounting)**

Modules at a Glance

Sr. No.	Modules	No. of Lectures
1	Introduction to Management Accounting	05
2	Analysis and Interpretation of Accounts	10
2	Financial Statement analysis: Ratio analysis	15
3	Cash Flow Analysis	15
4	Working Capital Management	15
Total		60

Sr. No.	Modules / Units
1	Introduction to Management Accounting
	Meaning, Features, Scope, Importance, Functions, role of Management Accounting, Management Accounting Framework, Tools, Management Accounting and Financial Accounting
2	Analysis and Interpretation of Accounts
	a) Vertical Forms of Balance Sheet and Profit and Loss Account suitable for analysis b) Trend Analysis. c) Comparative Statement. d) Common Size Statement. NOTE: Practical Problems based on the above (a) to (d)
3	Financial Statement analysis: Ratio analysis
	Meaning of financial Statement Analysis, steps, Objective and types of Analysis. Ratio analysis: Meaning, classification, Du Point Chart, advantages and Limitations. Balance Sheet Ratios: i) Current Ratio ii) Liquid Ratio iii) Stock Working Capital Ratio iv) Proprietary Ratio v) Debt Equity Ratio vi) Capital Gearing Ratio Revenue Statement Ratios: i) Gross Profit Ratio ii) Expenses Ratio iii) Operating Ratio iv) Net Profit Ratio v) Net Operating Profit Ratio vi) Stock Turnover Ratio Combined Ratio i) Return on Capital employed (Including Long Term Borrowings) ii) Return on proprietor's Fund (Shareholders Fund and Preference Capital) iii) Return on Equity Capital iv) Dividend Payout Ratio v) Debt Service Ratio vi) Debtors Turnover vii) Creditors Turnover
4	Cash Flow Analysis
	Preparation of Cash Flow Statement with reference to Accounting Standard No .3. (Indirect method only))
5	Working Capital Management
	A. Concept, Nature of Working Capital , Planning of Working Capital B. Estimation / Projection of Working Capital Requirement in case of Trading and Manufacturing Organization C. Operating Cycle Practical Problems

INTRODUCTION TO MANAGEMENT ACCOUNTING

Unit Structure :

- 1.0 Objectives
- 1.1 Introduction
- 1.2 Meaning and Nature of Management Accounting
 - 1.2.1 Meaning and Definition
 - 1.2.2 Nature of Management Accounting
- 1.3 Function of Management Accounting
- 1.4 Scope of Management Accounting
- 1.5 Difference between Management Accounting and Financial Accounting
- 1.6 Exercise

1.0 OBJECTIVES

After studying the unit the students will be able to:

- Define the term Management accounting.
- Explain the nature and functions of Management Accounting
- Discuss the role of management accountant.
- Explain the difference between Management accounting and financial accounting.
- Understand the limitations of MA.

1.1 INTRODUCTION

Management accounting can be viewed as Management-oriented Accounting. Basically it is the study of managerial aspect of financial accounting, "accounting in relation to management function". It shows how the accounting function can be re-oriented so as to fit it within the framework of management activity. The primary task of management accounting is, therefore, to redesign the entire accounting system so that it may serve the operational needs of the firm. It furnishes definite accounting information, past, present or future, which may be used as a basis for management action. The financial data are so devised and systematically developed that they become a unique tool for management decision.

1.2 MEANING AND NATURE OF MANAGEMENT ACCOUNTING

1.2.1 Meaning and Definition:

The term "Management Accounting", observes Broad and Carmichael covers all those services by which the accounting department can assist the top management and other departments in the formation of policy, control of execution and appreciation of effectiveness.

The Report of the Anglo-American Council of Productivity (1950) has also given a definition of management accounting, which has been widely accepted. According to it, "Management accounting is the presentation of accounting information in such a way as to assist the management in creation of policy and the day to day operation of an undertaking". The reasoning added to this statement was, "the technique of accounting is of extreme importance because it works in the most nearly universal medium available for the expression of facts, so that facts of great diversity can be represented in the same picture. It is not the production of these pictures that is a function of management but the use of them." An analysis of the above definition shows that management needs information for better decision-making and effectiveness. The collection and presentation of such information come within the area of management accounting. Thus, accounting information should be recorded and presented in the form of reports at such frequent intervals, as the management may want. These reports present a systematic review of past events as well as an analytical survey of current economic trends. Such reports are mainly suggestive in approach and the data contained in them are quite up to date. The accounting data so supplied thus provide the informational basis of action. The quality of information so supplied depends upon its usefulness to management in decision-making.

1.2.2 Nature of Management Accounting:

Following points explain the nature of Management Accounting:

1. The term management accounting is composed of 'management' and 'accounting'. The word 'management' here does not signify only the top management but the entire personnel charged with the authority and responsibility of operating an enterprise.
2. The task of management accounting involves furnishing accounting information to the management, which may base its decisions on it.
3. It is through management accounting that the management gets the tools for an analysis of its administrative action and can lay suitable stress on the possible alternatives in terms of costs, prices and profits, etc. but it should be understood that the accounting information supplied to management is not the sole basis for managerial decisions.
4. Along with the accounting information, management takes into consideration or weighs other factors concerning actual execution. For reaching a final decision, management has to apply its common sense, foresight, knowledge and experience of operating an enterprise, in addition to the information that is already has.

5. The word 'accounting' used in this phrase should not lead us to believe that it is restricted to a mere record of business transactions i.e., book keeping only.
6. Management accounting has no set principles such as the double entry system of bookkeeping. In place of generally accepted accounting principles, the philosophy of cost benefit analysis is the core guide of this discipline. It says that no accounting system is good or bad but is can be considered desirable so long as it brings incremental benefits in excess of its incremental costs.

1.3 FUNCTIONS OF MANAGEMENT ACCOUNTING

The basic function of management accounting is to assist the management in performing its functions effectively. The functions of the management are planning, organizing, directing and controlling. Management accounting helps in the performance of each of these functions in the following ways:

1. **Provides data:** Management accounting serves as a vital source of data for management planning. The accounts and documents are a repository of a vast quantity of data about the past progress of the enterprise, which are a must for making forecasts for the future.
2. **Modifies data:** The accounting data required for managerial decisions is properly compiled and classified. For example, purchase figures for different months may be classified to know total purchases made during each period product-wise, supplier-wise and territory-wise.
3. **Analyses and interprets data:** The accounting data is analyzed meaningfully for effective planning and decision-making. For this purpose the data is presented in a comparative form. Ratios are calculated and likely trends are projected.
4. **Serves as a means of communicating:** Management accounting provides a means of communicating management plans upward, downward and outward through the organization. Initially, it means identifying the feasibility and consistency of the various segments of the plan. At later stages it keeps all parties informed about the plans that have been agreed upon and their roles in these plans.
5. **Facilitates control:** Management accounting helps in translating given objectives and strategy into specified goals for attainment by a specified time and secures effective accomplishment of these goals in an efficient manner. All this is made possible through budgetary control and standard costing which is an integral part of management accounting.
6. **Uses also qualitative information:** Management accounting does not restrict itself to financial data for helping the management in decision making but also uses such information which may not be capable of being measured in monetary terms. Such information may be collected from special surveys, statistical compilations, engineering records, etc.

1.4 SCOPE OF MANAGEMENT ACCOUNTING

Management accounting is concerned with presentation of accounting information in the most useful way for the management. Its scope is, therefore, quite vast and includes within its fold almost all aspects of business operations. However, the following areas can rightly be identified as falling within the ambit of management accounting:

1. **Financial Accounting:** Management accounting is mainly concerned with the rearrangement of the information provided by financial accounting. Hence, management cannot obtain full control and coordination of operations without a properly designed financial accounting system.
2. **Cost Accounting:** Standard costing, marginal costing, opportunity cost analysis, differential costing and other cost techniques play a useful role in operation and control of the business undertaking.
3. **Revaluation Accounting:** This is concerned with ensuring that capital is maintained intact in real terms and profit is calculated with this fact in mind.
4. **Budgetary Control:** This includes framing of budgets, comparison of actual performance with the budgeted performance, computation of variances, finding of their causes, etc.
5. **Inventory Control:** It includes control over inventory from the time it is acquired till its final disposal.
6. **Statistical Methods:** Graphs, charts, pictorial presentation, index numbers and other statistical methods make the information more impressive and intelligible.
7. **Interim Reporting:** This includes preparation of monthly, quarterly, half-yearly income statements and the related reports, cash flow and funds flow statements, scrap reports, etc.
8. **Taxation:** This includes computation of income in accordance with the tax laws, filing of returns and making tax payments.
9. **Office Services:** This includes maintenance of proper data processing and other office management services, reporting on best use of mechanical and electronic devices.
10. **Internal Audit:** Development of a suitable internal audit system for internal control.

CHECK YOUR PROGRESS

1. “The basic function of management accounting is to assist the management in performing its functions effectively”. Discuss.
2. Enlist the points explaining the scope of Management Accounting.

1.5 DIFFERENCE BETWEEN MANAGEMENT ACCOUNTING AND FINANCIAL ACCOUNTING

Financial accounting and management accounting are closely interrelated since management accounting is to a large extent rearrangement of the data provided by financial accounting. Moreover, all accounting is financial in the sense that all accounting systems are in monetary terms and management is responsible for the contents of the financial accounting statements. In spite of such a close relationship between the two, there are certain fundamental differences. These differences can be laid down as follows:

Financial Accounting	Management Accounting
1. Objectives	
Financial accounting is designed to supply information in the form of profit and loss account and balance sheet to external parties like shareholders, creditors, banks, investors and Government. Information is supplied periodically and is usually of such type in which management is not much interested.	Management Accounting is designed principally for providing accounting information for internal use of the management. Thus, financial accounting is primarily an external reporting process while management accounting is primarily an internal reporting process.
2. Analyzing performance	
Financial accounting portrays the position of business as a whole. The financial statements like income statement and balance sheet report on overall performance or status of the business. Financial accounting deals with the aggregates and, therefore, cannot reveal what part of the management action is going wrong and why.	Management accounting directs its attention to the various divisions, departments of the business and reports about the profitability, performance, etc., of each of them. Management accounting provides detailed analytical data for these purposes.
3. Data used	
Financial accounting is concerned with the monetary record of past events. It is a post-mortem analysis of past activity and, therefore, out the date for management action.	Management accounting is accounting for future and, therefore, it supplies data both for present and future duly analyzed in detail in the 'management language' so that it becomes a base for management action.

4. Monetary measurement	
In financial accounting only such economic events find place, which can be described in money.	Management is equally interested in non-monetary economic events, viz., technical innovations, personnel in the organization, changes in the value of money, etc. These events affect management's decision and, therefore, management accounting cannot afford to ignore them.
5. Periodicity of reporting	
The period of reporting is much longer in financial accounting as compared to management accounting. The Income Statement and the Balance Sheet are usually prepared yearly or in some cases half-yearly. Management requires information at frequent intervals and, therefore, financial accounting fails to cater to the needs of the management.	In management accounting there is more emphasis on furnishing information quickly and at comparatively short intervals as per the requirements of the management.
6. Nature	
Financial accounting is more objective.	Management accounting is more subjective because management accounting is fundamentally based on judgment rather than on measurement.
7. Legal compulsion	
Financial accounting has more or less become compulsory for every business on account of the legal provisions of one or the other Act.	A business is free to install or not to install system of management accounting.

1.6 EXERCISE

1. What are the functions of a management accounting? Elaborate each one of them.
2. Distinguish management accounting from financial accounting.
3. Objective Type Questions:

a. Match Group A With Group B

Group A		Group B	
a)	Financial Accounting	1.	Function of management accounting
b)	Reports of Management	2.	Mandatory
c)	Management Accounting	3.	Technique of management
d)	Collection of data	4.	Future oriented
e)	Reports of Financial Accounting	5.	Optional
f)	Budgetary Control	6.	Historical Data

Ans. a – 6 ,b –5 , c- 4 , d-1 , e – 2 , f -3

b. Fill in the Blanks with proper words / phase.

1. Inventory control is _____ in management accounting.
2. Financial accounting deals with _____ data.
3. Management accounting is _____ oriented.
4. There is no legal format for management accounting_____.
5. In management accounting publication of reports is _____.
6. Management account is _____ in nature.

(Answer: 1. Included, 2. Historical, 3. Future, 4. Reports, 5. Optional, 6. Analytical)

c. State whether following statement are True or False.

1. Management accounting is analytical in nature.
2. Management accounting is dynamic.
3. Management accounting provides decisions to the management.
4. Management accounting is future oriented.
5. Management accounting includes Standard Costing.
6. Financial Accounting is future oriented.

(Answer: 1. True 2.True 3. False 4. True 5. True 6. False)

d. Multiple Choice Questions.

1. Financial accounting records only

- a) Actual Figures
- b) Budgeted figures

- c) Standard Figures
- d) All of the above

2. The use of management accounting is

- a) Mandatory
- b) Optional
- c) Compulsory
- d) All of the above

3. Management Accounting includes

- a) Financial Accounting
- b) Cost Accounting
- c) Budgetary control
- d) All of the above

4. Management Accounting is

- a) Analytical
- b) Future oriented
- c) Dynamic
- d) All of the above

5. Financial Accounting deals with

- a) Determination of cost
- b) Determination of profit
- c) Determination of prices
- d) None of the above

6. Management accounting relates to

- a) Recording of accounting data
- b) Recording of costing data
- c) Presentation of accounting data
- d) None of the above

(Answer: 1. a, 2. b, 3.d, 4.d, 5. b, 6.c)



ANALYSIS OF FINANCIAL STATEMENTS

Unit Structure:

- 2.0 Learning Objectives
- 2.1 The Financial Statements
- 2.2 Need and Importance of Financial Statement
- 2.3 Analysis and Interpretation
- 2.4 Balance Sheet
- 2.5 Income Statement

2.0 LEARNING OBJECTIVES

After studying the unit, the students will be able to:

- Understand the objectives and nature of Financial Statements.
- Know the characteristics of Financial Statements.
- Discuss about the qualities of Ideal Financial Statements.
- Interpret the financial statements.

2.1 THE FINANCIAL STATEMENTS

(i) "Financial Statements" is a set of documents consisting of:

- (a) **Balance Sheet** as on date - shows position of assets and liabilities as on date.
- (b) **Profit and loss** account- shows profit or loss for the period.
- (c) **Cash Flow Statement**- wherever applicable
- (d) **Statements and Explanatory Notes** – part of balance sheet
- (e) **Supplementary Schedule and Information**

(ii) The financial statements help one to realize,

- the progress made by a business,
- the resources utilized by the business or
- the failure suffered by a business.

(iii) Financial statement does not include

- Report by directors
- Statement by the chairman
- Management discussion & analysis report (MDAR)

2.2 NEED AND IMPORTANCE OF FINANCIAL STATEMENT

The users of these financial statements need to have an honest assurance that the statements have been properly

- a. Compiled,**
- b. Prepared, and**
- c. Presented.**

They want a reasonable degree of assurance as regards the reliability and accuracy of the financial statement.

Limitations of Financial statements:

The company releases financial statements, and hence the obvious limitation is that the information an analyst gets is limited to what the company wants to show and how it plans to manipulate the information.

Limitations of Financial Statements:

Interim

1. Only Interim Reports:

The data in financial statements is based on approximation and do not give a clear picture. The actual results can only be known in condition of sale or liquidation of business. Generally statements are prepared for different accounting period say yearly, during the lifetime of concern. Cost and income be apportioned to different periods with a view to determine profits etc.

Accountant, on his personal judgement do allocation of income and expenses. The existence of contingent assets and liabilities also make statements imprecise. So financial statements do not actual picture and at the most they are interim reports

2. Exact position not known:

The financial statements are expressed in monetary terms, so they tend to give final and accurate position. The fixed asset value in the balance sheet neither represents the value for which fixed assets can be sold nor the amount which will be required to replace these assets. The balance sheet is prepared on the presumption of a going concern.

So, fixed assets are shown at cost less accumulated depreciation. There are certain assets in the balance sheet such as preliminary expenses, goodwill, discount on issue of shares which will realize nothing at the time of liquidation though they are shown in the balance sheet.

3. Historical cost:

The financial statements are prepared on the basis of historical costs or original costs. The diminishing value in asset is not accounted for. The statements are not prepared keeping in view the present economic conditions.

The balance sheet loses the significance of being an index of current economic realities. Similarly, the profitability shown by the income statement may not represent the earning capacity of the concern. The increase in profits may be due to an increase in prices or due to some abnormal causes and not due to increase in efficiency. The conclusions drawn from financial statements may not give a fair picture of the concern

4. Non-monetary factors impact left unseen:

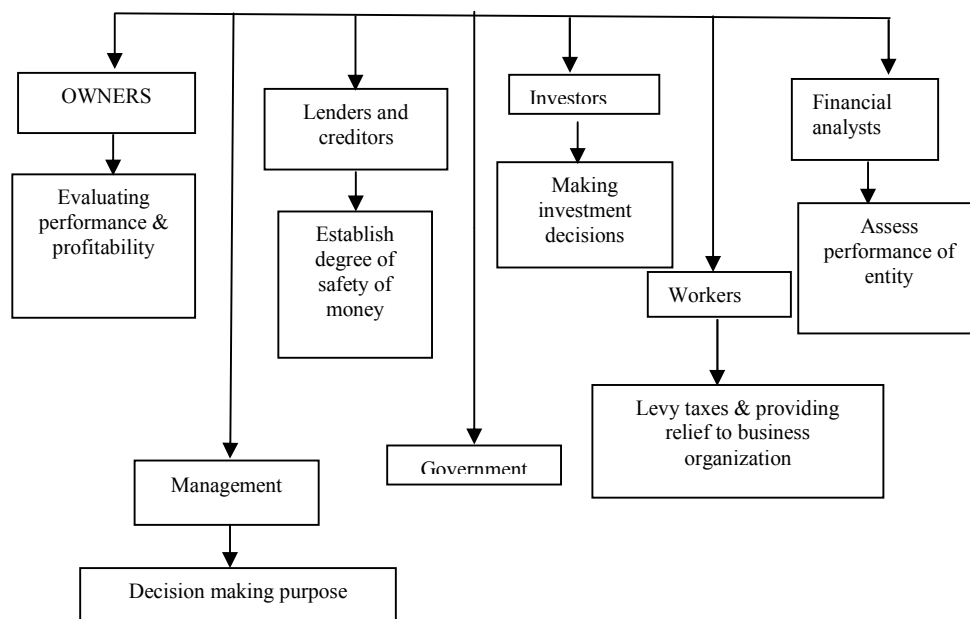
There are certain factors which have a relevance on the financial position and operating results of the business but they do not become a part of these statements because they cannot be measured in monetary terms.

Such factors may include the management reputation credit worthiness of the concern, sources and commitments for purchases and sales, co-operation of the employees, etc. The financial statements only show the position of the financial accounting for business and not the financial position.

5. No precision in Financial Statements:

There is no possibility in precision of financial statements because the statements deal with matters which cannot be precisely stated. The data are recorded by conventional procedures followed over the years. Various conventions, postulates, personal judgments etc. are used for developing the data.

USERS AND THEIR PURPOSE



2.3 ANALYSIS AND INTERPRETATION

(1) Need for Analysis and Interpretation : A typical Financial Statement of a company may run into many pages. It normally contains a huge mass of data and figures. A common user would be at a loss to understand which figures are important and what is the exact significance of all the figures shown in the Financial Statements. The Financial Statements are basically prepared for the owners or managers and outsiders such as Creditors, Lenders or researchers have re-organise the figures appearing in the Financial Statements for the purpose of their study.

(2) Meaning of Analysis: 'Analysis' means : to resolve something into its elements or components, For an outside user, the details in the Financial Statements signify only raw data or 'raw material'! This raw material' needs to be re-organised, processed and converted into an easy to understand form. The process of breaking up a large mass of raw data into manageable form is called "analysis" of the Financial Statements.

(3) Financial Statement Analysis: Financial statement analysis is a process of evaluating the relationship between the component parts of a financial statement to obtain a better understanding of a firm's financial position and performance (Metcalf and Tigard). Analysis of Profit and Loss Account, therefore, means breaking down the Profit and Loss Account into its various components or segments i.e. Gross Sales, Net Sales, Cost of Goods Sold, Operating Profit and so on. This is done by converting the T Form Profit and Loss Account into a Vertical Income Statement. Analysis of Balance Sheet means breaking down or "analysing" the Funds into Total Funds Available and Total Funds Employed. The Total Funds Available are further broken down into Owners' Funds and Loan Funds. The Total Funds employed are broken down into Fixed

Assets and Working Capital. This is done by converting the T Form Balance Sheet into a Vertical Balance Sheet.

2.4 BALANCE SHEET

ASSETS

Definitions

(1) Expenditure means a payment made by a business to obtain some benefit i.e., assets, goods or services (Guidance Note - ICAI). While an expenditure on obtaining goods or services by a concern in the course of its business activity is known as revenue expenditure, an expenditure in the course of its investing activity (obtaining an asset) is known as capital expenditure.

(2) Capital expenditure means an expenditure carrying probable future benefits (Guidance Note. ICAI. Capital expenditure gives rise to 'assets'.

Types and Valuation:

Following are the different types of assets as defined by the ICAI in its Guidance Note, and the mode of valuation:

1. 'Assets' are tangible objects or intangible rights, owned by a concern, carrying probable future benefits. Thus, assets include tangible items (capital assets, current assets) and intangible rights (intangible assets).
2. 'Capital assets' means assets including investments not held for sale, for consumption or consumption in the ordinary course of business. Capital assets thus include fixed assets and investments.
3. 'Capital work-in-progress means expenditure on capital assets which are under construction or completion. It is valued at cost incurred till date.
4. Current assets are cash and other assets that are (i) expected to be converted into cash or (ii) consumed in the production of goods or rendering of services in the normal course of business. Thus, current assets, as opposed to capital assets, are short-term assets (debtors, stock etc.. Debtors and stocks are shown at their Net Realisable Value, if and only if, it is lower than cost.
5. Fixed asset is an asset held for the purpose of providing or producing goods or services, and which is not held for resale in the normal course of business. Fixed assets may be either depreciable assets (machinery etc.) or wasting assets (mines etc.). Fixed assets are valued at cost incurred upto installation, i.e. Invoice price + Tax + Delivery charges + Installation cost + Cost of trial runs + Initial spares.
6. 'Depreciable asset' is a fixed asset which has a limited useful life. These are valued at the WDV (Cost less Depreciation).

7. Wasting assets' are natural resources like mine, oil-well etc. which are exhausted or depleted due to extraction or use. These are valued at WDV (Cost less amount amortised).
8. Investment' is expenditure on assets held, not for business operations, but to earn interest, income, profit or other benefits e.g. shares, debentures, immovable properties etc. Investments are normally valued at cost.
9. Intangible asset' is an asset which does not have a physical identity e.g. goodwill, patent, copyright etc. Intangible assets are valued at WDV (cost less amount amortised).
10. 'Fictitious asset' is an item shown under assets in the balance sheet which has no real value (e.g. debit balance of profit and loss account which indicates accumulated losses) (In) Hidden assets do not appear on the balance sheet. Examples are : self created good will, assets Written off in books but still in use, options on lease, exclusive trading agreements, secret process or designs and so on. Hidden assets are like 'secret reserves'

Deferred Revenue Expenditure:

1. **Meaning:** Deferred Revenue Expenditure' is that expenditure which is carried forward on the presumption that it will be of benefit over subsequent period(s) (Guidance Note-ICAI. It is also known as "deferred expenditure'. To defer' means to postpone. Deferred revenue expenditure has a mixed nature and has some features of both revenue and capital expenditure. It may be either a basically revenue expenditure whose benefits can be enjoyed for a number of years; or a capital expenditure not represented by any real asset.
2. **Accounting :** The items of expenditure having medium term benefits (say 3 years) are treated as deferred revenue expenditure. The proportionate cost (1/3 cost) related to current year is charged as expenses. The balance (unexpired) cost (2/3) is carried forward as "fictitious asset' in the balance sheet and written off in next years. Such gradual and systematic writing off is known as 'amortisation' (Guidance Note -ICAL).
3. **Applicable Only to Companies :** Earlier, research expenses, heavy advertisement expenditure, preliminary expenses, expenses on shifting the business etc. used to be treated as deferred revenue expenditure and written off over 3 to 5 years. However, Accounting Standard 26 (Intangible Assets) requires that such items should be treated as revenue expenses. However, according to the ICAI Guidance Note on Revised Schedule VI to the Companies Act, a Limited Company may treat the following as deferred revenue expenditure - (1) Share issue expenses (2) Discount on issue of Shares (3) Debenture issue expenses (4) Discount on issue of debentures, and (5) Premium payable on redemption of debentures. Many companies amortize share issue expenses, discount on shares etc. over the period of benefit, i.e.,

normally 3 to 5 years. Expenses on issue, discount or premium relating to debentures can be amortized over the period of debentures. Proportionate amount related to current year is charged as expenses in the profit and loss statement of the company. Balance amount not yet written off is shown as 'Unamortized Expenditure' on the Assets side of the company balance sheet.

LIABILITIES:

Definitions:

Capital means the amounts invested in the concern by its owners e.g. paid-up capital in a corporate enterprise. It is also used to refer to the interests of the owners in the assets of the enterprise (ICAI). Capital is refunded to the owners only when the concern finally stops its business and is closed.

Liability means the financial obligation of an enterprise other than owner's funds (ICAN).

Long term (Non-current) Liability is a liability which does not fall due for payment in a short period i.e. twelve months (ICAI). Current Liability is a liability including loans, deposits and bank overdraft which falls due for payment in a relatively short period, normally not more than 12 months (ICAL).

Disclosure in Final Accounts:

Capital and Liabilities are shown in Balance Sheet. Capital receipt from sale of asset or

Investment is deducted from the concerned fixed asset or investment shown on the Assets side in the balance

CONVENTIONAL OR T'FORM:

The conventional form of Balance Sheet (also called the T form or the Account form), shows the Assets on the right hand side and the Liabilities on the left hand side.

In this form the Assets are normally shown in order of Permanence. The least Liquid assets, i.e. the fixed Assets are shown First, followed by the most Liquid assets, i.e. the current assets: [Even under cash head, items of assets are arranged in the order of Permanence e.g. under Current Assets, stocks appear first and Cash & Bank balance which is the most liquid, appears last]. The Liabilities are shown in order of priority of amount. Permanent Liabilities (e.g. Capital) are shown first followed by long term Loans and short term Loans. Current Liabilities appear last. This form is used by non-corporates e.g. sole trader or firm. Thus, the Balance Sheet in conventional form appears like this:

EXHIBIT 1 : BALANCE SHEET IN 'T' FORM

Liabilities	₹	Assets	₹
Capital	XX	Fixed Assets	XX
Reserves & Surplus	XX	Investments	XX
Long term Loans	XX	Current Assets	XX
Short term Loans	XX	Loans and Advances	XX
Current Liabilities	XX		
Provisions	XX		
	XX		XX

Note: If the items are shown in order of liquidity, the above sequence is reversed. On the assets side, current assets are shown first, followed by fixed assets. On the liabilities side, current liabilities are shown first, followed by short term loans, long term loans and capital.

NEED FOR VERTICAL FORMAT:

The horizontal format of Balance Sheet is designed from the point of view of the owner of a concern. It enables the owner to know at a glance the amount of Total Funds Owned (Total Assets) and the amount of Total Funds Owed (Total Liabilities). It also enables the owner to know which assets will take time to sell (Fixed Assets) and which assets can be realised quickly (Current Assets). The order of payment of liabilities in the event of Liquidation can also be ascertained from such a Balance Sheet in conventional form.

However, the Conventional Form of Balance Sheet is not suitable for financial analysis, precisely because.

- (1) It is designed for the owner. It does not serve the purpose of the other users such as a potential investor or lender.
- (2) Its presentation and sequence or order of items is relevant only in the event of Liquidation; it is unsuitable for financial analysis of a 'going concern'.

Hence, a user or Financial Analyst, generally converts the horizontal Balance Sheet, into a Vertical Format, which is more suitable for financial analysis especially in Ratio Analysis. Even the vertical financial statements for a limited company prepared under Schedule VI of the Companies Act need to be converted into the following format for financial analysis. The Balance Sheet in Vertical Format for financial analysis will appear as follows :-

VERTICAL FORMAT:
WORKSHEET 2 : VERTICAL BALANCE SHEET (DETAILED ITEMS)

	Particulars	₹	₹	₹
I	SOURCES OF FUNDS			
1	Owner's Funds			
A	<u>Capital</u>			
i	Equity Share Capital / Capital of Proprietor or Partner	XX		
ii	Preference Share Capital Amount Subscribed / Called-up	XX		
iii	Less : Unpaid Calls / Drawings of Proprietor or Partner	XX		
iv	Add : Forfeited Shares / Fresh Capital by Prop. / Partner	XX		
v	Add : Received Against Share Warrants	XX	XX	
B.	<u>Reserves and Surplus</u>			
i	Capital Reserve	XX		
ii	Capital Redemption Reserve	XX		
iii	Share Premium	XX		
iv	General Reserve	XX		
v	Other Reserve	XX		
vi	Profit & Loss A/c - Cr. balance	XX		
vii	Sinking Funds / Other Funds	XX	XX	
C.	<u>Less : Losses & Fictitious Assets</u>			
i	Profit & Loss A/c - Dr. balance	XX		
ii	(in) Misc. Expenditure not written off	XX		
iii	Share Issue Expenses	XX		
iv	Discount on Issue of Shares	XX		
v	Debenture Issue Expenses	XX		
vi	Discount on Issue of Debentures	XX		
vii	Premium Payable on Redemption of Debentures	XX	XX	
	Own Funds or Net Worth (1) (A+B-C)			XX
	(Capital + Reserves & Surplus - Losses & Fictitious Assets)			

2	Loan Funds/Borrowed Funds			
D.	<u>Secured Loans / Long Term Borrowings</u>			
	Debentures or bonds	XX		
	Loans from Banks	XX		
	Loans from Financial Institutions	XX	XX	
E.	<u>Unsecured Loans</u>			
	Public Deposits	XX		
	Loan from Directors	XX	XX	
	Owed Funds (D + E) (Secured Loans + Unsecured Loans)			XX
	Total Funds Available / Capital Employed			XX
	(Own Funds + Owed Funds) (1 + 2)			
II	APPLICATION OF FUNDS			
3	<u>Net Fixed / Non-Current Assets</u>			
F.	Tangible	XX		
	Land and building	XX		
	Leaseholds	XX		
	Plant and Machinery	XX		
	Furniture and Fittings	XX		
	Vehicles	XX	XX	
G.	Intangible			
	Goodwill	XX		
	Patents, copyrights, trademarks and designs	XX	XX	
	Total Fixed Assets (F + G)			XX
	(Net Tangible Assets + Intangible Assets)			
4	Long Term / Non-current Investments			
	Investments in Government Securities		XX	
	Shares, Debentures etc.		XX	
	Less: Sinking Funds / Other Funds / Investments		XX	
	Investments in immovable properties		XX	
	Investments in Capital of Partnership Firms		XX	
	Long Term Loans given		XX	XX

5	Working Capital			
H.	Quick Assets			
a	Cash and Bank	XX		
b	Debtors (Net) / Trade Receivables	XX		
c	Bills Receivable	XX		
d	Short Term Loans & Advances Given	XX		
e	Accrued Income	XX		
f	Short-term or Marketable Investments	XX		
	Total Quick or Liquid Assets (a to f)	XX		
I	Non-Current Assets	XX		
g	Inventory	XX		
h	Pre-payments (pre-paid expenses, advance for goods, advance tax)	XX	XX	
	Current Assets (a to h)			
Les				
S:				
J.	Quick Liabilities			
a	Creditors / Trade Payables	XX		
b	Bills Payable	XX		
c	Advances Received	XX		
d	Outstanding Expenses	XX		
e	Accrued Interest	XX		
f	Provision for Tax	XX		
g	Unclaimed Dividend	XX		
h	Short Term Loans	XX		
	Total Quick Liabilities (a to h)	XX		
K.	Non-Quick Liabilities			
i	Bank Overdraft	XX		
j	Cash Credit	XX		
k	Incomes received in advance	XX		
	Current Liabilities (a to k)		(XX)	
	Net Current Assets or Working Capital (A - B)			XX
	Total Assets or Total Funds Employed			XX
	(Fixed Assets + Investments + Working Capital)			
	(3 + 4 + 5)			

Notes:

- (1) Thus, a Vertical Analytical Balance Sheet differs from a Horizontal Balance Sheet in following respects
 - (a) Current Liabilities are deducted from the Current Assets;
 - (b) Fictitious Assets are deducted from the Owners' Funds. This should be kept in mind while converting a Horizontal Balance Sheet into a Vertical Balance Sheet.
- (2) At times, Application of Funds (FA and WC) is shown first, followed by Sources of Funds (OF and LF).

EXPLANATION (MAIN HEADINGS):

The vertical form has two parts - I. Source of Funds and II. Application of Funds.

I. SOURCES OF FUNDS:

A concern has two main sources of funds - 1. Own Funds and 2. Loan Funds.

1. Proprietors' or Own Funds of:

Proprietors' or Own Funds (or internal sources) mean (a) capital of the owners (proprietor, partners, or shareholders) and (b) Retained Earnings (or Reserves & Surplus). To arrive at the Net Worth or Owners' Funds, Capital and Reserves are added and the accumulated losses and fictitious assets are deducted. The accumulated losses (Profit and Loss A/c - Dr. balance) and fictitious assets (Misc. Expenditure Not Written off) reduce the amount of funds available or attributable to the owners and hence have to be deducted to ascertain the owners' net worth.

2. Borrowed or Loan Funds [LF]:

Borrowed or Loan Funds (Long Term Borrowings) constitute another major source of funds. Loan funds may be (a) Secured Loans like Debentures, bonds, Loans from banks, loans from financial institutions, or (b) Unsecured Loans e.g. public deposits. The total of Secured Loans and Unsecured Loans give the total amount of Loan Funds or 'Owed' funds.

Total Funds Available: The total of Own Funds and Owed Funds is the total amount of Funds Available to the concern as on date of the Balance Sheet. How these funds were actually employed or used is shown in the second part of vertical Balance Sheet, viz. Application of Funds.

II. APPLICATION OF FUNDS:

The Total Funds Available are used to finance 1. Fixed Assets and 2. Net Current Assets (called Working capital).

1. Fixed Assets [FA]:

The Fixed Assets (also known as Non-Current Assets) may be classified into Tangible, Intangible and Investments.

A. Tangible Assets have definite physical existence. ('Tangible' means that which can be 'touched'). Thus Land, Building, Machinery, Vehicle are tangible fixed assets. These are shown at net cost, i.e. cost less depreciation.

B. Intangible Assets cannot be seen (or 'touched'), but do earn income for the concern-such as Goodwill, Trade-mark etc.

Net Fixed Assets mean Fixed Assets less accumulated depreciation thereon till date (ICAN).

2. Long Term or Trade Investments

Long term or trade investments are those investments which are intended to be held for a long term (such as investments in immovable properties) or those which are held in the normal course of business (e.g. investment in the capital of a partnership firm). Investments in Government Securities shares, bonds, etc. may be Long Term or Short Term depending upon the circumstances.

3. Working Capital [WC]:

Working Capital is represented by. the excess of current assets over current liabilities including short-term loans (ICAD). It means the funds available for conducting the day-to-day operations of the enterprise.

A. Current Assets [CA] : Investments in Fixed Assets is a permanent or long-term investment. A concern also has circulating funds, i.e. short-term assets like stock, debtors, etc. called current assets. These assets keep getting converted into cash. Those current assets which can be quickly converted into cash are called Liquid or Quick Assets.

B. Current Liabilities [CL]: Current Liabilities, on the other hand, are short-term liabilities payable within a year. These arise out of purchase of goods on credit, outstanding expenses etc. The excess of current assets over current liabilities is called Net Current Assets or Working Capital.

Total Fund or Capital Employed [CE]:

Capital Employed means the finances deployed by an enterprise in its Net Fixed Assets, Investments and Working Capital (ICAI).

The amount of Total Funds used or employed is equal to Net Fixed Assets + Working Capital.

(a) Vertical Balance Sheet structure can be analysed through the following equations:

- (1) $\text{Own Funds} + \text{Loan Funds} = \text{Fixed Assets} + \text{Investments} + \text{Working Capital}$ or $\text{OF} + \text{LF} = \text{FA} + \text{Inv.} + \text{WC}$
- (2) $\text{TA (Total Assets)} = \text{FA} + \text{Inv.} + \text{CA} = \text{TL (Total Liabilities)} = \text{OF} + \text{LF} + \text{CL}$
- (3) $\text{CE (Capital Employed)} = \text{FA} + \text{WC} = \text{FA} + (\text{CA} - \text{CL}) = \text{OF} + \text{LE}$
- (4) $\text{OF (Owners' Funds)} = \text{TA} - \text{CL} - \text{LF}$

The items to be included under each of the above main headings are described in detail below.

EXPLANATION (DETAILED ITEMS)

I. SOURCES OF FUNDS

1. Proprietors' Funds:

A. Capital:

Capital refers to the amount invested in an enterprise by its owner. It also refers to the interest of the owners in the assets of an enterprise (Guidance Note on Terms used in Financial Statements -ICAI henceforth mentioned as "GN by ICAI".)

In case of a Proprietor, Capital would be equal to
Opening Balance

Add Profit during year
Additional Capital brought in during year

Less Loss during year
Drawing during year
Closing Balance.

In case of a firm, capital would be the total of the closing balances of the Capital Accounts, determined as above, for all partners.

In case of a Limited Company; Capital would include (i) Equity Share Capital and (ii) Preference Share Capital. Under each type of share capital, the amount paid-up is shown. The paid-up amount is equal to Called up Amount Less Unpaid Calls Plus Forfeited Shares. Money received against share warrants (to be converted into shares) is also part of shareholders' funds.

B. Reserves & Surplus:

Reserves means the profit retained or ploughed back in business and not distributed as dividends. Reserves are defined as the portion of the earnings receipts or other surplus of an enterprise (whether capital or revenue appropriated by the management for a general or specific purpose (GN by ICAI).

(i) Capital Reserves: Capital Reserves are those reserves of a company which are not available for distribution as dividend (GN by ICAN. These are not created out of normal business profits of the company. They are

created out of premium received on issue of shares, profit on sale of fixed assets. Capital redemption reserve (reserve created on redemption of preference shares), profit on forfeiture of shares etc. These are not available for payment of dividends.

(ii) General Reserve: General Reserve is a Revenue Reserve not earmarked for any specific purpose (GN by ICAD. This represents undistributed normal profits of the company. Profits may be distributed by way of dividends or retained by way of reserves.

(iii) Funds: Fund is a Reserve or a Provision represented by specifically earmarked asset (GN by ICAD. A Fund as Sinking Fund, Provident Fund, or Staff Benefit Fund denotes that the amount shown under that Fund has been invested in specific (earmarked) securities. In a vertical balance sheet, the amount of such earmarked investments is adjusted against the amount of Fund and only the net amount (Fund less Investment), is shown under 'reserves

C. Losses and Fictitious Assets: The accumulated losses (Profit & Loss Account - Dr. balance) and Fictitious Assets, i.e. Misc Expenditure Not Written off are shown on the Assets side of the conventional balance sheet. However, in the Vertical balance sheet, these are deducted from the total of (a) Capital and (b) Reserves & Surplus to determine the net Equity or net Worth. These include- (i) Profit & Loss A/c - Dr. balance (ii) Miscellaneous expenses not written off (also known as Unamortized Expenses) –

- (1) Share issue expenses
- (2) Discount on issue of Shares
- (3) Debenture issue expenses
- (4) Discount on issue of debentures, and
- (5) Premium payable on redemption of debentures.

Net Worth, also known as Shareholders Funds, means the excess of the book value of the assets (other than fictitious assets) of an enterprise over its liabilities (ICAI). Net worth is the same as Owners Funds or Proprietors Funds. Owners' Funds = Capital + Reserves & Surplus - Losses & Fictitious Assets

2. Loan Funds:

Loan or Liability means the financial obligation of an enterprise other than owner's funds (GN by ICAI). These are the long-term Borrowings.

This is the Second Source of finance for a concern. The distinction between the Proprietors Funds (own Funds) and the Loan Funds (owed Funds) is as follows:

EXHIBIT 2: OWN FUNDS VS. OWED FUNDS

No.	Own Funds	Owed Funds
1	Internal source of finance	External source of finance.
2	Represents claim of outsiders on the assets of the concern.	Represents claims of owners on the assets of the concern.
3	Own Funds i.e. Capital earns dividends.	Owed Funds, i.e. Loans earn interest
4	Dividends are paid out of profits ('appropriations out of profits') and the rate may vary.	Interest is charged against profits (i.e. paid irrespective of profit or loss), at a fixed rate
5	In liquidation, own funds are returned last. Hence Own Funds are called 'Permanent Funds.'	In Liquidation, Owed Funds are repaid before capital. Even otherwise, loans have to be repaid according to the terms of the agreement. Hence, Owed Funds are called 'Semipermanent Funds.'
6	Own Funds are not 'secured' by charge on assets.	Loans may be secured by charge on Fixed or Current Assets.

A. Secured Loans:

Loans may be for Secured or Unsecured.

Secured loans (also called Fixed Liabilities) consist of:

(i) **Debentures** or Bonds repayable after a fixed period.

(ii) Bank Loans

(iii) Loans from Financial Institutions

B. Unsecured Loans:

Public Deposits are deposits kept by public for a fixed period which are unsecured. All Loans, other than Secured Loans, would be shown as Unsecured Loans.

(1) Total Owed Funds = Secured Loans + Unsecured Loans

(2) Total Funds Available = Own Funds + Owed Funds

I. APPLICATION OF FUNDS

1. Fixed Assets:

Following items are included under Fixed Assets (also known as Non-Current Assets):

A. Tangible Assets (at cost less depreciation)

- (i) Land and Buildings
- (ii) Leasehold Property
- (iii) Railway Sidings
- (iv) Plant & Machinery
- (v) Furniture & Fittings
- (vi) Development of Property
- (vii) Live Stock
- (viii) Vehicles etc.

B. Intangible Assets:

- (i) Goodwill
- (ii) Patents, Copyrights, Trade-marks and designs

Fixed Assets = Tangible Assets (net cost) + Intangible Assets

2. Long Term Investments:

Investments may be long-term or short-term. If for example, bonds of an Electricity Undertaking have to be compulsorily purchased so as to obtain power connection, these will be held as long as the concern exists. Hence these will be Long Term Investments. If any investment represents a Fund shown under Reserves (e.g., Provident Fund Investment), it is adjusted against the balance of the Fund. If the net balance is Debit (i.e., Investment exceeds Fund), only the net Dr. is shown as Investment; if the Fund exceeds Investment the net Cr. balance is shown under Reserves. Short Term Investments are shown as a part of Current Assets.

3. Working Capital:

Working Capital means the net current assets or the excess of Current Assets over Current Liabilities.

A. Current Assets:

Current Assets (or Floating Assets) mean those assets which move through the operating cycle of the business viz. through the stages of purchase of raw materials (Stock) production of finished goods (Stock) sales of goods (Cash/Debtors) Realisation of Debtors (cash) and so on. Current assets mean the assets like stock, debtors and cash which move in a cycle. Thus stock is converted by sales into debtors, debtors get converted by

realisation of dues into cash, cash is used for buying goods and again the cycle is repeated. Current assets are short term assets unlike fixed assets which are long term assets.

The following items are included under Current Assets:

(a) Stock

1. Stores and spare parts
2. Stock-in-trade

(Raw Materials - Finished Goods + Packing Materials)

3. Work-in-progress.

(b) Debtors

Gross amount

Less : Provision for bad & doubtful debts

(c) Cash and Bank

1. Cash on hand
2. Bank balances
3. Cash Equivalents e.g. liquid deposits

(d) Loans & Advances Given

1. to subsidiaries
2. to firms etc.

(e) Marketable Investments i.e. temporary investments made out of surplus funds.

(f) Other Current Assets

1. Interest accrued on investments
2. Loose tools
3. Bills of exchange
4. Pre-payments (pre- paid expenses, advance for goods, advance tax paid)
5. Balances with customs. Port trust etc. (Payable on demand).

Thus,

Current Assets = Stock + Debtors + Cash and Bank + Loans & Advances +
Marketable Investments + Other Current Assets

Quick Assets :

Quick assets are the following items of Current Assets, which are 'quickly realisable'-

- (a) Cash & Bank
- (b) Debtors (net) / Trade Receivables
- (c) Bills Receivable
- (d) Loans
- (e) Marketable (Current / Short-term) Investments
- (f) Other e.g. Accrued Income

Or

Quick Assets = Current Assets Less Inventories & Pre-payments

(Note: Pre-payments : Pre-paid Expenses, Advances for Goods & Advance tax)

B. Current Liabilities:

Current Liabilities include the following items

- (a) Sundry creditors for supply of goods or services (Trade Payables).
- (b) Bills Payable
- (c) Advances Received
- (d) Outstanding expenses
- (e) Accrued Interest
- (f) Provision for tax
- (g) Unclaimed Dividends
- (h) Short Term Loans

Notes :

- (1) Current maturities of long-term debts e.g. Debentures / Loans (whether Secured or Unsecured) repayable within 1 year should be shown as Current Liabilities
- (2) Dividends proposed but not yet approved by shareholders are shown by way of a Note toAccounts. No provision is made for proposed dividends w.e.f. FY. 2016-17 (vide MCA/ICAI Amended Accounting Standard 4)

Quick Liabilities:

Quick Liabilities are those current liabilities which are payable in a short period of time. Bank Overdraft is not, in practice, immediately payable. So,

Quick Liabilities = Current Liabilities - Bank Overdraft

Working Capital = Current Assets - Current Liabilities

Total Funds Applied = Net Fixed Assets + Investments + Working Capital

This is always equal to Total Funds Available.

2.5 INCOME STATEMENT

Vertical Income Statement of for the year ended

Particulars	Amount	Amount	Amount
I. Sales			
Cash Sales		XX	
Credit Sales		XX	
Gross Sales		XX	
Less: Returns and Allowances		(XX)	
Net Sales			XX
Less:			
II. Cost of Goods Sold			
Opening Stock		XX	
Add:			
Purchases	XX		
Direct Expenses	XX		
Carriage Inward/Freight Inward	XX		
Octoroi Duties/Import Duties	XX		
Direct Wages	XX		
Factory lighting	XX		
Fuel, coal, oil	XX		
Depreciation on Plant and Machinery	XX		
Depreciation on Factory Premises	XX	XX	

Less:			
Closing Stock	(XX)		
Goods Damaged by fire	(XX)		
Goods lost by theft	(XX)	(XX)	
Cost of Goods Sold			(XX)
III. Gross Margin (III = I - II)			XX
Add:			
IV. Operating Incomes			
Discount received (on Purchases)		XX	
Bad Debts Recovered		XX	XX
Less:			
V. Operating Expenses			
<u>A. Office and Administrative Expenses</u>			
Salaries	XX		
Rent, Rates and Taxes	XX		
Office Lighting	XX		
Printing and Stationery	XX		
Insurance premium	XX		
Postage	XX		
Depreciation on Furniture	XX		
Depreciation on Office Premises	XX		
Depreciation on Computers/Laptops	XX		
Miscellaneous expenses/General Expenses	XX	XX	
<u>B. Selling and Distribution Expenses</u>			
Salary sales staff	XX		
Commission charges	XX		
Advertising expenses	XX		
Carriage outward	XX		
Packing expenses	XX		
Depreciation on delivery vans	XX		
*Bad Debts	XX	XX	

<u>C. Finance Expenses</u>			
Interest on bank overdraft	XX		
Interest on cash credit	XX		
Discount allowed	XX		
Bank charges	XX		
Bank commission	XX		
**Bad Debts	XX	XX	
Total Operating Expenses			(XX)
VI. Net Operating Profit (VI = III + IV - V)			XX
Less:			
VII. Interest on Long Term Borrowings			
Interest on Loans		XX	
Interest on Debentures		XX	
Interest on Public Deposits		XX	(XX)
VIII. Net Profit (VIII = VI - VII)			XX
Add:			
IX. Non-Operating Income			
Dividend and interest on investments		XX	
Rent received		XX	
Profit on Sale of Investments/Fixed Assets		XX	XX
Less:			
X. Non-Operating Expenses			
Loss on Sale of Investments/Fixed Assets		XX	
Preliminary Expenses written off		XX	
Loss by fire/Theft/Accident		XX	(XX)
XI. Net Profit Before Tax (XI = VIII + IX - X)			XX
Less: Provision for Tax			(XX)
XII. Net Profit After Tax			XX
Add: Opening Balance of Retained Earnings/P&L A/c			(XX)

XIII. Net Profit Available for Appropriations			XX
Less:			
XIV. Appropriations			
Transfer to General Reserve		XX	
Transfer to Reserves		XX	
Dividend on Preference Shares/Equity Shares		XX	
Interim Dividend		XX	(XX)
XV. Closing Retained Earnings (XV = XIII - XIV)			XX

- Bad Debts can be alternatively treated as Financial Expenses.

From the above rearrangement of operating statements, the following accounting equations may be given:

1. Net Sales = Cost of sales + operating expenses + Nonoperating expenses
2. Gross Profit = Net sales – Cost of goods sold
3. Net operating profit = Gross profit – operating expenses
4. **Gross Sales:** Gross sales also called ‘ Turnover’ is the amount of total sales of goods and services. This includes both cash and credit sales.

Gross sales = Credit sales + cash sales

5. **Cost of Goods Sold:** This is the cost of purchases or cost of manufacturing the goods, which are sold during the year.

Cost of Goods Sold = Opening stock + Purchases + Direct

Expenses + Depreciation – less closing stock

6. Gross Profit:

This is the major source of operating income of an organization. This is the amount of profit earned on purchases, manufactures and sales of goods and services.

Gross Profit = Net Sales – Cost of goods sold

7. **Operating Expenses:** These are the expenses incurred in the course of normal conduct of business, which are related to the business activities. Broadly, operating expenses are classified into the following categories.

- a) **Administrative Expenses:** These are the expenses pertaining to general office administrative of an organization.
- b) **Selling and Distribution Expenses:** These are the expenses incurred for the purpose of increasing and maintaining the sales, distributing and delivering the goods.
- c) **Finance Charges:** This includes: Cash discount, Bad debts (Abnormal), Bank charges, bank Commission.

Operating Expenses = Administrative Expenses + Selling & Distribution Expenses + Finance Expenses

- 8. Operating Profit:** Excess of operating income over operating expenses is called net operating profit. This is the amount of profit earned during the normal course of business.

Operating profit may be:

- a) **Operating Profit before Interest:** Gross Profit - Operating expenses (Before Interest)
 - b) **Operating Profit After Interest :** Operating profit (before Interest) – Interest
- 9. Non-operating Income:** Income not related to the ordinary course of business i.e., Interest on investment is not an operating income to a company, which is engaged in buying and selling of goods and services of goods. But for an investment company, interest will be considered as an operating income.
- 10. Non-Operating Expenses:** These are the expenses, which do not relate to day-to-day conduct of business operations. These expenses arise due to certain unusual events and unexpected occurrences.
- 11. Net Profit:** This is the excess of total operating and nonoperating income over the total operating and non-operating expenses. It is therefore, ultimate profit earned by the organization.
- a) Net Profit before Tax = Net operating profit + Net non-operating Income
 - b) Net profit After Tax = Net profit before tax - Income tax
- 12. Retained Earnings:** Net profit after tax - dividend

Illustration 01:

Following is the Profit & Loss Account of Leena Ltd. for the year ended 31s March 2020. You are required to prepare Vertical Income Statement for the purpose of analysis.

Particulars	Amount	Particulars	Amount	Amount
To Opening Stock	14,00,000	By Sales:		
To Purchases	18,00,000	Cash	10,40,000	
To Wages	3,00,000	Credit	30,00,000	
To Factory Expenses	7,00,000	(-) Return & Allowance	40,40,000	
To Office Salaries	1,00,000		(20,000)	40,20,000
To Office Rent, Rates & Taxes	78,000			
To Postage and Telegram	40,000			
To Audit Fees	12,000			
To Salesman Salaries	24,000	By Dividend on Investment		1,00,000
To Promotion Expenses	76,000	By Closing Stock		14,00,000
To Delivery Expenses	40,000	By Profit on sale of Machinery		80,000
To Debenture Interest	60,000			
To Depreciation:	-			
On Office Furniture	1,00,000			
On Plant	1,20,000			
On Delivery Van	80,000			
To Loss on Sale of Van	10,000			
To Income Tax	3,50,000			
To Net Profit	3,10,000			
	56,00,000			56,00,000

Vertical Income / Revenue Statement as on 31 March 2020

Particulars	Amount	Amount	Amount
SALES			
Cash		10,40,000	
Credit		30,00,000	40,40,000
Less : Returns			(20,000)
Net sales			40,20,000
Less : Cost of goods Sold			
Opening stock		14,00,000	
Add: purchase		18,00,000	
Add: Wages		3,00,000	
Add: Factory Expenses		7,00,000	
Add: Depreciation on plant		1,20,000	
		43,20,000	
Less: Closing stock		(14,00,000)	(29,20,000)
Gross margin / Gross profit			11,00,000
Add: Operating Income			
Less: Operating expenses			
(1) Office & administrative Exp			
Office salary	1,00,000		
Office Rent, Rate & Taxes	78,000		
Postage & telegram	40,000		
Directors fees	12,000		
Depreciation on office furniture	1,00,000	3,30,000	
(2) Selling & Distribution			
Salesmen salary	24,000		
Promotion Expenses	76,000		
Delivery Expenses	40,000		
Dep. On Delivery van	80,000	2,20,000	
(3) Finance Expenses		-	
Total Operating Expenses			(5,50,000)
Operating Profit			5,50,000
Debenture Interest			(60,000)
Net Profit			4,90,000
<u>Add: Non-operating Income</u>			
Dividend on investment		1,00,000	
Profit on sale of furniture		80,000	1,80,000
			6,70,000
<u>Less: Non -operating exp</u>			
Loss in Sale of Van			(10,000)
Net profit before tax			6,60,000
Less: taxation			(3,50,000)
Net profit after tax			3,10,000

Illustration 02:

Profit & Loss account of Dani Ltd. For the year ended 31st October 2020

Particulars	Amount	Particulars		Amount
To Opening Stock	1,98,250	By Sales:	13,26,000	
To Purchases	8,19,650	Less Returns	(26,000)	13,00,000
To Wages	18,200	By Closing Stock		2,56,100
To Staff Salaries	52,000			
To Sales Salaries	39,780			
To Interest	3,120	By Interest on Debenture		3,900
To Office Rent	7,020	By Dividend on Shares		15,860
To Printing and Stationery	6,500	By Profit on sales of shares		10,140
To Carriage Outward	12,220			
To Discount	6,240			
To Depreciation	24,180			
To Insurance	2,600			
To Motor Bill	910			
To Salesmen's Travelling Exp.	5,200			
To Bad Debts	8,840			
To Telephone Expenses	1,950			
To Legal Charges	5,200			
To Director's Fees	11,440			
To Income Tax	1,24,800			
To Loss on Sale of Bond	9,100			
To Provision for claim for damages	10,400			
To Net Profit	2,18,400			
	<u>15,86,000</u>			<u>15,86,000</u>

Convert the above profit & loss A/c. of a company into a vertical revenue statement.

Solution:

In the books of Dani Limited
Vertical Income / Revenue
Statement as on 31 March 2020

Particulars	Amount	Amount	Amount
Sales			13,26,000
Less: Returns			(26,000)
Net sales			13,00,000
Less: Cost of goods Sold			
Opening stock		1,98,250	
Add: Purchase		8,19,650	
Add: Wages		18,200	
		10,36,100	
Less: Closing stock		(2,56,100)	(7,80,000)
Gross margin / Gross profit			5,20,000
Add: Operating Income			-
			5,20,000
Less: Operating expenses			
(1) Office & administrative Exp			
Staff salaries	52,000		
Office Rent	7,020		
Printing & Stationery	6,500		
Depreciation	24,180		
Insurance	2,600		
Motor bill	910		
Telephone Expenses	1,950		
Legal Charges	5,200		
Directors Fees	11,440		
Carriage outward	12,220	1,24,020	
(2) Selling & Distribution			
Sales salaries	39,780		
Salesmen's traveling exp	5,200	44,980	
(3) Finance Expenses			
Interest	3,120		
Discount	6,240		
Bad Debts	8,840	18,200	(1,87,200)
Operating Net profit			3,32,800
Add: Non operating Income			
Interest on debenture		3,900	
Dividend on shares		15,860	
Profit on sale of shares		10,140	29,900
			3,62,700

Less: Non operating expenses			
Loss in sale of Bonds		9,100	
Provision for Claim for Damages		10,400	(19,500)
Net profit before tax			3,43,200
Less: taxation			(1,24,800)
Net profit after tax			2,18,400

Illustration 03:

The following information regarding Speed Car Ltd, for the year ended 31 March, 2020 is given to you

Particulars	Amount Rs.
Sales	37,50,000
Purchases	25,00,000
Opening Stock (1-4-2014)	2,50,000
Closing Stock (31-3-2015)	3,75,000
Return Inward	37,500
Carriage Outward	28,500
Carriage Inward	25,000
Return Outward	25,000
Salesman Salary	37,500
Advertising and Publicity	1,26,000
Salesman Traveling Allowance	3,750
Office Salary	2,00,000
Computer Repairs & Maintenance	42,000
Rent, Rates, Taxes	2,000
Printing & Stationery	200
Bad Debts	37,875
Purchases of Computer	20,000
Dividend on Shares (Cr.)	5,000
Staff Welfare Expenses	22,000
Interest (Dr.)	25,000
Loss on Sales of Shares	62,500

Rearrange above information in Vertical Form suitable for analysis.

Solution 03:

Vertical Revenue Statement for the year ending 31st March, 2015

Particulars	Amount	Amount
Gross Sales	37,50,000	
Less: Return Inward	(37,500)	
Net Sales		37,12,500
Less: Cost of Goods Sold		
Opening Stock	2,50,000	
Purchases	25,00,000	
Less: Return Outward	(25,000)	
Carriage Inward	25,000	
Less: Closing Stock	(3,75,000)	(23,75,000)
Gross Profit		13,37,500
Less: Operating Expenses		
Administration Expenses		
Office salaries	2,00,000	
Rent, rates and taxes	2,000	
Staff Welfare	22,000	
Printing & Stationery	200	
Computer Repairs & Maintenance	42,000	2,66,200
Selling & Distribution Expenses		
Salaries to salesmen	37,500	
Advertisement and Publicity	1,26,000	
Traveling Allowances	3,750	
Carriage Outward	28,500	
Bad Debts	37,875	2,33,625
Total Operating Expenses		(4,99,825)
Operating Profit before Interest		8,37,675
Less: Interest Paid		(25,000)
Net Profit after Interest		8,12,675
Net Non-operating Income		
Dividends on shares		5,000
Less: Non-Operating Expenses		
Loss on Sale-Shares		(62,500)
Net Non-Operating Income		(57,500)
Net Profit		7,55,175

Illustration 04

Balance sheet of Tanu Ltd. For the year ended 31st March 2020.
(` in '000)

Liabilities	Amount	Assets	Amount
	4,200	Trade Investments	1,680
Dividend Equilisation Reserve	588	Patent	252
General Reserve	924	Land and Building (Cost)	2,688
Profit and Loss Account	1,596	Plant and Machinery (Cost)	5,460
6% Debentures	2,100	Cash and Bank Balance	739
Cash Credit	1,260	Closing Stock	2,604
Sundry Creditors	1,764	Sundry Debtors	1,865
Unpaid Dividend	84	Bills Receivable	252
Bills Payable	504	Short Term Deposit with Customers	252
Provision for Tax	1,428	Underwriting Commission	504
<u>Provision for Depreciation</u>		Preliminary Expenses	252
Land and Building	420		
Plant and Machinery	1,680		
	16,548		16,548

Solution 04:

Vertical Balance sheet of Tanu Ltd. For the year ended 31st March 2020.
(` in '000)

	Particulars	Amount	Amount	Amount
	<u>SOURCES OF FUND/EQUITY AND LIABILITY</u>			
1	Shareholders' Funds			
	Equity Share Capital		4,200	
	<u>Reserves & Surplus</u>			
	Dividend Equalisation Reserve	588		

2	General Reserve	924	3,108	6,552	
	P & LA/ c	1,596			
	<u>Less: Fictitious Assets</u>				
	Underwriting Commission	504			
	Preliminary Expenses	252			
	Networth				
	Loan Funds				
	<u>Secured Loans</u>				
	6% Debentures				2,100
	Total Sources of Funds				8,652
3	APPLICATION OF FUNDS/ ASSETS				
	Fixed Assets				
	Tangible Fixed Assets				
	Land & Building	2,688	2,268	6,300	
	Less Provision for Depreciation	(420)			
	Plant & Machinery	5,460			
	Less Provision for Depreciation	(1,680)			
	3,780				
	Total Tangible Assets		6,048		1,680
	Intangible Fixed Assets				
Patents		252			
Total Fixed Assets					
INVESTMENTS					
4	Trade Investments				
	CURRENT ASSETS, LOANS & ADVANCES				
	Closing Stock	2,604			
	Liquid Assets				
	Sundry Debtors	1,865			
	Cash & Bank	739			
	Bills Receivable	252			
	Short Term Deposits	252			
	Total Current Assets		5,712		

	Less: CURRENT & LIABILITIES PROVISIONS			
	Cash Credit	1,260		
	Quick Liabilities			
	Sundry Creditors	1,764		
	Unpaid Dividend	84		
	Bills Payable	504		
	Provision for Tax	1,428		
	Total Current Liabilities		(5,040)	
	Working Capital			672
	Total Application of Funds			8,652

Illustration 05

The following balances appear in the books of M/s. Krushna & Sons. As on 31st March, 2020. You are required to prepare a Vertical Balance Sheet for financial analysis.

Particulars	Amount (Rs.)
Provision for Income Tax	26,000
Advance Tax	29,250
Marketable Investments	16,250
Profit & Loss Account - Credit Balance	26,000
Equity Share Capital	1,30,000
Bank Overdraft	29,250
Loan from Bank	56,875
Machinery	84,500
Preliminary Expenses	4,875
Sundry Debtors	29,250
General Reserve	22,750
Sundry Creditors	13,000
Stock	48,750
Building at Cost Less Depreciation	65,000
Cash and Bank	26,000

Solution 05:

in the books of M/s. Krushna & Sons Balance Sheet as at 31st March, 2014

	Particulars	Amount	Amount	Amount
A	Sources of Funds			
	Shareholders Funds			
	Share Capital			
	Equity Share Capital		1,30,000	
	(+) Reserves & Surplus			
	Profit & Loss A/c	26,000		
	General Reserve	22,750	48,750	
	(-) Fictitious Assets			
	Preliminary Expenses		(4,875)	
	Networth			1,73,875
B	Borrowed Funds			
	Loan from Bank			56,875
	Net Borrowings			2,30,750
	Application of Funds			
C	Fixed Assets			
	Building (Less : Depreciation)		65,000	
	Machinery		84,500	1,49,500
D	Investments			NIL
E	Working Capital			
	Current Assets			
	Advance Tax	29,250		
	Marketable Investments	16,250		
	Sundry Debtors	29,250		
	Stock	48,750		
	Cash at Bank	26,000		
	Total Current Assets (A)		1,49,500	
	Less : Current Liabilities			
	Provision for Income Tax	26,000		
	Bank Overdraft	29,250		
	Sundry Creditors	13,000		
	Total Current Liability (B)		(68,250)	
	Working Capital (A-B)			81,250
	Total			2,30,750

Illustration 06

Following are the balances in the books of Hattrick Ltd., for the year ended 31st March, 2020.

Particulars	Amount Rs.
11% Preference Share Capital	7,50,000
Administrative Expenses	4,50,000
Cash and Bank	37,500
Marketable Investments	3,00,000
Depreciation	2,62,500
Direct Labour	2,81,250
Equity Share Capital	11,25,000
Fixed Assets	52,50,000
Income Tax	6,63,750
Interest Paid	5,40,000
Inventories	22,50,000
Long Term Investments	1,50,000
Other Current Liabilities	75,000
Other Direct Expenses	1,80,000
Provision for Expenses	2,43,750
Raw Materials Consumed	29,25,000
Reserves and Surplus	2,62,500
Sales	60,00,000
Secured Term Loans	45,00,000
Selling Expenses	97,500
Trade Payables	12,56,250
Trade Receivables	13,87,500
Unsecured Term Loans	5,62,500

You are required to prepare vertical Income Statement for the year ended 31st March, 2020 and vertical Balance Sheet as on that date for analysis.

Solution 06:

Hattrick Ltd. Vertical Income Statement for the year ended 31st March 2020

Particulars	Amount	Amount
Sales	60,00,000	60,00,000
Less: Cost of Goods Sold		
a) Raw Material Consumed	29,25,000	
b) Other Direct Expenses	1,80,000	
c) Direct Labour	2,81,250	
Cost of Goods Sold		(33,86,250)
Gross Profit		26,13,750
Less: Operating Expenses		
a) Administration Expenses	4,50,000	
b) Depreciations	2,62,500	
c) Selling Expenses	97,500	
Total Operating Expenses		(8,10,000)
Operating Profit Before Interest		18,03,750
Less: Interest		-
Net Profit before tax		18,03,750
Less: Income Tax		-
Net Profit After Tax		18,03,750

Particulars	Amount	Amount
SOURCES OF FUND/EQUITY AND LIABILITY		
1 Shareholders Funds		
Equity Share Capital	11,25,000	
11% Prof. Share Capital	7,50,000	18,75,000
Add : Reserve Supluses		2,62,500
P/LA/c (N.P.)		6,00,000
Share Holders Fund		27,37,500
2 Loan Funds		
a) Secured Terms Loan	45,00,000	
b) Unsecured Term Loan	5,62,500	50,62,500
Total Sources of Funds		78,00,000
APPLICATION OF FUNDS/ ASSETS		
I. Fixed Assets		52,50,000
II. Investment		1,50,000
III. Working Capital		
A Current Assets		
Cash and Bank	37,500	
Marketable Investment	3,00,000	
Inventories	22,50,000	
Trade Receivable	13,87,500	39,75,000
B. Less : Current Liabilities		
Other Current Liabilities	75,000	
Provision for Expenses	2,43,750	
Trade Payables	12,56,250	(15,75,000)
Working Capital (A - B)		24,00,000
Total Application of Funds		78,00,000

Illustration 07(Adjustment based sum)

The following figures are related to the Sara Ltd. for the year ended 31st March, 2020.

Particulars	Amount	Particulars	Amount
Sales	14,40,000	Staff Salaries	24,000
Net Block	6,00,000	Advertisement Expenses	36,000
Bills Receivable	2,40,000	Warehouse Rent	18,000
Bills Payable	1,20,000	Depreciation on Plant	30,000
Cash Balance	51,000	Interest on Overdraft	18,000
Bank Overdraft	1,20,000	Share Capital	4,80,000
Purchases	10,80,000	Reserves (1-04-2017)	2,19,000
Other Administrative Exp.	24,000	Stock (1-04-2017)	2,16,000
Legal Charges (Paid)	18,000	Lap Top Repairs	15,000
		Direct Expenses	9,000

Other Information:

- i) Make a provision for Income Tax of ` 1,44,000.
- ii) Provide final dividend ` 48,000.
- iii) Closing stock on 31st March, 2020 is ` 2,40,000.

You are required to prepare Balance Sheet and Income Statement in vertical form suitable for analysis for the year ended 31" March, 2020.

Solution 07:

Sara Ltd. Vertical Income Statement for the year ended 31st March 2020

Particulars	Amount	Amount
Sales		14,40,000
Less: Cost of Goods Sold		
Opening Stock	2,16,000	
Add: Purchases	10,80,000	
	12,96,000	
Less: Closing Stock	(2,40,000)	
	10,56,000	
Direct Expenses	9,000	
Depreciation on Plant	30,000	
Cost of Goods Sold		(10,95,000)
Gross Profit		3,45,000
Less: Administrative Expenses		
Legal Charges	18,000	
Staff Salaries	24,000	
Lap Top Repairs	15,000	
Other Administrative Expenses	24,000	81,000
Less: Selling and Distribution Expenses		
Advertising	36,000	
Warehouse Rent	18,000	54,000
Total Operating Expenses		(1,35,000)
Net Profit before Interest		2,10,000
Less: Interest on Overdraft		(18,000)
Net Profit before Tax		1,92,000
Less: Income Tax		(1,44,000)
Net Profit after Tax		48,000

Particulars	Amount	Amount
SOURCES OF FUND/EQUITY AND LIABILITY		
1. Shareholders Funds		
Share Capital	4,80,000	
Add: Reserve & Surpluses	2,19,000	6,99,000
Total Sources of Fund		6,99,000
APPLICATION OF FUNDS/ ASSETS		
I. Fixed Assets		
Net Block		6,00,000
A. Current Assets		
Bill Receivable	2,40,000	
Closing Stock	2,40,000	
Cash	51,000	
	5,31,000	
B. Less: Current Liabilities		
Bills Payable	1,20,000	
Bank Overdraft	1,20,000	
Provision for Tax	1,44,000	
Bills Payable	48,000	
	(4,32,000)	
Net Current Assets (A - B)		99,000
Total Application of Funds		6,99,000

Note: Contingent liability

Proposed dividend ` 48,000

Illustration 08:

From the following balances from the books of Account of Chika Ltd. for the year ended 31-03-2020 you are required to prepare vertical Income statement and vertical Balance Sheet.

Particulars	Amount	Particulars	Amount
Advertising	31,250	Sales Return	12,500
Interest Received	7,500	Bills Payable	53,750
Sales	15,00,000	10% Pref. Share Capital	1,87,500
Equity Share Capital	11,25,000	Debenture Interest	30,000
Salaries	2,25,000	Wages	2,31,250
Furniture and Fixture	2,50,000	Cash and Bank Balance	1,00,000
Outstanding Expenses	31,250	Debtors	2,50,000
P/LA/c (Credit Balance)	4,86,250	Opening Stock	62,500
Bad Debts	6,250	General Reserve	63,750
Purchases	7,50,000	Creditors	1,25,000
Machinery	9,37,500	8% Debentures	5,00,000
Preliminary Expenses	12,500	Income Tax	12,500
Closing Stock on 31-03-2020	1,87,500	Land & Building	8,75,000

Solution 08

Vertical Income Statement for the year ended 31st March, 2020

Particulars	Amount	Amount
Sales	15,00,000	
Less: Returns	(12,500)	
Net Sales		14,87,500
<u>Less: Cost of Goods Sold</u>		
Opening Stock	62,500	
Purchases	7,50,000	
Wages	2,31,250	
Less: Closing Stock	(1,87,500)	8,56,250
GROSS PROFIT		6,31,250
Less: OPERATING EXPENSES		
a) Administration Expenses		
Salaries	2,25,000	
b) Selling & Distribution Expenses		
Advertising	31,250	
Bad Debts	6,250	
	37,500	
Total Operating Expenses		(2,62,500)

Operating Profit Before Interest		3,68,750
Less: Interest on Debentures (WN)		(40,000)
Net Profit After Interest		3,28,750
Add: Non-operating Income		
Interest received		7,500
Net Profit Before Tax		3,36,250
Less: Income Tax		(12,500)
Net Profit After Tax		3,23,750

Vertical Balance Sheet as on 31st March 2020

Particulars	Amount	Amount
SOURCES OF FUND/EQUITY AND LIABILITY		
1 Shareholders Funds		
A Share Capital		
Equity Share Capital	11,25,000	
10% Pref. Share Capital	1,87,500	
		13,12,500
B Reserve & Surplus		
General Reserve	63,750	
Profit & Loss A/c- Cr. Balance	4,86,250	5,50,000
C Less: Fictitious Assets		
Preliminary Expenses		(12,500)
Own Fund/Net Worth		18,50,000
2 Loan Funds		
8% Debentures	5,00,000	
Add: Interest Accrued	40,000	5,40,000
Total Sources of Funds		23,90,000
APPLICATION OF FUNDS		
1 Fixed Assets		
Tangible Assets		
Land & Buildings	8,75,000	
Machinery	9,37,500	
Furniture & Fixtures	2,50,000	20,62,500

2 Working Capital		
A) Current Assets		
a) Quick Assets		
Cash and Bank	1,00,000	
Debtors	2,50,000	
b) Non-Quick Assets		
Inventory	1,87,500	
Total Current Assets (A)		5,37,500
B. Less: Current Liabilities		
a) Quick Liabilities		
Creditors	1,25,000	
Bills Payable	53,750	
Outstanding Expenses	31,250	
Quick / Current Liabilities		(2,10,000)
Working Capital (A - B)		3,27,500
Total		23,90,000

W.N. 1.

Interest on Debentures: 5,00,000 x 8% = 40,000

Illustration 09:

The following balances are extracted from the financial statements of Nano Products Ltd.

Balances as on 31st March, 2020

Particulars	Amount	Particulars	Amount
Bank Loan	4,00,000	Preliminary Expenses (Not yet w/0)	50,000
9% Preference Share Capital (R 100)	10,00,000	Stock (Closing)	8,00,000
Investments	5,00,000	10% Debentures	10,00,000
Trade Receivables	8,00,000	Bills Payable	2,00,000
Trade Payables	6,00,000	Land and Building	20,00,000
Goodwill	5,00,000	Equity Share Capital (R 10 each)	20,00,000
Bills Receivable	5,50,000	Bank Overdraft	1,00,000

Plant and Machinery	12,00,000	Cash and Bank Balance	1,50,000
Profit and Loss A/c (Cr.)	8,00,000	Furniture	8,00,000
Unclaimed Dividend	40,000	General Reserve	8,50,000
Prepaid Expenses	1,00,000	Advance Tax	4,00,000
Provision for Taxation	6,60,000	Cash Credit	2,00,000

You are required to prepare Balance Sheet in vertical form suitable for analysis.

Vertical Balance Sheet of Nano Products Ltd.

Particulars	Amount	Amount	Amount
SOURCES OF FUNDS			
I Owner's Funds			
A. Capital			
Equity Share Capital (R 10 each)	20,00,000		
9% Preference Share Capital (R 100)	10,00,000	30,00,000	
B. Reserves and Surplus			
General Reserve	8,50,000		
Profit and Loss A/c (Cr.)	8,00,000	16,50,000	
Less : Preliminary Expenses (not w/o)		(50,000)	
Own Funds or Net Worth			46,00,000
II Loan Funds			
10% Debentures		10,00,000	
Bank Loan		4,00,000	14,00,000
Capital Employed [1 + 2]			60,00,000
APPLICATION OF FUNDS			
I Fixed Assets			
A Tangible			
Land and building	20,00,000		
Plant and Machinery	12,00,000		
Furniture	8,00,000		
Net Tangible Assets		40,00,000	

B. Intangible			
Goodwill		5,00,000	45,00,000
Total Fixed Assets			
II Investments			5,00,000
III Working Capital			
A Current Assets			
<u>Quick Assets</u>			
Cash and Bank	1,50,000		
Trade Receivables	8,00,000		
Bills Receivable	5,50,000		
Total Liquid Assets		15,00,000	
<u>Non-Quick Assets</u>			
Stock (closing)	8,00,000		
Prepaid expenses	1,00,000		
Advance tax	4,00,000		
Total Illiquid Assets		13,00,000	
Total Current Assets (A)		28,00,000	
B. Less: Current Liabilities			
<u>Quick Liabilities</u>			
Trade Payables	6,00,000		
Bills Payable	2,00,000		
Provision for Taxation	6,60,000		
Unclaimed Dividend	40,000		
Total Quick Liabilities		15,00,000	
<u>Non-Quick Liabilities</u>			
Bank Overdraft		1,00,000	
Cash Credit		2,00,000	
Total Non-Quick Liabilities		3,00,000	
Total Current Liabilities (B)		(18,00,000)	
Working Capital (A - B)			10,00,000
Capital Employed [1 + 2]			60,00,000

Illustration 10:

Balances as on 31st March, 2020

Liabilities	Amount	Assets	Amount
Bills Payable	32,500	Fixed Assets	1,62,500
Sundry Creditors	65,000	Sundry Debtors	65,000
Debentures	1,30,000	Bank Balance	32,500
Reserves	65,000	Inventory	1,62,500
Equity Share Capital	65,000		
Preference Share Capital	65,000		
	4,22,500		4,22,500

Profit and Loss A/c for the year ended 31-3-2020

Particulars	Amount	Particulars	Amount
To Opening Inventories	97,500	By Sales	6,50,000
To Purchases	1,95,000	By Closing Inventories	1,62,500
To Manufacturing Expenses	65,000	By Profit on Sale of Shares	32,500
To Direct Wages	1,30,000		
To Administration Expenses	32,500		
To Selling Expenses	32,500		
To Loss on Sale of Asset	35,750		
To Interest on Debentures	6,500		
To Net Profit	2,50,250		
	8,45,000		8,45,000

Solution 10:

In the Books of Srivalli Ltd.

Vertical Income Statement for the Year Ended on 31-3-2020

Particulars	Amount	Amount	Amount
1 Net Sales			6,50,000
2 Less: Cost of Goods Sold :			
Opening Stock	97,500		
Add : Purchases	1,95,000		
Manufacturing Expenses	65,000		
Direct Wages	1,30,000		

Less : Closing Stock		(1,62,500)	
Cost of Goods Sold			(3,25,000)
Gross Profit (1 - 2)			3,25,000
3 Less : Operating Expenses			
Administration Expenses		32,500	
Selling and Distribution Expenses		32,500	(65,000)
4 Operating Profit			2,60,000
5 Less : Interest Paid			
Interest on Debentures			(6,500)
6 Net Profit After Interest			2,53,500
7 Add: Non-operating Income			
Profit on Sale of Shares			32,500
8 Less: Non-operating Expenses			
Loss on Sale of Asset			(35,750)
9 Net Profit before Tax			2,50,250

Balance Sheet as on 31st March, 2020

Particulars	Amount	Amount	Amount
SOURCES OF FUNDS			
1 Owner's Funds			
A Capital			
Equity Share Capital		65,000	
Preference Share Capital		65,000	1,30,000
B Reserves and Surplus			
General Reserve			65,000
Own Funds / Net Worth			1,95,000
2 Loan Funds			
Debentures or Bonds			1,30,000
Capital Employed			3,25,000
APPLICATION OF FUNDS			
1 Fixed Assets			1,62,500
2 Working Capital			

A Current Assets			
Cash and Bank	32,500		
Debtors	65,000		
Quick Assets	97,500		
Stock	1,62,500		
Total Current Assets (A)		2,60,000	
B Less : Current Liabilities			
Creditors	65,000		
Bills Payable	32,500		
Total Current/Quick Liabilities (B)		(97,500)	
Working Capital (A - B)			1,62,500
Capital Employed			3,25,000

Exercise:

True and False

1. Balance sheet shows result of activities F
2. Subscribed capital is the capital subscribed by the investors. T
3. Goodwill is shown under fictitious assets. F
4. Working capital is equal to capital employed. F
5. All current liabilities are quick liabilities. T
6. Fictitious assets can be converted in cash. F
7. For a petrol company, stock of petrol is liquid asset. F
8. Owed funds comes under internal source of Finance. T
9. Unclaimed Dividends are classified as Quick liabilities in vertical financial statements. F
10. Advance to suppliers for stock classified as current assets in vertical statements. T

SHORT NOTES:

1. Financial statement's objectives
2. Users of financial statements
3. Own funds

4. Quick liabilities
5. Working capital
6. Limitations of financial statements
7. Cost of goods sold
8. Operating expenses.
9. Operating profit

Unsolved Illustration

Problem 01:

Following Trial Balance was extracted from the books of M/s. Aisha Pvt. Limited for the year ended 31st Dec 2020.

Particulars	Amount	Particulars	Amount
Land and Building	1,35,000	Sundry Creditors	45,900
Plant and Machinery	2,48,400	Reserves	22,500
Furniture and fittings	5,400	Profit and Loss A/c - 1/1/2020	37,950
Preliminary Expenses	7,350	Creditors for goods	16,770
Calls in Arrears (20per share)	3,750	Return Outwards	7,500
Cash in hand	750	Sales	4,61,700
10% Govt. bonds (F.V.10,000)	14,820	Share Capital	3,00,000
Bills Receivable	34,500	8% Debentures	1,50,000
Delivery Van	4,500		
Goodwill	24,000		
Sundry Debtors	31,200		
Purchases	3,60,000		
Free sample distributed	3,810		
Sales return	10,500		
Legal Fees	1,500		
Carriage Inwards	5,550		
Wages	34,800		
Rent Rates and Insurance	4,350		
Stock	71,400		
Prepaid Expenses	4,200		
Require to Furniture	2,250		
Repairs to plant and Machinery	1,290		
Inteim Dividend Paid	30,000		
Salaries	3,000		
	10,42,320		10,42,320

Additional Notes:

You are required to prepare Profit and Loss A/c and the Balance Sheet in Vertical Format as per Management Accounting after taking into consideration the following statements.

- (1) Charge 5% depreciation on Plant and Machinery, 7.5% on Furniture and Fittings and 20% on delivery van.
- (2) Closing Stock was Rs.81,300 as on 31st March,2020
- (3) The directors have proposed a final dividend of 6% on paid up share capital.
- (4) Interest on Govt. Bonds and Debentures in due for the year 2020.

Problem 02:

Following information regarding M/s. Savita Ltd. for the year ended 31st March, 2020 is given.

Particular	Amount	Particular	Amount
Sales	15,00,000	Return Inwards	37,500
Opening stock of Raw material	82,500	Purchases of Raw material	3,75,000
Staff Salaries	1,12,500	Commission Allowed	3,750
Salesmen Salaries	18,750	Proposed Dividend	1,12,500
Bank Charges	7,500	Exhibition Expenses	26,250
Freight Inwards	30,000	Repairs of Computer	3,750
Office Rent & Insurance	33,750	Closing stock of work-in-progress	30,000
Debenture Interest	37,500	Wages	52,500
Loss on sale of machinery	7,500	Purchases of Finished goods	60,000
Printing & Stationery	3,750	Interest received on Investment	30,000
Direct Expenses	37,500	Provision for Income Tax	1,50,000
Profit & Loss A/c (Credit)	1,80,000	Closing stock of Raw Material	60,000
Depreciation on patterns	7,500	Sale of scrap	15,000
		Depreciation on machinery	15,000

You are required to Rearrange the above information and prepare vertical income statement, suitable for analysis.

Problem 03:

The following balances appear in the books of M/s. Bhavana Ltd. for the year ended 31st March, 2020, you are required to prepare a Revenue statement in vertical form

Dr.

Cr.

Particular	Amount	Particular	Amount
Opening Stock	1,06,250	Sales Return	42,500
Net Profit b/f from P. Y.	1,27,500	Profit on Sale of Investment	10,625
Office Rent	10,625	Loss by Fire	10,625
Carriage Inward	42,500	Closing Stock	85,000
General Reserve	85,000	Purchases	4,25,000
Wages	1,53,000	Postage and Telegram	10,625
Octroi	10,625	Provision for Tax	63,750
Office Staff Salaries	85,000	Sales	13,17,500
Audit Fees	42,500	Dividend on Shares Held	53,125
Advertisement	53,125	Carriage Outward	10,625
Finance Expenses	53,125	Warehouse Expenses	10,625
Loss on Sale of Asset	63,750	Import Duty	6,375
Depreciation on:		Proposed Dividend	74,375
Plant and Machinery	31,875		
Furniture	34,000		
Delivery Van	29,750		

Problem 04:

Following is the Profit and Loss Account of Gehna Limited for the year ended 31st March, 2011.

Particular	₹	₹	Particular	₹	₹
To Opening Stock		7,91,000	By Sales		
To Purchase		10,17,000	Cash	5,87,600	
To Wages		1,69,500	Credit	16,95,000	
To Factory Expenses		3,95,500		22,82,600	
To Office Salaries		28,250	Less: Returns & Allowance	(22,600)	22,60,000
To Office Rent		44,070			
To Postage & Telegram		5,650			

To Directors Fees		6,780	By Closing Stock		6,78,000
To Salesman Salaries		13,560	By Dividend on Investment		11,300
To Advertising		20,340	By Profit on sale of Furniture		22,600
To Delivery Expenses		22,600			
To Debenture Interest		22,600			
<u>To Depreciation</u>					
On Office Furniture	11,300				
On Plant	33,900				
On Delivery Van	22,600	67,800			
To Loss on Sale of Van		5,650			
To Income Tax		1,97,750			
To Net Profit		1,63,850			
		29,71,900			29,71,900

You are required to prepare Vertical Income Statement for purpose of analysis.

Problem 05:

The following balances are extracted from the financial statements of Sameer Products Ltd.

Balance Sheet as on 31st March, 2020

Liabilities	Amount	Assets	Amount
Bank Loan	1,50,000	Preliminary Expenses	18,750
(10% preference Share)		(Net yet written off)	
Capital (R 100)	3,75,000	Stock (closing)	3,00,000
Investments	1,87,500	10% Debentures	3,75,000
Trade Receivables	3,00,000	Bills Payable	75,000
Trade Payables	2,25,000	Land & Building	7,50,000
Goodwill	1,87,500	Equity Share Capital « 10 each)	7,50,000
Bills Receivable	2,06,250	Bank Overdraft	1,12,500
Plant & Machinery	4,50,000	Cash & Bank Balance	56,250
Profit & Loss A/c (Cr.)	3,00,000	Furniture	3,00,000
Unclaimed Dividend	15,000	General Reserve	3,18,750
Prepaid Expenses	37,500	Advance Tax	1,50,000
Provision for Taxation	1,72,500	Proposed Dividend	75,000

You are required to Prepare Balance Sheet in vertical form suitable for analysis.

Problem 06:

From the information given below prepare a Balance Sheet in a vertical form suitable for analysis.

Particulars	Amount (₹)
Current Account with IDFC Bank	60,000
Land and Building	9,60,000
Advance Payments	74,400
Stock	3,27,600
Creditors	4,87,200
Debtors	6,27,600
Bills Receivable	25,200
Plant and Machinery	6,52,800
8% Debentures	3,00,000
Loan from a Director	62,400
Equity Share Capital	12,00,000
Profit and Loss Account	2,60,400
Trade Investments	24,000
Proposed Dividend	1,03,200
Advance Tax	1,20,000
Provision for Taxation	3,16,800
Bills Payable	21,600
General Reserve	1,20,000

Problem 07:

The balance sheet of Diana Ltd. is given for the year 2020. Convert them into vertical balance sheet.

Balance Sheet as on 31st March, 2004

Liabilities	Amount	Assets	Amount
Equity Shares	4,39,300	Building	4,60,000
Capital Reserve	1,61,000	Plant and Machinery	1,26,500
Revenue Reserve and Surplus	69,000	Furniture	46,000
Trade Creditors	92,000	Freehold Property	27,600
Bills Payable	1,38,000	Goodwill	69,000
Bank Overdraft	1,84,000	Cash Balance	46,000
Provisions	46,000	Sundry Debtors	80,500
		Inventories	1,31,100
		Investment (Temporary)	96,600
		Bills Receivable	46,000
	11,29,300		11,29,300

Problem 08:

Following is the Trial balance of M/s. Vanraj Ltd. as on 31" March, 2020.

Trial Balance

Particulars	Amount (₹)	Amount (₹)
Sales	-	2,40,000
Fixed Assets	1,20,000	-
Bills Receivable & Bills Payable	24,000	18,000
Cash and Bank Balance	6,000	-
Opening Stock	12,000	-
Bank overdraft	-	12,000
Purchases	1,50,000	-
Administrative Expenses	3,600	-
Legal Expenses	2,400	-
Salaries	6,000	-
Advertisement	4,800	-
Warehouse Rent	2,400	-
Depreciation on machinery	6,000	-
Interest on Bank overdraft	1,200	-

Equity share capital	-	72,000
General Reserve	-	12,000
Lap Top Repairs	2,400	-
Direct Expenses	2,400	-
Investment	4,800	-
Debtors and creditors	12,000	6,000
Total	3,60,000	3,60,000

Additional Information:

Closing stock on 31st March 2020 was valued at Rs.6,000

Cash sales were 1/3 of credit sales.

You are required to prepare vertical income statement for the year ended 31st March 2020 and

Vertical balance sheet as on that date for financial analysis.

Problem 09:

From the following Trial Balance of Urmila Ltd. as on 31st March, 2020.

Particulars	Amount Rs.	Amount Rs.
Equity Share Capital	-	25,74,000
Plant and Machinery	28,08,000	-
Sales	-	86,58,000
Purchases	39,78,000	-
Sundry Debtors	21,06,000	-
Sundry Creditors	-	19,89,000
Wages	8,19,000	-
Opening Stock	2,80,800	-
Salaries	4,21,200	-
Advertisement	1,75,500	-
Telephone Charges	81,900	-
Furniture	4,68,000	-
Investment (Long Term)	11,70,000	-
Interest Received	-	93,600
Loss on Sale of Furniture	46,800	-
Commission	1,40,400	-

Profit and Loss A/c	-	2,80,800
Interim Dividend	1,17,000	-
General Reserve	-	2,34,000
Cash At Bank	7,48,800	-
Bills Receivable	4,68,000	-
	1,38,29,400	1,38,29,400

Prepare vertical Revenue statement for the year ended 31st March, 2020 and vertical Balance sheet as on that date after making the necessary adjustments.



COMPARATIVE STATEMENTS, COMMON SIZE STATEMENTS & TREND ANALYSIS COMPARATIVE BALANCE SHEET

Unit Structure:

3.0 Learning Objectives

3.1 Introduction to Comparative Statement

3.0 LEARNING OBJECTIVES

After studying this unit, the learners will be able to:

- Analyses the financial statements.
- Understand the limitations of financial statements.
- Solve the practical problems of analyses.

3.1 INTRODUCTION TO COMPARATIVE STATEMENT

A comparative balance sheet is a statement that shows the financial position of an organization over different periods for which comparison is made or required. The financial position is compared with 2 or more periods to portray the trend, direction of change, analyse and take suitable actions.

Advantages of Comparative Balance Sheet

- 1. Easy Comparison:** It is easy to compare the figures for the current year with the previous years as it gives both the years' figures in one place. It also help in analysing the data of two or more companies or subsidiaries of one company.
- 2. Indicates Trend:** It shows the company's trend by putting several years' financial figures at one place like an Increase or decrease in current assets, current liabilities, profit, loans, reserves & surplus, or any other items that help investors make decision.
- 3. Ratio Analysis:** Financial ratio is obtained from the balance sheet items. The comparative balance sheet's financial ratio of two years of two companies can be derived to analyse the company's financial status. For example, the current ratio is obtained with the help of current assets and current liabilities. If the current ratio of the current

year is more than the last year, it shows the company's liabilities have been reduced from last year against the existing assets.

- 4. Comparison with Industry Performance:** Helps to compare one company's performance with another company or the industry's average performance.
- 5. Helps in Forecasting:** It also helps in forecasting because it provides the past trend of the company based on which the management can forecast the company's financial position.

Limitation/Disadvantages:

- 1. Uniformity in Principles and Policy:** If two companies have adopted different policies and accounting principles while preparing the balance sheet, Comparative balance sheet will not give the correct comparison.
- 2. Inflationary Effect is not Considered:** The inflation effect is not considered, while preparing the comparative balance sheet. Therefore, only a comparison with other balance sheets will not give the correct picture of the company's trend.
- 3. Market Situation and Political Conditions not Considered:** While preparing the comparative balance sheet, marketing conditions, political environment, or any factor affecting the company's business are not considered. Therefore, it does not give the correct picture every time. For example, suppose the overall economy is going down in the current year, or the political condition is unstable compared to last year. In that case, it will decrease the demand, and general company sales will experience de-growth, not because of its performance but due to external factors.
- 4. Misleading Information:** Sometimes, it gives misleading information, thus, misguiding the person who reads the comparative balance sheet.

Illustration 01: Following is the Balance Sheet of M/s Rohan Ltd.

Liabilities	2019 `	2020 `	Assets	2019 `	2020 `
Share Capital	5,55,000	5,85,000	Fixed Assets	5,70,000	5,25,000
Reserve and Surplus	1,50,000	2,10,000	Investment	1,35,000	1,80,000
Current Liabilities	1,50,000	1,98,600	Current Assets	2,70,000	4,35,000
13 % Debentures	1,20,000	1,46,400			
	9,75,000	11,40,000		9,75,000	11,40,000

Prepare comparative balance sheet from the above in vertical form.

Solution 01**In the books of M/s Rohan Ltd.**

Comparative Statements,
Common Size Statements &
Trend Analysis Comparative
Balance Sheet

Comparative Balance Sheet

Particulars	2019	2020	Absolute Increase/ Decrease	% Increase/ Decrease
I SOURCES OF FUNDS				
1. Owner's Funds				
Capital				
Equity Share Capital	5,55,000	5,85,000	30,000	5.41
Reserves and Surplus				
General Reserve	1,50,000	2,10,000	60,000	40.00
Own Funds or Net Worth	7,05,000	7,95,000	90,000	12.77
2. Loan Funds				
13% Debentures	1,20,000	1,46,400	26,400	22.00
Capital Employed (1 + 2)	8,25,000	9,41,400	1,16,400	14.11
II. APPLICATION OF FUNDS				
1 Fixed Assets	5,70,000	5,25,000	(45,000)	(7.89)
2 Investments	1,35,000	1,80,000	45,000	32B.33
3 Working Capital				
A Current Assets	2,70,000	4,35,000	1,65,000	61.11
B Less: Current Liabilities	1,50,000	1,98,600	48,600	32.40
Working Capital (A - B)	1,20,000	2,36,400	1,16,400	97.00
Capital Employed (1 + 2+3)	8,25,000	9,41,400	1,16,400	14.11

Illustration 02:

Following are the Balance Sheet of Helly Ltd. as on 31st March 2019 and 2020

Liabilities	2020 ₹	2019 ₹	Assets	2020 ₹	2019 ₹
Equity Share Capital	1,68,000	1,68,000	Fixed Assets	2,16,000	1,92,000
11 % Preference share capital	1,44,000	1,20,000	Investment	96,000	1,20,000
General Reserve	57,600	52,800	Current Assets	76,800	1,36,800
10 % Debentures	-	72,000	Preliminary Expenses	19,200	24,000
Current Liabilities	38,400	60,000			
Total	4,08,000	4,72,800	Total	4,08,000	4,72,800

Solution 02:

Particulars	2019	2020	Absolute Increase/ Decrease	% Increase/ Decrease
I. SOURCES OF FUNDS				
1. Shareholder's Fund				
(a) Equity Share Capital	1,68,000	1,68,000	-	-
(b) 11% Preference Share Capital	1,20,000	1,44,000	24,000	20.00
	2,88,000	3,12,000	24,000	8.33
(c) Reserve and Surplus:				
General Reserve	52,800	57,600	4,800	9.09
Owners Funds	3,40,800	3,69,600	28,800	8.45
Less: Preliminary Expenses	24,000	19,200	(4,800)	(20.00)
Net Worth	3,16,800	3,50,400	33,600	10.61
2. Loan Fund				
(a) Secured Loans				
10% Debenture	72,000	0	(72,000)	(100.00)
TOTAL FUNDS AVAILABLE (A)	3,88,800	3,50,400	(38,400)	(9.88)
B APPLICATION OF FUNDS:				
1. Fixed Assets	1,92,000	2,16,000	24,000	12.50
2. Investments	1,20,000	96,000	(24,000)	(20.00)
2B. Working Capital	3,12,000	3,12,000	0	0
(i) Current Assets	1,36,800	76,800	(60,000)	(42B.86)
(ii) Current Liabilities	60,000	38,400	(21,600)	(36.00)
Working Capital (i - ii)	76,800	38,400	(38,400)	(50.00)
APPLICATION OF FUNDS (B)	3,88,800	3,50,400	(38,400)	(9.88)
(a + b + c)				

Illustration 03:

Following are the Profit and Loss Accounts of M/s Pari Enterprises for the years ended 31st

Profit & Loss Account for the year ended 31st March 2019 and 2020

Particular	2019 ₹	2020 ₹	Particular	2019 ₹	2020 ₹
To Cost of sales	2,70,000	4,05,000	By Sales	4,05,000	5,40,000
To Salaries	27,000	27,000	By Interest	13,500	27,000
To Office Rent	13,500	20,250			
To Advertisement Expenses	40,500	16,200			
To Travelling Expenses	20,250	40,500			
To Income Tax	6,750	13,500			
To Net Profit c/d	40,500	44,550			
Total	4,18,500	5,67,000	Total	4,18,500	5,67,000

Prepare a comparative Income statement from the above, in vertical form.

Solution 03:

In the books of Helly Ltd.

Comparative Statements,
Common Size Statements &
Trend Analysis Comparative
Balance Sheet

Comparative Balance Sheet for the year ended:

Particulars	2019	2020	Absolute Increase/ Decrease	% Increase/ Decrease
I SOURCES OF FUNDS				
1 Shareholder's Fund				
(a) Equity Share Capital	1,68,000	1,68,000	-	-
(b) 11% Preference Share Capital	1,20,000	1,44,000	24,000	20.00
	2,88,000	3,12,000	24,000	8.33
(c) Reserve and Surplus:				
General Reserve	52,800	57,600	4,800	9.09
Owners Funds	3,40,800	3,69,600	28,800	8.45
Less: Preliminary Expenses	24,000	19,200	(4,800)	(20.00)
Net Worth	3,16,800	3,50,400	33,600	10.61
2 Loan Fund				
(a) Secured Loans				
10% Debenture	72,000	0	(72,000)	(100.00)
TOTAL FUNDS AVAILABLE (A)	3,88,800	3,50,400	(38,400)	(9.88)
B APPLICATION OF FUNDS:				
(a) Fixed Assets	1,92,000	2,16,000	24,000	12.50
(b) Investments	1,20,000	96,000	(24,000)	(20.00)
(c) Working Capital	3,12,000	3,12,000	0	0
(i) Current Assets	1,36,800	76,800	(60,000)	(42B.86)
(ii) Current Liabilities	60,000	38,400	(21,600)	(36.00)
Working Capital (i - ii)	76,800	38,400	(38,400)	(50.00)
APPLICATION OF FUNDS (B) (a + b + c)	3,88,800	3,50,400	(38,400)	(9.88)

Illustration 04:

From the following Profit and Loss Account prepare a vertical comparative income statement of Ritesh Ltd.

Particular	2017	2018
Opening Stock of Raw Materials	1,60,000	2,40,000
Purchases	6,00,000	16,00,000
Wages	2,00,000	3,20,000
Factory Expenses	1,60,000	2,00,000
Closing Stock of Raw Materials	2,40,000	6,00,000
Salaries	20,000	24,000
Rent	16,000	20,000
Carriage Outward	24,000	20,000
Delivery Expenses	12,000	6,000
Advertisement Expenses	30,000	20,000
Interest Paid	2,000	6,000
Loss on Sale of Asset	26,000	20,000
Tax Paid	76,000	56,000
Sales	12,00,000	20,00,000
Interest Received on Investment	1,000	1,000

Solution 04:

Comparative Vertical Profit & Loss Statement

Particulars	as on 2017 ₹	as on 2018 ₹	Absolute Increase/ Decrease	% Increase/ Decrease
1 Net Sales	12,00,000	20,00,000	8,00,000	66.67
2 Less: Cost of Goods Sold				
Opening Stock	1,60,000	2,40,000	80,000	50.00
Purchases	6,00,000	16,00,000	10,00,000	166.67
Factory Expenses	1,60,000	2,00,000	40,000	25.00
Wages	2,00,000	3,20,000	1,20,000	60.00
Less: Closing Stock	(2,40,000)	(6,00,000)	(3,60,000)	150.00
	8,80,000	17,60,000	8,80,000	100.00
3 Gross Profit	3,20,000	2,40,000	(80,000)	(25.00)

4 Operating Expenses				
I. Administration Expenses				
Salaries	20,000	24,000	4,000	20.00
Rent	16,000	20,000	4,000	25.00
II. Selling and Distribution Expenses				
Carriage Outward	24,000	20,000	(4,000)	(16.67)
Delivery Expenses	12,000	6,000	(6,000)	(50.00)
Advertisement Expenses	30,000	20,000	(10,000)	(32B.33)
5 Add: Operating Expenses	1,02,000	90,000	(12,000)	(11.76)
6 Profit Before Interest	2,18,000	1,50,000	(68,000)	(31.19)
7 Less: Interest Paid	2,000	6,000	4,000	200.00
8 Net Profit After Interest	2,16,000	1,44,000	(72,000)	(32B.33)
9 Non-Operating Income				
Interest received on Investments	1,000	1,000	-	-
10 Less: Non-Operating Expenses				
Loss on Sale of Asset	26,000	20,000	(6,000)	(22B.08)
11 Net Profit Before Tax	1,91,000	1,25,000	(66,000)	(34.55)
12 Income Tax	76,000	56,000	(20,000)	(26.32)
13 Profit After Tax	1,15,000	69,000	(46,000)	(40.00)

Illustration 05

CIRCLE and SQUARE are carrying on partnership business. Their position as on 31st March 2020 and 2019 is as follows:

(i) The Summarised Balance Sheet

Liabilities	2020 ₹	2019 ₹	Assets	2020 ₹	2019 ₹
Capital Accounts	1,21,975	1,01,150	Fixed Assets	89,250	74,375
Bank Loans	23,800	17,850	Investments	5,950	2,975
Sundry Creditors	65,450	59,500	Stock in Trade	35,700	29,750
			Sundry Debtors	53,550	44,625
			Loans and Advances	23,800	23,800
			Cash and Bank	2,975	2,975
Total	2,11,225	1,78,500	Total	2,11,225	1,78,500

ii) Summarised Income Statement

Particulars	2020 ₹	2019 ₹
Net Sales	71,400	65,450
Less: Cost of sales	53,550	50,575
Gross Margin	17,850	14,875
Operating Expenses	14,875	11,900
Net Profit before Tax	2,975	2,975

Solution 05:**Comparative Balance Sheet**

Particulars	as on 2019 ₹	as on 2020 ₹	Absolute Increase/Decrease	% Increase/Decrease
I SOURCES OF FUNDS				
1 Owner's Funds	1,01,150	1,21,975	20,825	20.59
2 Loan Funds	17,850	23,800	5,950	33.33
Total Funds Available (1 + 2)	1,19,000	1,45,775	26,775	22.50
II APPLICATION OF FUNDS				
1 Fixed Assets	74,375	89,250	14,875	20.00
2 Investments	2,975	5,950	2,975	100.00
<u>3 Working Capital</u>				
(A) Current Assets				

Stock	29,750	35,700	5,950	20.00
Debtors	44,625	53,550	8,925	20.00
Loans & Advances	23,800	23,800	-	-
Cash/Bank	2,975	2,975	-	-
(A)	1,01,150	1,16,025	14,875	14.71
(B) Less: Current Liabilities				
Creditors	59,500	65,450	5,950	10.00
(B)	59,500	65,450	5,950	10.00
(A - B)	41,650	50,575	8,925	21.43
Total Funds Employed (1 + 2 + 3)	1,19,000	1,45,775	26,775	22.50

Comparative Statements,
Common Size Statements &
Trend Analysis Comparative
Balance Sheet

Comparative Income Statement

Particulars	as on 2019 ₹	as on 2020 ₹	Absolute Increase/ Decrease	% Increase/ Decrease
1 Sales	65,450	71,400	5,950	9.09
2 Less: Cost of Sales	50,575	53,550	2,975	5.88
3 Gross Profit (1 - 2)	14,875	17,850	2,975	20.00
4 Less: Operating Expenses	11,900	14,875	2,975	25.00
5 Net Profit (3 - 4)	2,975	2,975	-	-

Illustration 06:

Complete the following Comparative Statement of Barkha Products by ascertaining the missing figures.

Particular	Year Ended 31-03-16 ₹	Year Ended 31-03-17 ₹	Increase/ (Decrease) ₹	% Increase/ (Decrease)
Gross Profit	?	?	?	?
Less: Expenses				
- Administrative	1,12,000	?	22,400	20.00
- Selling	56,000	67,200	11,200	?
- Financial	?	28,000	5,600	25.00
Operating Net Profit	?	2,24,000	1,12,000	100.00

Solution 06:**Comparative Statement of Barkha Product**

Particular	Year Ended 31-03-16 ₹	Year Ended 31-03-17 ₹	Increase/ (Decrease) ₹	% Increase/ (Decrease)
Gross Profit	3,02,400 ⁶	4,53,600 ⁵	1,51,200 ⁷	50.00
Less: Expenses				
- Administrative	1,12,000	1,34,400 ¹	22,400	20.00
- Selling	56,000	67,200	11,200	20.00 ²
- Financial	22,400 ³	28,000	5,600	25.00
Operating Net Profit	1,12,000 ⁴	2,24,000	1,12,000	100.00

Working Note:

- $1,12,000 + 22,400 = 1,34,400$
- $11,200 \div 56,000 \times 100 = 20.00$
- $5,600 \div 25\% \text{ or } 28,000 - 5,600 = 22,400$
- $1,12,000 \div 100\% \text{ or } 2,24,000 - 1,12,000 = 1,12,000$
- $2,24,000 + (1,34,400 + 67,200 + 28,000) = 4,53,600$
- $1,12,000^4 + (1,12,000 + 56,000 + 22,400) = 3,02,400$
- $4,53,600 - 3,02,400 = 1,51,200$
- $1,51,200 \div 3,02,400 = 50.00\%$

Illustration 07:

Particular	2019 ₹	2020 ₹	Absolute Increase/ (Decrease)	% Increase/ (Decrease)
Sales	?	?	(+) 4,60,000	(+) 25.00%
<u>Cost of Goods Sold</u>				
Opening Stock	92,000	1,38,000	?	?
Purchases	?	?	(+) 2,30,000	(+) 20.00%
Wages	2,76,000	5,06,000	?	?
Less: Closing Stock	?	1,84,000	?	?
Cost of Goods Sold	?	?	?	?
Gross Profit (A - B)	?	?	?	?

<u>Operating Expenses</u>				
(a) Administrative	?	?	(+) 23,000	(+) 20.00%
(b) Selling	57,500	69,000	-	?
(c) Finance	?	?	(+) 5,175	(+) 22.5%
Total Operating Expenses	?	?	?	?
Net Operating Profit (C - D)	?	?	?	?
Add: Non-Operating Income	23,000	1,15,000	?	?
Net Profit Before Tax	?	?	?	?
Less: Provision for Tax	?	?	?	?
Net Profit After Tax	2,41,500	2,70,825	?	?

Solution 07:

Particulars	2019 ₹	2020 ₹	Absolute Increase/ (Decrease)	% Increase/ (Decrease)
Sales	18,40,000 ¹	23,00,000 ²	(+) 4,60,000	(+) 25%
<u>Cost of Goods Sold</u>				
Opening Stock	92,000	1,38,000	46,000 ³	50.00% ⁴
Purchases	11,50,000 ⁵	13,80,000 ⁶	(+) 2,30,000	(+) 20.00%
Wages	2,76,000	5,06,000	2,30,000 ⁷	82B.33% ⁸
Less: Closing Stock	1,38,000 ⁹	1,84,000	46,000 ¹⁰	32B.33% ¹¹
Cost of Goods Sold	13,80,000	18,40,000	4,60,000	32B.33%
Gross Profit (A - B)	4,60,000	4,60,000	-	0.00%
<u>Operating Expenses</u>				
(a) Administrative	1,15,000 ¹²	1,38,000 ¹³	(+) 23,000	(+) 20.00%
(b) Selling	57,500	69,000	11,500 ¹⁴	20.00% ¹⁵
(c) Finance	23,000 ¹⁶	28,175 ¹⁷	(+) 5,175	(+) 22.5%
Total Operating Expenses	1,95,500	2,35,175	39,675	20.29%
Net Operating Profit (C - D)	2,64,500	2,24,825	(39,675)	(15.00%)
Add: Non-Operating Income	23,000	1,15,000	92,000	400.00%
Net Profit Before Tax	2,87,500	3,39,825	52,325	18.20%
Less: Provision for Tax	46,000	69,000	23,000	50.00%
Net Profit After Tax	2,41,500	2,70,825	29,325	12.14%

Working Notes:

1. $4,60,000 \div 25\% = 18,40,000$	12. $23,000 \div 20\% = 1,15,000$
2. $1,84,000 + 4,60,000 = 23,00,000$	13. $1,15,000 + 23,000 = 1,38,000$
3. $1,38,000 - 92,000 = 46,000$	14. $69,000 - 57,500 = 11,500$
4. $46,000 \div 92,000 = 50\%$	15. $11,500 \div 57,500 = 20.00\%$
5. $2,30,000 \div 20\% = 11,50,000$	16. $5,175 \div 22.50\% = 23,000$
6. $11,50,000 + 13,80,000$	17. $23,000 + 5,175 = 28,175$
7. $5,06,000 - 2,76,000 = 2,30,000$	
8. $2,30,000 \div 2,76,000 = 82B.33\%$	
9. Opening Stock of 2020 is closing stock of 2019.	
10. $1,84,000 - 1,38,000 = 46,000$	
11. $46,000 \div 1,38,000 = 32B.33$	

Figures in Bracket indicates negative numbers.

Illustration 08

Complete the following Comparative Statement of Hina Products by ascertaining the missing figures.

Particular	Year Ended 31-03-16	Year Ended 31-03-17	Increase/ (Decrease)	% Increase/ (Decrease)
Share Capital	16,25,000	?	1,00,000	?
Reserve and Surplus	6,25,000	5,00,000	?	?
Debentures	3,75,000	?	(1,25,000)	?
Current Assets	?	7,50,000	1,00,000	?
Long Term Investment	?	?	25,000	10
Current Liabilities	?	5,00,000	(25,000)	?
Fixed Assets	?	?	?	?

Solution 08:

Particulars	2019	2020	Absolute Increase/ Decrease	% Increase/ Decrease
I SOURCES OF FUNDS				
1 Shareholder's Fund				
a Share Capital	16,25,000	17,25,000	1,00,000	6.15
b Reserves and Surplus	6,25,000	5,00,000	(1,25,000)	(20.00)
	56,25,000	55,62,500	(62,500)	(1.11)
2 Loan Fund				
Debentures	3,75,000	2,50,000	(1,25,000)	(32B.33)

3 Capital Employed	60,00,000	58,12,500	(1,87,500)	(2B.13)
II APPLICATION OF FUNDS				
1 Fixed Assets (CE - Invt. - WC)	22,50,000	19,50,000	(3,00,000)	(12B.33)
Investments	2,50,000	2,75,000	25,000	10.00
2 Working Capital				
A Current Assets	6,50,000	7,50,000	1,00,000	15.38
B Less: Current Liabilities	5,25,000	5,00,000	(25,000)	(4.76)
Working Capital (A - B)	1,25,000	2,50,000	1,25,000	100.00
3 Capital Employed	26,25,000	24,75,000	(1,50,000)	(5.71)

Comparative Statements,
Common Size Statements &
Trend Analysis Comparative
Balance Sheet

Common Size Statement:

A common size income statement is an income statement in which each line item is expressed as a percentage of the value of revenue or sales. It is used for vertical analysis, in which each line item in a financial statement is represented as a percentage of a base figure within the statement.

Use of Common Size Income Statement:

It helps the business owner in understanding the following points

1. Whether profits are showing an increase or decrease in relation to the sales obtained.
2. Percentage change in cost of goods that were sold during the accounting period.
- 2B. Variation that might have occurred in expense.
4. If the increase in retained earnings is in proportion to the increase in profit of the business.
5. Helps to compare income statements of two or more periods.
6. Recognises the changes happening in the financial statements of the organisation, which will help investors in making decisions about investing in the business.

Limitations of Common Size Statement:

1. It is not helpful in the decision-making process as it does not have any approved benchmark.
2. For a business that is impacted by fluctuations due to seasonality, it can be misleading.

Illustration 09:

Following is the Balance Sheet of Priyanka Ltd. as on 31st March, 2020.

Balance Sheet as on 31st March 2020

Liabilities	₹	Assets	₹
Equity Share Capital	1,50,000	Fixed Assets	2,00,000
8% Preference Share Capital	1,00,000	Investments	75,000
General Reserve	10,000	Stock	12,500
Profit and Loss Account	25,000	Debtors`	37,500
10% Debentures	50,000	Bills Receivable	15,000
Creditors	10,000	Cash	7,500
Bills Payable	3,500	Preliminary Expenses	2,500
Outstanding Expenses	1,500		
	3,50,000		3,50,000

Prepare a Common-size Balance Sheet from the above in vertical form.

Solution 09:

Priyanka LTD.

Particulars	2020	% Increase/ Decrease
<u>I SOURCES OF FUNDS</u>		
1 Owner's Funds		
A Capital		
Equity Share Capital	1,50,000	45.11
8% Preference Share Capital	1,00,000	30.08
	2,50,000	75.19
B. Reserves and Surplus		0.00
General Reserve	10,000	2B.01
Profit and Loss A/c	25,000	7.52
	35,000	10.53
Less: Preliminary Expenses	(2,500)	(0.75)
Net Reserves and Surplus	32,500	9.77
Own Funds or Net Worth	2,82,500	84.96
2 Loan Funds		0.00
10% Debentures	50,000	15.04
Capital Employed [1 + 2]	3,32,500	100.00
<u>II APPLICATION OF FUNDS</u>		
1 Fixed Assets	2,00,000	60.15

2 Investments	75,000	22.56
3 Working Capital		
<u>A Current Assets</u>		
Cash	7,500	2.26
Debtors	37,500	11.28
Bills Receivable	15,000	4.51
Total Liquid Assets	60,000	18.05
Stock	12,500	2B.76
Total Current Assets	72,500	21.80
<u>B. Less: Current Liabilities</u>		0.00
Creditors	10,000	2B.01
Bills Payable	3,500	1.05
Outstanding Expenses	1,500	0.45
Total Current Liabilities	(15,000)	(4.51)
Working Capital [A - B]	57,500	17.29
Capital Employed [1 + 2 + 3]	3,32,500	100.00

Comparative Statements,
Common Size Statements &
Trend Analysis Comparative
Balance Sheet

Illustration 10:

Following is the Summarised Balance Sheet of M/s. Sana Ltd. as on 31st March, 2020, prepare a Common Size Balance Sheet in vertical form.

Balance Sheet as at 31st March, 2020

Liabilities	₹	Assets	₹
Equity Share Capital	2,55,000	Fixed Assets	1,95,000
Reserve Fund	81,000	Investment	85,200
Creditors	42,000	Inventory	42,000
Tax Provision	27,000	Debtors	48,000
		Cash	34,800
	4,05,000		4,05,000

Prepare a Common-size Balance Sheet from the above in vertical form.

Solution 10:

Sana Ltd.

Common-Size Balance Sheet

Particulars	Amount	Amount	% Increase/ Decrease
I SOURCES OF FUNDS			
1 Owner's Funds			
A Capital			
Equity Share Capital		2,55,000	75.89
B. Reserves and Surplus			
Reserve Fund		81,000	24.11
Own Funds or Net Worth		3,36,000	100.00
2 Loan Funds			
3 Capital Employed		3,36,000	100.00
II APPLICATION OF FUNDS			
1 <u>Net Fixed Assets</u>			
Net Tangible Assets		1,95,000	58.04
<u>2. Long Term Investments</u>			
Trade Investments		85,200	25.36
<u>2B. Working Capital</u>			
Current Assets			
Cash	34,800		10.36
Debtors (Net)	48,000		14.29
Total Liquid Assets	82,800		24.64
Inventory	42,000		12.50
a Current Assets	1,24,800		37.14
Less: Current Liabilities			-
Creditors	42,000		12.50
Provision for Tax	27,000		8.04
b Total Quick/Current Liabilities	(69,000)		(20.54)
c Working Capital (a - b)		55,800	16.61
4. Capital Employed		3,36,000	100.00

Illustration 11:

Dr. Trading and Profit and Loss Account for the Year Ended 31st
March, Cr.

Particular	₹	Particular	₹
To Opening Stock	2,25,000	By Sales	45,00,000
To Purchases	24,07,500	By Closing Stock	2,70,000
To Interest on Debentures	1,12,500	By Dividend	29,250
To Depreciation on Furniture	11,250		
To Depreciation on Machinery	22,500		
To Administration Expenses	3,30,750		
To Selling Expenses	5,64,750		
To Carriage Outward	2,36,250		
To Loss by Fire	11,250		
To Wages	2,25,000		
To Provision for Tax	3,26,250		
To Net Profit	3,26,250		
	47,99,250		47,99,250

Comparative Statements,
Common Size Statements &
Trend Analysis Comparative
Balance Sheet

Solution 11:

Commonsize Income Statement For the Year Ended 31st March 2018

Particulars	2018	Percentage
1 Net Sales	45,00,000	100.00
2 Less: Cost of Goods sold		
A Opening Stock	2,25,000	5.00
B Add: Purchases	24,07,500	52B.50
Wages	2,25,000	5.00
Depreciation - Machinery	22,500	0.50
	28,80,000	64.00
C Less: Closing Stock	(2,70,000)	(6.00)
D Cost of Sales	26,10,000	58.00
3 Gross Profit (1 - 2)	18,90,000	42.00
4 Less: Operating Expenses		
<u>I. Administration Expenses</u>		
Depreciation on Furniture	11,250	0.25
Other	3,30,750	7.35
Total Administration Expenses	3,42,000	7.60
I. Selling and Distribution Expenses		

Carriage Outward	2,36,250	5.25
Other	5,64,750	12.55
Total selling and distribution expenses	8,01,000	17.80
Total Operating Expenses (I + I1)	11,43,000	25.40
5 Operating Profit Before Interest (3 - 4)	7,47,000	16.60
6 Less : Interest Paid		
Interest on Debentures	(1,12,500)	(2.50)
7 Net Profit After Interest (5 - 6)	6,34,500	14.10
8 Add : Non-Operating Income		
Dividends	29,250	0.65
9 Less: Non-Operating Expense		
Loss by Fire	(11,250)	(0.25)
10 Net Profit Before Tax (7 + 8 - 9)	6,52,500	14.50
11 Less: Income Tax	(3,26,250)	(7.25)
12 Net Profit After Tax (10 - 11)	3,26,250	7.25

Illustration 12

Following is the Trading and Profit & Loss Account of Daya Ltd. & Radha Ltd. for the year ended 31st March 2020

Trading and Profit and Loss Account for the Year Ended 31st March, 2020`++

Particular	Daya	Radha	Particular	Daya	Radha
To Opening Stock	25,920	1,03,680	By Sales	1,44,000	7,20,000
To Purchases	1,05,120	3,15,360	By Closing Stock	43,200	2,16,000
To Wages	15,840	95,040			
To Carriage Inward	5,760	21,240			
To Gross Profit c/d	34,560	4,00,680			
	1,87,200	9,36,000		1,87,200	9,36,000
To Operating Expenses	28,800	2,01,600	By Gross Profit b/d	34,560	4,00,680
To Loss on Sale of Asset	7,200	43,200	By Interest on Investment	18,720	29,980

To Income Tax Provision	2,880	28,240			
To Net Profit c/f	14,400	1,74,340			
Total	53,280	4,30,660	Total	53,280	4,30,660

Comparative Statements,
Common Size Statements &
Trend Analysis Comparative
Balance Sheet

Solution 12:

Commonsize Income Statement For the Year Ended 31st March 2020

Particulars	Daya		Radha	
	Amount	%	Amount	%
1 Net Sales	1,44,000	100.00	7,20,000	100.00
2 Less : Cost of Goods sold				
A Opening Stock	25,920	18.00	1,03,680	14.40
B Add: Purchases	1,05,120	72B.00	3,15,360	42B.80
Wages	15,840	11.00	95,040	12B.20
Carriage Inward	5,760	4.00	21,240	2.95
	1,52,640	106.00	5,35,320	74.35
C Less : Closing Stock	(43,200)	(30.00)	(2,16,000)	(30.00)
D Cost of Sales	1,09,440	76.00	3,19,320	44.35
3 Gross Profit (1 - 2)	34,560	24.00	4,00,680	55.65
4 Less : Operating Expenses	(28,800)	(20.00)	(2,01,600)	(28.00)
5 Operating Profit	5,760	4.00	1,99,080	27.65
6 Add : Non-operating Income				
Interest on Investment	18,720	12B.00	29,980	4.16
7 Less : Non-operating Expense	24,480	17.00	2,29,060	31.81
Loss on Sale of Asset	(7,200)	(5.00)	(43,200)	(6.00)
8 Net Profit Before Tax	17,280	12.00	1,85,860	25.81
9 Less : Income Tax	(2,880)	(2.00)	(28,240)	(2B.92)
10 Net Profit After Tax	14,400	10.00	1,57,620	21.89

Illustration 13:

Prepare common size Financial Statement in a form suitable for analysis

Summary Balance Sheet as on 31st March, 2020

Liabilities	₹	Assets	₹
	13,650	Cash	8,775
Outstanding expenses	25,350	Debtors	36,075
Loans	73,125	Prepaid Expenses	71,500
Capital	2,13,850	Stock	32,500
Reserves	32,500	Other Current Assets	3,250
		Fixed Assets	2,06,375
	3,58,475		3,58,475

Summary Income Statement for the Year Ending on 31st March, 2020

Particulars	Amount	Particulars	Amount
To Cost of goods sold	2,31,075	By Net Sales	4,12,425
To Selling Overheads	1,17,000	By Other Income	3,900
To Administration and General Expenses	29,900		
To Tax	11,050		
To Loss on sale of Investments	15,600		
To Net Income	11,700		
	4,16,325		4,16,325

Solution 13:

Particulars	Amount	Percentage
<u>I SOURCES OF FUNDS</u>		
1 Shareholders Funds		
Capital	2,13,850	66.94
Reserves	32,500	10.17
Networth	2,46,350	77.11
2 Loan Funds	73,125	22.89
Total Funds Available	3,19,475	100.00
<u>II APPLICATION OF FUNDS</u>		
1 Fixed Assets	2,06,375	64.60
2 Working Capital		
<u>A Current Assets</u>		

Cash	8,775	2.75
Debtors	36,075	11.29
Other Current Assets	3,250	1.02
Stock	32,500	10.17
Prepaid Expenses	71,500	22.38
Total (A)	1,52,100	47.61
B Less: Current Liabilities		0.00
Creditors	13,650	4.27
Outstanding Expenses	25,350	7.93
Total (B)	(39,000)	(12.21)
(A-B)	1,13,100	35.40
Total Funds Employed (1+2)	3,19,475	100.00

Comparative Statements,
Common Size Statements &
Trend Analysis Comparative
Balance Sheet

Particulars	Amount	Percentage
1 Net Sales	4,12,425	100.00
2 Less: Cost of goods sold	(2,31,075)	(56.03)
3 Gross Profit (1 - 2)	1,81,350	42B.97
4 Less: Operating Expenses:		
(a) Admin & General Expenses	(29,900)	(7.25)
(b) Selling Overheads	(1,17,000)	(28.37)
Total (4)	(1,46,900)	(35.62)
5 Other operating Income	3,900	0.95
6 Net Operating Profit (3 - 4 + 5)	38,350	9.30
7 Less: Non-operating Expenses		
Loss on sale of Investments	(15,600)	(2B.78)
8 Net Profit before Tax (6 - 7)	22,750	5.52
9 Less: Taxes	(11,050)	(2.68)
10 Net Profit After Tax (8 - 9)	11,700	2.84

Illustration 14:

Complete the following Common Size Income Statement of Babita Ltd. by ascertaining the missing figures / percentages

Particular	₹	₹	%	%
Net Sales		5,00,000		
Less : Cost of Goods Sold				
Opening Stock	?		20.00	
Purchases	?		60.00	
Wages	62,500		?	
Factory Overheads	?		12.50	
	?		105.00	
Less : Closing Stock	1,50,000	?	30.00	75.00
Gross Profit		1,25,000		25.00
Less : Operating Expenses				
(a) Administrative Expenses	?		7.00	
(b) Selling Expenses	12,500		2.50	
(c) Finance Expenses	?	52,500	?	10.50
Operating Profit		?		?
Add : Non-Operating Income		12,500		2.50
Less : Non-Operating Expenses		?		1.00
Net Profit Before Tax		80,000		?

Solution 14:**Common Size Income Statement as on 31st March, 2020**

Particular	₹	₹	%	%
Net Sales		5,00,000		100.00
Less: Cost of Goods Sold				
Opening Stock	1,00,000		20.00	
Purchases	3,00,000		60.00	
Wages	62,500		12.50	
Factory Overheads	62,500		12.50	
	5,25,000		105.00	
Less: Closing Stock	(1,50,000)	(3,75,000)	30.00	75.00

Gross Profit		1,25,000		25.00
Less: Operating Expenses				
(a) Administrative Expenses	35,000		7.00	
(b) Selling Expenses	12,500		2.50	
(c) Finance Expenses	5,000	(52,500)	1.00	(10.50)
Operating Profit		72,500		14.50
Add: Non-Operating Income		12,500		2.50
Less: Non-Operating Expenses		(5,000)		(1.00)
Net Profit Before Tax		80,000		16.00

Comparative Statements,
Common Size Statements &
Trend Analysis Comparative
Balance Sheet

Illustration 15:

From the following information of Gabbar Ltd. prepare Common Size Balance Sheet in Vertical Form as on 31st March 2020.

Particulars	₹
Fixed Assets	510000
Net Worth	510000
Loan Fund	?
Working Capital	340000
Total Capital Employed	850000
Current Liabilities	340000

Solution 15:

In the books of Gabbar Ltd.

Commonsize Balance Sheet as on 31st March 2020

Particulars	as on 2020 ₹	%
I SOURCES OF FUNDS		
1 Shareholders Funds	5,10,000	60.00
2 Loan Fund	3,40,000	40.00
Total Funds Available (1 + 2)	8,50,000	100.00
II APPLICATION OF FUNDS		
1 Fixed Assets	5,10,000	60.00

2 Working Capital		-
A Current Assets	6,80,000	80.00
B Less : Current Liabilities	(3,40,000)	(40.00)
Working Capital (A-B)	3,40,000	40.00
2 Total Funds Employed (1 + 2)	8,50,000	100.00

Trend Analysis:

Meaning: Trend Analysis treats year 1 as the base year and compares the figures of all the (year 2/year 3) with those of the base year to find out the trend in figures. Thus trend analysis of purchase will reveal whether as compared to the base year, i.e. Year 1, the purchase show a trend increase or decrease in subsequent years, i.e. Year 2, Year 2, Year 3 and so on.

Use: It is useful because: (1) It shows the direction (up or down) of the changes. (2) Trends are easy to calculate and interpret. (3) It is a quick method of analysis.

Advantages:

- (1) Trend Analysis helps in analysing the growth in the financial activities of the firm with a brief look.
- (2) Graphical presentation of trend line helps the management to take a quick decision matter.
- (3) Trend values also help the management in the controlling process as well.
- (4) Trend analysis proves to be very useful for taking rational investment decisions.

Disadvantages:

- (1) Choice of Base Year & No. of Years: If different year is chosen as the base year, the trend may be different. Further, the total number of years covered should not be too large (say 30 years) or too small (say 3 years). Data for a large number of years show large variations due to inflation and figures for a few years are not representative.
- (2) Different Accounting Policies: The trend will give a distorted figure, or a wrong picture if the accounting policies in respect of depreciation, valuation of closing stock etc. have changed.

Illustration 16:

M/s. Henry Ltd. Carrying on business, furnished their position as on 31st March, 2018, 2019 and 2020.

Comparative Statements,
Common Size Statements &
Trend Analysis Comparative
Balance Sheet

Particulars	2018 (Amount in ₹)	2019(Amount in ₹)	2020 (Amount in ₹)
Assets			
Fixed Assets	60,000	51,000	87,600
Investment	26,000	26,000	36,800
Current Assets	54,000	66,400	37,800
	1,40,000	1,43,400	1,62,200
Liabilities			
Share Capital	66,000	62,700	82,000
Debentures	54,000	56,700	19,000
Liabilities for expenses	20,000	24,000	61,200
	1,40,000	1,43,400	1,62,200

Solution:

In the books of Henry Ltd.

Trend Analysis of Balance Sheet

Particulars	Amount			Trend %		
	2018 ₹	2019 ₹	2020 ₹	2018	2019	2020
I SOURCES OF FUNDS						
Share Capital	66,000	62,700	82,000	100.00	95.00	124.00
Debentures	54,000	56,700	19,000	100.00	100.00	35.00
Capital Employed	1,20,000	1,19,400	1,01,000	100.00	99.50	84.00
II APPLICATION OF FUNDS						
1 Fixed Assets	60,000	51,000	87,600	100.00	85.00	146.00
2 Investments	26,000	26,000	36,800	100.00	100.00	142.00
3 Current Assets	54,000	66,400	37,800	100.00	122B.00	70.00
4 Current Liabilities	(20,000)	(24,000)	(61,200)	100.00	120.00	306.00
5 Working Capital (3 - 4)	34,000	42,400	(23,400)	100.00	125.00	(69.00)
6 Capital Employed	1,20,000	1,19,400	1,01,000	100.00	99.50	84.00

Illustration 17:

From the following balance sheet of Sunny Ltd., prepare Trend Percentage Statement in Vertical form:

Balance Sheet as on 31st March

Particulars	2018 (Amount in ₹)	2019 (Amount in ₹)	2020 (Amount in Rs)
Equity and Liability			
Equity Share Capital	2,40,000	2,40,000	2,40,000
8% Preference Share Capital	1,20,000	1,80,000	1,20,000
General Reserve	24,000	26,400	50,400
Debentures	90,000	1,20,000	1,08,000
Bills Payable	6,000	8,400	12,000
Creditors	18,000	12,000	28,800
Total	4,98,000	5,86,800	5,59,200
Assets			
Fixed Assets	1,80,000	2,40,000	2,40,000
Investment	1,20,000	1,80,000	1,20,000
Cash	60,000	30,000	48,000
Debtors	84,000	72,000	75,600
Stock	48,000	60,000	72,000
Preliminary Expenses	6,000	4,800	3,600
Total	4,98,000	5,86,800	5,59,200

Solution 17:

In the books of Sunny Ltd.

Trend Analysis of Balance Sheet

Particulars	Amount			Trend % Base year 2018		
	2018 ₹	2019 ₹	2017 ₹	2,018	2,019	2,017
I SOURCES OF FUNDS						
1 Shareholders' Funds						
a Capital						

Equity Share Capital	2,40,000	2,40,000	2,40,000	100.00	100.00	100.00
8% Pref. Share Capital	1,20,000	1,80,000	1,20,000	100.00	150.00	100.00
Capital	3,60,000	4,20,000	3,60,000	100.00	116.67	100.00
b Reserves and Surplus						
General Reserve	24,000	26,400	50,400	100.00	110.00	210.00
	3,84,000	4,46,400	4,10,400	100.00	116.25	106.88
c Less: Preliminary Expenses.	6,000	4,800	3,600	100.00	80.00	60.00
2 Own Funds	3,78,000	4,41,600	4,06,800	100.00	116.83	107.62
3 Loan Funds						
Debentures	90,000	1,20,000	1,08,000	100.00	132B.33	120.00
Capital Employed (2 + 3)	4,68,000	5,61,600	5,14,800	100.00	120.00	110.00
II APPLICATION OF FUNDS						
1 Fixed Assets	1,80,000	2,40,000	2,40,000	100.00	132B.33	132B.33
2 Investments	1,20,000	1,80,000	1,20,000	100.00	150.00	100.00
3 Working Capital						
a Current Assets:						
Cash	60,000	30,000	48,000	100.00	50.00	80.00
Debtors	84,000	72,000	75,600	100.00	85.71	90.00
Stock	48,000	60,000	72,000	100.00	125.00	150.00
Current Assets (a)	1,92,000	1,62,000	1,95,600	100.00	84.38	101.88
Less: Current Liabilities						
Bills Payable	6,000	8,400	12,000	100.00	140.00	200.00
Creditors	18,000	12,000	28,800	100.00	66.67	160.00
Current Liabilities (b)	24,000	20,400	40,800	100.00	85.00	170.00
Working Capital(a - b)	1,68,000	1,41,600	1,54,800	100.00	84.29	92.14
Capital Employed (1+2+3)	4,68,000	5,61,600	5,14,800	100.00	120.00	110.00

Comparative Statements,
Common Size Statements &
Trend Analysis Comparative
Balance Sheet

Illustration 18

Following balances are extracted from the books of Naman Ltd.

Balance Sheet as on 31st March

Particulars	2018 (Amount in Rs)	2019 (Amount in Rs)	2020 (Amount in Rs)
Net Sales	1,00,500	1,34,000	1,67,500
Opening Stock	10,050	16,750	23,450
Purchases	56,950	63,650	67,000
Wages	5,025	10,050	6,700
Carriage Inward	6,700	13,400	13,400
Closing Stock	16,750	23,450	20,100
Office Expenses	3,350	4,020	5,025
Selling Expenses	2,345	3,015	3,350

Finance Expenses	2,010	3,350	6,700
Non-Operating Income	2,680	3,015	3,350
Non-Operating Expenses	1,675	1,005	1,675
Tax	40%	40%	40%

You are required to prepare vertical trend analysis Income Statement from the above.

Solution 18:

In the books of Naman Ltd.

Vertical Trend Analysis Income Statement

Particulars	Amount			Trend % Base year 2015		
	2015 ₹	2016 ₹	2017 ₹	2015	2016	2017
1 Net Sales	1,00,500	1,34,000	1,67,500	100.00	132B.33	166.67
2 Less: Cost of Goods Sold						
Opening Stock	10,050	16,750	23,450	100.00	166.67	232B.33
Purchases	56,950	63,650	67,000	100.00	111.76	117.65
Wages	5,025	10,050	6,700	100.00	200.00	132B.33
Carriage Inward	6,700	13,400	13,400	100.00	200.00	200.00
Less: Closing Stock	16,750	23,450	20,100	100.00	140.00	120.00
Cost of Goods sold	61,975	80,400	90,450	100.00	129.73	145.95
3 Gross Profit II - 2]	38,525	53,600	77,050	100.00	139.13	200.00
4 Less: Operating Expenses						
Office Expenses	3,350	4,020	5,025	100.00	120.00	150.00
Selling Expenses	2,345	3,015	3,350	100.00	128.57	142.86
Finance Expenses	2,010	3,350	6,700	100.00	166.67	332B.33
Operating Expenses	7,705	10,385	15,075	100.00	134.78	195.65
5 Net Profit [3 - 4]	30,820	43,215	61,975	100.00	140.22	201.09
6 Non-operating Income	2,680	3,015	3,350	100.00	112.50	125.00
7 Non-operating Expenses	1,675	1,005	1,675	100.00	60.00	100.00
8 Net Profit Before Tax (5+6-7)	31,825	45,225	63,650	100.00	142.11	200.00
9 Less: Income Tax (40%)	12,730	18,090	25,460	100.00	142.11	200.00
10 Net Profit after Tax [8 - 9]	19,095	27,135	38,190	100.00	142.11	200.00

Illustration 19:

Calculate Trend Percentage from the following information extracted from financial statement of M/s. Lalita Ltd., after arranging in vertical from.

Comparative Statements,
Common Size Statements &
Trend Analysis Comparative
Balance Sheet

Balance Sheet as on 31st March

Particulars	2018 (Amount in Rs)	2019 (Amount in Rs)	2020 (Amount in Rs)
Assets			
Fixed Assets	32,400	34,020	40,500
Investment	2,700	1,350	2,700
Current Assets	36,450	45,306	52,785
	71,550	80,676	95,985
Liabilities			
Share Capital	39,150	45,900	55,350
Bank Loan	8,100	8,100	10,935
Current Liabilities	24,300	26,676	29,700
	71,550	80,676	95,985

Income Statements for the year ended 31st March

Particulars	2018 (Amount in Rs)	2019 (Amount in Rs)	2020 (Amount in Rs)
Net Sales	30,000	33,000	36,000
Less Cost of Sales	22,500	27,000	27,000
Gross Margin	7,500	6,000	9,000
Less: Operating Expenses	3,000	1,500	2,700
Operating Profit	4,500	4,500	6,300

Solution 19

In the books of Lalita Ltd.

Trend Analysis of Balance Sheet

Particulars	Amount			Trend % Base year 2018		
	2018 ₹	2019 ₹	2020 ₹	2018₹	2019₹	2020₹
<u>I SOURCES OF FUNDS</u>						
Share Capital	39,150	45,900	55,350	100.00	117.24	141.38
Bank Loan	8,100	8,100	10,935	100.00	100.00	135.00
Capital Employed	47,250	54,000	66,285	100.00	114.29	140.29
<u>II APPLICATION OF FUNDS</u>						
1 Fixed Assets	32,400	34,020	40,500	100.00	105.00	125.00
2 Investments	2,700	1,350	2,700	100.00	50.00	100.00
3 Working Capital						
a. Current Assets	36,450	45,306	52,785	100.00	124.30	144.81
b Less: Current Liabilities	(24,300)	(26,676)	(29,700)	100.00	109.78	122.22
c Working Capital (a - b)	12,150	18,630	23,085	100.00	152B. 33	190.00
4 Capital Employed (1 + 2 + 3)	47,250	54,000	66,285	100.00	114.29	140.29

Income Statements for the year ended 31st March

Particulars	Amount			Trend % Base year 2018		
	2018 ₹	2019 ₹	2020 ₹	2018	2,019	2,020
Net Sales	30,000	33,000	36,000	100.00	110.00	120.00
Less Cost of Sales	22,500	27,000	27,000	100.00	120.00	120.00
Gross Margin	7,500	6,000	9,000	100.00	80.00	120.00
Less : Operating Expenses	3,000	1,500	2,700	100.00	50.00	90.00
Operating Profit	4,500	4,500	6,300	100.00	100.00	140.00

Illustration 20:

From the following information prepare Vertical Balance Sheet for financial analysis and Trend analysis of Fenny Products Ltd. For all the years.

Balance Sheet as on 31st March

Comparative Statements,
Common Size Statements &
Trend Analysis Comparative
Balance Sheet

Particulars	2018 (Amount in Rs)	2019 Trend %	2020 (Amount in Rs)
Share Capital	1,12,500	120	1,57,500
Reserve and Surplus	22,500	150	45,000
Secured Loans	22,500	100	22,500
Current Liabilities	22,500	150	45,000
Fixed Assets	90,000	110	1,12,500
Investment (Long Term)	22,500	160	45,000
Stock and Debtors	56,250	120	78,750
Bank Balance	11,250	200	33,750

Solution:

Trend Analysis of Balance Sheet

Particulars	Amount			Trend % Base year 2018		
	2018 ₹	2019 ₹	2020 ₹	2018	2019	2020
I SOURCES OF FUNDS						
Share Capital	1,12,500	1,35,000	1,57,500	100.00	120.00	140.00
Reserves and Surplus	22,500	33,750	45,000	100.00	150.00	200.00
1 Own Funds	1,35,000	1,68,750	2,02,500	100.00	125.00	150.00
2 Loan Funds						
Secured Loan	22,500	22,500	22,500	100.00	100.00	100.00
3 Capital Employed (1 + 2)	1,57,500	1,91,250	2,25,000	100.00	121.43	142.86
II APPLICATION OF FUNDS						
1 Fixed Assets	90,000	99,000	1,12,500	100.00	110.00	125.00
2 Long Term Investments	22,500	36,000	45,000	100.00	160.00	200.00
3 Working Capital						
a Current Assets						
Stock and Debtors	56,250	67,500	78,750	100.00	120.00	140.00
Bank	11,250	22,500	33,750	100.00	200.00	300.00
Current Assets	67,500	90,000	1,12,500	100.00	132B.33	166.67
b. Less: Current Liabilities	22,500	33,750	45,000	100.00	150.00	200.00
C. Working Capital (a - b)	45,000	56,250	67,500	100.00	125.00	150.00
4 Capital Employed (1 + 2 + 3)	1,57,500	1,91,250	2,25,000	100.00	121.43	142.86

Exercise:

TRUE AND FALSE

1. Comparative statement includes comparative income statement and balance sheet. T
2. Common size statement is horizontal analysis. F
3. In Vertical Income Statement, preliminary expenses written off will be shown under Operating Expenses. F
4. Own funds is internal source of finance, whereas Owed funds is an external source of finance. T
5. Comparative financial statements in which each amount is expresses as a percent of a base amount are called Trend statements. F
6. The managerial accounting system produces information for external users. F
7. Vertical analysis is a tool to evaluate each financial item or group of items in terms of a specific base amount.
8. Using the common size statement, a company's net income as a percentage of sales is 20%therefore , the cost of goods sold as a percentage of sale must be 80%. F
9. Liquidity is ability of firm to pay, as and when the debts fall dure for payment. T
10. Currents assets and liabilities are listed in alphabetical order , in vertical balance sheet for financial analysis. F

SHORT NOTES.

Write short note on-

1. Trend analysis.
2. Inter-firm comparisons
- 2B. Inter-period comparisons
4. Advantages of comparative statements
5. Limitations of comparative statements
6. Common size statements
7. Advantages of trend analysis
8. Use of common size statements
9. Disadvantages of trend analysis
10. Limitations of common size statements.

- (1) Rearrange the Balance Sheets in Vertical form and calculate the trend percentage taking 2017 figures as 100 and briefly comment on the same.

Comparative Statements,
Common Size Statements &
Trend Analysis Comparative
Balance Sheet

Liabilities	2017 ₹	2018 ₹	2019 ₹	2020 ₹	Assets	2017 ₹	2018 ₹	2019 ₹	2020 ₹
Equity Share Capital	145.00	159.50	174.00	174.00	Land & Building	58.00	58.00	50.75	65.25
12% Pref. Share Capital	29.00	14.50	7.25	7.25	Plant & Machinery	2028.00	181.25	159.50	166.75
Reserve & Surplus	108.75	130.50	174.00	188.50	Furniture & Fixture	36.25	428.50	36.25	29.00
13% Debentures	87.00	72.50	36.25	22.00	Current Assets	145.00	166.75	232.00	224.75
Current Liabilities	72.50	72.50	87.00	94.00					
	442.25	449.50	478.50	485.75		442.25	449.50	478.50	485.75

Calculate Trend % to full integer (without decimal points - Figures to be rounded)

2. Rearrange the following summary Balance Sheet in vertical form suitable for analysis and calculate the trend percentage taking 2017 figures as 100 and briefly comment on the same.

Balance Sheet as on 31st December

Liabilities	2017 ₹	2018 ₹	2019 ₹	2020 ₹	Assets	2017 ₹	2018 ₹	2019 ₹	2020 ₹
Share Capital	300	300	400	400	Building	250	300	275	400
Reserve	250	225	100	100	Goodwill	250	225	200	200
Surplus	65	160	155	200	Machinery	100	200	215	250
Debentures	50	100	100	150	Stock	25	75	125	25
Secured Loans	60	40	50	100	Debtors	100	70	75	50
Creditors	30	40	50	15	Cash	25	5	10	75
Bank O/D	5	10	40	20	Preliminary Expenses	15	10	5	-
Other Liabilities	5	10	10	15					
	765	885	905	1,000		765	885	905	1,000

3. You are furnished with the following revenue statements of Piya Ltd. for the year ended March 31st 2020

Particulars	2017 ₹	2018 ₹	2019 ₹	2020 ₹
Sales	37,50,000	45,00,000	54,00,000	64,80,000
Less : Cost of Sales	(24,00,000)	(28,50,000)	(34,50,000)	(42,00,000)
Gross Margin	13,50,000	16,50,000	19,50,000	22,80,000
Management Expenses	2,25,000	2,62,500	3,00,000	3,37,500
Sales Expenses	3,75,000	4,50,000	5,40,000	6,48,000
Interest on Borrowings	2,25,000	3,00,000	3,75,000	4,50,000
Total Expenses	(8,25,000)	(10,12,500)	(12,15,000)	(14,35,500)
Net Profit before Depreciation and Taxation	5,25,000	6,37,500	7,35,000	8,44,500
Depreciation	(3,75,000)	(3,37,500)	(4,50,000)	(4,87,500)
Profit before Taxation	1,50,000	3,00,000	2,85,000	3,57,000
Income Tax	(60,000)	(1,50,000)	(1,38,750)	(1,80,000)
Profit after Tax	90,000	1,50,000	1,46,250	1,77,000

(a) You are asked to prepare trend analysis.

(b) Comment on the same.

4. From the following prepare income statement in vertical form showing trend percentages of M/S Lakhani Traders and comment on gross profit trend.

Particulars	2017 ₹	2018 ₹	2019 ₹	2020 ₹
Sales	5,88,000	7,14,000	7,56,000	8,40,000
Cost of Sales	2,69,500	3,27,250	3,45,800	3,85,000
Administrative Expenses	94,500	94,500	1,05,000	1,05,000
Selling and Distribution Expenses	58,800	71,400	75,600	84,000
Finance Expenses	28,000	28,000	28,000	28,000
Income tax Provision	41,160	57,855	60,270	71,400

5. Hammu and Pammu are partners of a firm carrying on business

Comparative Statements,
Common Size Statements &
Trend Analysis Comparative
Balance Sheet

(i) Their position as on 31st December 2018, 2019 and 2020 is as follows

Liabilities	2020 ₹	2019 ₹	2018 ₹	Assets	2020 ₹	2019 ₹	2018 ₹
Partners Capitals	8,80,000	7,48,000	6,60,000	Fixed Assets	8,80,000	7,92,000	6,16,000
General Reserve	2,20,000	2,20,000	2,20,000	Current Assets	-	-	-
Secured Loans	1,32,000	1,32,000	1,10,000	Stock	3,52,000	3,30,000	2,97,000
Unsecured Loans	3,52,000	3,96,000	3,08,000	Debtors	4,40,000	3,52,000	3,08,000
Sundry Creditors	3,52,000	1,98,000	99,000	Loans and Advances	2,20,000	1,76,000	1,32,000
				Cash & Bank Balances	44,000	44,000	44,000
	19,36,000	16,94,000	13,97,000		19,36,000	16,94,000	13,97,000

(ii) Summarised Income Statement for the year ended

Particulars	2020 ₹	2019 ₹	2018 ₹
Sales	88,00,000	79,20,000	66,00,000
Less: Cost of Sales	61,60,000	52,80,000	44,00,000
Gross Profit	26,40,000	26,40,000	22,00,000
Less: Expenses	17,60,000	17,60,000	15,40,000
Net Profit	8,80,000	8,80,000	6,60,000

Prepare Trend Statement

6. Calculate Trend Percentage from the following information extracted from Financial Statements of Vinayak Limited Company. Give your appropriate comments

Particulars	2020 ₹	2019 ₹	2018 ₹	2017 ₹
Sales	32,802	27,290	19,768	18,224
Cost of Sales	29,956	24,982	17,626	14,864
Expenses	178	268	116	90
Interest	1,006	758	412	202
Profit Before Tax	1,662	1,282	1,614	3,068
Tax	788	396	910	1,640
Profit After Tax	874	886	704	1,428
Fixed Assets (Net)	10,978	10,222	9,554	8,972
Working Capital	10,170	9,774	6,596	5,546
Loans	?	?	?	?
Net Worth	13,382	12,034	11,714	11,908

7. From the following prepare income statement in vertical form showing trendpercentages of M/S Ferry Traders and comment on gross profit trend.

Particulars	2017 ₹	2018 ₹	2019 ₹	2020 ₹
Profit and Loss Accounts				
Sales	30,000	33,000	36,000	39,000
Cost of Sales	22,500	24,525	26,550	28,575
Expenses	2,400	2,805	3,420	3,861
Interest	675	900	1,125	1,350
Profit Before Tax	?	?	?	5,214
TaX	1,770	1,908	1,962	2,085
Profit After Tax	2,655	?	?	?
Balance Sheets				
Fixed Assets	?	?	?	?
Current Assets	45,000	?	53,400	?
Current Liabilities	?	32,700	?	38,400
Net Working Capital	15,000	16,500	17,850	19,350
Net Worth	3,00,000	32,100	33,300	34,800
Loans (Liabilities)	15,000	18,000	21,000	24,000

8. Prepare a Comparative Revenue Statement in Vertical Form from the following details

Particular	2019 ₹	2020 ₹	Particular	2019 `	2020 `
To Opening Stock	3,60,000	4,80,000	By Sales	72,00,000	96,00,000
To Purchases	36,00,000	51,36,000	By Closing Stock	4,80,000	5,76,000
To Interest on Debenture	2,40,000	2,40,000	By Dividend	39,200	62,400
To Depreciation :			By Profit on Sale of Machinery	18,400	
Furniture	24,000	24,000			
Machinery	57,600	48,000			
To Administrative Exp.	4,70,400	7,05,600			
To Selling Expenses	7,29,600	12,04,800			
To Carriage Outward	1,20,000	5,04,000			
To Loss by Fire	-	24,000			
To Wages	3,12,000	4,80,000			
To Provision for Tax	9,12,000	6,96,000			
To Net Profit	9,12,000	6,96,000			
Total	77,37,600	1,02,38,400	Total	77,37,600	1,02,38,400

9. The income statements of a Nisha Ltd. are given for the years ending on 31st March, 2019 and 2020. You are required to prepare a comparative income statement and interpret the changes.

Comparative Statements,
Common Size Statements &
Trend Analysis Comparative
Balance Sheet

Income Statements for the year ending 2019 and 2020

Particulars	2019 ₹	2020 ₹
Sales	487500	543750
Cost of Sales	318750	375000
Gross Profit	1,68,750	1,68,750
Operating Expenses		
Selling & Distribution Expenses	45000	56250
General Expenses	18750	30000
Total Operating Expenses	63,750	86,250
Net Profit during the year	1,05,000	82,500

10. From the following balance sheet as on 31 st March, 2019 and 31st March, 2020 of M/sYahvi Ltd. Prepare Comparative balance sheet for analysis purpose in vertical form.

Particular	31st March 2019 ₹	31st March 2020 ₹
Assets		
Cash and Bank balance	8,40,000	2,80,000
Short term investments	2,80,000	12,60,000
Accounts receivable	18,20,000	14,00,000
Inventories	21,00,000	7,00,000
Prepaid Income Tax	3,50,000	2,80,000
Other Current Assets	4,20,000	3,50,000
	58,10,000	42,70,000
Land and Building	5,60,000	3,50,000
Machinery	8,40,000	7,00,000
Furniture	2,10,000	1,40,000
Leasehold Land	3,50,000	3,50,000
	19,60,000	15,40,000
	77,70,000	58,10,000

Liabilities:		
Bills payable	16,80,000	11,20,000
Accounts payable	14,00,000	7,00,000
Accrued compensation and employee benefit	7,00,000	2,80,000
Income tax payable	2,80,000	1,40,000
	40,60,000	22,40,000
Equity Capital	28,00,000	28,00,000
Reserve	9,10,000	7,70,000
	37,10,000	35,70,000
	77,70,000	58,10,000

11. From the following financial statements of Tappu Limited, prepare financial statements in Vertical Form.

Balance Sheets as at 31st December

Liabilities	31st March 2019 ₹	31st March 2020 ₹	Assets	31st March 2019 ₹	31st March 2020 ₹
Equity Share Capital	6,00,000	6,00,000	Land	3,00,000	3,60,000
9% Preference Share Capital	4,50,000	4,50,000	Factory Plant & Buildings	9,00,000	8,10,000
General Reserves	3,00,000	3,67,500	Stocks	3,00,000	4,50,000
Tax Payable	1,50,000	2,25,000	Debtors	3,00,000	4,50,000
Creditors	3,00,000	4,12,500	Cash	1,50,000	2,10,000
17% Debentures	1,50,000	2,25,000			
	19,50,000	22,80,000		19,50,000	22,80,000

Income Statement for Year Ended 31st December

Expenses	31st March 2019 ₹	31st March 2020 ₹	Income	31st March 2019 ₹	31st March 2020 ₹
Cost of goods sold	9,00,000	11,25,000	Sales	12,00,000	15,00,000
Admn. Expenses	45,000	60,000			
Selling Expenses	30,000	30,000			
Net Profit	2,25,000	2,85,000			
	12,00,000	15,00,000		12,00,000	15,00,000

Briefly comment on the difference between the stated net profit of 2020 and the increment in General Reserves on 31-12-2020 assuming that no amount is paid towards tax in 2020. Also ascertain the quantum of cash gross profit of 2020 assuming that no depreciation is provided on Land.

Comparative Statements,
Common Size Statements &
Trend Analysis Comparative
Balance Sheet

12. From the following Financial statements of Grishma Limited prepare a common size financial statement and give your comments on them.

Profit and Loss Account for the year ended 31st March 2020

Particular	₹	Particular	₹
To Opening Stock	4,68,000	By Sales	23,40,000
To Purchases	14,04,000	By Closing Stock	7,02,000
To Wages	2,92,500		
To Factory Overheads	2,92,500		
To G.P. c/d	5,85,000		
	30,42,000		30,42,000
To Administrative Expenses	87,750	By G.P. b/d	5,85,000
To Selling & Distribution Expenses	58,500	By Dividend	35,100
To Depreciation	76,050		
To Interest on Debentures	23,400		
To Net Profit c/d	3,74,400		
	6,20,100		6,20,100
To Preference Dividend Paid	17,550	By Balance b/d	2,34,000
To Provision for Tax	1,22,850	By Net Profit b/d	3,74,400
To Surplus to Balance Sheet	4,68,000		
	6,08,400		6,08,400

Balance Sheet as on 31st March 2013

Liabilities	₹	Assets	₹
Equity Share Capital	11,70,000	Goodwill	5,85,000
Preference Share Capital	5,85,000	Plant and Machinery	5,85,000
General Reserve	1,17,000	Land and Building	9,36,000
P and LA/c Balance	4,68,000	Furniture	1,17,000
Provision for Tax	1,22,850	Stock	5,85,000
Bill Payable	2,28,150	Bill Receivable	93,600
Bank Overdraft	1,17,000	Debtors	2,34,000
Creditors	5,85,000	Bank	2,57,400
	33,93,000		33,93,000

13. From the following information of Sahani Enterprises prepare the Common size Revenue Statement with Amount and % for the year ended on 31st March, 2020 in a vertical form suitable for analysis

Particulars	% on net sales of Rs.500000
Opening Stock	2
Closing Stock	2.25
Purchases	51
Office Expenses	4.5
Other Administrative Expenses	6.2
Distribution Expenses	5.7
Selling Expenses	4.65
Interest (Dr.)	1.80
Direct Wages	28.30

Provision for Income tax is to be made @25% on net profit before tax.



RATIO ANALYSIS

Unit structure:

- 4.0 Objectives
- 4.1 Introduction
- 4.2 Definition and Meaning
- 4.3 Importance and limitation of Accounting Ratios
- 4.4 Classification of Ratios-
- 4.5 Balance Sheet Ratios
- 4.6 Revenue Statement Ratios
- 4.7 Combined Ratios

4.0 OBJECTIVES

After studying the unit the students will be able to understand:

- Meaning and definition of ratios
- Advantages of preparing ratios
- Importance of Ratio Analysis
- Limitations of Ratio Analysis
- Calculate various ratios to assess solvency, liquidity, efficiency and profitability of the firm.
- Apply ratio analysis to evaluate a company's liquidity, performance & risks.
- Standardize financial information for comparison.
- Compare present performance with past performance.
- Evaluate current operations

4.1 INTRODUCTION

The basis for financial analysis, planning and decision making the financial statements which mainly consist of Balance sheet and profit and loss account.

The profit & loss account shows the operating activities of the concern over a period of time and the balance sheet shows balance activities of assets and liabilities in other words financial position of an organization at a particular point of time.

However, the above statements do not disclose all of the necessary and relevant information. For the purpose of obtaining the material and

relevant information necessary for ascertaining the financial strengths and weaknesses of an enterprise, it is necessary to analyse the data depicted in the financial statement.

The financial manager has certain analytical tools which helps in financial analysis and planning . One of the main tool is **Ratio Analysis** let us discuss the Ratio Analysis in this chapter.

4.2 RATIO DEFINITION & MEANING

Definition of Ratio

A ratio is defined as “the indicated quotient of two mathematical expressions and as the relationship between two or more things.” Here, ratio means financial ratio or accounting ratio which is a mathematical expression of the relationship between two accounting figures.

According to Myers, “Ratio Analysis of financial statements is a study of relationship among various financial factors in a business as disclosed by a single set of statements and a study of trend of these factors as shown in a series of statements.”

According to James C. Van Harn “Ratio is a yardstick used to evaluate the financial condition and performance of a firm, relating two pieces of financial data to each other.”

According to Kohler “The relation of one amount A to another B expressed as the ratio of A to B”.

“Ratio is the relationship or proportion that one amount bears to another, the first number being the numerator and the later denominator.”

From the above definitions we conclude that ratio analysis gives us idea about company or firm's financial position. It is helpful for investors as well as company also for future better performance also they can use it.

Meaning of Ratio analysis:

Ratio-Analysis means the process of computing, determining and presenting the relationship of related items and groups of items of the financial statements. They provide in a summarized and concise form of fairly good idea about the financial position of a unit. They are important tool for financial analysis.

Ratio is the numerical or arithmetical relationship between two figures. Ratio is simply one number expressed in terms of another. It is powerful tools of the financial analysis.

The data given in the financial statement does not have any importance unless a relationship is established among them . The ratio used to reveal the relationship of accounting data is called accounting ratio or ratio analysis.

Ratio may be expressed in terms of :

- 1) Proportion , pure, simple ratio E.g. Current asset:Current liabilities 2:1
- 2) Rate or times or days or coefficient e.g 5 times
- 3) In percentage e.g. %
- 4) In fraction e.g. $\frac{1}{4}^{\text{th}}$

Sources required for the Ratio analysis-

- 1) Annual Report
- 2) Financial statement
- 3) notes to accounts
- 4) statement of cash flow statement

Importance of accounting ratios:

Understanding financial statements are important for stakeholders of the company. Ratio analysis helps in understanding the comparison of these numbers: furthermore it helps in estimating numbers from income statements and balance sheets for the future. For e.g. equity shareholders looks into the P/E ratio, the dividend payout ratio etc. while creditors observe debt to equity ratio, gross margin ratio, debt to asset ratio etc.

1. Ratio analysis is important in understanding the company's ability to generate profit. Return of asset, return on equity tells us how much profit the company is able to generate over assets of the firm. While gross margin and operating margin ratios tell us the company's ability to generate profit from sales and operating efficiency.
2. From a management and investor point of view ratio analysis helps to understand and estimate the company's future financials and operations. Ratios formed from past financial statement analysis helps in estimating future financials, budgeting and planning for the future operation of the company.
3. The company operates under various business, market, operations related risks. Ratio analysis help in understanding these risks and helps management to prepare and take necessary actions. Leverage ratios help in performing sensitivity analysis of various factors affecting the company's profitability like sales, cost, debt, financial leverage ratios like interest coverage ratio and debt coverage ratio tell how much the company is dependant on external capital source.
4. Investor as well as the company's management, makes a comparison with competitors company to understand efficiency, profitability and market share, ratio analysis is helpful for companies to perform SWOT (strengths, weakness, opportunities and threats) analysis in the market. It also tells whether the company is able to perform growth or not over a period from past financials and whether the company's financials and whether the company's financial position is improving or not.

5. A better source of communication with customers, stakeholders, and other outsider who want to invest in the company.
6. Helps in understanding the profitability of the company for decision making purpose.
7. Helps in identifying the business risks of the firm to protect from future threats or any losses.
8. Helps in identifying the financial risks of the company for better performance of the company or firm.
9. For planning and future forecasting of the firm ratio analysis helps more.
10. To compare the performance of the firms ratio analysis give brief idea about current position of the company.
11. Ratio analysis makes comparison easy for the user. one ratio is compared with another ratio as it shows efficiency or utilisation of assets etc.
12. Ratio analysis helps the management for future best performance with help of past performance experience.

Limitations of Accounting Ratios-

The limitations of ratio analysis which arise primarily from the nature of financial statements are as under:

1. Financial statements provide historical information. They do not reflect current conditions. Hence, it is not useful in predicting the future.
2. Correct and standard ratio can be obtained only if we have true, comparable or correct data. Lack of true comparison give false results.
3. Different companies may have different accounting methods if two firms follow different accounting policies. Different accounting policies regarding valuation of inventories, charging depreciation etc. make the accounting ratios of two firms non-comparable.
4. It is essential to have information about the company regarding its past as well as future transactions to have purposeful analysis. But ratios give information only about the past.
5. Fixed assets show the position statement at cost only. Hence, it does not reflect the changes in price level. Thus, it makes comparison difficult.
6. Accounting ratios are tools of quantitative analysis only. But it is quite possible that qualitative aspect may be over quantitative aspects. So in this case analysis may get distorted.

7. No fixed standards can be laid down for ideal ratios. Some times ratios may be worked out for insignificant and unrelated figures. Such ratios will be misleading.e.g. current ratio 2:1
8. It might possible that some firms may manipulate the data to bring about changes to the ratio for displaying a better picture of the firm, thus in the ratio analysis there are scope of window dressing.
9. Ratio analysis may be missinterpret at a time because Profit and loss acconut is based on actual numbers and balance sheet data is base on historical so Due to mix of historical and actual numbers it may not give desired results.
10. Ratios are subject to arithmatical accuracy of the financial statements. Moreover, financial statements also include estimated data like provision for depreciation, for bad and doubtful debts etc. hence results revealed by ratios are subject to such estimates.
11. Knowledge of ratios alone is meaningless unless their composition is ascertained.
12. A ratio is a comparison of two figures, a numerator and a denominator. In comparing ratios, it may be difficult to determine whether difference are due to changes in the numerator, or in the denominator or in both.

CLASSIFICATION OF RATIOS

The ratios are used for different purposes, for different users and for different analysis. The ratios can be classified as under:

1. Traditional classification
2. Functional classification
3. Classification from the point of view of users

The above classifications can be elaborated as follows:

• TRADITIONAL CLASSIFICATION

Form this point of view the ratios are classifited as follows:

1. Balance sheet ratios:

This ratio is also known as financial ratios. The ratios which express relationship between two items or group of items mentioned in the balance sheet at the end of the year, Some examples of balance sheet ratios are as follows:

Current ratio
Quick ratio
Propretary ratio
Stock to working capital

Debt equity ratio
Capital gearing ratio

2. Income statement ratios:

This ratio is also known as Revenue statement ratios which expressed in relationship between two items or two groups of items which are found in the income statement of the year.

Some examples of income statement ratios are as follows:

Gross profit ratio
Operating cost ratio
Operating profit ratio
Net profit ratio
Stock turnover ratio

3. Inter statement ratios:

These ratios shows the relationship between two items or two groups of items of which one is from balance sheet and another from income statement(trading a/c and profit & loss a/c and balance sheet)

Some examples of inter statement ratios are as follows:

Return on investment
Return on equity capital ratio
Trade receivable turnover ratio
Trade payables turnover ratio
Fixed assets turnover ratio
Earning per share

• FUNCTIONAL CLASSIFICATION:

The accounting ratios can also be classified according to their functions as follows:

1. Liquidity Ratios:

These ratios shows relationship between current assets and current liabilities:

Some examples of liquidity ratios:

Current Ratio
Quick Ratio

2. Leverage Ratios/Long term solvency ratios:

These ratios shows relationship between proprietor's fund and debts used in financing the assets of the business organization.

Some examples of leverage ratios:

Debt equity ratio
Proprietary ratio
Capital gearing ratio

4. Activity Ratios/Turnover ratios:

This ratio is also known as turnover or productivity ratio or efficiency and performance ratio. These ratio shows relationship between the sales and the assets. These are designed to indicate the efficiency of the firm or

company in using funds, degree of efficiency, and its standard of performance of the organization.

Some examples of Activity ratios are as follows:

Stock turnover ratio

Trade receivables turnover ratio

Trade payables turnover ratio

Fixed assets turnover ratio

5. Profitability ratios:

These ratios show relationship between profits and sales and profit and investments. It reflects overall performance of the organizations, its ability to earn return on capital employed and effectiveness of investment policies

Some example of profitability ratios are as follows:

Gross profit ratio

Operating cost ratio

Operating cost ratio

Net profit ratio

Return on investment

6. Coverage ratios:

These ratios show relationship between profit in hand and claims of outsiders to be paid out of profits.

Some examples of coverage ratios are as follows:

Dividend payout ratio

Debt service ratio

Debt service coverage ratio

• CLASSIFICATION FROM THE POINT OF VIEW OF USERS:

Ratios from the users point of view are classified as follows:

1. Shareholder's point of view:

These ratios are serve the purpose of shareholders. Shareholders, generally expect the reasonable return on their capital. They are interested in the safety of shareholders investments and interest on it.

Some examples it as follows:

Return of proprietor's fund

Return on capital

Earning per share

2. Long term creditors:

This ratio provides useful information to the long term creditors which include debenture holders, vendors of fixed assets etc. The creditors interested know the ability of repayment of principle sum and periodical interest payments as and when they become due.

Some examples of it are as follows:

Debt equity ratio

Return on capital employed
Proprietary ratio

3. Short term creditors:

The short term creditors are basically interested to know their repayment ability of the firm. Therefore, the creditors has important place on the liquidity aspects of the company's assets.

Some examples of it are as follows:

Current ratio

Debtor's turnover ratio

Stock working capital ratio

4. Management:

Management is interested to use borrowed funds to improve the earnings.

Some examples of its are as follows:

Return on capital employed

Turnover ratio

Operating ratio

Expense ratio

Balance sheet Ratios/ Liquidity Ratios/ Short term solvency Ratios:

The term 'liquidity' and 'short-term solvency' are used synonymously.

Liquidity or short-term solvency means ability of the business to pay its short-term liabilities. Inability to pay-off short-term liabilities affects its credibility as well as its credit rating. Continuous default on the part the business leads to commercial bankruptcy. Eventually such commercial bankruptcy may lead to its sickness and dissolution. Short-term lenders and creditors of a business are very much interested to know its state of liquidity because of their financial stake. Both lack of sufficient liquidity and excess liquidity is bad for the organization.

1. Current Ratio: The Current Ratio is one of the best known measures of short term solvency. It is the most common measures of short term liquidity.

Current ratio measures whether a firm had enough resources to meet its current obligations.

Formula:

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

Current Assets = Inventories + Sundry Debtors + Cash and Bank Balances + Receivables/Accruals + Loans and advances + Disposable investment + any other current asset.

Current Liabilities= Creditor for goods and services+Short term loans+bank overdraft+cash credit+outstanding expenses+provision for taxation+proposed dividend+unclaimed dividend+any other current liabilities.

A generally accepted current ratio is 2:1 But whether or not a specific ratio is satisfactory depends on the nature of the business and the characteristics of its current assets and liabilities.

Example:

Calculate Current Ratio from the following information

Particulaers	Rs.
Inventories	50,000
Trade Receivables	50,000
Advance tax	4,000
Cash and cash equivalent	30,000
Trade payables	1,00,000
Short term borrowings(bank overdraft)	4,000

Solution:

Current Ratio = Current Assets/Current Liabilities

Current Assets = Inventories+Trade receivables+Advance tax+Cash and cash equivalents
 = Rs. 50,000+Rs.50,000+Rs.4,000+Rs.30,000
 = Rs.1,34,000

Current liabilities = Trade payables+short-term borrowings
 = Rs.1,00,000+Rs.4,000
 = Rs.1,04,000

Current Ratio = Rs.1,34,000/ Rs.1,04,000 =1.29:1

Since, excess of current asset over current liabilities provide a measures of safety margin available against uncertainty in realisation of current assets and flow of funds.The ratio should be reasonable.It should be neither be very high or very low. Both the situations have their inherent disadvantages. A very high current ratio implies heavy investment in current assets which is not a good sign as it reflects under utilisation or improper utilisation of resources. A low ratio dagerous for business and put it at risk of facing a situation where it will not be able to pay its short-term debt on time.Normally, it is safe to have this ratio within range of 2:1

2. Quick or Liquid ratio-

It is the ratio of quick(or liquid) asset to current liabilities. It is expressed as :

Quick ratio = Quick Asset:Current Liabilities

Or

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

Quick assets means those assets which are quickly convertible into cash. While calculating quick assets we exclude the inventories at the end and other current assets such as prepaid expenses, advance tax etc. from the current assets. Due to exclusion of non-liquid current assets it is better than current ratio as a measure of liquidity position of the business. It is calculated to serve as a supplementary check on liquidity position of the business and is therefore, also known as 'Acid-Test Ratio'.

Illustration:

Calculate quick ratio from the information given in illustration 1

Solution :

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

$$\begin{aligned} \text{Quick Assets} &= \text{Current Assets} - (\text{Inventories} + \text{Advance tax}) \\ &= \text{Rs}1,34,000 - (\text{Rs}.50,000 + \text{Rs}.4,000) \\ &= \text{Rs } 80,000 \end{aligned}$$

$$\begin{aligned} \text{Quick Liabilities} &= \text{Rs } 1,04,000 - 4,000 \\ \text{Quick Ratio} &= \frac{\text{Rs}.80,000}{\text{Rs}. 1,00,000} = 0.80:1 \end{aligned}$$

This Ratio Provides a measures of capacity of the business to meet its short term obligation without any flaw. Normally, it is advocated to be safe to have a ratio of 1:1 as unnecessarily low ratio will be very risky and high ratio suggests unnecessarily deployment of resources in otherwise less profitable short term investments.

3. Proprietary Ratio:

Proprietary ratio express relationship of proprietors fund to net assets and its calculated as follows:

$$\text{Proprietary ratio} = \frac{\text{Shareholders fund}}{\text{Capital employed/ Net assets}}$$

OR

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

Proprietary fund includes equity share capital, preference share capital and reserves and surplus

Total assets excludes fictitious assets and losses

This ratio indicates that the proportion of total assets financed by shareholders. Higher the ratio less risky scenario it shall be

4. Stock Working Capital Ratio:

This ratio is calculated as follows:

$$\text{Stock Working capital ratio} = \frac{\text{Closing Stock}}{\text{Working Capital}}$$

This ratio indicates the extent of working capital turned over in achieving sale of the firm

5. Capital Gearing Ratio:

Capital Gearing ratio is calculated to show the proportion of fixed interest (Dividend) bearing capital to funds belonging to equity shareholders i.e equity funds or net worth again higher ratio may indicate more risk

Capital Gearing ratio =

Preference share capital + Debentures+Other borrowed funds

Equity Share Capital+ Reserves and surplus- Losses

6. Debt Equity Ratio:

$$\text{Debt Equity ratio} = \frac{\text{Long Term Debt}}{\text{Shareholder's Fund}}$$

OR

$$= \frac{\text{Total Outside liabilities}}{\text{Shareholder's Equity}}$$

OR

$$= \frac{\text{Total Debt}}{\text{Shareholder's Equity}}$$

Where:

Shareholder's Funds (Equity) = Share capital+ Reserves and Surplus+ Money received against share warrants + Share application money pending allotment

Share capital = Equity Share capital+ Preference Share capital

OR

Shareholder's Fund(Equity) = Non Current assets + Working capital – Non current liabilities

Working Capital = Current Assets- Current liabilities

Not merely Long term debt i.e both current and non current liabilities

Some times only interest bearing, Long term debt used instead of total liabilities (exclusive of current liabilities)

A high debt to equity ratio means less protection for creditors, a low ratio on the other hand indicates a wider safety for creditors. The ratio indicates the proportion of debt fund in relation to equity. The ratio is used for making capital structure decisions such as issue of shares and debentures, lenders are also very eager to know this ratio since it shows relative weights of debt and equity. Debt equity ratio is the indicator of firms financial leverage.

This ratio measures the degree of indebtedness of an enterprise and gives an idea to the long term lenders regarding extend of security of the debt.

Illustration :

From the following balance sheet of ABC Co. Ltd as on March 31, 2022 Calculate debt equity ratio

Particulars	Amount (Rs)
I. Equity and Liabilities	
1. Shareholder's Fund	
(a) Share capital	12,00,000
(b) Reserves and surplus	2,00,000
(c) Money received against share warrants	1,00,000
2. Non current liabilities	
(a) Long term borrowings	
(b) other long term liabilities	4,00,000
(c) long term provisions	40,000
3. Current liabilities	60,000
(a) Short term borrowings	2,00,000
(b) Trade Payables	1,00,000
(c) Other Current Liabilities	50,000

(d) Short Term Provisions	1,50,000
II. Assets	25,00,000
1. Non current Assets	15,00,000
(a) Fixed Assets	2,00,000
(b) Non Current Investments	1,00,000
(c) Long Term Loans and advances	
2. Current Assets	1,50,000
(a) Current Investment	1,50,000
(b) Inventories	1,00,000
(c) Trade Receivables	2,50,000
(d) Cash and cash Equivalents	50,000
(e) Short term loans and advances	25,00,000

Solution:

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

$$\begin{aligned} \text{Debt} &= \text{Long term borrowings} + \text{other long term liabilities} + \text{long term Provisions} \\ &= \text{Rs.4,00,000} + \text{Rs.40,000} + \text{Rs.60,000} \\ &= \text{Rs.5,00,000} \end{aligned}$$

$$\begin{aligned} \text{Equity} &= \text{Share capital} + \text{Reserves and surplus} + \text{Money received against share warrants} \\ &= \text{Rs.12,00,000} + \text{Rs.2,00,000} + \text{Rs.1,00,000} \\ &= \text{Rs.15,00,000} \end{aligned}$$

Alternatively,

$$\begin{aligned} \text{Equity} &= \text{Non current assets} + \text{working capital} - \text{non current liabilities} \\ &= \text{Rs.18,00,000} + \text{Rs.2,00,000} - \text{Rs.5,00,000} \\ &= \text{Rs.15,00,000} \end{aligned}$$

$$\begin{aligned} \text{Working Capital} &= \text{Current assets} - \text{current liabilities} \\ &= \text{Rs.7,00,000} - \text{Rs.5,00,000} \\ &= \text{Rs.2,00,000} \end{aligned}$$

$$\text{Debt Equity Ratio} = \frac{50,000}{1,50,000} = 0.33:1$$

Revenue Statement Ratio

1. Gross Profit Ratio/Gross profit margin:

Gross profit ratio as a percentage of revenue from operations is computed to have an idea about gross profit. It measures the percentage of each sale in rupees remaining after payment for the goods sold. It is calculated as follows:

$$\text{Gross profit ratio} = \frac{\text{Gross profit}}{\text{Net Revenue of operations}} \times 100$$

Or

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

Gross profit margin depends on the relationship between sales price, volume and costs. A high Gross profit margin is a favourable sign of good management.

2. Operating Ratio:

It is computed to analyse cost of operation in relation to revenue from operations. It is calculated as follows:

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

Operating expenses include office expenses, administrative expenses, selling expenses, distribution expenses, Depreciation and employee benefit expenses etc.

Cost of operation is determined by excluding non-operating incomes and expenses such as loss on sale of assets, interest paid, dividend received, loss by fire, speculation gain and so on.

Operating Profit Ratio

Operating profit ratio is also calculated to evaluate operating performance of business or organisation.

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

Or

$$= \frac{\text{Earning before interest and taxes (EBIT)}}{\text{Sales}} \times 100$$

Where as,

Operating profit = Sales - Cost of Goods Sold (COGS) - Operating expenses

Operating profit ratio measures the percentage of each sale in rupees that remains after the payment of all costs and expenses except for interest and taxes. The ratio is followed closely by analysts because it focuses on operating results. operating profit is often referred to as earning before interest and taxes or EBIT

3. Expense ratios:

Based on different concepts of expenses it can be expressed in different variants as below:

- I. Cost of goods sold(COGS)Ratio = $\frac{\text{COGS}}{\text{sales}} \times 100$
- II. Operating expenses ratio = $\frac{\text{Administrative exp} + \text{selling \& distribution OH}}{\text{Sales}} \times 100$
- III. Operating Ratio = $\frac{\text{COGS} + \text{Operating expenses}}{\text{Sales}} \times 100$
- IV. Financial Expenses Ratio = $\frac{\text{Financial expenses}}{\text{Sales}} \times 100$
 - It excludes taxes, loss due to theft, goods destroyed by fire etc.

4. Net profit ratio:

Net profit ratio is based on all inclusive concept of profit .It relates revenue from operations to net profit after operational as well as non-operational expenses and incomes. It is calculated as under:

Net profit ratio= Net profit/Revenue from operations $\times 100$

Or

= Net profit/sales $\times 100$

Or

= Earnings after taxes(EAT)/Sales $\times 100$

Or

Pre-Tax Profit Ratio= Earnings before taxes (EBT)/Sales $\times 100$

Generally, net profit refers to profit after tax (PAT)

It is a measure of net profit margin in relation to revenue from operations. Besides revealing profitability. It is the main variable in computation of return on investment. It reflects the overall efficiency of the business, assumes great significance from the point of view of investors.

Net profit ratio finds the proportion of revenue that finds its way into profits after meeting all expenses. A high net profit ratio indicates positive returns from the business.

5. Stock turnover ratio:

This ratio is a considerable amount of a company's capital may be tied up in the financing of raw materials, work-in-progress and finished goods. It

is important to ensure that the level of stocks is kept as low as possible , consistent with the need to fulfill customer's orders in time.

$$\text{Stock turnover ratio} = \frac{\text{COGS or Sales}}{\text{Average Inventory}}$$

$$\text{Average inventory} = (\text{Opening Stock} + \text{Closing Stock}) / 2$$

The highest the stock turnover rate or the lower the stock turnover period the better, although the ratios will vary between companies. This ratio measures that how many times stock has been sold during the year.

Combined Ratios:

1. Return on capital employed (ROCE)- It is another variation of ROI the ROCE is calculated as follow.

$$\text{ROCE (before tax)} = \frac{\text{Earnings before interest and taxes (EBIT)}}{\text{Capital Employed}} \times 100$$

$$\text{ROCE (after tax)} = \frac{\text{EBIT}(1-t)}{\text{Capital Employed}} \times 100$$

Sometimes it also calculated as

$$= \frac{\text{Net profit after taxes (PAT/EAT)}}{\text{Capital Employed}} \times 100$$

Where as,

$$\text{Capital Employed} = \text{Total assets} - \text{Current liabilities}$$

Or

$$= \text{Fixed assets} + \text{Working capital}$$

Or

$$= \text{Equity} + \text{Long term debt}$$

The return on capital employed should be always higher than the rate at which the company borrows.

Intangible assets should be included in the capital employed.

No fictitious assets should be included in within capital employed.

If there is information available regarding average capital employed shall be taken.

2. Return on proprietor's Fund:

This ratio is important from shareholders point of view in assessing whether their investment in the firm generates a reasonable return or not. It should be higher than the return on investment otherwise it would imply that company's funds have not been employed profitably.

A better measure of profitability from shareholders point of view is obtained by determining return on total shareholder's funds, it is also termed as return on shareholder's fund

Formula:

$$\text{Return on proprietor's fund} = \frac{\text{Profit After Tax}}{\text{Shareholders funds}} \times 100$$

3. Return on equity share capital:

Return on equity measures the profitability of equity funds invested in the firm or company. This ratio shows how profitability of the shareholders have been utilised by the company. This ratio also measures the percentage of return generated to equity shareholders

$$\text{ROE} = \frac{\text{Net profit after taxes-preference dividend(if any)}}{\text{Net worth/ equity shareholdre's funds}} \times 100$$

4. Debtor's Turnover Ratio(Debtor's Velocity):

This ratio measures whether the amount or resources tied up in debtors, is reasonable and whether the company has been efficient in converting debtors into cash.

Formula:

$$\text{Debtor's Turnover ratio} = \frac{\text{Credit Sales}}{\text{Average Debtors}} \times 100$$

$$\text{Debtor's Velocity Ratio} = \frac{\text{Average Debtors}}{\text{Credit sales}} \times 365 \text{ days}$$

Average debtors collection period measures how long it takes to collect amounts from this ratio

5. Earning Per share (EPS):

The profitability of a firm from the point of view of ordinary shareholder's can be measured in term of earnings per share basis. It is calculated as follow:

$$\text{EPS} = \frac{\text{Net profit available to equity shareholders}}{\text{Number of equity shares outstanding}}$$

This ratio is very important from equity shareholders point of view and also for the share price in the stock market. This also helps comparison with other to ascertain its reasonableness and capacity to pay dividend.

6. Dividend Payout ratio:

This ratio measures the dividend paid in relation to net earnings. It is determined to see to how much extent earnings per share have been retained by the management for the business. it is calculated as follows:

$$\text{Dividend payout ratio} = \frac{\text{Dividend per equity share (DPS)}}{\text{Earning per share (EPS)}}$$

7. Price earning ratio:

The price earning ratio indicates the expectation of equity investors about the earnings of the firm. It relates earnings to market price and is generally taken as a summary measure of growth potential of an investment, risk characteristics, shareholders orientation, corporate image and degree of liquidity. It is calculated as

$$\text{Price-Earnings per share (P/E Ratio)} = \frac{\text{Market price per share (MPS)}}{\text{Earning per share (EPS)}}$$

It indicates the payback period of the investor or prospective investors. A higher P/E ratio could either mean that a company's stock is over-valued or the investors are expecting high growth rate in future

Ratios at a glance:

Sr. no	Ratio	Formula	Interpretation
1	Current Ratio	$\frac{\text{Current Asset}}{\text{Current Liabilities}}$	A simple measure that estimates whether the business can pay short term debts. Ideal ratio is 2:1
2	Quick Ratio	$\frac{\text{Quick Assets}}{\text{Current Liabilities}}$	It measures the ability to meet current debt immediately. Ideal ratio is 1:1
3	Proprietary Ratio	$\frac{\text{Proprietary Fund}}{\text{Total Assets}}$	It measures the proportion of total assets financed by shareholders.
4	Stock working capital ratio	$\frac{\text{Closing Stock}}{\text{Working Capital}}$	This ratio indicates the extent of working capital turned over in achieving sale of the firm
5	Capital gearing ratio	$\frac{(\text{Preference} + \text{Debentures} + \text{other borrowed funds})}{(\text{Equity share capital} + \text{Reserves \& Surplus-losses})}$	It shows the proportion of fixed interest bearing capital to equity shareholder's fund. It also signifies the advantage of financial leverage to the equity shareholders.
6	Debt equity ratio	$\frac{\text{Long Term Debt}}{\text{Shareholder's Fund}}$ OR $\frac{\text{Total Outside Liabilities}}{\text{Shareholder's Fund}}$	This ratio measures the degree of indebtedness of an enterprise and gives an idea to the long term lenders regarding extent of security of the debt.

		Shareholder's Equity OR $\frac{\text{Total Debt}}{\text{Shareholder's Equity}}$	
7	Gross profit ratio	$\frac{\text{Gross profit}}{\text{Sales}} \times 100$	This ratio tells us something about the business's ability & consistency to control its production costs or to manage the margins it makes on products it buys and sells.
8	Operating ratio	$\frac{\text{COGS} + \text{Operating Expenses}}{\text{Sales}} \times 100$	It measures portion of a particular expenses in comparison to sales
9	Operating Profit ratio	$\frac{\text{Operating profit}}{\text{Sales}} \times 100$ OR $\frac{\text{Earning before interest and taxes (EBIT)}}{\text{Sales}} \times 100$	The ratio is followed closely by analysts because it focuses operating results. Operating profit is often referred to as earning before interest and taxes or EBIT
10	Expense ratio	$\frac{\text{Administrative exp} + \text{selling \& Distribution OH}}{\text{Sales}} \times 100$	It measures portion of a particular expenses in comparison to sales
11	Net profit ratio	$\frac{\text{Net Profit}}{\text{Sales}} \times 100$	It measures the relationship between net profit and sales of the business
12	Stock turnover ratio	$\frac{\text{COGS}}{\text{Average inventory}}$	This ratio measures that how many times stock has been sold during the year.
13	Return on capital employed	Before tax = $\frac{\text{EBIT}}{\text{Capital Employed}} \times 100$ After Tax = $\frac{\text{EBIT} (1-t)}{\text{Capital Employed}} \times 100$	It measures overall earnings (either before or after tax) on total capital employed.

14	Return on Proprietor's Funds	$\frac{\text{Profit after tax} \times 100}{\text{Shareholder's fund}}$	A better measure of profitability from shareholders point of view is obtained by determining return on total shareholder's funds.
15	Return on equity share capital	$\frac{\text{Net profit after taxes-preference dividend (if any)}}{\text{Net worth/ equity shareholdre's funds}} \times 100$	It indicates earnings available to equity shareholder's in comparison to equity shareholder's net worth.
16	Debtor's Turnover ratio	$\frac{\text{Credit sales}}{\text{Average Debtor's}} \times 100$	It measures the efficiency at which firm is managing its receivables.
17	Debtor's velocity	$\frac{\text{Average Debtor's}}{\text{Credit Sales}} \times 365 \text{days}$	It measures the velocity of collection of receivables.
18	Earning per share	$\frac{\text{Net profit available to equity shareholders}}{\text{Number of equity shares outstanding}}$	EPS measures the overall profit generated for each share in existence over a particular period.
19	Dividend payout ratio	$\frac{\text{Dividend per equity share(DPS)}}{\text{Equity per share(EPS)}}$	It measures dividend paid based on market price of shares.
20	Price Earning ratio	$\frac{\text{Market Price Per Share (MPS)}}{\text{Earning Per Share (EPS)}}$	At any time, the P/E ratio is an indication of how highly the market "rates" or "values" a business. A P/E ratio is best viewed in the context of a sector or market average to get a feel for relative value and stock market pricing.

Exercise with solution

- 1) The following information available for the year 2021-2022 calculate GP ratio:

Revenue from the operatios:	Cash	25000
	Credit	75000
Purchases	Cash	15000
	Credit	60000

Carrigae inwards		2000
Salaries		25000
Decrease in inventory		10000
Return outwards		2000
Wages		5000

Solution:

Revenue from operations= Cash revenue from operations+Credit revenue from operation

$$= \text{Rs.}25,000 + \text{Rs.}75,000 = \text{Rs}1,00,00$$

Net purchases = Cash purchases+credit purchases-Return outwards

$$= \text{Rs}15000 + \text{Rs.}60000 - \text{Rs.}2000 = \text{Rs.}73000$$

Cost of revenue from = Purchases+(opening inventory-closing inventory)+Direct operations expenses

$$= \text{Purchases} + \text{Decrease in inventory} + \text{Direct Expenses}$$

$$= \text{Rs.}73000 + \text{Rs}10000 + (\text{Rs}2000 + \text{Rs}5000)$$

$$= \text{Rs } 90000$$

Gross profit = Revenue from operations-Cost of revenue from operations

$$= \text{Rs}100000 - \text{Rs}90000$$

$$= \text{Rs}10000$$

Gross profit ratio = Gross profit/Net revenue from operations 100

$$= \text{Rs } 10000 / \text{Rs}100000 \quad 100$$

$$= 10\%$$

2) A trader carries an average stock of Rs.80,000. His stock turnover is 8 times. If he sells goods at profit of 20% on sales. Find out the profit.

Solution:

Stock turnover ratio = Cost of goods sold/Average stock

$$= \text{Cost of goods sold} / \text{Rs.}80,000$$

Cost of goods sold = Rs.80,000×8

$$= \text{Rs.}6,40,000$$

Sales= Cost of goods sold×100/80

$$= \text{Rs.}6,40,000 \times 100/80$$

$$= \text{Rs.}8,00,000$$

$$\text{Gross profit} = \text{Sales} - \text{Cost of goods sold}$$

$$= \text{Rs.}8,00,000 - \text{Rs.}6,40,000$$

$$= \text{Rs.}1,60,000$$

3) The total sales (all credit) of a firm are Rs.6,40,000. It has a gross profit margin of 15 per cent and a current ratio of 2.5 . The firm's current liabilities are Rs.96000; inventories Rs.48,000 and cash Rs.16,000.

- a) Determine the average inventory to be carried by the firm, if an inventory turnover of 5 times is expected?(Assume 360 days a year)
- b) Determine the average collection period if the opening balance of debtors is intended to be of Rs.80,000?(Assume 360 days a year).

Solution:

a) Inventory turnover = $\frac{\text{Cost of goods sold}}{\text{Average inventory}}$

Since gross profit margin is 15 per cent, the cost of goods sold should be 85 per cent of the sales.

$$\text{Cost of goods sold} = 0.85 \times \text{Rs.}6,40,000 = \text{Rs.}5,44,000$$

$$\text{Thus, Average inventory} = \text{COGS} / \text{Inventory Turnover}$$

$$= 5,44,000 / 5$$

$$\text{Average inventory} = \text{Rs.}1,08,800$$

b) Average collection period = $\frac{\text{Average receivables} \times 360 \text{ days}}{\text{Credit sales}}$

$$\text{Average receivables} = (\text{opening receivables} + \text{closing receivables}) / 2$$

Closing balance of receivables is found as follows:

Particulars	Rs.	Rs.
Current assets(2.5 of current liabilities)		2,40,000
Less: Inventories	48,000	
Cash	16,000	64,000
Closing Receivables		1,76,000

$$\text{Average receivables} = (\text{Rs.}1,76,000 + \text{Rs.}80,000) / 2$$

$$= \text{Rs.}1,28,000$$

So, average collection period = $\frac{\text{Rs.1,28,000} \times 360 \text{ days}}{\text{Rs.6,40,000}}$
 = 72 days.

- 4) The following Trading and profit and loss account of fantasy ltd. For the year 31/03/2022 is given below.

Particulars	Rs.	Particulars	Rs.
To Opening stock	76,250	By Sales	5,00,000
To Purchases	3,15,250	By Closing stock	98,500
To Carriage and Freight	2,000		
To Wages	5,000		
To Gross profit c/d	2,00,000		
	5,98,000		5,98,000
To Administration Expenses	1,01,000	By Gross profit b/d	2,00,000
To selling and dist expenses	12,000	By non operating incomes:	
Non operating expenses	2,0000	Interest on securities	1,500
Financial expenses	7,000	Dividend on shares	3,750
Net profit c/d	84,000	Profit on sale of shares	750
	2,06,000		2,06,000

Calculate:

- 1) Gross profit Margin 2) Expenses ratio 3) Operating ratio 4) Net profit ratio 5) Operating (net) profit ratio 6) stock turnover ratio

Solution:

$$\begin{aligned}
 1) \text{ Gross profit margin} &= \frac{\text{Gross profit} \times 100}{\text{Sales}} \\
 &= \frac{2,00,000 \times 100}{5,00,000} \\
 &= 40\%
 \end{aligned}$$

$$\begin{aligned}
 2) \text{ Expenses ratio} &= \frac{\text{Op. Expenses} \times 100}{\text{Net sales}} \\
 &= \frac{1,13,000 \times 100}{5,00,000} \\
 &= 22.60\%
 \end{aligned}$$

$$\begin{aligned}
 3) \text{ Operating ratio} &= \frac{\text{Cost of goods sold} + \text{op. expenses}}{\text{Net sales}} \times 100 \\
 &= \frac{3,00,000 + 1,13,000}{5,00,000} \times 100 \\
 &= 82.60\%
 \end{aligned}$$

$$\begin{aligned}
 \text{Cost of goods sold} &= \text{Op. stock} + \text{purchases} + \text{carriage and freight} + \text{wages} - \text{Closing stock} \\
 &= 76,250 + 3,15,250 + 2,000 + 5,000 - 98,500 \\
 &= \text{Rs. } 3,00,000
 \end{aligned}$$

$$\begin{aligned}
 4) \text{ Net profit ratio} &= \frac{\text{Net profit}}{\text{Net sales}} \times 100 \\
 &= \frac{84,000}{5,00,000} \times 100 \\
 &= 16.8\%
 \end{aligned}$$

$$5) \text{ Operating profit ratio} = \frac{\text{Operating profit}}{\text{Net sales}} \times 100$$

$$\begin{aligned}
 \text{Operating profit} &= \text{sales} - (\text{op exp} + \text{admin exp}) \\
 &= \frac{87,000}{5,00,000} \times 100 \\
 &= 17.40\%
 \end{aligned}$$

$$\begin{aligned}
 6) \text{ Stock Turnover ratio} &= \frac{\text{Cost of goods sold}}{\text{Avg stock}} \\
 &= \frac{3,00,000}{87,375}
 \end{aligned}$$

5) The Balance Sheet of Punjab Auto Limited as on 31-12-2002 was as follows

Particular	Rs.	Particular	Rs.
Equity Share Capital	40,000	Plant and Machinery	24,000
Capital Reserve	8,000	Land and Building	40,000
Capital Reserve	8,000	Furniture & Fixtures	16,000
8% Loan on Mortgage	32,000	Stock	12,000
Creditors	16,000	Debtors	12,000
Bank overdraft	4,000	Investment (Short-term)	4,000
Taxation:		Cash in hand	12,000
Current	4,000		
Future	4,000		
Profit and Loss A/c	12,000		
	1,20,000		1,20,000

From the above, compute (a) the Current Ratio, (b) Quick Ratio, (c) Debt-Equity Ratio, and (d) Proprietary Ratio.

Solution:

(Problem related to Balance Sheet Ratio)

$$1. \text{ Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Current Assets = Stock + debtors + Investment (Short term) + Cash in hand

Current Liabilities = Creditors + bank overdraft + Provision for taxation (Current & Future)

$$CA = 12,000 + 12,000 + 4,000 + 12,000 = 40,000$$

$$\begin{aligned} CL &= 16,000 + 4,000 + 4,000 + 4,000 = 28,000 \\ &= \underline{28,000} \\ &= \underline{40,000} \\ &= \underline{28,000} \\ &= \underline{1.43:1} \end{aligned}$$

$$2. \text{ Quick Ratio} = \frac{\text{Quick Assets}}{\text{Quick Liabilities}}$$

Quick Assets = Current Assets - Stock

Quick Liabilities = Current Liabilities - (BOD + PFT future)

$$\begin{aligned} QA &= 40,000 - 12,000 \\ &= 28,000 \\ QL &= 28,000 - (4,000 + 4,000) \\ &= 20,000 \\ &= \underline{28,000} \\ &= \underline{20,000} \\ &= \underline{1.40:1} \end{aligned}$$

$$3. \text{ Debt-Equity Ratio} = \frac{\text{Long Term Debt (Liabilities)}}{\text{Shareholders Fund}}$$

LTL = Debentures + Long term loans

SHF = Eq. Sh. Cap. + Reserves & Surplus + Preference Sh. Cap. - Fictitious Assets

$$\begin{aligned} LTL &= 32,000 \\ SHF &= 40,000 + 8,000 + 12,000 \\ &= 60,000 \\ &= \underline{32,000} \\ &= \underline{60,000} \\ &= \underline{0.53:1} \end{aligned}$$

$$4. \text{ Proprietary Ratio} = \frac{\text{Shareholder's Funds}}{\text{Total Assets}}$$

SHF = Eq. Sh. Cap. + Reserves & Surplus + Preference Sh. Cap. - Fictitious Assets

Total Assets = Total Assets - Fictitious Assets

$$\begin{aligned} SHF &= 40,000 + 8,000 + 12,000 \\ &= 60,000 \\ TA &= 1,20,000 \\ &= \underline{60,000} \\ &= \underline{1,20,000} \\ &= \underline{0.5:1} \end{aligned}$$

- 6) Cash Purchased ratio Rs.1,00,000 cost of goods sold Rs. 3,00,000 opening stock Rs.1,00,000 and closing stock Rs.2,00,000. Creditors turnover ratio 3 times. Calculate the opening and closing creditors if the creditors at the end were 3 times more than the creditors at the beginning.

Solution:

$$\begin{aligned}\text{Total Purchase} &= \text{Cost of goods sold} + \text{closing stock} - \text{opening stock} \\ &= \text{Rs.}3,00,000 + 2,00,000 - \text{Rs.}1,00,000 \\ &= \text{Rs.}4,00,000\end{aligned}$$

$$\begin{aligned}\text{Credit purchase} &= \text{Total purchase} - \text{cash purchase} \\ &= \text{Rs.}4,00,000 - 1,00,000 \\ &= \text{Rs.}3,00,000\end{aligned}$$

$$\begin{aligned}\text{Creditor Turnover Ratio} &= \text{Net Credit Purchase} / \text{Average Creditor} \\ \text{Average Creditor} &= \text{Rs. } 3,00,000 / 3 \\ &= \text{Rs.}1,00,000\end{aligned}$$

$$\begin{aligned}(\text{Opening Creditor} + \text{Closing Creditor}) / 2 &= \text{Rs.}1,00,000 \\ \text{Opening Creditor} + \text{Closing Creditor} &= \text{Rs.}2,00,000 \\ (\text{Opening Creditor} + (\text{Opening Creditor} + 3 \text{ Opening Creditor})) & \\ &= \text{Rs.}2,00,000\end{aligned}$$

$$\begin{aligned}\text{Opening Creditor} &= \text{Rs.}40,000 \\ \text{Closing Creditor} &= \text{Rs.}40,000 + (3 \times \text{Rs.}40,000) \\ &= \text{Rs.}1,60,000\end{aligned}$$

- 7) Calculate Gross Profit ratio from the following information:
Opening stock Rs. 50,000; closing stock Rs.75,000; cash sale Rs.1,00,000; credits sales Rs.1,70,000; Returns outwards Rs.15,000; purchased Rs.2,90,000; advertisement expenses Rs.30,000; carriage inwards Rs.10,000

Solution :

$$\begin{aligned}\text{Cost of goods sold} &= \text{Opening stock} + \text{net purchase} + \text{direct expenses} - \text{closing stock} \\ &= \text{Rs. } 50,000 + (\text{Rs. } 2,90,000 - \text{Rs. } 15,000) + \text{Rs. } 10,000 - \text{Rs.}75,000 \\ &= \text{Rs. } 2,60,000\end{aligned}$$

$$\begin{aligned}\text{Total Sales} &= \text{Cash Sales} + \text{Credits Sales} \\ &= \text{Rs.}1,00,000 + \text{Rs.}1,70,000 \\ &= \text{Rs. } 2,70,000\end{aligned}$$

$$\begin{aligned}\text{Gross profit} &= \text{Total Sales} - \text{Cost of goods sold} \\ &= \text{Rs.}2,70,000 - \text{Rs.}2,60,000 \\ &= \text{Rs. } 10,000\end{aligned}$$

$$\begin{aligned}\text{Gross profit Ratio} &= \frac{10,000 \times 100}{2,70,000} \\ &= 4.704\%\end{aligned}$$

- 8) M/s. Vinay Ltd. Presents the following Trading and Profit & Loss A/c for the year ended 31.4.2014 and balance sheet as on that date.

Ratio Analysis

Trading and Profit and Loss account for the year ended 31.4.2014

Particulars	Amt	Particulars	Amt
To opening stock	2,00,000	By sales	12,00,000
To purchases	5,00,000	By closing Stock	4,00,000
To Wages	3,00,000		
To Gross Profit c/d	6,00,000		
	16,00,000		16,00,000
To Salaries	1,50,000	By Gross Profit b/d	6,00,000
To Rent	60,000	By Profit on sale of Machinery	5,000
To Commission	12,000	By Interest	15,000
To Advertising	20,000		
To Interest	83,000		
Depreciation	30,000		
To Provision for tax	50,000		
To Net Profit c/d	2,15,000		
	6,20,000		6,20,000
To Proposed	80,000	By balance b/f	1,85,000
To Preference	16,000	By Net profit b/d	2,15,000
To Balance c/d	3,04,000		
	4,00,000		4,00,000

Balance sheet as on 31.4.2014

Liabilities	Amt	Assets	Amt
Equity share capital (Rs.100)	8,00,000	Land and Building	6,00,000
8% Pref. Sh.Capital	2,00,000	Plant and Machinery	5,50,000
Reserve and surplus	3,04,000	Furniture	4,00,000
7% Debentures	5,00,000	Investment	2,70,000
Loan from IDBI	6,00,000	Stock	4,00,000
Creditors	1,50,000	Debtors	2,00,000
Bills Payable	50,000	Bills receivable	1,60,000
Provision for tax	50,000	Advance tax	30,000
Dividend Payable	96,000	Prepaid expenses	40,000
		Cash in Hand	20,000
		Bank Balance	60,000
		Dis. On issue of Debentures	20,000
	27,50,000		27,50,000

Additional information :

- 1) The Market Price of equally shares as on 31.04.2014 was Rs. 90.
- 2) Out of total sales, 30% are cash sales and out of total Purchases, 50% are credit purchases. You are required to calculate the following Ratios:

- a) Return on Capital employed
- b) Price earning Ratio
- c) Debt Service Ratio
- d) Creditors Turnover Ratio
- e) Return of equity capital 208000

Solution:

Return on capital employed	$\frac{\text{NOPBIT}}{\text{Capital Employed}} \times 100$	$\frac{3,28,000 \times 100}{24,04,000}$	14.64%
	$\frac{\text{NOPBIT}}{\text{Capital Employed}}$	$\frac{6,00,000-1,50,000-60,000}{12,000-20,000-30,000}$	-
		$\frac{8,00,000+2,00,000+3,04,000+5,00,000+6,00,000}{24,04,000}$	
Creditors Turnover Ratio	$\frac{\text{Credit Purchase}}{\text{Avg Creditors payable} + \text{Bills}}$	$\frac{2,50,000}{2,00,000}$	1.25 Time
Price Earning Ratio	$\frac{\text{MPS}}{\text{EPS}}$	$\frac{90}{24.88}$	4.62
EPS	$\frac{\text{Net Profit-Pref. Div}}{\text{No. of Equity Shares}}$	$\frac{2,15,000-16,000}{8,000}$	24.88
Return on Equity Capital	$\frac{\text{NPAT - Pref. Div}}{\text{Eq. Sh Cap}}$	$\frac{2,15,000-16,000}{8,00,000} \times 100$	24.875%
Debit Equity Ratio	$\frac{\text{NPBIT}}{\text{Interest}}$	$\frac{2,15,000+50,000+83,000}{83,000}$	4.19 Times

- 9) X Co. has made plans for the next year. It is estimated that the company will employ total assets of Rs.8,00,000; 50% of the assets being financed borrowed capital at an interest cost of 8% per year. The direct costs for the year are estimated at Rs. 4,80,000 and all the operating expenses are estimated at Rs.80,000. The goods will be sold to customers at 150% of the direct costs. Tax rate is assumed to be 50%.

You are required to CALCULATE; (i) Operating profit margin (before tax) (ii) net profit margin (after tax) (iii) return on assets (an operating profit after tax); (iv) asset turnover and (v) return on owner's equity.

Solution:

The net profit is calculated as follows:

Particulars	Rs.
Sales (150% of Rs.4,80,000)	7,20,000
Direct costs	(4,80,000)
Gross profit	2,40,000
Operating expenses	(80,000)
Profit before interest and Tax (EBIT)	1,60,000
Interest charges (8% of Rs. 4,00,000)	(32,000)
Profit before taxes	1,28,000
Taxes (@) 50%	(64,000)
Net profit after taxes	64,000

$$(i) \text{ Operating profit margin} = \frac{\text{EBIT}}{\text{Sales}} = \frac{\text{Rs. } 1,60,000}{\text{Rs. } 7,20,000} = 0.2222 \text{ or } 22.22\%$$

$$(ii) \text{ Net profit margin} = \frac{\text{Net Profit after taxes}}{\text{Sales}} = \frac{\text{Rs. } 64,000}{\text{Rs. } 7,20,000} = 0.089 \text{ or } 8.9\%$$

$$(iii) \text{ Return on assets} = \frac{\text{EBIT (1-T)}}{\text{Assets}} = \frac{\text{Rs. } 1,60,000(1-0.5)}{8,00,000} = 0.10 \text{ or } 10\%$$

$$(iv) \text{ Asset turnover} = \frac{\text{Sales}}{\text{Assets}} = \frac{\text{Rs. } 7,20,000}{\text{Rs. } 8,00,000} = 0.90x$$

$$(v) \text{ Return on equity} = \frac{\text{Net Profit after taxes}}{\text{Owner's equity}} = \frac{\text{Rs. } 64,000}{50\% \text{ of Rs. } 8,00,000}$$

$$= \frac{\text{Rs. } 64,000}{\text{Rs. } 4,00,000} = 0.16 \text{ or } 16\%$$

10) From the following ratios and information given below, prepare Trading Account, Profit and Loss Account and Balance Sheet of Hibacus Company.

Fixed Assets	Rs. 40,00,000
Closing Stock	Rs. 4,00,000
Stock turnover ratio	10
Gross profit ratio	25%
Net profit ratio	20%
Net profit to capital	1/5
Capital to total liabilities	1/2
Fixed assets to capital	5/4
Fixed assets/Total current assets	5/7

Solution:

Workings:

$$\text{i. } \frac{\text{Fixed assets}}{\text{Total current assets}} = \frac{5}{7}$$

$$\text{Or, Total current assets} = \frac{\text{Rs } 40,00,000 \times 7}{5} = \text{Rs. } 56,00,000$$

$$\text{ii. } \frac{\text{Fixed assets}}{\text{Capital}} = \frac{5}{4}$$

$$\text{Or, Capital} = \frac{\text{Rs. } 40,00,000 \times 4}{5} = \text{Rs. } 32,00,000$$

$$\text{iii. } \frac{\text{Capital}}{\text{Total liabilities*}} = \frac{1}{2}$$

$$\text{Or, Total liabilities} = \text{Rs. } 32,00,000 \times 2 = \text{Rs } 64,00,000$$

*It is assumed that total liabilities do not include capital.

$$\text{iv. } \frac{\text{Net profit}}{\text{Capital}} = \frac{1}{5}$$

$$\text{Or, Net profit} = \text{Rs. } 32,00,000 \times 1/5 = \text{Rs. } 6,40,000$$

$$\text{v. } \frac{\text{Net profit}}{\text{Sales}} = \frac{1}{5}$$

$$\text{Or, sales} = \text{Rs. } 6,40,000 \times 5 = \text{Rs. } 32,00,000$$

$$\text{vi. } \text{Gross profit} = 25\% \text{ of Rs. } 32,00,000$$

$$\text{vii. } \text{Stock Turnover} = \frac{\text{Cost of goods sold (i.e Sales-Gross profit)}}{\text{Average Stock}}$$

$$10 = \frac{\text{Rs. } 32,00,000 - \text{Rs. } 8,00,000}{\text{Average Stock}}$$

$$\text{Or, Average stock} = \text{Rs. } 2,40,000$$

$$\text{Or, } \frac{\text{opening stock} + \text{Rs. } 4,00,000}{2} = \text{Rs. } 2,40,000$$

$$\text{Or, Opening stock} = \text{Rs. } 80,000$$

Trading Account

Ratio Analysis

Particulars	Rs.	Particulars	Rs.
To opening Stock	80,000	By Sales	32,00,000
To Manufacturing exp/purchases	27,20,000		
To Gross profit b/d	8,00,000	By closing stock	4,00,000
	36,00,000		36,00,000

Profit and loss account

Particulars	Rs.	Particulars	Rs.
To opening expenses (Balancing figure)	1,60,000	By Gross profit c/d	8,00,000
To Net Profit	6,40,000		
	8,00,000		8,00,000

Balance sheet

Capital and liabilities	Rs.	Assets	Rs.
Capital	32,00,000	Fixed assets	40,00,000
Liabilities	64,00,000	Current assets:	
		Closing stock	4,00,000
		Other current assets(bal figure)	52,00,000
	96,00,000		96,00,000

Theory Questions:

- 1) Explain what is the ratio analysis?
- 2) What is the purpose of liquid ratio?
- 3) "Ratio analysis is the only tool and not a final decision." Discuss.
- 4) What are the limitations of ratio analysis?
- 5) Discuss the benefits of ratios.
- 6) How are the ratios classified from the point of view of users.
- 7) Write short notes on

- i. Quick ratio
- ii. Debtors turnover ratio
- iii. Earning per share
- iv. Return on equity

Practice Problems

- 1) From the following balance sheet and other information, calculate following ratios:

Particulars	Rs.
1) Equity and liabilities	
1) Shareholder's fund	
(a) Share capital	10,00,000
(b) Reserves and surplus	7,00,000
(c) Money received against share warrants	2,00,000
2) Non-current Liabilities	
Long term borrowings	12,00,000
3) Current liabilities	
Trade payables	5,00,000
	36,00,000
2) Assets	
1) Non current assets	
Fixed assets	
-tangible assets	18,00,000
2) Current assets	
(a) Inventories	4,00,000
(b) Trade receivable	9,00,000
(c) Cash and cash equivalents	5,00,000
Total	36,00,000

- (i) Debt equity ratio
 - (ii) Working capital turnover ratio
 - (iii) Trade receivables turnover ratio
- Balance sheet as a march 31, 2021

1) Additional information: Revenue from operation Rs. 18,00,000
(Ans. Debt-Equity Ratio 0.63:1, Working capital turnover ratio 1.38 times, trade receivables turnover ratio 2 times)

2) Cost of revenue from operations is Rs 1,50,000. Operating expenses are Rs.60,000. Revenue from operations is Rs2,50,000. Calculate operating ratio.

(Ans. Operating Ratio 84%)

3) From the following information calculate Gross profit ratio, inventory turnover ratio and trade receivable turnover ratio.

Revenue from operations	
Rs.3,00,000	
Cost of revenue from operations	Rs.2,40,000
Inventory at the end	
Rs.62,000	
Gross profit	Rs.60,000
Inventory in the beginning	Rs.58,000
Trade receivables	Rs.32,000

(Ans: Gross profit ratio 20%, Inventory turnover ratio 4 times, Trade receivables turnover ratio 9.375 times.)

4) Compute working capital turnover ratio, debt equity ratio and proprietary ratio from the following information.

Paid up share capital	
Rs.5,00,000	
Current assets	
Rs.4,00,000	
Revenue from operations	
Rs.10,00,000	
13% Debentures	Rs.2,00,000
Current liabilities	Rs.2,80,000

(Ans: Working capital ratio 8.33 times, Debt –Equity ratio 0.4:1, and proprietary ratio 0.71:1)

5) Calculate Debt equity ratio from the following information:

Total assets	Rs.15,00,000
Current liabilities	Rs.6,00,000
Total debts	Rs.12,00,000

(Ans: Debt-Equity Ratio 2:1)

Multiple choice questions

1. Ratio of net sales to net working capital is a:
 - (a) Profitability ratio
 - (b) Liquidity ratio
 - (c) Current ratio
 - (d) Working capital turnover ratio
2. Long term solvency is indicated by
 - (a) Debt-equity ratio
 - (b) Current ratio
 - (c) Operating ratio
 - (d) Net profit ratio
3. Ratio of net profit before interest and tax to sales is:
 - (a) Gross profit ratio
 - (b) Net profit ratio
 - (c) Operating ratio
 - (d) Interest coverage ratio
4. Observing changes in the financial variables across the year is:
 - (a) Vertical analysis
 - (b) Horizontal analysis
 - (c) Peer-firm analysis
 - (d) Industry analysis
5. The Receivables-turnover ratio helps management to:
 - (a) Managing resources
 - (b) Managing inventory
 - (c) Managing customer relationship
 - (d) Managing working capital
6. Which of the following is liquidity ratio?
 - (a) Equity ratio
 - (b) Proprietary ratio
 - (c) Net working capital
 - (d) Capital gearing ratio
7. Which of the following is not a part of Quick assets?
 - (a) Disposable investments
 - (b) Receivables
 - (c) Cash and cash equivalents
 - (d) Prepaid expenses

8. Capital gearing ratio is the fraction of:

- (a) Preference share capital and debentures to equity share capital and reserves and surplus
- (b) Equity share capital and reserves and surplus to preference share capital and debentures
- (c) Equity share capital to total assets
- (d) Total assets to equity share capital

9. From the following information calculate P/E ratio:

Equity share capital of Rs.10 each
Rs.8,00,000

9% Preference share capital of Rs. 10 each
Rs.3,00,000

Profit (after 35% tax)
Rs.2,67,000

Depreciation
Rs.67,000

Market price of equity share Rs.48

- (a)15 times
- (b)16 times
- (c)17 times
- (d)18 times

10. A company has average accounts receivable of Rs.10,00,000 and annual credit sales of Rs.60,00,000. Its average collection period would be:

- (a) 60.83 days
- (b) 6.00 days
- (c) 1.67 days
- (d) 0.67 days

(Ans: 1 (d) 2(a) 3(c) 4(b) 5(d) 6(c) 7(d) 8(a) 9(b) 10(a))



SOURCES OF FINANCE AND CASH FLOW ANALYSIS

Unit Structure:

- 5.0 Objective
- 5.1 Introduction to Business Finance
- 5.2 Classification of Sources of Finance
- 5.3 Cash Flow Statement
- 5.4 Classification of Cash Flow Statement
- 5.5 Uses of Cash Flow statement
- 5.6 Preparation of Cash Flow Statement Direct and Indirect
- 5.7 Summary
- 5.8 Exercise

5.0 LEARNING OBJECTIVES

After studying this section learners will be able to:

- State the purpose of business finance and classification of business finance
- State the aim for preparation of statement of cash flow statement;
- Differentiate the operating activities, investing activities and financing activities;
- Make the statement of cash flows using direct method;
- Make the cash flow statement using indirect method.

5.1 BUSINESS FINANCE

Business Finance refers to the capital funds and the credit funds capitalized in any type of organization. Business Finance refers to the funds and credit involved in in any type of organization. Finance is the basis of a corporate. Finance supplies are to acquisition assets, goods, raw materials and for the other movement of financial activities. Let us comprehend in-depth importance of Trade Finance. AS per the opinion of Wheeler, “Finance is that business actions which is concerned with achievement and preservation of capital fund in meeting the monetary requirements and over all purposes of corporate”

The monetary needs of a firm can be classified into two groups.

- (i) Fixed capital requirement
- (ii) Working capital requirement

5.2 CLASSIFICATION OF SOURCES OF FINANCE

(A) Period Basis :

On the basis of time period, a business finance can be categorized in to the following three sections.

(a) Long Term Finance:

Funds which are essential to be invested in a business for a long period of time that is more than five years are known as long term finance.

(b) Medium Term Finance:

The finance is very for business more than one year but less than five years is recognized as medium term finance.

(c) Short Term Finance:

The finance necessary for a short period up to one year is known as short term finance.

(B) Ownership Basis:

On the foundation of ownership, the bases can be categorized into ‘owner’s fund’ and ‘borrowed fund’,

- **Owner Fund :**

It denotes to the funds donated by owners as well as the accrued profit of the corporate this fund remains with the company and it has no liability to return this fund. e.g., equity shares.

- **Borrowed Fund :**

It mentions to the borrowing of the corporate. It comprises all funds obtainable by way of loans and by the way of credit.

(C) Source of Generation Basis :

Another basis of categorizing the sources of funds can be whether the funds are generated from within the organization internal or from outsidebases.

(D) Sources of Finance:

Corporates can raise finance from the subsequent methods.

Retained Earning:

Retained earnings means undistributed profits after sum earning refers to of dividend and taxes. It provides the basis of development and growth of a firm.

Specifications of Retained Earnings:

- (a) Cushion of safety
- (b) Funds for original and pioneering projects
- (c) Intermediate and long term finance
- (d) Conversion into possession fund

Trade Credit:

It refers to a groundwork whereby a producer is granted credit from the dealer of raw materials, inputs spare parts etc. The dealer allow their customers to pay their unsettled balance, with in a credit period. The obtainability of trade credit depends upon

- (i) Nature of the firm
- (ii) Size of the firm
- (iii) Status of the firm

(E) Factoring:

Factoring is a monetary service under which factor condenses the following services

(i) Discounting of Bills of Exchange:

When goods are sold on credit then a dealer generally draws bills of exchange upon consumers who are essential to accept the same.

(ii) Providing Information Regarding the Creditworthiness of Future Clients:

Factors gather detailed evidence regarding the financial history of dissimilar companies which can used by the financier who may lend money to these corporations.

(F) Lease Financing:

Leasing is a contract among lessor and lessee. Whereby the lessor permits the lessee to use the asset attained by the lessor in return of a payment named rent. Lessor is titled the owner of the assets and lessee hires the assets by giving rent. With leasing contract the lessee can use the assets without capitalizing a high amount of fund for purchasing it.

(G) Public Deposits :

Public deposits refers to loose deposits requested from the public. A company wanting to invite public deposit places an announcement in newspapers. Any member of the public can fill up the arranged form and deposit money with the company. Dissimilar features of public deposits are as under.

- (i) Unsecured
- (ii) Finance of working capital
- (iii) Time age
- (iv) Simple procedure to raise
- (v) Refund

(H) Commercial Papers:

Commercial paper is a one type of good source of short finance. The commercial paper was presented in India for the first time in 1990. It is an unsecured promissory note issued by public or private sector Company with a fixed maturity date, which differs from 3 to 12 months. Since these are unsecured that is why these are generally issued by companies having a good reputation.

(I) Issue of Shares :

Share is the minimum unit in which owner's capital of the business is divided. A share may also be defined as a unit of measure of a shareholder's interest in the firm.

According to Companies Act, a public company can issue two categories of shares.

- (i) Equity shares
- (ii) Preference shares

• Equity Shares:

Equity shares is a joint security issued under permanent or owner's fund capital. Equity shares are the utmost important source of nurturing long term capital. In Companies Act authorizing companies to issue two categories of equity shares.

- (i) Equity shares with equal rights.
- (ii) Equity shares with differential rights as to divide.

• Preference Shares:

Preference shares are those shares which get favorite over equity shares in addition to

- (i) The payment of dividend.
- (ii) The refund of investment amount during winding up.

(J) Debentures:

Debentures are common securities issued below borrowed fund capital. Debentures are devices for elevating long time debt capital. Debentures are called creditor deliver securities because debenture holder are known as creditors of a company. Different functions of debentures are borrowed fund

- (i) Fixed rate of interest
- (ii) Compulsory payment of interest
- (iii) Security
- (iv) Redeemable
- (v) No, voting right
- (vi) Appointment of trustee

(K) Commercial Banks:

Commercial banks occupy a completely crucial role as they offer price range for exclusive purposes and distinctive durations. Companies of all sizes can approach commercial banks. Generally, industrial banks offer short and medium time period loans but now-a-days they've began giving long term loans in opposition to protection.

(L) Financial Institutions:

Public monetary establishments are called lending establishments. Improvement banks or financial institutions, after independence the government of India found out that for economic development of a rustic only business banks are not enough. There should be financial institutions to provide financial help and steering to industries and business corporations.

(M) International Source of Finance :

After the new financial policy of liberalization or globalization. The doors of foreign corporations and buyers were opened to make investments inside the Indian companies. After 1991. The Indian groups tap international resources of finance for each debt and fairness. The main securities used by Indian agencies to tap international assets of finance are given underneath

- (i) Loans from Commercial Bank!';
- (ii) International Agencies and Development Bank
- (iii) International Capital Market

(a) GDR

(b) ADR

(c) IDR

5.3 CASH FLOW STATEMENT

Introduction:

The cash flow is the inflow i.e. receipt of cash and the outflow means payment of Cash. Here the Cash means Cash and Cash equivalents. The cash equivalents include Cash balance, Bank Balance, and the different types of Marketable Securities. Cash Flow Statement means a statement that indicates the inflows of cash and the outflows of Cash during the particular period. Inflows of cash means those transactions that rises the Cash and Cash Equivalents. The Cash outflows are those transactions that reduces the Cash and Cash Equivalents. This statement is arranged in accordance with the Accounting Standard-3 on Cash Flow Statement. As per the Accounting Standard-3, cash flows are obtainable under the three heads i.e. Cash Flow from the Operating Activities, Cash Flow from the Investing Activities and the Cash Flow from Financing Activities.

Cash plays a really imperative part within the financial life of a business. A firm needs cash to make payments for suppliers, daily operations, to make payment of salaries, wages, dividend and interest. In short it can be said that as blood is important in the human body like that cash is important in the business life. Thus, it is exceptionally fundamental for a business to preserve an adequate balance of cash. For instance, a concern works beneficially but it does not have adequate cash balance to make payment of dividend, what message does it pass on to the shareholders and open in common. In this way, managing of cash is remarkably important. There ought to be focus on drive of cash and its equals. Cash implies, cash in hand and demand deposits. Cash equals comprises of bank overdraft, cash credit, short term bank deposits.

Cash Flow Statement compacts with stream of cash which incorporates cash reciprocals as well as cash. This explanation is an extradata to the clients of Money related Statements. The articulation appears the approaching and active of cash. The explanation surveys the capability of the endeavor to produce cash and utilize it. Thus a Cash-Flow statement may be characterized as aoutline of receipts and payment of cash for a particular period of time. It moreover clarifies reasons for the changes in cash position of the firm. Cash streams are cash inflows and outpourings. Exchanges which increment the cash position of the substance are called as inflows of cash and those which diminish the cash position as outpourings of cash.

5.4 CLASSIFICATION OF CASH FLOW STATEMENT

1. Cash Flow -Operating Activities:

The operating activities related to the vital income making exercises to a business which comes under this category. Money Inflows for operating activities in corporates Cash Deals, Collection from Indebted individuals and the receipts of Commission and Eminence. Whereas Cash Outpourings from the operating activities in corporates Cash Buys, Installment to lenders and pay of wages etc.

2. Cash Flow -Investing Activities:

The Investing events incorporates deal and buy of long-term fixed resources as well as ventures. Money Inflows from the Contributing Exercises comprises Pay from deal of fixed assets, Deal of investment, Wage from Interest and profit. Money Surges from the Contributing Exercises incorporates the Buy of long term fixed resources i.e. Building, Plant & Machineries, Furniture and fixtures and Investment etc.

3. Cash Flow from the Financing Activities:

The Financing exercises incorporates capital and the other long term fund generation activities of the venture. Money Inflows from the Financing Exercises incorporates the continues from Issue of shares, Issue of Debentures and the Long-term Borrowings i.e. Bonds, Loans, etc. Where as money Surges from the Financing exercises comprises Reimbursement of loan and advances, Reimbursement of shares, Reimbursement of Debentures, The buy-back of the equity shares. The payment of the interest and the dividend.

Objectives -Cash Flow Statement:

- To define the bases of Cash and Cash Equivalents under operating, investing and financing doings of the organization.
- To define the uses of Cash and Cash Equivalents for operating, investing and financing doings of the organization.
- To define the net alteration in Cash and Cash equivalents due to cash arrivals and discharges for operating, investing and financing doings of the organization that take place among the two balance sheet dates.

5.5 Uses of Cash Flow statement

• To helpful for the Short-term Planning and forecasting:

It assists in planning of savings and assessing the financial supplies of the enterprise based on evidence provided in the declaration about the inflow and the outflow of Cash and Cash Equivalents.

• To measure Liquidity and Solvency of the organization:

It assists in recognizing the capability of the organization to meet its responsibilities on time.

- **To accomplish Cash Efficiently:**

It delivers material about the cash location by reflecting whichever an excess of cash or a shortfall of cash in the report. This assists the organization to take decisions about the investment of excess cash and the preparation for deficit funds.

- **To simplify the Relative Study:**

It simplifies the evaluation of actual cash flows with the planned cash flows to recognize whether the arrivals and discharges of cash are moving as per the schedule or not. Such assessment will also reproduce deviations of the real arrivals and discharges from the budgeted cash flows for which essential actions are then occupied by the initiative.

- **To validate Cash Situation:**

The Cash flow statement is arranged to record all the arrivals and discharges which effect in the extra or deficit of cash for an organization. Since, all the cash dealings are accessible in the report, it becomes easy to recognize the items which increase or reduction in the cash balances.

- **To assess Administration Decisions:**

This statement categorizes the cash dealings under three separate heads viz., operating, investing and financing cash. Such arrangement assists the operators of the statement to evaluate whether the decisions taken by the organization are suitable from investing and financing fact of view or not.

- **For payment of dividend :**

To approve the dividends, every organization must comply with the approved provisions for the payment of dividend. It also helps in determining how much dividend the organization should pay in a specific year.

Limitations -Cash Flow Statement:

- **Non-cash transactions are not shown:**

This statement always takes into consideration merely cash arrivals and cash discharges. Non-cash dealings are not measured for preparation of cash flow statement.

- **Not an alternative for a profit and loss statement :**

This statement cannot be used as an alternative for a profit and loss statement because profit and loss statement is prepared on accrual basis of accounting while cash flow statement is prepared on the cash basis. It is not imaginable to calculate net profit or loss from the statement of cash flow.

- **Not an alternative for Balance Sheet:**

This statement cannot be used as an alternative for a financial position showing statement i.e. the Balance Sheet. Therefore, this statement cannot be taken as a substitute for Balance Sheet.

- **Historicby Nature:**

This statement is prepared grounded on the cash arrivals and discharges that have already taken place during the year and hence, it is pastby nature.

- **Valuation of Liquidness:**

The Cash flow statement takes into deliberation all the dealings of cash and cash equivalents. This is just one of the mechanisms in the current assets which regulate the liquidness position of the organization. Therefore, cash flow statement alone cannot help in defining the liquidness position of the organization.

- **Correctness of Cash Flow Statement:**

The cash flow statement is arranged from the financial statements of an organization, correctness of the same will depend upon how correctly the monetary statements of the enterprise are arranged.

Expressions used in the Cash Flow Statement:

- **Cash:**

It comprises Cash in hand and deposit with banks.

- **Cash Equivalents:**

It comprises extremely liquid short-term investments that are freely convertible into cash and that are subject to an unimportant risk of change in value. It includes bill of exchange, commercial papers, investments etc.

- **Disclosure in Cash Flow Statement:**

Cash and Cash Equivalent is calculated as under:

` Cash in Hand + Cash at Bank + Cheques + Drafts on Hand + Short-term Investments (Marketable Securities) + Short-term Deposits in Banks

Classification of the Cash Flows for Cash Flow Statement :

Classification of Cash Flows as per Accounting Standard-3:

This standard on Cash Flow Statement needs that all the inflows and outflows of the cash and cash equivalent during a specific period should be categorized under 3 different heads as per the nature of dealings. These 3 heads are explained as below:

(a) Fund from Operating Activities:

These are the principal revenue making activities of an entity. It comprises all non-investing and non-financing doings. In a cash flow statement, net result of all the inflows and outflows from functioning activities is shown as Cash Flow from Operating Activities. Subsequent is the list of operating doings for:

(I) Financial Companies:

It comprises all dealings connected to: a. acquisition of securities; b. sale of securities; c. interest on loans; d. interest on loans occupied; e. dividends on securities; f. salaries and bonus g. income tax paid.

(II) Non-Financial Companies:

It comprises all dealings connected to: a. acquisition of goods; b. sale of goods c. amounts received from trade receivables; d. Trade payables; e. commission, etc.; f. wages and salaries g. payment of claims h. income tax

(b) Fund from Investing Activities:

These include all doings related to the purchase and clearance of Long-term Assets and other investments which are not categorized as cash equivalents. Subsequent is the list of investing activities: a. acquisition of fixed assets; b. sale of fixed assets; c. acquisition of securities; d. disposal of securities; e. loans and advances

(c) Fund from Financing Activities:

These are that type of activities that alteration the size and composition of the owner's capital as well as borrowings of the firm. Subsequent is the list of financing doings: a. issue of shares; b. issue of debentures c. loans and bonds d. short-term borrowings; e. bank overdraft as well as cash credit.

Transactions not regarded as Cash Flow:

These are the dealings that are mere actions in between the items of Cash and Cash Equivalents. This comprises cash deposited in bank, cash withdrawn from the bank etc.

Non-cash transactions:

These are the dealings in which the inflow or outflow of Cash does not take place. So, these non-cash dealings are not deliberated while making the Cash Flow Statements. These dealings comprise depreciation, issue of bonus, etc.

Significance of separate expose of cash flows under each activity:

• Operating Activities:

It acts a pointer of the extent to which the business processes successfully generate cash.

It controls operating efficiency of the business.

It helps in taking dynamic decisions with connection with cash for payment of dividends to shareholders, make new investments, expand projects, etc.

It helps in predicting and projecting upcoming cash flows.

Investing Activities:

It signifies the extent to which expenditure has been experienced to generate future revenue

Financing Activities:

It contributes in assessing claims on future cash flows by contributors of funds to the business.

Format of Cash Flow Statement

Extraordinary Items:

All the incomes and expenses that arise from events or transactions that are clearly separate from the ordinary course of business of the enterprise are termed as extraordinary items. All such items are not expected to recur frequently or regularly. It comprises items such as payment to shareholders in the event of buy back of shares, claim for damages received, etc.

5.6 PREPARATION OF CASH FLOW STATEMENT DIRECT AND INDIRECT

Cash Flow from Operating Activities

(A) Cash Flow from Operating Activities:

Indirect Method:

In this method, Cash Flow from Operating Activity is considered from statement of Profit and Loss and Balance Sheet with the help of following steps:

Step 1:

Calculate the Net Profit before Tax and Extraordinary Items.

Step 2:

Calculate the Operating Profit before Working Capital Changes.

Step 3:

Compute the Cash generated from Operating Activities.

Step 4:

Compute the Cash flow from Operating Activities before Extraordinary Items.

Step 5:

Compute the Cash flow from (or used in) Operating Activity.

(B) Cash Flow from Investing Activities:

These comprise all activities related to the acquisition and disposal of Long-term Assets and other investments which are not categorized as cash equivalents. All cash inflows and outflows connecting to the fixed assets, shares and related instruments of other enterprise including loans and advances to third parties and their repayments are classified under **Investing** Activities. It shows the degree to which investments have been made for resources that produce revenue and cash flows in future. It is determined by analyzing the deviations in fixed assets, long-term investments in the start and at the end of the year for which particular accounts can be prepared using the values that are available.

(C) Financing Activities:

These are those doings that change the size and composition of the owner's capital and borrowings of the firm. It is beneficial in estimating claims on cash flows by lenders of funds in future and therefore, are shown distinctly. It is calculated by analyzing change in Equity and Preference Share Capital, Debentures and other borrowings. It also takes into deliberation the amounts paid on account of interest and dividend. If shares or debentures are delivered at a premium, Cash Flow Statement shows total cash received from the issue that comprises both insignificant value and the premium. Any amount of share issue expenditures and underwriting commission is a cash outflow from financing activities. o It does not take into consideration bonus issue as it is just a capitalization of reserves for which the company does not receive any cash for it. Similarly, conversion of debentures into new debentures or shares involves no cash flow and consequently not considered in a cash flow statement.

Preparation of Cash Flow Statement

Steps for Preparing Cash Flow Statement:

Step 1:

Compute cash flow from Operating Activities.

Step 2:

Compute cash flow from Investing Activities.

Step 3:

Compute cash flow from Financing Activities.

Step 4:

Adding Step 1, Step 2 and Step 3 above, compute the net increase or decrease in Cash and Cash Equivalents.

Step 5:

Amount computed in Step 4 is to be added to the balance of Cash and Cash Equivalents in the start of the year.

Step 6:

Adding Step 4 and Step 5 will give the balance of Cash and Cash Equivalents at the end of the year which will match the balance as per Balance Sheet.

Precautions for preparing Cash Flow Statement:

Balance in Statement of Profit and Loss:

Identify whether the balance in the Statement of Profit and Loss is positive or negative. When the opening balance is negative, it is to be added to the closing balance and when the opening balance is positive, it is to be deducted from the closing balance.

Balance of Other Reserves:

Identify whether the balances of other reserves have increased or decreased. When the increase is due to appropriation from Surplus, i.e., Balance in Statement of Profit and Loss, it is to be added to compute Net Profit before tax and Extraordinary Items.

Interest on borrowings:

Identify if the percentage of interest on borrowings is given and add the amount of interest paid to compute Net Profit before Working Capital Changes and show it as an 'Outflow' under Cash Flow from Financing Activities.

Interest on Investment:

Identify if the percentage of interest on Investment is given and deduct the amount of interest received to compute Net Profit before Working Capital Changes and show it as an 'Inflow' under cash Flow from Investing Activities

Non-cash Expenses:

Identify if non-cash expenses are given and add them to compute Net Profit before Working Capital Changes.

Non-operating Expenses:

Identify if non-operating expenses are given and add them to compute Net Profit before Working Capital Changes. It will be shown as an outflow under appropriate head.

Non-operating Incomes:

Identify if non-operating incomes are given and deduct them to compute Net Profit before Working Capital Changes.

5.6 PRACTICAL PROBLEMS

Problem No. 1

Prepare a Cash - Flow Statement from the following Balance Sheet of Narayan Industries Ltd. Mumbai.

	Particulars	Note No.	31.03.2018	31.03.2017
I	Equity & Liabilities :			
	1) Share holder's Funds :			
	a) Share Capital		2,50,000	2,00,000
	b) Reserve & Surplus	1	1,83,000	82,000
	2) Non-Current Liabilities :			
	Long term Borrowings	2	80,000	50,000
	3) Current Liabilities :			
	Trade Payable		1,62,000	1,30,000
	Total		6,75,000	4,62,000
II	Assets :			
	1) Non - Current Assets :			
	a) Fixed Assets		2,74,000	1,17,000
	b) Long-term investments		68,000	55,000
	2) Current Assets :			
	a) Inventory	3	2,06,000	1,50,000
	b) Trade Receivables		32,000	70,000
	c) Cash & Cash Equivalents		95,000	70,000
	Total		6,75,000	4,62,000

Note :		31.03.2018	31.03.2017
1)	Reserve & Surplus : Profit & Loss Balance	1,83,000	82,000
		7,00,000	7,50,000
2)	Long-term Borrowings : 15% Debentures	8,000	50,000
3)	Trade Receivables :		
	S. Debentures	20,000	60,000
	Bills Receivables	12,000	10,000
		32,000	70,000

Solution :**Cash Flows from Operating Activities****for the year ended 31st March, 2016**

Particulars	Details	Amount
A) Cash Flows from Operating Activities :		
Net Profit before Tax :		101000
Adjustment for non-cash & non-operating items :		
Add : Interest paid		9000
Operating Profit before working capital charges		110000
Add : Decrease in Current Assets :		
Sundry Debtors	40000	
Add : Increase in Current Liabilities :		
Trade Payables	32000	72000
		182000
Less : Increase in Current Assets :		
Inventory	56000	
Bills Receivable	2000	(58000)
Net Cash from Operating Activities		124000
B) Cash Flow from investing Activities :		
Purchase of Fixed Assets	(157000)	

Purchases of Non-current Investments	(13000)	(1,70,000)
Net Cash used in investing Activities		(1,70,000)
C) Cash Flow from Financing Activities :		
Issue of Shares	50000	
Proceeds from 15% Debentures	30000	
Interest Paid	(9000)	71,000
Net Cash from Financing Activities		71,000
Net Increase in Cash & Cash equivalents (124000 - 170000 + 71000)		
Add : Cash in the beginning of the year		70,000
Cash & Cash equivalents at the end of the period		95,000

Working Note :

Profit & Loss balance on	31.03.2018	1,83,000
Less : Profit & Loss Balance on	31.03.2017	82,000
Net Profit		101000

Problem No. 2

Following is the balance sheet of Ashok Industries Ltd. Nagpur prepare cash flow.

	Particulars	Note No.	31.03.2018	31.03.2017
I	Equity & Liabilities :			
1)	Share holder's Funds :			
a)	Share Capital		3,20,000	2,50,000
b)	Reserve & Surplus		23,000	10,000
2)	Current Liabilities :			
	Trade Payables		45,000	70,000
	Total		3,88,000	8,30,000

II	Assets :				
	1)	Non - Current Assets :			
	a)	Fixed Assets		65,000	50,000
	b)	Long-term investments		62,000	40,000
	2)	Current Assets :			
	a)	Current Investments		8,000	10,000
	b)	Inventory		90,000	80,000
	c)	Trade Receivables		1,15,000	1,20,000
	d)	Cash & Cash Equivalents		47,000	32,000
		Total		3,88,000	3,30,000

Solution :

Cash Flows from Operating Activities for the year ended 31st March, 2016

Particulars	Details	Amount
A) Cash Flows from Operating Activities :		
Net Profit before Tax :		13000
Add : Decrease in current Assets :		
Trade Receivables	5000	5000
		18000
Less : Increase in Current Assets :		
Inventory	10000	72000
Less : Decrease in Current Liabilities :		
Trade Payables	25000	(35000)
Net Cash from Operating Activities		(17000)
B) Cash Flow from investing Activities :		
Purchase of Fixed Assets	(16000)	
Purchases of Non-current Investments	(22000)	(38,000)
Net Cash used in investing Activities		(38,000)

C) Cash Flow from Financing Activities :		
Issue of Shares	70000	70000
Net Cash from Financing Activities		(70,000)
Net Increase in Cash & Cash equivalents (17000) - (38000) + 70000		15000
Add : Cash in the equivalent in the beginning of the period		40,000
Cash & Cash equivalents of the end of the period		55,000

Working Note :

Reserve and Surplus on	31.03.2018	23,000
Less : Reserve & Surplus on	31.03.2017	10,000
Net Profit		13,000

Problem No. 3

Following are the Balance sheets of Ajay Company Ltd. Solapur.

	Particulars	Note No.	31.03.2018	31.03.2017
I	Equity & Liabilities :			
	1) Share holder's Funds :			
	a) Share Capital		4,00,000	3,00,000
	b) Reserve & Surplus	1	60,000	50,000
	2) Non-current Liabilities :			
	Long - Term Borrowings	2	1,40,000	1,70,000
	3) Current Liabilities :			
	Trade Payables	3	1,48,000	1,25,000
	Total		7,48,000	6,45,000

II	Assets :				
	1)	Fixed Assets :			
		a)	Tangible Assets	2,96,000	1,72,000
		b)	Long-term investments	45,000	60,000

	2)	Current Assets :			
		a)	Inventory	2,80,000	2,00,000
		b)	Trade Receivables	94,000	1,23,000
		c)	Cash & Cash Equivalents	18,000	80,000
		d)	Other Current Assets	15,000	10,000
		Total		7,48,000	6,45,000

Note :		31.03.2018	31.03.2017
1)	Reserve & Surplus : Retained Farming	60,000	50,000
2)	Long-term Borrowings :		
	15% Mortgage Loan	1,30,000	1,00,000
	Public Deposits	10,000	70,000
		1,40,000	1,70,000
3)	Trade Receivables :		
	S. Debtors	1,40,000	1,10,000
	Bills Receivables	8,000	15,000
		1,48,000	1,25,000
4)	Other Current Assets :		
	Prepaid Insurance	15,000	10,000

Interest paid on Mortgage loan amounted to `18,000. You are required to prepare a Cash Flow Statements.

Solution :Sources of Finance and
Cash Flow Analysis**Cash Flows from Operating Activities for the year ended 31st March, 2018**

Particulars	Details	Amount
A) Cash Flows from Operating Activities :		
Net Profit before Tax :		10000
Adjustments for non-cash & non operating items		
Add : Intangible Assets written off		
Trade Receivables	15000	38000
Operating profit before working capital		48000
Add : Decrease in Current Assets :		
Trade Receivables	29000	72000
Add : Increase in Current Liabilities :		
Sundry Creditors	30000	59000
		102000
Less : Decrease in Current Liabilities		
Bills Payables	7000	
Less : Increase in Current Assets		
Inventory	80000	
Prepaid Insurance	5000	(90000)
Net Cash from Operating Activities		10000
B) Cash Flow from investing Activities :		
Purchase of Tangible Assets	(16000)	
Net Cash used in investing Activities	(124000)	(124000)
		(124000)
C) Cash Flow from Financing Activities :		
Issue of Shares	100000	
Proceeds from Mortgage Loan	30000	
Repayments of Public Deposits	(60000)	
Interest Paid	(18000)	(52000)
Net Cash from Financing Activities		52,000
Net Decrease in Cash & Cash Equivalents (10000) + (124000) + (52000)		(62000)
Add : Cash and Cash equivalents in the beginning of the period		80000
Cash & Cash equivalents of the end of period		18000

Working Note :

Reserve Earnings on	31.03.2018	60,000
Less : Retained Earnings on	31.03.2017	50,000
Net Profit		10,000

Problem No. 4

Following are the Balance Sheet of Krishna Industries Ltd. Pune.

	Particulars	Note No.	31.03.2018	31.03.2017
I	Equity & Liabilities :			
	1) Share holder's Funds :			
	a) Share Capital		12,00,000	8,00,000
	b) Reserve & Surplus		3,50,000	4,00,000
	2) Non-Current Liabilities :			
	Long term Borrowings		4,40,000	3,50,000
	3) Current Liabilities :			
	Trade Payable		60,000	50,000
	Total		20,50,000	16,00,000
II	Assets :			
	1) Non - Current Assets :			
	a) Fixed Assets		12,00,000	9,00,000
	2) Current Assets :			
	a) Inventory		2,00,000	1,00,000
	b) Trade Receivables		3,10,000	2,30,000
	c) Cash & Cash Equivalents		3,40,000	3,70,000
	Total		20,50,000	16,00,000

Prepare a Cash Flow Statements after taking into account the following adjustments.

- The company paid interest `36,000 on its long term borrowings.
- Depreciation charged on tangible fixed assets was `1,20,000.

Solution :**Cash Flows from Operating Activities for the year ended 31st March, 2018**

Particulars	Details	Amount
A) Cash Flows from Operating Activities :		
Net Profit before Tax :		(50000)
Adjustment for non-cash & non-operating items :		
Add : Depreciation on Fixed Tangible Assets	1,20,000	
Interest on long-term Borrowings	36000	156000
Operating Profit before working capital changes		106000
Add : Increase in Current Liabilities :		
Trade Payables	10000	10000
		116000
Less : Increase in Current Assets :		
Inventory	(100000)	
Trade Receivable	(80000)	(180000)
Net Cash from Operating Activities		64000
B) Cash Flow from investing Activities :		
Purchase of Tangible Assets	(420000)	(420000)
Net Cash from investing Activities		(420000)
C) Cash Flow from Financing Activities :		
Proceeds from issue of Equity share Capital	400000	
Proceeds from long term borrowing	90000	
Payments of interest on long-term Borrowing	(36000)	454000
Net Cash from Financing Activities		454000
Net Decrease in Cash & Cash equivalents (64000) + (420000) + 454000		(30000)
Add : Cash & Cash equivalents in the beginning		370000
Cash & Cash equivalents at the end period		340000

Working Note :

Date	Particulars	₹	Date	Particulars	₹
	To Balance b/d	900000		By Depreciation A/c	120000
	To Bank A/c (B/f)	420000		By Balance c/d	1200000
		1320000			1320000

Problem No. 5

Following are the Balance Sheet of Maya Industries Ltd. Kolhapur.

	Particulars	Note No.	31.03.2018	31.03.2017
I	Equity & Liabilities :			
	1) Share holder's Funds :			
	a) Share Capital		2,00,000	2,00,000
	b) Reserve & Surplus		1,25,000	20,000
	2) Non-Current Liabilities :			
	Long term Borrowings		75,000	50,000
	3) Current Liabilities :			
	a) Trade Payable		64,000	90,000
	b) Short Term Provisions		15,000	10,000
	Total		4,79,000	3,70,000
II	Assets :			
	1) Non - Current Assets :			
	a) Fixed Assets		3,23,000	1,84,000
	2) Current Assets :			
	a) Inventory		72,000	50,000
	b) Trade Receivables		51,000	75,000
	c) Cash & Cash Equivalents		33,000	59,000
	d) Other Current Assets			1,000
	Total		4,79,000	3,70,000

Working Note :Sources of Finance and
Cash Flow Analysis

	31.03.2018	31.03.2017
1) Fixed Assets :	3,75,000	2,20,000
Less : Accumulated Depreciation	52,000	36,000
	3,23,000	1,84,000
2) Other Current Assets :		
Prepaid Expenses		2000

Additional Information :

	31.03.2018	31.03.2017
1) Contingent Liability		
Proposed Dividend	28000	20000
2) Interest paid on long - term borrowings amount to Rs. 800		

You are required to prepare a Cash Flow Statements.

Solution :**Cash Flows from Operating Activities for the year ended 31st March, 2018**

Particulars	Details	Amount
A) Cash Flows from Operating Activities :		
Net Profit before Tax :		140000
Adjustment for non-cash & non-operating items :		
Add : Depreciation on Fixed Assets	16,000	
Interest paid on long-term Borrowings	8000	24000
Operating Profit before working capital changes		164000
Add : Increase in Current Assets :		
Trade Receivables	24000	
Prepaid Expenses	2000	26000
		190000

Less : Increase in Current Assets :		
Inventory	22000	
Less : Current Liabilities :		
Trade Payables	26000	48000
		142000
Less : Payment of Tax		10000
Net Cash from Operating Activities		132000
B) Cash Flow from investing Activities :		
Purchase of Fixed Assets	155000	155000
Net Cash used investing Activities		155000
C) Cash Flow from Financing Activities :		
Proceeds from Long Term Borrowings	25000	
Payments of Dividends	(20000)	
Payments of interest	(8000)	(3000)
Net Cash from Financing Activities		(3000)
Net Decrease in Cash & Cash equivalents (1,32,000) + (1,55000) + (3000)		(26000)
Add : Cash & Cash equivalents in the beginning period		59000
Cash & Cash equivalents at the end of the period		33000

Working Note :

Fixed A/c

Date	Particulars		Date	Particulars	`
	To Balance b/d	220000		By Balance c/d	375000
	To Bank A/c (B/f)	155000			
		375000			375000

Accumulated Depreciation A/cSources of Finance and
Cash Flow Analysis

Date	Particulars	₹	Date	Particulars	₹
	To Balance b/d	52000		By Balance c/d	36000
				By Statement Profit & Loss A/c	16000
		52000			52000

Calculation of Net Profit before Tax	
Reserve & Surplus balance on 31 st March 2018	`125000
Less : Reserve & Surplus Balance 31 st March 2017	`70000
	`105000
Add : Proposed Dividend for previous year	`20000
Add : Provision for Tax & mad during the year	`15000
Net Profit before Tax	`140000

Problem No. 6

Prepare a Cash - Flow Statement from the following Balance Sheet of Mohan Industries Ltd. Mumbai.

	Particulars	Note No.	31.03.2018	31.03.2017
I	Equity & Liabilities :			
1)	Share holder's Funds :			
	a) Share Capital		2,80,000	2,50,000
	b) Reserve & Surplus	1	1,92,000	1,20,000
2)	Non-Current Liabilities :			
	Long term Borrowings	2	--	30,000
3)	Current Liabilities :			
	a) Short term Borrowings	3	40,000	70,000
	b) Trade Payables		93,000	1,76,000
	c) Short term Provisions	4	30,000	22,000
	Total		6,35,000	6,68,000

II	Assets :					
	1)	Non - Current Assets :				
		a)	Fixed Assets	5	3,65,000	3,50,000
		b)	Tangible Assets		42,000	60,000
			Intangible Assets		30,000	62,000
	2)	Current Assets :				
		a)	Inventory		80,000	1,20,000
		b)	Trade Receivables		1,00,000	66,000
		c)	Cash & Cash Equivalent		18,000	10,000
		Total			6,35,000	6,68,000

Note :		31.03.2018	31.03.2017
1)	Reserve & Surplus :		
	General Reserve	1,25,000	1,00,000
	Profit & Loss Balance	67,000	20,000
		1,92,000	1,20,000
2)	Long-term Borrowings : 12% Debentures	--	30,000
3)	Short-term Provision :		
	Provisions for Tax	30,000	22,000
4)	Short term Borrowing :		
	Bank Overdraft	40,000	70,000
5)	Tangible Assets :		
	Land & Building	50,000	2,00,000
	Plant and Machinery	3,15,000	1,50,000
		3,65,000	3,50,000

Debentures were redeemed on 1st April 2017.

Sources of Finance and
Cash Flow Analysis

Cash Flows from Operating Activities for the year ended 31st March, 2018

Particulars	Details	Amount
A) Cash Flows from Operating systems :		
Profit before Tax :		102000
Adjustment for non-cash & non-operating items :		
Add : Interest paid on long-term borrowings	18000	18000
Operating Profit before working capital changes		120000
Add : Decrease in Current Assets :		
Inventory	40000	40000
		160000
Less : Increase in Current Assets :		
Trade Receivables	34000	
Less : Decrease in current liabilities :		
Trade Payables	83000	117000
		43000
Less : Payment of Tax		22000
Net Cash from Operating Activities		21000
B) Cash Flow from investing Activities :		
Sale of Land Building	150000	
Purchases of Plant & Machinery	(165000)	(1,70,000)
Sale of Non-Current Investment	32000	17000
Net Cash used in investing Activities		(17,000)
C) Cash Flow from Financing Activities :		
Issue of Shares	30000	
Redemption of Debentures	(30000)	
Repayment of Bank Overdraft	(30000)	(30000)
Net Cash from Financing Activities		(30,000)
Net Decrease in Cash & Cash equivalents 21000 + 17000 + (30000)		8000
Add : Cash and Cash equivalents in the beginning of the Period		10,000
Cash & Cash equivalents at the end period		18,000

Working Note :

Calculation of Net Profit before Tax :

Profit & Loss balance on	31.03.2018	₹67,000
Less : Profit & Loss Balance on	31.03.2017	₹20,000
		₹47,000
Add : Transfer to General Reserve		₹25,000
Add : Provision for Tax made during the current year		₹30,000
Net Profit before Tax		₹1,02,000

Problem No. 7

From the following balance sheet of Shah Ltd. as 31.03.2017 prepare a Cash Flow.

	Particulars	Note No.	31.03.2018	31.03.2017
I	Equity & Liabilities :			
	1) Share holder's Funds :			
	a) Equity Share Capital		10,80,000	10,00,000
	b) Reserve & Surplus	1	2,40,000	1,20,000
	2) Non-Current Liabilities :			
	Long term Borrowings - 9% debt		3,20,000	2,40,000
	3) Current Liabilities :			
	a) Trade payables	2	1,80,000	2,40,000
	b) Short term provisions	3	1,80,000	1,60,000
	Total		19,20,000	17,60,000
II	Assets :			
	1) Non - Current Assets :			
	a) Fixed Assets			
	i) Tangible Assets	4	13,40,000	12,00,000
	b) Non-Current investments		2,40,000	1,60,000
	2) Current Assets :			
	a) Inventory		1,20,000	1,60,000
	b) Trade Receivables		1,60,000	1,60,000
	c) Cash & Cash Equivalents		60,000	80,000
	Total		19,20,000	17,60,000

Note :		31.03.2018	31.03.2017
1)	Reserve & Surplus :		
	General Reserve	1,20,000	1,20,000
	Balance in State Profit & Loss Bal.	1,20,000	--
		2,40,000	1,20,000
2)	Trade Payables		
	Creditors	1,40,000	1,20,000
	Bills Payables	40,000	1,20,000
		1,80,000	2,40,000
3)	Other Current Liabilities		
	Outstanding Rent	1,80,000	1,60,000
4)	Tangible Assets :		
	Plant & Machinery	14,90,000	1,30,000
	Accumulated Depreciation	(1,50,000)	(1,00,000)
		(13,40,000)	(12,00,000)
5)	Non-Current investments :		
	Shares in XYZ Limited	2,40,000	1,60,000

Additional Information :

- a) During the year 2016-17, a machinery costing `50,000 and accumulated depreciation thereon `15,000 was sold for `32,000/-
- b) 9% Debentures `80,000 were issued on April 1, 2015.

Cash Flows from Operating Activities for the year ended 31st March, 2017

Particulars	Details	Amount
A) Cash Flows from Operating systems :		
Net Profit before Tax :		120000
Adjustment for non-cash & non-operating items :		
Add : Depreciation	65000	
Loss on sale of Machinery	3000	
Interest on Debentures	28800	96800
Operating Profit before working capital changes		216800
Add : Decrease in Current Assets :		
Inventory	40000	
Add : Increase in Current Assets :		
Outstanding Rent	20000	
Creditors	20000	80000

		296800
Less : Decrease in current liabilities :		
Bills Payables	80000	80000
Net Cash from Operating Activities		216800
B) Cash Flow from investing Activities :		
Purchases of Machinery	(240000)	
Sale of Machinery	32000	
Purchase of shares in XYZ Ltd.	(80000)	288000
Net Cash from investing Activities		51,200)
C) Cash Flow from Financing Activities :		
Issue of 9% Debentures	80000	
Interest on Debentures	28800	
Net Decrease in Cash & Cash equivalents 216800 + 288000 + 51200		(20000)
Add : Cash and Cash equivalents in the beginning Period		80,000
Cash & Cash equivalents at the end period		60,000

Working Note :**Plant & Machinery A/c**

Date	Particulars	₹	Date	Particulars	₹
	To Balance b/d	1300000		By Bank A/c	32000
	To Bank A/c (B/f)	240000		By Acc. Depreciation A/c	15000
				By Statement of Profit & Loss A/c	3000
				By Balance c/d	1490000
		1540000			1540000

Accumulated A/c

Date	Particulars	₹	Date	Particulars	₹
	To Plant & Machinery A/c	15000		By Balance c/d	100000
	To Balance b/d	150000		By Depreciation A/c	650000
		165000			165000

Problem No. 8Sources of Finance and
Cash Flow Analysis

From the following Balance sheet of Rama Company Ltd. prepare Cash Flow Statement.

	Particulars	Note No.	31.03.2018	31.03.2017
I	Equity & Liabilities :			
	1) Share holder's Funds :			
	a) Share Capital	1	2,90,000	2,50,000
	b) Reserve & Surplus		1,52,000	50,000
	2) Current Liabilities :			
	a) Trade payables		5,000	23,000
	b) Short term Provisions	2	35,000	27,000
	Total		4,82,000	3,50,000
II	Assets :			
	1) Non - Current Assets :			
	a) Fixed Assets			
	1) Tangible Assets	3	1,50,000	1,40,000
	2) Intangible Assets		20,000	30,000
	2) Current Assets :			
	a) Inventories		95,000	45,000
	b) Trade Receivables		2,00,000	1,20,000
	c) Cash & Cash Equivalents		17,000	15,000
	Total		4,82,000	3,50,000

Additional Information :

1) Depreciation charged on plant was Rs. 30,000 and on Building Rs. 50,000.

2) Income Tax paid during the year amounted to Rs. 25,000

Note to Accounts :				
1)	Share Capital :			
	Equity Share Capital	2,50,000	2,00,000	
	Preference Share Capital	40,000	50,000	
		2,90,000	2,50,000	
2)	Short term provision :			
	Provision for Tax	35,000	27,000	
3)	Tangible Assets :			
	Building	80,000	10,00,000	
	Plant	70,000	40,000	
		1,50,000	1,40,000	

Working Note :**Building Account**

Date	Particulars	₹	Date	Particulars	₹
	To Balance b/d	100000		By Depreciation A/c	50000
	To Bank A/c (B/f)	30000		By Balance c/d	80000
		130000			130000

Plant Account

Date	Particulars	₹	Date	Particulars	₹
	To Balance b/d	40000		By Depreciation A/c	30000
	To Bank A/c (B/f)	60000		By Balance c/d	70000
		100000			100000

Calculation of Net Profit before Tax :

Reserve and Surplus Balance on	31.03.2018	₹1,52,000
Less : Reserve & Surplus balance	31.03.2017	₹50,000
		₹1,02,000
Add : Transfer to General Reserve		₹33,000
Add : Provision for Tax made during the current year		₹1,35,000
Net Profit before Tax		₹1,02,000

Cash Flows from Operating Activities for the year ended 31st March, 2017

Particulars	Details	Amount
A) Cash Flows from Operating Activities :		
Net Profit before Tax :		135000
Adjustment for non-cash & non-operating items :		
Add : Depreciation on plant	30000	
Loss on sale of Machinery	50000	
Interest on Debenture	10000	90000
Operating profit before working capital changes :		225000
Less : Increase in current Assets :		

Trade Receivable	80000	
Inventory	50000	
Less : Decrease in Current Liabilities :		
Trade Payable	18000	(148000)
		77000
Less : Income Tax paid for the year 2017		25000
Net Cash from operating		52000
B) Cash Flow from investing Activities :		
Purchase of Building	(30000)	
Purchases of Plant	(60000)	(80,000)
Net Cash used in investing Activities		90,000)
C) Cash Flow from Financing Activities :		
Issue of Equity Shares Capital	50000	
Redemption of preference share capital	(10000)	40000
Net Cash from Financing Activities		40,000
Net Decrease in Cash & Cash equivalents 52000 + (90000) + 40000		(2000)
Add : Cash and Cash equivalents in the beginning of the period		15,000
Cash & Cash equivalents at the end of the period		17,000

Problem No. 9

From the following Balance sheet of Tarun Fashion Ltd. prepare a Cash Flow Statement.

	Particulars	Note No.	31.03.2018	31.03.2017
I	Equity & Liabilities :			
	1) Share holder's Funds :			
	a) Share Capital		1,50,000	1,20,000
	b) Reserve & Surplus		1,78,000	75,000
	2) Non-Current Liabilities			
	Long-term Borrowings	1	-	50000
	3) Current Liabilities :			
	a) Trade payables		31,500	67,000
	b) Short term Provision		42,000	30,000
	Total		4,01,500	3,42,000
II	Assets :			
	1) Non - Current Assets :			
	a) Fixed Assets			

		1) Tangible Assets	2	2,08,000	1,40,000
		2) Intangible Assets	3	35,000	20,000
	2)	Current Assets :			
	a)	Inventories		1,05,000	1,20,000
	b)	Trade Receivables		33,500	37,000
	c)	Cash & Cash Equivalents		20,000	25,000
		Total		4,01,500	3,42,000

Note :		31.03.2018	31.03.2017
1)	Long term Borrowing :		
	15% Debentures	--	50,000
2)	Tangible Assets :		
	Building	80,000	1,00,000
	Plant & Machinery	1,28,000	40,000
		2,08,000	1,40,000
3)	Tangible Assets :		
	Goodwill	35,000	20,000

Additional Information :

- | | | |
|---|------------|------------|
| | 31.03.2018 | 31.03.2017 |
| 1) Proposed Dividend | 15000 | 12000 |
| 2) Depreciation of Rs. 10000 was provided on Plant & Machinery. | | |
| 3) Gain on sale of a part of Building Rs. 25000. | | |
| 4) Debentures were redeemed on 1 st April 2017. | | |
| 5) Provision for Tax made during the year Rs. 50000. | | |

Working Note :**Building Account**

Date	Particulars	₹	Date	Particulars	₹
	To Balance b/d	100000		By Bank A/c	45000
	To Bank A/c	25000		By Balance c/d	80000
		125000			125000

Plant and Machinery Account

Sources of Finance and
Cash Flow Analysis

Date	Particulars	₹	Date	Particulars	₹
	To Balance b/d	40000		By Depreciation A/c	12000
	To Bank A/c (B/f)	98000		By Balance c/d	128000
		138000			138000

Calculation of Net Profit before Tax :

Reserve and Surplus Balance on	31.03.2018	₹1,78,000
Less : Reserve & Surplus balance	31.03.2017	₹75,000
		₹1,03,000
Add : Proposed Dividend for previous year		₹12,000
Provision for Tax made during the current year		₹50,000
Net Profit before Tax		₹1,65,000

Cash Flows from Operating Activities for the year ended 31st March, 2018

Particulars	Details	Amount
A) Cash Flows from Operating Activities :		
Net Profit before Tax :		165000
Adjustment for non-cash & non-operating items :		
Add : Depreciation on plant & machinery	10000	
Less : Gain on Sale of Building	(25000)	(15000)
Operating Profit before Working Capital changes		150000
Add : Decrease in Current Assets		
Trade Receivables	3500	
Inventory	15000	(18500)
		168000
Less : Decrease in current Liabilities :		
Trade Payables	35000	(35000)
		133000
Less : Income Tax paid for the year 2017		38000
Net Cash from Operating Activity		95000)
B) Cash Flow from Inventories Activities :		
Issue of Share Capital	30000	

Redemption of Debentures	(50000)	(80,000)
Payment of Dividend for 2017	(12000)	(32000)
Net Cash From Financing Activities		(32,000)
Net Decrease in Cash & Cash equivalents 95000 + (68000) + 32000		5000
Add : Cash and Cash equivalents in the beginning of the period		25,000
Cash & Cash equivalents at the end of the period		20,000

Problem No. 10

Prepare a Cash - Flow Statement from the following Balance Sheet of Shree Industries Ltd. Pune.

	Particulars	Note No.	31.03.2018	31.03.2017
I	Equity & Liabilities :			
	1) Share holder's Funds :			
	a) Share Capital		2,00,000	2,00,000
	b) Reserve & Surplus	1	84,000	(8,000)
	2) Non-Current Liabilities :			
	Long term Borrowings	2	1,35,000	1,00,000
	3) Current Liabilities :			
	Trade Payables		68,000	62,000
	Total		4,87,000	3,54,000
II	Assets :			
	1) Non - Current Assets :			
	Fixed Assets	3	1,20,000	1,30,000
	2) Current Assets :			
	a) Current Investment (Marketable section)		22,000	15,000
	b) Inventories		61,000	80,000
	c) Trade Receivables		40,000	29,000
	d) Cash & Cash Equivalents		2,44,000	1,00,000
	Total		4,87,000	3,54,000

Note :		31.03.2018	31.03.2017
1)	Long-term Borrowing :		
	General Reserve	24,000	
	Profit & Loss Balance	60,000	(8,000)
2)	Long-term Borrowings : 12% Mortgage Loan	135000	1,00,000
3)	Fixed Assets :		
	Machinery	1,45,000	1,60,000
	Less : Accumulated Depreciation	25,000	30,000
		1,20,000	1,30,000

Additional Information :

1) Interest paid on mortgage loan amounted to Rs. 14,100.

2) Interim Dividend paid during the year Rs. 20,000.

3) Machinery costing Rs. 40,000

(Accumulated depreciation thereon being Rs. 18,000) was sold for Rs. 5,000.

Working Note :**Machinery Account**

Date	Particulars	₹	Date	Particulars	₹
	To Balance b/d	160000		By Bank A/c (sale)	5000
	To Bank A/c	25000		By Accumulated Dep.	18000
				By Statement of Profit & Loss	17000
				By Balance C/d	145000
		185000			185000

Calculation of Net Profit before Tax :

Profit & Loss Balance on 31 st March, 2018	₹60,000
Less : Profit & Loss Balance on 31 st March, 2017	₹8,000
	₹68,000
Add : Transfer to General Reserve	₹24,000
Interim Dividend Paid	₹20,000
Net Profit before Tax	₹1,12,000

Cash Flows from Operating Activities for the year ended 31st March, 2018

Particulars	Details	Amount
A) Cash Flows from Operating Activities :		
Net Profit before Tax :		112000
Adjustment for non-cash & non-operating		
Add : Interest paid on mortgage loan	14100	
Loss on sale of Machinery	17000	
Depreciation	13000	44100
Operating Profit before working capital		156100
Add : Decrease in Current Assets :		
Inventory	19000	
Add : Increase in current Liabilities		
Trade Payable	6000	25000
		181100
Less : Increase in Current Assets :		
Trade Receivables	(11000)	(11000)
Net Cash from Operating Activities		170100
B) Cash Flow from investing Activities :		
Purchases of Machinery	(25000)	
Sale of Building	5000	(20000)
Net Cash from investing Activities		(20,000)
C) Cash Flow from Financing Activities :		
Proceeds of 12% mortgage loan	35000	
Interest paid on mortgage loan	(14100)	
Interim Dividend paid	(20000)	900
Net Cash from Financing Activities		900
Net Decrease in Cash & Cash equivalents 170000 + (20000) + 900		151000
Add : Cash and Cash equivalents in the beginning of the Period		115000
Cash & Cash equivalents at the end period		260000

Problem No. 11Sources of Finance and
Cash Flow Analysis

Prepare a Cash Flow Statement from the following information of Jay Industries Ltd. Mumbai.

	Particulars	Note No.	31.03.2018	31.03.2017
I	Equity & Liabilities :			
	1) Share holder's Funds :			
	a) Share Capital		300000	200000
	b) Reserve & Surplus		65000	50000
	2) Current Liabilities :			
	a) Trade payables		105000	52000
	b) Other Current Liabilities		--	16000
	c) Short Term Provision		20000	2000
	Total		490000	320000
II	Assets :			
	1) Non - Current Assets :			
	a) Fixed Assets		225000	110000
	b) Non-Current Investments		55000	60000
	2) Current Assets :			
	a) Inventories		26000	50000
	b) Trade Receivables		180000	92000
	c) Cash & Cash Equivalents		4000	8000
	Total		490000	320000

Note :	31.03.2018	31.03.2017
1) Reserve & Surplus :		
Securities premium Reserve	20000	--
Profit & Loss Balance	45000	50000
	65000	50000
2) Trade Payables		
Sundry Creditors	95000	52000
Bills Payables	10,000	--
	1,05,000	52000
3) Other Current Liabilities o/s Salary	--	16000
4) Short term provision for Doubtful debts	20000	2000

Additional Information :

- a) During the year, company said 60% of its original non-current investments at a profit of 25%.
- b) Depreciation provided during the year was ₹35,000.

Working Note :**Fixed Assets Account**

Date	Particulars	₹	Date	Particulars	₹
	To Balance b/d	110000		By Depreciation A/c	35000
	To Bank A/c	150000		By Balance c/d	15000
		260000			260000

Calculation of Net Profit before Tax :

Profit & Loss Balance on 31 st March, 2018	Rs. 45000
Less : Profit & Loss Balance 31 st March 2017	Rs. 50000
Net Profit before Tax	Rs. (5000)

Cash Flows from Operating Activities for the year ended 31st March, 2018

Particulars	Details	Amount
A) Cash Flows from Operating Activities :		
Net Loss during the year		(5000)
Adjustment for non-cash & non-operating items		
Add : Provision for doubtful debts	18000	
Depreciation	35000	53000
Operating Profit before working capital change		48000
Add : Decrease in Current Assets :		
Inventory	24000	
Add : Increase in current Liabilities		
Sundry Creditors	43000	
Trade payable	10000	77000
		11600

Less : Increase in Current Assets :		
Trade Receivables	88000	
Less : Decrease in current Liabilities		
Outstanding salaries	16000	(104000)
Net Cash from Operating Activities		12000
B) Cash Flow from investing Activities :		
Purchases of Fixed Assets	150000	
Purchase of non-current investments	31000	
Sale of non-current investments	45000	(136000)
Net Cash from investing Activities		(136000)
C) Cash Flow from Financing Activities :		
Issue of Share Capital	100000	
Securities premium received on issue share	20000	120000
Net Cash from Financing Activities		120000
Net Decrease in Cash & Cash equivalents 12000 + (186000) + 120000		4000
Add : Cash and Cash equivalents in the beginning		8000
Cash & Cash equivalents at the end		4000

Problem No. 12

Prepare a Cash-Flow Statement from the following Balance Sheet of Malhar Industries Ltd. Pandharpur.

	Particulars	Note No.	31.03.2018	31.03.2017
I	Equity & Liabilities :			
	1) Share holder's Funds :			
	a) Share Capital		200000	200000
	b) Reserve and Surplus		107000	25,000
	2) Non-Current Liabilities :			
	a) Long-term Borrowings		1,20,000	--
	3) Current Liabilities :			

		a) Trade payables		1,39,000	90,000
		b) Short term provisions		40,000	30,000
		Total		6,06,000	3,45,000
II	Assets :				
	1)	Non - Current Assets :			
		a) Fixed Assets			
		i) Tangible Assets		1,80,000	1,20,000
		ii) Intangible Assets		34,000	50,000
	2)	Current Assets :			
		a) Inventories		2,10,000	1,00,000
		b) Trade Receivables		1,20,000	50,000
		c) Cash & Cash Equivalents		52,000	13,000
		d) Other Current Assets		10,000	12,000
		Total		6,06,000	3,45,000

Note :		31.03.2018	31.03.2017
1)	Long term Borrowing 12% Debentures	1,20,000	-
2)	Short-term Provision		
	Provision for Taxation	40,000	30,000

Additional Information :

- 1) Debentures were issued on 1st October, 2017. Interest has paid-up to date.
- 2) Machinery whose original cost was Rs. 50,000 (accumulated depreciation there on being Rs. 27,000) was sold for Rs. 35,000.
- 3) Depreciation on Machinery charged during the year Rs. 15,000.
- 4) Interim Dividend paid during the year was @ 15% on Share Capital.

Working Note :

Calculation of Net Profit before Tax :

Reserve and Surplus on 31 st March, 2018	107000
Less : Reserve and Surplus on 31 st March, 2017	25000
	82000
Add : Provision for Taxation for 2018	40000
Interim Dividend	30000
	152000

Calculation of Profit on Sale of Machinery :

Cost of Machinery sold	50000
Less : Accurate Depreciation	27000
	23000
Written down value of Machinery	23000
Sale of Amount of Machine	35000
	12000
Profit on Sale of Machinery	12000

Cash Flows from Operating Activities for the year ended 31st March, 2018

Particulars	Details	Amount
A) Cash Flows from Operating systems :		
Net Profit before Tax :		152000
Adjustment for non-cash & non-operating		
Add : Intangible Assets Written off	16000	
Interest on Debentures	7200	
Depreciation on Machinery	15000	
Less : Profit Sale of Machinery	(12000)	26200
Operating Profit before working capital charge		178200
Add : Decrease in current Assets		
Other Current Assets	2000	
Add : Increase in Current Liabilities		
Trade payables	49000	51000
		229200

Less : Decrease in current Assets :		
Trade Receivables	70000	
Inventory	110000	(1800000)
		49200
Less : Income Tax paid for 2017		30000
Net Cash from Operating Activities		19200
B) Cash Flow Investing Activities :		
Sale of Machinery	35000	
Purchase of Tangible Assets	(98000)	(63000)
Net Cash from Investing Activities		(63000)
C) Cash Flow from Financing Activities :		
Proceeds from issue of Debentures	120000	
Interim Dividend paid	(30000)	
Interest on Debentures	(7200)	82800
Net cash from Financing Activities		82800
Net Increase in Cash & Cash equivalents 19200 + (163000) + 82800		39000
Add : Cash and Cash equivalents in beginning Period		13,000
Cash & Cash equivalents at end period		52,000

Problem No. 13

From the following Balance sheet of Krishna Industries Ltd. Pune. You are required to prepare Cash Flow.

	Particulars	Note No.	31.03.2018	31.03.2017
I	Equity & Liabilities :			
	1) Share holder's Funds :			
	a) Share Capital		8,00,000	6,75,000
	b) Reserve & Surplus		1,70,000	91,000
	2) Current Liabilities :			
	a) Short term borrowings	1	88,000	66,000
	b) Trade Payables		1,00,000	70,000
	c) Short term provision	2	34,000	26,000
	Total		11,92,500	9,28,000

II	Assets :				
	1)	Non - Current Assets :			
		a)	Fixed Assets		
			1) Tangible Assets	3	3,75,000
					5,00,000
	2)	Current Assets :			
		a)	Inventories		4,00,000
					2,50,000
		b)	Trade Receivables		3,82,000
					1,55,000
		c)	Cash & Cash Equivalents		10,000
					3,000
		d)	Other Current Assets		25,000
					20,000
		Total			11,92,500
					9,28,000

Note :		31.03.2018	31.03.2017
1)	Short term Borrowing :		
	Bank Overdraft	88,000	66,000
2)	Short Term Provisions :		
	Taxation Provisions	34,000	26,000
3)	Other Current Liabilities	1,50,000	2,00,000
	Land	2,25,000	3,30,000
		3,75,000	5,00,000

Additional Information :

- 1) Interim Dividend paid during the year Rs. 60,000
- 2) Land was sold at a profit of Rs. 30,000.
- 3) Plant costing Rs. 20,000 was sold during the year at a loss of Rs. 8,000.

Cash Flows from Operating Activities for the year ended 31st March, 2018

Particulars	Details	Amount
A) Cash Flows from Operating Activities :		
Net Profit before Tax :		173000
Adjustment for non-cash & non-operating items :		
Add : Depreciation on plant	55000	
Loss on sale of plant	8000	63000
		236000
Less : Profit on Sale of Land		30000
Operating Profit before Working Capital changes		206000
Add : Increase in Current Liabilities :		
Trade Payables	30000	30000
		236000

Less : Increase in Current Assets :		
Trade Receivables	227000	
Inventory	150000	
Other Current Assets	5000	382000
		(146000)
Less : Income tax paid for 2017		(26000)
Net Cash from operating activities		(172000)
B) Cash Flow from Investing Activities :		
Sale of Land (50000 + 30000)	80000	
Sale of Plant (20000 - 8000)	12000	92,000
Net Cash From investing Activities		92,000
C) Cash flow from Financing Activities :		
Issue of share capital	125000	
Increase in Bank Overdraft	22000	
Interim Dividend Paid	(60000)	87000
Net Cash from Financing Activities		87000
Net increase in Cash & Cash equivalents (1,72,000) + 92,000 + 87,000		7000
Add : Cash and Cash equivalents in the beginning of the period		3,000
Cash & Cash equivalents at the end of the period		10,000

Working Note :

Calculation of Net Profit before Tax :

Reserve and Surplus on 31 st March, 2018	170000
Less : Reserve and Surplus on 31 st March, 2017	91000
	79000
Add : Provision for Taxation for 2018	34000
Interim Dividend	60000
	173000

Problem No. 14Sources of Finance and
Cash Flow Analysis

From the following Balance Sheet of Alka Industries Ltd. prepare a Cash Flow Statement.

	Particulars	Note No.	31.03.2018	31.03.2017
I	Equity & Liabilities :			
	1) Share holder's Funds :			
	a) Share Capital		65000	45000
	b) Reserve and Surplus	1	42500	25000
	2) Current Liabilities :			
	a) Trade payables		11000	8700
	Total		118500	78700
II	Assets :			
	1) Non - Current Assets :			
	a) Fixed Assets		83000	46700
	2) Current Assets :			
	a) Inventory		13000	11000
	b) Trade Receivables		20000	19000
	c) Cash & Cash Equivalents		2500	2000
	Total		118500	78700

Note :	31.03.2018	31.03.2017
1) Reserve & Surplus		
General Reserve	27500	15000
Profit & Loss Balance	15000	10000
	42500	25000

Additional Information :

- 1) Depreciation on fixed Assets for the year 2017-2018 was ₹14700
- 2) An interim dividend Rs. 7000 has been paid to the shareholder during the year.
- 3) Depreciation on Machinery charged during the year Rs. 15,000.
- 4) Interim Dividend paid during the year was @ 15% on Share Capital.

Cash Flows from Operating Activities for the year ended 31st March, 2018

Particulars	Details	Amount
A) Cash Flows from Operating systems :		
Net Profit before Tax :		24500
Adjustment for non-cash & non-operating items		
Add : Dep. on Machinery	80000	
Loss on Sale Machinery	12000	92000
Operating Profit before working capital changes		312000
Add : Increase in current Assets		
Trade Payables	62000	62000
Less : Increase in current Assets :		374000
Trade Receivables	80000	
Inventory	110000	190000
Net Cash from Operating Activities :		184000
B) Cash Flow from Investing Activities :		
Purchase of Machinery	(510000)	
Sale of Machinery	18000	(492000)
Net Cash from Investing Activities		(492000)
C) Cash Flow from Financing Activities :		
Issue of Share Capital	200000	
Payment of proposed dividend	(60000)	140000
Net cash from Financing Activities		140000
Net Increase in Cash & Cash equivalents 38000 + (492000) + 13000		(168000)
Add : Cash and Cash equivalents in beginning of the Period		2000
Cash & Cash equivalents at end of the period		2500

Working Note :

Calculation of Net Profit before Tax :

Net Profit as per Profit & Loss Statement

Less : Transfer to General Reserve

Interim Dividend

5000

12000

7000

24500

Problem No. 15Sources of Finance and
Cash Flow Analysis

The Balance sheet of Jindal Industries Ltd. Aurangabad. Prepare the cash flow statement.

	Particulars	Note No.	31.03.2018	31.03.2017
I	Equity & Liabilities :			
	1) Share holder's Funds :			
	a) Share Capital		12,00,000	8,00,000
	b) Reserve & Surplus	1	(1,70,000)	(2,15,000)
	2) Non-Current Liabilities :			
	Long term Borrowings	2	3,00,000	2,50,000
	3) Current Liabilities			
	Trade Payable		1,90,000	2,70,000
	Total		15,20,000	11,05,000
II	Assets :			
	1) Non - Current Assets :			
	a) Fixed Assets		6,90,000	5,00,000
	b) Non - Current Investments	3	1,20,000	2,00,000
	2) Current Assets :			
	a) Inventory		4,60,000	2,80,000
	b) Trade Receivables		1,80,000	65,000
	c) Cash & Cash Equivalents		70,000	60,000
	Total		15,20,000	11,05,000

Note :	31.03.2018	31.03.2017
1) Reserve & Surplus :		
Profit & Loss Balance	(1,70,000)	(2,15,000)
2) Short Term Provisions :		
12% Public Deposits	3,00,000	2,50,000
3) Other Current Liabilities		
Sundry Debtors	1,80,000	50,000
Bills Receivables	--	15,000
	1,80,000	65,000

Additional Information :

- 1) New Public deposits were accepted on 1st January, 2018.
- 2) Machinery Costing Rs. 2,00,000 on which Dep. charged was Rs. 70,000 was sold for Rs. 1,50,000.
- 3) New Machinery purchased during the year amounted to Rs. 4,00,000.
- 4) Non-Current Investments were sold at profit of 25%.

Cash Flows from Operating Activities for the year ended 31st March, 2018

Particulars	Details	Amount
A) Cash Flows from Operating Activities :		
Net Profit before Tax :		45000
Adjustment for non-cash & non-operating items :		
Add : Depreciation on plant & machinery	80000	
Loss on sale of machinery	31500	1,11,500
		156500
Less : Profit on Sale of Machinery	20000	30000
Profit on sale of non-current investments	20000	(40000)
Operating profit before working capital changes		116500
Add : Decrease in Current Assets :		
Bills Receivable	15000	15000
		131500
Less : Increase in Current Assets :		
Sundry Debtors	130000	
Inventory	180000	
Less : Decrease in Current Liabilities :		
Trade payables	80000	(390000)
Net Cash from operating activities		(258000)
B) Cash Flow from Investing Activities :		
Sale of Machinery	150000	
Purchase of Fixed Assets	400000	
Sale of Non-Current Investments	100000	(150000)

Net Cash from investing Activities		(150000)
C) Cash flow from Financing Activities :		
Issue of share capital	400000	
Proceeds of Public Deposits	50000	
Interest paid on Public Deposits	(31500)	418000
Net Cash from Financing Activities		418000
Net increase in Cash & Cash equivalents (2,58,500) + (1,50,000) + 4,18,000		10000
Add : Cash and Cash equivalents in the beginning of the period		60,000
Cash & Cash equivalents at the end of the period		70,000

Working Note :

1) Calculation of Net Profit before Tax :

Profit & Loss Balance on 31.03.2018	(170000)
Profit & Loss Balance on 31.03.2017	(215000)
Net Profit before Tax	45000

2) Interest paid on Public Deposits

2,50,000 x 12% for 1 year	30000
50,000 x 12% for 3 months	1500
	31500

Problem No. 16

The Balance sheet of Mamta Company Ltd. Mumbai. Prepare the cash flow statement.

	Particulars	Note No.	31.03.2018	31.03.2017
I	Equity & Liabilities :			
	1) Share holder's Funds :			
	a) Share Capital		14,00,000	12,00,000
	b) Reserve & Surplus	1	7,40,000	5,80,000

	2)	Current Liabilities :			
		Trade Payables		2,72,000	2,10,000
		Total		24,12,000	19,90,000
II		Assets :			
	1)	Non - Current Assets :			
		Fixed Assets		12,00,000	8,00,000
	2)	Current Assets :			
	a)	Inventory		3,10,000	2,00,000
	b)	Trade Receivables		5,80,000	5,00,000
	c)	Cash & Cash Equivalents		3,22,000	4,90,000
		Total		24,12,000	19,90,000

Note :		31.03.2018	31.03.2017
1)	Reserve & Surplus :		
	General Reserve	4,50,000	4,00,000)
	Profit & Loss Balance	2,90,000	1,80,000
		7,40,000	5,80,000

Additional Information :

- | | 31.03.2018 | 31.03.2017 |
|---|------------|------------|
| i) Contingent Liability proposed Dividend | 72000 | 60000 |
| ii) Depreciation change during the year on plant & machinery amounted to Rs. 80,000. | | |
| ii) Machinery costing Rs. 80,000 (Book Value Rs. 30,000) was sold at a loss of 40% on book value. | | |

Cash Flows from Operating Activities for the year ended 31st March, 2018

Sources of Finance and
Cash Flow Analysis

Particulars	Details	Amount
A) Cash Flows from Operating Activities :		
Net Profit before Tax :		220000
Adjustment for non-cash & non-operating items :		
Add : Depreciation on machinery	80000	
Loss on sale of machinery	12000	92,000
Operating profit before working capital changes		312000
Add : Increase in Current Assets :		
Trade Payables	62000	62000
		374000
Less : Increase in Current Assets :		
Trade Receivables	80000	
Inventory	110000	(1,90,000)
Net Cash from operating activities		(184000)
B) Cash Flow from Investing Activities :		
Purchase of Machinery	510000	
Sale of Machinery	18000	(492000)
Net Cash from investing Activities		(492000)
C) Cash flow from Financing Activities :		
Issue of share capital	200000	
Payment of proposed Dividend	60000	140000
Net Cash from Financing Activities		140000
Net increase in Cash & Cash equivalents 1,84,000) + (4,92,000) + 1,40,000		10000
Add : Cash and Cash equivalents in the beginning of the period		1,68,000
Cash & Cash equivalents at the end of the period		4,90,000
		3,22,000

Problem No. 17

From the following Balance sheet of Rama Ltd. Prepare a cash flow statement.

	Particulars	Note No.	31.03.2018	31.03.2017
I	Equity & Liabilities :			
	1) Share holder's Funds :			
	a) Share Capital		10,00,000	8,00,000
	b) Reserve & Surplus	1	6,40,000	5,59,000
	2) Non-Current Liabilities :			
	Long term Borrowings	2	1,50,000	1,00,000
	3) Current Liabilities			
	Trade Payable		60,000	40,000
	Total		18,50,000	14,99,000
II	Assets :			
	1) Non - Current Assets :			
	a) Fixed Assets			
	i) Tangible Assets		7,50,000	
	ii) Intangible Assets		15,000	
	b) Non-Current Investments	3	1,00,000	
	2) Current Assets :			
	a) Inventory		6,30,000	4,20,000
	b) Trade Receivables		3,20,000	4,94,000
	c) Cash & Cash Equivalents		28,000	20,000
	d) Other current assets		7,000	5,000
	Total		18,50,000	14,99,000

Note :		31.03.2018	31.03.2017
1)	Reserve & Surplus :		
	General Reserve	5,20,000	4,00,000
	Profit & Loss balance	1,20,000	1,59,000
		6,40,000	5,59,000

2)	Long Term Provisions :		
	8% Debentures	1,50,000	1,00,000
3)	Rate of interest on Non-current investment is 10% p.a.		
4)	Other current Liabilities		
	Prepaid Expenses	4000	--
	Bills Receivables	3000	5,000
		7,000	5,000

Additional Information :

- 1) Depreciation of Rs. 30,000 has been charged on Machinery.
- 2) Non-current Investments costing Rs. 30,000 were sold for Rs. 40,000 at the end of the year.
- 3) New Debentures were issued on 1st October, 2017.
- 4) During the year share issued expenses amounted to Rs. 10,000 & these were written off from statement of profit & loss.

Cash Flows from Operating Activities for the year ended 31st March, 2018

Particulars	Details	Amount
A) Cash Flows from Operating Activities :		
Net Profit before Tax :		81000
Adjustment for non-cash & non-operating items :		
Add : Intangible Assets written off	5000	
Depreciation on machinery	30000	
Interest on debentures	10000	
Share issue Expenses	10000	55000
		136000
Less : Profit on Sale of Non-Current Investments	10000	30000
Interest on non-current investments	3000	(13000)
Operating profit before working capital changes		123000
Add : Decrease in Current Assets :		
Trade Receivable	174000	
Accrued income	2000	

Add : Increase in current liabilities :		
Trade payable	20000	196000
		319000
Less : Increase in Current Assets :		
Prepaid Expenses	4000	
Inventory	210000	(214000)
Net Cash from Operating Activities		(105000)
B) Cash Flow from Investing Activities :		
Purchase of tangible fixed assets	270000	
Purchase of Non-Current Investments	(100000)	
Sale of non-current investments	40000	
Interest on Non-current Investments	3000	327000
Net Cash from investing Activities		327000
C) Cash flow from Financing Activities :		
Issue of share capital	200000	
Issue of Debentures	50000	
Interest paid on Debentures	(10000)	
Share issue Expenses	(10000)	2,30,000
Net Cash from Financing Activities		2,30,000
Net increase in Cash & Cash equivalents (1,05,000) + (3,27,000) + 2,30,000		8000
Add : Cash and Cash equivalents in the beginning of the period		20,000
Cash & Cash equivalents at the end of the period		28,000

Working Note :

1) Calculation of Net Profit before Tax :

Profit & Loss Balance on 31.03.2018	120000
Less : Profit & Loss Balance on 31.03.2017	159000
	<u>(39000)</u>
Add : Transfer to General Reserve	1,20,000
Net Profit before Tax	<u>81000</u>

5.7 SUMMARY

Business finance, Raising and managing of funds by business organizations. Such activities are usually the concern of senior managers, who must use financial forecasting to develop a long-term plan for the firm. Shorter-term budgets are then devised to meet the plan's goals. When a company plans to expand, it may rely on cash reserves, expected increases in sales, or bank loans and trade credits extended by suppliers. Managers may also decide to raise long-term capital in the form of either debt (bonds) or equity (stock). The value of the company's stock is a constant concern, and managers must decide whether to reinvest profits or to pay dividends. Other duties of financial managers include managing accounts receivable and fixing the optimum level of inventories. When deciding how to deploy corporate assets to increase growth, financial managers must also consider the benefits of mergers and acquisitions, analyzing economies of scale and the ability of businesses to complement each other.

A cash flow statement provides data regarding all cash inflows a company receives from its ongoing operations and external investment sources. The cash flow statement includes cash made by the business through operations, investment, and financing—the sum of which is called net cash flow. The first section of the cash flow statement is cash flow from operations, which includes transactions from all operational business activities. Cash flow from investment is the second section of the cash flow statement, and is the result of investment gains and losses. Cash flow from financing is the final section, which provides an overview of cash used from debt and equity.

5.8 EXERCISE

(A) MCQ type questions:

1. Statement of cash flows includes

- A) Financing Activities
- B) Operating Activities
- C) Investing Activities
- D) All of the Above

2. In cash flows, when a firm invests in fixed assets and short-term financial investments results in -----

- A) Increased Equity
- B) Increased Liabilities
- C) Decreased Cash
- D) Increased Cash

3. A firm that issues stocks and bonds to raise funds results in-----

- A) Decreases Cash
- B) Increases Cash
- C) Increases Equity
- D) Increases Liabilities

5. The purchase value of assets over its serviceable life is categorized as -----

- A) Appreciated Liabilities
- B) Appreciated Assets
- C) Depreciation
- D) Appreciation

5. The basic financial statements include

- A) Statement of Cash Flows
- B) Statement of Retained Earnings
- C) Balance Sheet and Income Statement
- D) None of the Above

5. The statement of cash flow clarifies cash flows according to

- A) Operating and Non-operating Flows
- B) Inflow and Outflow
- C) Investing and Non-operating Flows
- D) Operating, Investing, and Financing Activities

7. Cash flow example from a financial activity is

- A) Payment of Dividend
- B) Receipt of Dividend on Investment
- C) Cash Received from Customers
- D) Purchase of Fixed Asset

8. Cash flow example from an investing activity is

- A) Issue of Debenture
- B) Repayment of Long-term Loan
- C) Purchase of Raw Materials for Cash
- D) Sale of Investment by Non-Financial Enterprise

9. Cash flow example from an operating activity is

- A) Purchase of Own Debenture
- B) Sale of Fixed Assets
- C) Interest Paid on Term-deposits by a Bank
- D) Issue of Equity Share Capital

10. Which item comes under financial activities in cash flow?

- A) Redemption of Preference Share
- B) Issue of Preference Share
- C) Interest Paid
- D) All of the above

11. As per AS-3, Cash Flow Statement is mandatory for

- A) All enterprises
- B) Companies listed on a stock exchange
- C) Companies with a turnover of more than Rs 50 crores
- a) Both A and B
- b) Both A and C
- c) Both C and B

12. Listed Enterprises need to prepare Cash Flow Statement only under indirect method.

- a) True
- b) False

13. In the case of financial enterprises, the cash flow resulting from interest and dividend received and interest paid should be classified as cash flow from -----

- a) Operating activities
- b) Financing activities
- c) Investing activities
- d) None of the above

15. In case of other enterprises cash flow arising from interest paid should be classified as cash flow from ----- while dividends and interest received should be stated as cash flow from -----.

- a) Operating activities, financing activities
- b) Financing activities, investing activities
- c) Investing activities, operating activities
- d) None of the above

15. Issue of bonus shares and conversion of debentures into equity are shown as a footnote to the Cash Flow Statement.

- a) True
- b) False

15. When a fixed asset is bought as hire purchase, interest element is classified under _____ and loan element is classified under _____.

- a) Operating activities, financing activities
- b) Financing activities, investing activities
- c) Investing activities, operating activities
- d) None of the above

17. Which of the following statements are false?

- A) Old Furniture written off doesn't affect cash flow.
 - B) Cash flow statement is a substitute for cash account.
 - C) Appropriation of retained earnings is not shown in Cash flow statement.
 - D) Net cash flow during a period can never be negative.
- a) A, B, C
 - b) B, C, D
 - c) C, D, A
 - d) None of the above

18. Which of the following is not a cash inflow?

- a) Decrease in debtors
- b) Issue of shares
- c) Decrease in creditors
- d) Sale of fixed assets

19. Which of the following is not a cash outflow?

- a) Increase in Prepaid expenses
- b) Increase in debtors
- c) Increase in stock
- d) Increase in creditors

20. Which of the following is a conventional method of ascertaining cost?

- a) Absorption costing
- b) Full Costing
- c) Both a & b
- d) None of the above

Answers

- 1. D) All of the Above
- 2. C) Decreased Cash
- 3. B) Increases Cash
- 5. C) Depreciation
- 5. D) None of the Above
- 5. D) Operating, Investing and Financing Activities
- 7. D) Purchase of Fixed Asset
- 8. D) Sale of Investment by Non-Financial Enterprise
- 9. C) Interest Paid on Term-deposits by a Bank
- 10. D) All of the above
- 11. c) Both C and B
- 12. a) True
- 13. a) Operating activities
- 15. b) Financing activities, investing activities
- 15. a) True
- 15. b) Financing activities, investing activities
- 17. b) B, C, D
- 18. c) Decrease in creditors
- 19. d) Increase in creditors
- 20. c) Both a & b

(B) Short Answer Questions

1. What is meant by 'Cash Flows'?
2. Give the meaning of 'Cash Equivalents' for the purpose of preparing Cash Flow Statement.
3. How is 'dividend paid' treated by a financial enterprise for the purpose of preparing cash flow statement?
4. When can 'Receipt of Dividend' be classified as an operating activity State. Also give reason in support of your answer.
5. Give any two examples of cash flows from operating activities.
6. What is meant by 'Financing Activities' for preparing Cash Flow Statement?
7. Give any two examples of cash flows from operating activities.
8. What is meant by 'Financing Activities' for preparing Cash Flow Statement?
9. What is mean by investing activities for preparing Cash Flow Statement? State the primary objective of preparing Cash Flow Statement.
10. Interest received and paid is considered as which type of activity by a finance company while preparing the cash flow statement.

(C) Long Answer Questions :

Question 1.

From the following Balance Sheet prepare a Cash Flow Statement:

Balance Sheet as at 31st March, 2018

Particulars	Note No.	31-3-2018 (₹)	31-3-2017 (₹)
I. Equity and liabilities:			
(1) Shareholders' Funds:			
(a) Share Capital	1	7,90,000	5,80,000
(b) Reserves and Surplus		4,60,000	1,20,000
(2) Non-current Liabilities:	2		
Long-term borrowings		5,00,000	3,00,000
(3) Current Liabilities:			
(a) Short-term borrowings	3	1,15,000	42,000
(b) Short-term borrowings	4	1,18,000	46,000
Total		19,83,000	10,88,000
II. Assets:			
(1) Non-current Assets:			
Fixed Assets:	5	9,80,000	6,35,000
(i) Tangible	6	2,68,000	1,70,000
(ii) Intangible			
(3) Current Assets:		1,40,000	70,000
(a) Current Investments		4,40,000	150,000
(b) Trade Inventories		1,55,000	63,000
(c) Cash & Cash Equivalents			
Total		19,83,000	10,88,000

Notes to Accounts:

Note No.	Particulars	31.3.2018 (₹)	31.3.2017 (₹)
1.	Reserved and Surplus		
	Surplus (Balance in Statement of Profit & Loss)	3,20,000	60,000
	General Reserve	1,40,000	60,000
		4,60,000	1,20,000
2.	Long-term borrowings:		
	12% Debentures	5,00,000	3,00,000
		5,00,000	3,00,000
3.	Short-term borrowings:		
	Bank Overdraft	1,15,000	42,000
		1,15,000	42,000
4.	Short-term provisions:		
	Provision for tax	1,18,000	46,000
		1,18,000	46,000
5.	Tangible Assets:		
	Plant and Machinery	11,00,000	7,50,000
	Less: Accumulated Depreciations	(1,20,000)	(1,15,000)
		9,80,000	6,35,000
6.	Intangible Assets:		
	Goodwill	2,68,000	1,70,000
		2,68,000	1,70,000

Additional Information:

12% debentures were issued on 1st September, 2017.

(D) Question 2.

From the following Balance Sheet prepare cash flow statement

Particulars	Note No.	31.3.2019 (₹)	31.3.2018 (₹)
I. EQUITY AND LIABILITY :			
1. Shareholder's Fund:		7,00,000	5,00,000
a. Share Capital			
b. Reserve and Surplus		3,50,000	2,00,000
2. Non-Current Liabilities:			
Long Term Borrowings		50,000	1,00,000
3. Current Liabilities:			
a. Trade Payables		1,22,000	1,05,000
b. Short term Provisions (Provision for tax)		50,000	30,000
Total		12,72,000	9,35,000
II. ASSETS :			
1. Non Current Assets:			
a. Fixed Assets:			
i. Tangible Assets	1	5,00,000	5,00,000
ii. Intangible Assets	2	95,000	1,00,000
b. Non-current Investments		1,00,000	Nil
2. Current Assets:			
a. Inventory		1,30,000	55,000
b. Trade Receivable		1,47,000	80,000
c. Cash and Cash Equivalents		3,00,000	2,00,000
Total		12,72,000	9,35,000

Note No.	Particulars	31.3.2018 (₹)	31.3.2017 (₹)
1	Tangible Assets:		
	Machinery	2,80,000	2,00,000
	Accumulated depreciation	(1,00,000)	(80,000)
		1,80,000	1,20,000
2	Equipments	3,20,000	3,80,000
	Intangible Assets :	5,00,000	5,00,000
	Goodwill	95,000	1,00,000

Sources of Finance and
Cash Flow Analysis

Additional Information: Machinery of the book value of 80,000 (accumulated depreciation ` 20,000) was sold at a loss of ` 18,000.



WORKING CAPITAL MANAGEMENT - I

Unit Structure:

- 6.0 Objectives
- 6.1 Introduction
- 6.2 Meaning and Definition of Working Capital
 - 6.2.1 Meaning
 - 6.2.1 Definition
- 6.3 Types of working capital
- 6.4 Factors Determining Working Capital Requirement
- 6.5 Sources of working capital
- 6.6 Projection of Working Capital Requirements
 - 6.6.1 Methods of projecting working capital requirements
 - 6.6.2 Projection of working capital requirements
- 6.7 Exercise

6.0 OBJECTIVES

After studying the unit the students will be able to:

- Define Working Capital.
- Explain types of working capital.
- Elaborate the determinants of working capital.
- Know the sources of working capital.
- Understand the concept projection of working capital

6.1 INTRODUCTION

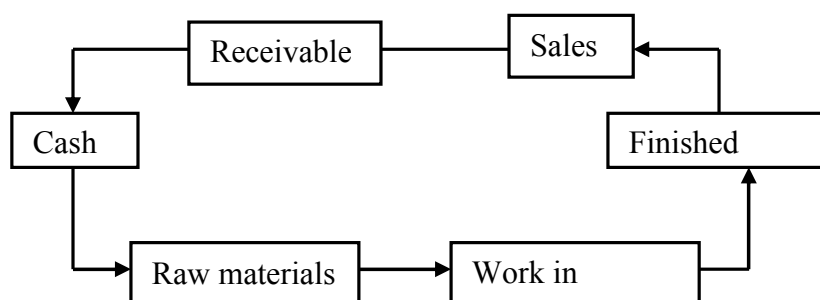
Capital required for a business can be divided into two categories i.e. Fixed Capital and Working Capital. Fixed capital is the part of total capital which is used for purchasing permanent a fixed asset like land, Buildings, Plant and machinery, furniture and fixtures, vehicles, etc. This capital is invested by organization in the beginning of running the business. In addition to fixed capital an organization requires additional capital for financing day to day activities like purchase of Raw materials,

payment of direct and indirect expenses, carrying out production, investment in stocks and stores, receivables and assets to be maintained in the form of cash is generally known as working capital (fluctuating capital). In other words, this capital refers to the investment in current assets such as cash inventory, receivables, etc. All such assets are likely to be convertible into cash within one a year.

6.2 MEANING AND DEFINITION OF WORKING CAPITAL

6.2.1 Meaning

The capital used for performing day to day activities i.e. purchases of Raw material, making payment of direct and indirect expenses, carrying out of production of goods and services, investment in stocks, stores, etc is called as working capital. All assets consisting of working capital revolve around cash. Firstly, cash is used to purchase of raw materials, which when certain expenses are incurred on it gets itself converted into semi finished goods and finally into inventory of finished products. Inventory (finished goods), after adding certain profit margin to it, is sold to the customers, which may take the form of cash or receivables or debtors. Receivables or debtors when realized again take the form of cash and the cycle goes on. The revolving nature of current assets consisting of working capital has been cleared with the help of following chart:



Because of this revolving nature of the assets consisting working capital, later is also known as 'fluctuating' or 'floating' or 'circulating' capital.

6.2.2 Definition:

J.M. Mill: "The sum of the current assets is the working capital of the business"

Shubin: "Working capital is the amount of funds necessary to cover cost of operating the enterprise."

Hoaglandi: "Working capital is descriptive of that capital which is not fixed. But the more common use of the working capital is to consider it as the difference between the block value of the current assets and current liabilities."

Gerestenberg: "Circulating capital wears current assets of a company that are changed in the ordinary course of business from one to another, as for example, from cash to inventories, inventories to receivables, and receivables to cash."

The accounting principles of board of American institute of Certified Public Accountants has defined the working capital as: "Working capital is represented by the excess of current assets or current liabilities and identifies the relatively liquid portion of the total enterprise capital which constitutes a margin or buffer for maturing obligations within the ordinary operating cycle of the business."

Thus working capital means investment made by a business organization in short-term current assets like cash, debtors, etc.

6.3 TYPES OF WORKING CAPITAL

The working capital is classified as under:

1. **Gross Working Capital:** Gross working capital means the total current assets without deducting current liabilities. This equal to the cash balance and the amount blocked in debtors and stocks, etc.
2. **Net Working Capital:** Net working capital means total current assets minus total current liabilities. It means net current assets. This capital indicates the amount available to meet short term liabilities or debt of the business organizations.
3. **Permanent or Fixed Working Capital:** This capital represents the value of the current assets required on continuing basis over the entire year and for several years. Permanent working capital is the minimum amount of current assets which is needed to conduct business even during the dullest season of the year. Thus, the minimum level of current assets is called permanent or fixed working capital is the part of capital permanently blocked in current assets. This amount changes from year to year depending on growth of the company and the stage of the business cycle in which it operates. It is used to produce goods necessary to satisfy the customer's demand.

It has the following characteristics:

- a) It is classified on the basis of time.
 - b) It constantly changes from one asset to another and continuously remains in the business.
 - c) Size of this capital increases with the growth of business operations.
4. **Temporary or Variable Working Capital:** This component represents a certain amount of fluctuations in current assets during a short period. These fluctuations are increases or decreases in current assets. Generally these are in cyclical nature. This is called as additional capital required at different times during the operating year.

This capital is used to meet seasonal needs of a firm or organization is called seasonal or variable working capital. Additional funds or capital specifically used to meet extraordinary needs or contingencies arising due to strikes, fire, unexpected competition, rising price tendencies launching of advertisement campaigns.

It has the following features:

- a) It is not always gainfully employed, though it may change from one asset to another, as permanent working capital does.
 - b) It is particularly suited to business of a seasonal or cyclical nature.
 - c) It is arranged from temporary source i.e. short term loan, deposits, bank over drafts etc.
5. **Balance Sheet Working Capital:** Usually this capital is determined on the basis of current assets and current liabilities shown in closing balance sheet of the concern. It means the net current assets as on last date of the balance sheet.
 6. **Cash Working Capital:** This capital is the net current assets if realized at its book value. The cash realized from current assets is really less than the book value because i) Debtors includes profit margin ii) Depreciation included in over valuation of stock of finished goods. The concept of this capital makes proper adjustment in balance sheet working capital for the items to arrival at cash working capital. The cash working capital indicates the working capital at cost because stocks and debtors are at cost.
 7. **Positive Working Capital:** When a net current asset is in positive figure, it is called as positive working capital. It means the current assets are more than the current liabilities. This working capital shows favorable liquidity solvency position of the company.
 8. **Negative Working Capital:** In this case, difference between current assets and current liabilities is negative figure. Therefore, it is called are negative working capital. It means current liabilities are more than the current assets. This capital indicates lack of liquidity and adverse solvency position of the company.

6.4 FACTORS DETERMINING WORKING CAPITAL REQUIREMENT

Normally following factors determines the need of working capital:

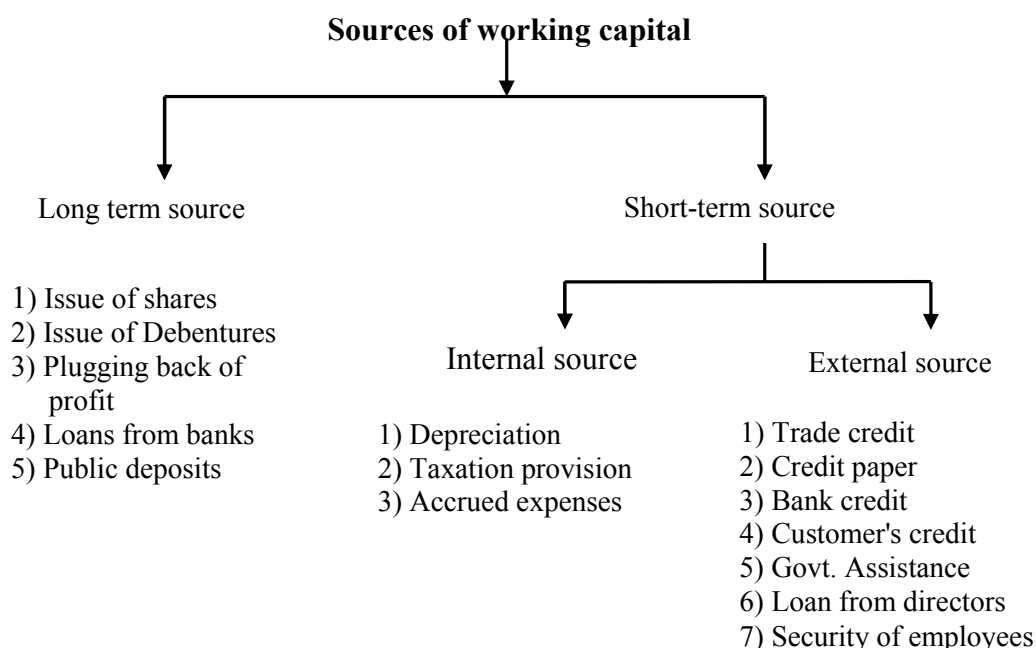
1. **Nature of business:** Working capital requirements of an enterprise are basically related to conduct of the business. Public utility undertakings like electricity, water supply, Railways, etc need very limited working capital because they offer cash sales only and supply services, not products, and as such no funds are tied up in inventories and receivables. But at the same time, trading firm need large amount of working capital in current assets like inventories, cash, receivables etc but they have less investment in fixed assets.

2. **Terms of purchases and sales:** Credit terms granted by the concerns to its customers as well as credit terms granted by its supplier also affect the working capital. If credit terms of purchases are more favorable and those sales less liberal, less cash will be invested in the inventory. Working capital requirement can be reduced if terms of credit are more. The ratio of credit and cost purchases or sales affects the level of working capital. If firm purchases on credit and sales on cash then it requires less working capital and if firm purchases on cash and sales on credit, then it requires large working capital. This means funds are tied up in debtors and bills receivables.
3. **Manufacturing cycle:** The quantum of work capital needed is influenced by the length of manufacturing cycle. The manufacturing process always involves time lag between the time when raw materials are fed into the production line and finished products are finally turned out by it. The length of period of manufacture in turn needs on the nature of product as well as production technology used by a concern.
4. **Size of business unit:** Amount of working capital requirement depends on the scale of operation of the business organization. Large business organization performs large business activities which require huge working capital than small scale organization.
5. **Turnover of inventories:** A business organization having low turnover of inventory would need more working capital where as high turnover of inventory need small or limited working capital.
6. **Turnover of circulating capital:** The speed with which circulating capital completes its cycle if conversion of cash into inventory of raw material, raw material into finished goods, finished goods into debts and debts into cash, which decides need of working capital in the organization. Slow movement of working capital cycle necessitates large provision of working capital.
7. **Seasonal variations production:** In case of seasonal production in the industries like sugar, oil mills, etc need more working capital during peak seasons.
8. **Degree of mechanization:** In highly mechanized concerns having low degree of independence on labour, requires less working capital. Conversely, in labour intensive industries greater sum of working shall be required to pay wages and related facilities.
9. **Growth and expansion:** Every firm wants to grow over a period of time and with the increase in its size, the working capital requirements are bound to increase. The growing company would need therefore, larger amount of working capital.
10. **Policy regarding dividend:** Dividend policy of a firm will also influence the working capital position. The company which declares large amount of dividends in the form of cash requires large working capital to pay off such dividends. But sometimes, companies' issues

bonus shares by way of dividend in such cases working capital requirements will be comparatively less. This is depending on Psychology of shareholders i.e. whether they prefer cash income or capital appreciation.

- 11. Inflation:** A business concern requires more working capital during the inflation period. This factor may be compensated to some extent by rise in selling price of inventory.
- 12. Changes in technology:** Changes in production technology have an impact on the need of more working capital.
- 13. Depreciation policy:** Charges of depreciation on assets do not involve any cash outflows. Depreciation affects tax liability and retention profits. It is allowable expenditure while calculating net profits. Higher depreciation will mean lower disposal of profit and therefore dividend will be paid in smaller amount. Thus cash will be preserved.

6.5 SOURCES OF WORKING CAPITAL



6.6 PROJECTION OF WORKING CAPITAL REQUIREMENTS

6.6.1 Methods of projecting working capital requirements

- 1. Conventional method:** In this method cash flow i.e. inflow and out flow are matched with each other. Greater emphasis is laid down on liquidity of a business organization.
- 2. Operating cycle method:** This method refers to working capital in a realistic way. The working capital is decided on the basis of length of the operating cycle. It is calculated by dividing operating expenditures by the number of operating cycle.

6.6.2 Projection of working capital requirements

The businessman mainly faces the problem of determination of working capital requirements for financing particular level of activity. The finance manager has to perform the activities of forecasting working capital requirements. This process involves the following aspects.

1. **Level of activity:** Estimation of working capital begins with the level of activity. Therefore the finance manager has to ascertain the required quantum of production in advance on the basis of past experience, installed and utilized capacity of the factory and demand.
2. **Raw materials:** The finance manager has to estimate the quantity and cost of raw materials. Lengths of time of raw materials remain in the store before issue for production is considered longer period of stay of raw material need greater working capital. This must be valued at cost.
3. **Labour and overheads:** Expenses incurred on wages and overheads are considered while ascertaining raw materials.
4. **Work-in-progress:** While ascertaining work-in-progress the 'period of processing' or 'period of production cycle' has to be considered. Longer the production cycle, greater the working capital requirement. Therefore, the finance manager has to consider the amount required for raw materials, wages and overheads while estimating volume of production.
5. **Finished Goods:** The period of storing finished goods before sale has to be taken into consideration. This is depending on season, sales forecasting, etc. If the sales are seasonable and production is throughout the year, then working capital requirement would be the higher during the slack seasons.
6. **Sundry Debtors:** While calculating amount of sundry debtors, period credit allowed to customers is to be taken into consideration. This period is known as "time lag in payment by debtors". If this period is longer, required working capital will be higher in the absence of similar time lag in payment to creditors. The sundry debtors are value at sales price while calculating working capital.
7. **Cash and bank balance:** As per past experience every businessman is suppose to know the amount cash float or bank balance necessary to pay day is day payments. This amount is given in the information and added in the amount of working capital required.
8. **Prepaid Expenses:** There may be some expenses i.e. insurance, sales promotion would be paid in advance and in this case working capital requirement would be higher is that extent.
9. **Sundry Creditors:** The period of credit allowed by supplier has to be taken in to consideration while estimating required amount of working capital. It longer the period credit from suppliers, lower will be the working capital requirements.

- 10. Creditors for expenses:** Time lag in payment of wages and overheads also should be considered while deciding amount of working capital requirements. If there is no time lag in payment of wages and overheads, more working capital will be required and there will be less requirement of working capital when there is time-lag in payment of wages and overheads.
- 11. Advance from customers:** If and when advance required from customers then there will be lower working capital requirements.
- 12. Contingencies:** After calculating the amount of working capital as discussed above, a provision for contingencies may be made to make allowances for likely variations. This is the sort of cushion against uncertainties involved in estimating working capital.

6.7 EXERCISE

1. Define Working Capital. Explain the types of Working Capital.
2. Which are the Determinants of Working Capital?
3. Write short note on Projection of Working Capital Requirements.
4. Objective type questions:

A. Rewrite the following sentences by selecting correct choice-

 - 1) The period required for the whole operation starting with cash and ending up with Cash plus –

i) Operating cycle	ii) Trading Cycle
iii) Working Cycle	iv) Main Cycle
 - 2) Cross working Capital is equal to –

i) Total Current Assets	ii) Total fixed assets
iii) Total Assets	iv) Net Assets
 - 3) The cost to be excluded from the cost of goods sold for the purpose of determining working in process and finished goods is –

i) Interest	ii) Depreciation
iii) Taxation	iv) Dividend
 - 4) The primary objective of Working Capital Management is to manage –

i) Current Assets	ii) Current Liabilities
iii) Current Assets and Current Liabilities	iv) Fixed Assets
 - 5) It Is a normal principles that current assets should be valued at cost or market value whichever is

i) Higher	ii) Lower	iii) More	iv) earlier
-----------	-----------	-----------	-------------

(Answer: . 1) - i, 2) - iii, 3) - ii, 4) - iii, 5) – ii)

B. Fill in the blanks

- 1) Advances received from customer will ----- the working capital requirements.
- 2) Provision for contingencies may be made to make allowances for likely variations or for ----- expenses.
- 3) In valuation of work in progress labor & overhead are assumed to be incurred to the extent of -----
- 4) It would be more practical if investment in debtors is set at cost of sales, not as ----- price.
- 5) The Capital required to meet seasonal requirements is called as ----- working capital.

Answer: 1) – Reduce 2) –unforeseen 3) – 50% 4) – selling 5)-circulating

C. Match the following

Group A

- 1) Gross working capital
- 2) Negative working capital
- 3) Debtors
- 4) Bank Balance
- 5) Net working capital

Group B

- a. Receivables
- b. Excess of current Assets
- c. Total current Assets
- d. Excess of current liabilities
- e. Quick Assets

(Answer: 1) – c 2) – d 3) – a 4) – e 5)- b)

D. State whether the following statements are true or false

- a) Closing stock of raw material is a liquid asset.
- b) Profit included in debtors is an expense hence; it is a part of current asset.
- c) Finished goods stock should be valued at FIFO basis.
- d) Working capital management aims to strike a judicious balance between current assets & current liabilities.
- e) Prepaid expenses increase the amount of working capital.

(Answer: a – False, b – False, c – False, d – True, e- True)



WORKING CAPITAL MANAGEMENT - II

Unit Structure:

- 7.0 Objectives
- 7.1 Introduction
- 7.2 Calculation of Figures Required for Working Capital Projection
 - 7.2.1 Calculations
 - 7.2.2 Proforma of Working Capital Statement
- 7.3 Solves Problems
- 7.4 Exercise

7.0 OBJECTIVES

After studying the unit the students will be able to:

- Calculate the figures required for Working Capital Projection.
- Draw the statement of Working Capital.
- Solve the practical problems on Working Capital requirement.

7.1 INTRODUCTION

In the previous unit we have studied the concept Working Capital in detail. That unit have already explained the types of working capital, elaborate the determinants and sources of working capital. That unit also explained the concept projection of working capital. In this unit we are going to study how to estimate the requirement of working capital and related calculations.

7.2 CALCULATION OF FIGURES REQUIRED FOR WORKING CAPITAL PROJECTION

7.2.1 Calculations

1. **Stock of raw materials:** - The cost of raw materials ascertained as under.

$$\left(\begin{array}{c} \text{Budgeted production} \\ \text{(units) p.a} \end{array} \right) \times \left(\begin{array}{c} \text{cost of material} \\ \text{per unit} \end{array} \right) \times \left(\begin{array}{c} \text{Raw material} \\ \text{holding period} \\ \text{(365 days or 52} \\ \text{Weeks or 12 months)} \end{array} \right)$$

2. Work-in-progress: The value of work-in-progress is decided as follows:

$$\left(\begin{array}{c} \text{Budgeted production} \\ \text{p.a (units)} \end{array} \right) \times \left(\begin{array}{c} \text{per unit cost} \\ \text{material 100\% +} \\ \text{Labour 50\% +} \\ \text{overhead 50\%} \end{array} \right) \times \left(\begin{array}{c} \text{Process period} \\ \text{(365 days or 52} \\ \text{weeks or 12 months)} \end{array} \right)$$

3. Stock of finished goods: The investment in finished stock by a firm is decided as follows:

$$\left(\begin{array}{c} \text{Budget production} \\ \text{p.a (units)} \end{array} \right) \times \left(\begin{array}{c} \text{Cost of goods} \\ \text{Produced p.u.} \end{array} \right) \times \left(\begin{array}{c} \text{Finished goods} \\ \text{holding period} \\ \text{(365 days or 52 weeks} \\ \text{or 12 months)} \end{array} \right)$$

4. Investment in debtors: Debtors are calculated at sales prices as well as at cost price as follows:

At sales price:

At sales price

$$\left(\begin{array}{c} \text{Budgeted credit sales} \\ \text{p.a units} \end{array} \right) \times \left(\begin{array}{c} \text{Selling Price} \\ \text{per unit} \end{array} \right) \times \left(\begin{array}{c} \text{Debtors collections period} \\ \text{(365 days or 12 months} \\ \text{or 52 weeks)} \end{array} \right)$$

At Cost Price

$$\left(\begin{array}{c} \text{Budgeted credit sales} \\ \text{p.a units} \end{array} \right) \times \left(\begin{array}{c} \text{Cost of sale} \\ \text{per unit} \end{array} \right) \times \left(\begin{array}{c} \text{Debtors collections period} \\ \text{365 days or 12 months} \end{array} \right)$$

5. Cost and bank balance: - Required amount of cash & bank can be determined on the basis of cash budget. This budgeted cash and bank balance should be enough to meet day to day expenses. This is readily given in the problem and included in the list of current assets.

6. Advance payment: - The payment of expenses for the period which is not expired. It is calculated as follows.

$$\left(\begin{array}{c} \text{Expenses} \\ \text{(365 days or 52 weeks} \\ \text{or 12 months)} \end{array} \right) \times \left(\begin{array}{c} \text{Period of prepayment} \end{array} \right)$$

7. Sundry Creditors: - The amount of creditors depends on the credit purchases and the period of credit allowed by supplier is calculated as follows:

$$\left(\begin{array}{c} \text{Budgeted production} \\ \text{p.a units} \end{array} \right) \times \left(\begin{array}{c} \text{Cost per unit} \\ \text{of raw material} \end{array} \right) \times \left(\begin{array}{c} \text{Period of credit allowed} \\ 365 \text{ days or } 52 \text{ weeks or} \\ \text{a) } 12 \text{ months} \end{array} \right)$$

8. Creditors for wages & overheads: - It is not necessary to pay wages and expenses immediately which will ease working capital requirements. This amount is calculated as follows:

$$\left(\begin{array}{c} \text{Budgeted production} \\ \text{p.a. unit} \end{array} \right) \times \left(\begin{array}{c} \text{Wages or expenses} \\ \text{per unit} \end{array} \right) \times \left(\begin{array}{c} \text{Lag in payment} \\ 365 \text{ days or } 52 \\ \text{Weeks or } 12 \text{ months} \end{array} \right)$$

9. Advance from customer: - The amount received from customer in advance along with purchases result into less working capital requirement. This amount is given in the problem.

7.2.2 Proforma of Working Capital Statement :

XYZ Co. Ltd.

Statement of Working Capital Requirement for the period ____

Particulars	Working	Rs.	Rs.
A. Current Asset			
1. Stock of Raw Material	(Units x Rate x Period of holding)		xxx
2. Stock of WIP			
a) Raw Material Labour	(Units x Rate x Processing period)	xxx	
b) Labour	(Units x Rate x Processing period x 1/2)	xxx	
c) Overheads	(Units x Rate x Processing Period x 1/2)	xxx	xxx
3. Stock of Finished Goods			
a) Raw Material	(Units x Rate x Period of holding)	xxx	
b) Labour	(Units x Rate x Period of holding)	xxx	
c) Overheads	Units x Rate x Period of holding)	xxx	xxx
4. Debtors at S.P.	(Units X S.P. x Period of Credit)		xxx

OR Debtors at Cost a) Raw Materials b) Labour c) Overhead 5. Prepaid Expenses 6. Advance to Supplier 7. Cash & Bank Total Current Assets	(Unit x Rate x Period of credit)	xxx	xxx
	(Unit x Rate x Period of credit)	xxx	
	(Unit x Rate x Period of credit)	xxx	
	Units x Rate x Period of Payment		xxx
			xxx
			xxx
			xxxx
B. Less: Current Liabilities 1. Creditors for Materials 2. Lag in payment Wages a) Wages b) Overheads 3. Advance from Customers Total Current Liabilities	(Units x Rate X period of credit)	xxx	
	(Units x Rate x Lag in Payment)	xxx	
	(Units x Rate x Lag in Payment)	xxx	xxxx
		xxx	
C. Net Current Assets Add: - Margin of Safety D. Working Capital	(A - B)		xxxx
			xxx
			<u>xxxx</u>

7.3 SOLVED PROBLEMS

Illustration 1.

Sanket Ltd. had an annual sale of 50,000 units, at Rs.100 per unit. The company works for 50 weeks in the year.

The cost details of the company are as follows:

Elements of cost	Cost per unit Rs.
Raw Materials	30
Labour	10
Overheads	<u>20</u>
	60
Profit per unit	<u>40</u>
Sales price per unit	<u>100</u>

The company has to practice of storing raw materials for 4 week's requirements. Wages and other expenses are paid after a lag of 2 weeks. Further the debtors enjoy a credit of 10 weeks and company gets a credit of 4 weeks from the suppliers. The processing time is 2 weeks and finished goods inventory is maintained for 4 weeks. From the above information prepare a working capital estimates, allowing for a 15% contingency.

Solution:-

Working notes:

- Sales per week $\frac{50,000}{50} = 1,000$ units per week.
- Debtors are valued at selling price and finished goods at sales less profits.
- It has been assumed that the labour and overheads accrue on an average, so half the labour and overheads would be included in work in progress.

Statement Showing Estimation of Working Capital.

Particulars	Working (unit x Rate x Period)	Rs.	Rs.
A. Current Assets			
I. Stock			
Raw Materials	(1000 x 80 Rs. x 4 week)		1,20,000
Work-in-progress			
Raw materials	(1000 x 30 Rs. x 2 week)	60,000	
Labour	(1000 x 10 x 2 weeks x 1/2)	10,000	
Overheads		20,000	90,000
Finished goods	(1000 x 20 x 2 weeks x 1/2)		2,40,000
II. Debtors	(1000 x 60 x 4 weeks)		10,00,000
	(1000 x Rs. 100 x 10 week)		
Total Current Assets			14,50,000
B. Less: - <u>Current Liabilities</u>			
I) Creditors	(1000 x 30 Rs. x 4 weeks)		1, 20,000
II) Outstanding wages			20,000
III) Outstanding Overheads	(1000 x Rs.10 x 2 week)		40,000
	(1000 x 20 x 2 weeks)		
			1, 80,000
Working Capital (A-B)			1, 27,000
Add. 15% Con. Reserve			1, 90,500
Net working capital			14,60,500

Illustration 2.

A factory produces 48,000 units during the year and sells them for Rs. 50 per unit. The cost structure of a product is as follows.

Raw Materials	60%
Labour	15%
Overheads	10%
	85%
Profit	15%
Selling price	100%

The following additional information is available.

- The activities of purchasing producing and selling occur evenly through and the year.
- Raw materials equivalent to 1 months supply is stored in godown.
- The production process takes are month.
- Finished goods equal to three month's production are carried in stock.
- Debtors get two month's credit.
- Time lag in payment of wages and overheads in 1/2 months.
- Cash and bank balance is to be maintained at 10% of the working capital.
- 10% of sales are made at 10% above the normal selling price.

Draw the statement showing working capital requirement of the factory.

Solution:

Statement showing working capital requirement.

Particulars	Working (units x Rate x period)	Rs.	Rs.
<u>A. Current Assets</u>			
I. Stock			
Raw Materials	$(48,000 \times \frac{1}{12} \times \text{Rs.}30 \times 1\text{m})$	1,20,000	1,20,000
Work-in-progress	$(48,000 \times \frac{1}{12} \times \text{Rs.}30 \times 1\text{m})$	15,000	
- Raw Materials	$(48,000 \times \frac{1}{12} \times \text{Rs.}7.5 \times \frac{1}{2}\text{m})$	10,000	
- Labour	$(48,000 \times \frac{1}{12} \times \text{Rs.}5 \times \frac{1}{2}\text{m})$		
- Overheads	$(48,000 \times \frac{1}{12} \times \text{Rs.}42.5 \times 3\text{m})$		1,45,000
Finished Goods at cost	$(48,000 \times \frac{1}{12} \times 90\% \times \text{Rs.}50 \times 2\text{m})$	3,60,000	5,10,000
II. Debtors at selling price	$(48,000 \times \frac{1}{12} \times 10\% \times \text{Rs.}55 \times 2\text{m})$	44,000	
Normal			4,04,000
Higher S.P.	Total	1,80,000	11,79,000
		15,000	
<u>B. Current Liabilities</u>	$(48,000 \times \frac{1}{12} \times \text{Rs.}30 \times 1.5\text{m})$	10,000	
I. Sundry Creditors	$(48,000 \times \frac{1}{12} \times \text{Rs.}7.50 \times \frac{1}{2}\text{m})$		
II. O/S wages	$(48,000 \times \frac{1}{12} \times \text{Rs.}5 \times \frac{1}{2}\text{m})$		2,05,000
III. O/S Overheads	(90%)		9,74,000
	(10%)		
<u>C. Working capital (A-B)</u>			1,08,222
Add : 10% for cash & Bank balance	(100%)		10,82,222
i.e. 10% of cost			
Required working capital			

Working notes.

1)	Cost Structure	%age	Cost per unit
	Raw material	60	30.00
	Labour/Wages	15	7.50
	Overheads	10	5.00
		<u>85</u>	<u>42.50</u>
	Add. Profits	15	7.50
	Selling price		<u>50.00</u>

2) Sundry debtors

Normal selling price Rs.50.00

10% above normal selling price Rs.55.00

$$\left(\frac{5 \times 1}{10} = 5 \therefore 50 + 5 = 55 \right)$$

3) Cash & Bank balance

$$\frac{974000 \times 10}{90} = \left. \vphantom{\frac{974000 \times 10}{90}} \right\} \text{Rs. 1, 08,222}$$

$$= 10,8,222.222$$

4) M = Months

Illustration 3.

The Board of Directors of Century Rayon Ltd. requests you to prepare a statement showing requirements of working capital for a forecast level of activity of 52,000 units in the ensuing year (52 weeks) from the following information made available.

	Cost per unit
	Rs.
Raw Material	40.00
Labour	15.00
Overheads Manufacturing	20.00
Overheads Selling & Distribution	<u>10.00</u>
	<u>85.00</u>

Additional Information:

- a) Selling price - Rs. 100/- per unit.
- b) Raw material in stock - average 4 weeks.
- c) Work-in-progress - average 4 weeks.
- d) Finished goods in stock - average 4 weeks.
- e) Credit allowed to debtors - average 8 weeks.
- f) Credit allowed by supplier - average 4 weeks.
- g) Cash at bank is expected to be Rs. 50,000.
- h) All sales are a credit basis.
- i) All the activities are evenly spread out during the year.
- j) Debtors are to be valued at sales.

Solution:

Statement of working capital requirement.

Particulars	Working (units x Rate x period)	Rs.	Rs.
<u>A. Current Assets</u>			
I. Stock			
Raw Materials			1,60,000
Work-in-progress	$(52,000 \times \frac{1}{52} \times \text{Rs.}40 \times 4 \text{ weeks})$		
Raw Materials			
Labour			
Overheads	$(52,000 \div 52 \times \text{Rs.}40 \times 4 \text{ weeks})$	1,60,000	
Finished Goods at cost	$(52,000 \div 52 \times \text{Rs.}15 \times 4 \text{ weeks} \times \frac{1}{2})$	30,000	
II. Debtors at selling price	$(52,000 \div 52 \times \text{Rs.}20 \times 4 \text{ weeks} \times \frac{1}{2})$	40,000	
III. Bank Balance			2,30,000
<u>B. Less Current Liabilities</u>	$(52,000 \div 52 \times \text{Rs.}75 \times 4 \text{ weeks})$		3,00,000
Sundry Creditors	$(52,000 \div 52 \times \text{Rs.}100 \times 8 \text{ weeks})$		8,00,000
C. Working Capital (A-B)	$(52,000 \div 52 \times \text{Rs.}40 \times 4 \text{ weeks})$		50,000
			15,40,000
			1,60,000
			13,80,000

Working Notes:

1) Particulars	Cost per unit
	Rs.
Raw materials	40.00
Labour	15.00
Manufacturing overheads	<u>20.00</u>
Cost of goods produced	75.00
Add: Selling & Distribution Expenses	<u>10.00</u>
Cost of goods sold	85.00
Add: Profit	<u>15.00</u>
Sales price	100.00

2) W= weeks

Illustration 4.

From the following data, prepare a statement showing working capital requirement for the year 2009:

- a) Estimated activity for the year 1, 95,000 units (52 weeks).
- b) Stock of raw material 2 weeks and material in progress 2 weeks, 50% of wages and overheads are incurred.
- c) Finished goods 3 weeks storage.
- d) Creditors 2 weeks.
- e) Debtors 4 weeks.
- f) Outstanding wages and overheads 2 weeks each.
- g) Selling price per unit Rs. 30.
- h) Cost analysis per unit is as follows.
 - I. Raw materials 1/3 of sales.
 - II. Labour and overheads in the ratio of 3:2 per unit.
 - III. Profit per unit is Rs. 10
- i) Cash balance Rs.50,000

Assume that operations are evenly spread throughout the year.

Solution:**Working notes**

1) Cost structure

	Rs.	Cost per unit Rs.
for 195000 unit		
Raw Materials	19,50,000	10.00
Labour	11,70,000	7.00
Overheads	<u>7,80,000</u>	<u>4.00</u>
Total Cost Profit	<u>39,00,000</u>	<u>20.00</u>
Profit	<u>19,50,000</u>	<u>10.00</u>
Sales price	<u>58,50,000</u>	<u>30.00</u>

2) After deducting profit we get total cost per unit Rs.20.

3) Total cost Rs.20 includes Rs.10 cost of raw materials.

4) Balance Rs.10 per unit will be divided in the ratio of 3:2 i.e. Rs.6 labour and Rs.4 overheads.

5) W = week

Statement of working capital requirements for the year 2009.

Particulars	Working (units x Rate x period)	Rs.	Rs.
A. Current Assets			
I. Raw Materials	$(19,5,000 \div 52 \times 10 \times 2w)$		75,000
II. Work-in-progress			
Raw Materials	$(19,5,000 \div 52 \times 10 \times 2w)$	75,000	
Labour	$(19,5,000 \div 52 \times 6 \times 2w \times 50\%)$	22,500	
Overheads	$(19,5,000 \div 52 \times 4 \times 2w \times 50\%)$	15,000	11, 2,500
III. Finished Goods	$(19,5,000 \div 52 \times 20 \times 2w)$		1, 50,000
IV. Debtors	$(19,5,000 \div 52 \times 30 \times 4w)$		4, 50,000
V. Cash	Given		50,000
Total			
B. Less Current Liabilities			
I. Creditors	$(19,5,000 \div 52 \times 10 \times 2w)$	75,000	
II. Outstanding wages	$(19,5,000 \div 52 \times 6 \times 2w)$	45,000	8, 37,500
III. Outstanding overheads	$(19,5,000 \div 52 \times 4 \times 2w)$	30,000	
Total			
C. Working Capital (A-B)			1, 50,000 6, 87,500

Illustration 5.

Sangeet Swapna Ltd. Furnisher in the following information and request you to prepare a statement showing the requirement of working capital for the year ended 31st March 2009.

	Budgeted for 2009
Production capacity for the year	10,000 units
Production	90%
Cost structure	
Crude material	Rs. 30 per unit
Other direct material	Rs. 20 per unit
Wages	Rs. 25 per unit
Overheads	Fixed Rs. 9000 p.m. and Rs. 15 variable per unit
Profit	25% on sales

Other information: -

- a) Crude oil material remains in the stock for 2 months.
- b) Other direct material remains stock for 1 month.
- c) Finished goods remain in stock for 2 month. (to be valued at direct cost)
- d) Production process takes place 1 month work-in-progress valuation to be made crude material plus direct material at cost; plus 50% of wages and variable overheads.
- e) Time lag in payment of wages 1 month and variable overhead half month.
- f) Fixed overhead payable quarterly in advance.
- g) Crude material purchased from suppliers against advance payment of two months and other direct material suppliers allow credit of 1 month.
- h) Credit allowed to customers as under at sales price.
 - a) 50% of invoice price against acceptance of bill for 4 months.
 - b) 25% of invoice of time lag 2 months.
- i) Bank balance to be maintained Rs. 50,000.
- j) Production and sales takes place evenly throughout the year.

Solution: -**Working notes: -**

- 1) Estimated production 90% of 10,000 = 9000 units.
- 2) Cost structure **Rs.**

Crude material	30.00
Other direct material	20.00
Wages	25.00
Fixed overhead (9000 x 12) 108000 ÷ 9000	12.00
Variable overheads	<u>15.00</u>
Total Cost	102.00
Profit 25% on sales (Means 33 1/3 of cost)	<u>34.00</u>
Selling price	<u>137.00</u>
- 3) M = months

Statement of working capital

Particulars	Working (units x Rate x period)	Rs.	Rs.
A. Current Assets			
a) I. Stock:			75,000
Crude Material	(9000 ÷ 12 × Rs.30 × 2 m)	45,000	
Other direct material	(9000 ÷ 12 × 20 × 1 m)	15,000	60,000
II. Work-in-progress			
Crude material	(9000 ÷ 12 × 30 × 1 m)	22,500	
Other direct material	(9000 ÷ 12 × 20 × 1 m)	15,000	
Wages	(9000 ÷ 12 × 25 × 1 m × 50%)	9,375	
Overheads	(9000 ÷ 12 × 15 × 1 m × 50%)	5,625	52,500
III. Finished goods	(9000 ÷ 12 × 102 × 2 m)		1,53,000
b. Debtors	(9000 ÷ 12 × 136 × 1 m		51,000
c. Bills receivables	× 50%)		2,04,000
d. Advance to suppliers	(9000 ÷ 12 × 136 × 4 × 50%)		45,000
e. Prepaid fixed overhead	(9000 ÷ 12 × 30 × 2 m)		27,000
f. Bank balance	(9000 × 3 × 1)		50,000
Total	Given		6,42,500
B. Less Current Liabilities			
I. Creditors	(9,000 ÷ 12 × 20 × 1 m)	15,000	
II. Outstanding wages	(9,000 ÷ 12 × 25 × 1 m)	18,750	
III. Outstanding overheads	(9,000 ÷ 12 × 15 × 0.5 m)	5,625	
Total			39,375
C. Working Capital (A-B)			6,03,125

Illustration 7.

From the books of The Board of KEM Ltd. Pune prepare a statement of working capital requirement to meet the programme planned for the year 2011.

- 1) Issued share capital Rs. 4,00,000
 5% Debentures Rs. 1,00,000
 Fixed assets at cost Rs. 2,50,000
- 2) The expected ratio of the cost to selling price are:

Material	60%
Labour	10%
Overheads	20%
Profit	10%
- 3) Raw materials are in stores for an average of 2 months. Finished goods are kept in warehouse for approximately three months.
- 4) Production during the previous year was 1,20,000 units and it is planned to maintain this level of activity in the current year also.
- 5) Each unit of production is expected to be in process for one month.
- 6) Credit given by suppliers is two months and allowed to customers is 3 months.
- 7) Selling price is Rs. 10 per unit.
- 8) There is regular production and sales cycle.
- 9) It is decided to maintain Rs. 30,000 cash balance.

Solution: -

- a) Budgeted output 1, 20,000 units (given).
- b) Budgeted sales - 1, 20,000 x 10 = Rs. 12, 00,000
- c) **Cost Structure:**
 - R. M. 60% of Rs. 10 = Rs. 7.00 per unit
 - Labour 10% of Rs. 10 = Rs. 1.00 per unit.
 - Overheads 20% of Rs. 10 = Rs. 2.00 per unit.

d) Annual expenditure

Raw material (1, 20,000 x Rs. 6) =	7,20,000
Labour (1, 20,000 x Rs. 1) =	1,20,000
Overheads (1, 20,000 x Rs. 2) =	2,40,000

Total	<u>10, 80,000</u>
-------	-------------------

Profit (1,20,000 x Rs.1)	1,20,000
Selling price	<u>12, 00,000</u>

e) M = months

Statement of working capital requirements

Particulars	Working (units x Rate x Period)	Rs.	Rs.
A. Current Assets			
I. Stock of Raw materials	$\left(\frac{1,20,000 \times 6}{12} \times 2m \right)$		1, 20,000
II. <u>Work-in-progress</u>			
Raw Materials	$\left(\frac{1,20,000 \times 6}{12} \times 1m \right)$	60,000	
Labour	$\left(\frac{1,20,000 \times 1}{12} \times \frac{1}{2}m \right)$	5,000	
Overheads	$\left(\frac{1,20,000 \times 2}{12} \times \frac{1}{2}m \right)$	10,000	21,000
III. Finished goods	$\left(\frac{1,20,000 \times 9}{12} \times 3m \right)$		2, 70,000
IV. <u>Debtors</u>			
a) Raw materials	$\left(\frac{1,20,000 \times 6}{12} \times 3m \right)$	1, 80,000	
b) Labour	$\left(\frac{1,20,000 \times 1}{12} \times 3m \right)$	30,000	
c) Overheads	$\left(\frac{1,20,000 \times 2}{12} \times 3m \right)$	60,000	2,70,000
V. Cash			30,000
Total			<u>7, 11,000</u>
B. <u>Less: Current liabilities</u>	$\left(\frac{1,20,000}{12} \times 6 \times 2m \right)$		
Creditors		1, 20,000	1, 20,000
C. Working Capital	(A – B)		<u>5, 91,000</u>

7.4 EXERCISES

1. You are required to prepare a statement showing the working capital required to finance the level of activity of 27,000 units per year from the following information.

	Per unit
	Rs.
Raw materials	24.00
Direct labour	7.00
Overheads	<u>18.00</u>
Total Cost	48.00
Profit	<u>12.00</u>
Selling price	60.00

Information:

- I. Raw materials are in stock an average for two months.
- II. Materials are in process on an average for half a month.
- III. Finished goods are in stock on an average for two months.
- IV. Credit allowed by creditors is two months of raw materials supplied.
- V. Credit allowed to debtors is three months.
- VI. Lag in payment a wages is half month.
- VII. Cash on hand Rs. 4,000 and bank balance Rs. 10,000

(Ans. Raw materials - Rs. 1,08,000; work in progress - Rs. 40,500; Finished stock - Rs. 2, 16,000; Debtors Rs. 4, 05,000; Creditors Rs. 10, 8,000; Labour/wages Rs. 6,750; working capital Rs. 6, 23,750)

2. From the following data provided by M/s Alfa Ltd. estimate working capital requirements for the year ended 31st March 2007.

- a) Estimate activity of operation for the year 2, 60,000 units (52 weeks)
- b) Raw materials remain in stock for 2 weeks and production cycle takes two weeks.
- c) Finished goods remain in stock for two weeks.
- d) Two weeks credit is allowed by supplier.

- e) Four weeks credit is allowed to debtors.
- f) Time lag in payment of wages and overheads is two weeks.
- g) Cash and bank balance to be maintained Rs. 25,000
- h) Selling price per unit is Rs. 15
- i) Analysis of cost per unit as follows:
 - i. Raw material $33\frac{1}{3}\%$ of sales
 - ii. Labour and overheads in the ratio of 6:4 per unit.
 - iii. Profit is at Rs. 5 per unit.

Assume that operations are evenly throughout the year; wages and overheads accrue similarly. Manufacturing process required feeding a material fully at the beginning. Degree of work-in-progress is 50%. Debtors are to be estimated as selling price.

(T.Y.B.Com March 2006)

(Ans. Stock Rs. 50,000 work-in-progress Rs. 75,000 debtors Rs.1,00,000, creditors Rs. 50,000, outstanding wages Rs. 30,000, outstanding overheads Rs. 20,000, working capital Rs. 4, 50,000)

3. From the following details, prepare a statement showing working capital requirement for the year ended 31st March 2009.

Production	90,000 units
Selling price per unit	Rs. 10.00
Raw Materials	60% of selling price
Direct wages	10% of selling price
Overheads	20% of selling price
Materials in hand	2 months requirement
Production time	1 month
Finished goods in stores	4 month
Credit for material	2 month
Credit allowed to customers	3 month
Average cash balance	Rs. 30,000
Average bank balance	Rs. 20,000

Wages and overheads are paid at the beginning of the month following. In Production all the required materials are charged in the initial stage and wages and overheads accrue evenly.

(Ans. Raw materials Rs. 90,000, WIP- Rs. 56,250, Finished goods Rs. 2,70,000, Debtors - Rs. 2, 25,000, Creditors - 90,000, O/s wages Rs. 7,500, O/s overheads Rs. 15,000 - working capital 6, 78,750)

4. From the following data, prepare a statement of working capital requirement for the year 2009

	Rs.	Rs.
Budgeted sales		3, 60,000
Less: cost of materials	1, 08,000	
Direct labour	1, 44,000	
Overheads	<u>72,000</u>	<u>3, 24,000</u>
Net profit		36,000

It is estimated that:

- Raw materials are carried in stock for one months and finished goods for 15 days only.
- The production cycle take one month.
- One month's credit is granted both for purchase of raw materials and sales of finished goods.
- Production and overheads are even through the year.

(Ans. Raw materials Rs, 9,000, WIP Rs. 18,000 finished goods Rs. 13,500, Debtors Rs. 30,000, Creditors Rs. 9,000, working capital Rs. 61,500)

5. The management of Fast and Thin Ltd. desires to know the working capital required with effect from 1st January, 2010 to finance. the production programme. Percentage cost structure of selling price is as follows.

Raw Materials	50%
Labour	20%
Overheads	10%

You are further informed that:

- Raw materials remain in the stores on an average for one month before issue to production.
- Finished goods remain in the godown for 2 months before sales.
- Each unit of production will be in process for one month.

- d) Credit allowed by creditors is one month and allowed to debtors is 2 months.
- e) Selling price per unit is Rs. 9.00
- f) Production in 2010 is expected to be 1, 00,000 units.

(Ans. Raw materials - Rs. 37,500, work-in-progress- Rs. 48,750, Finished goods - Rs. 1, 20,000, Debtors - Rs. 1, 20,000, Creditors - Rs. 37,500, working capital - Rs. 2, 88,750)

