# 1

# INTRODUCTION TO MANAGEMENT ACCOUNTING

**Unit Structure :**



## 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. If 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 development that they become a unique tool for management decision.



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## 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 explains 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 form special surveys, statistical compilations, engineering records, etc.

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## 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.

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## 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 statues of the business.<br>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.<br>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. |

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| | |
|---|---|
| **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.<br>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:

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**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

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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)**

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# 2

# ANALYSIS OF FINANCIAL STATEMENTS

**Unit Structure:**



## 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.

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(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.

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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.

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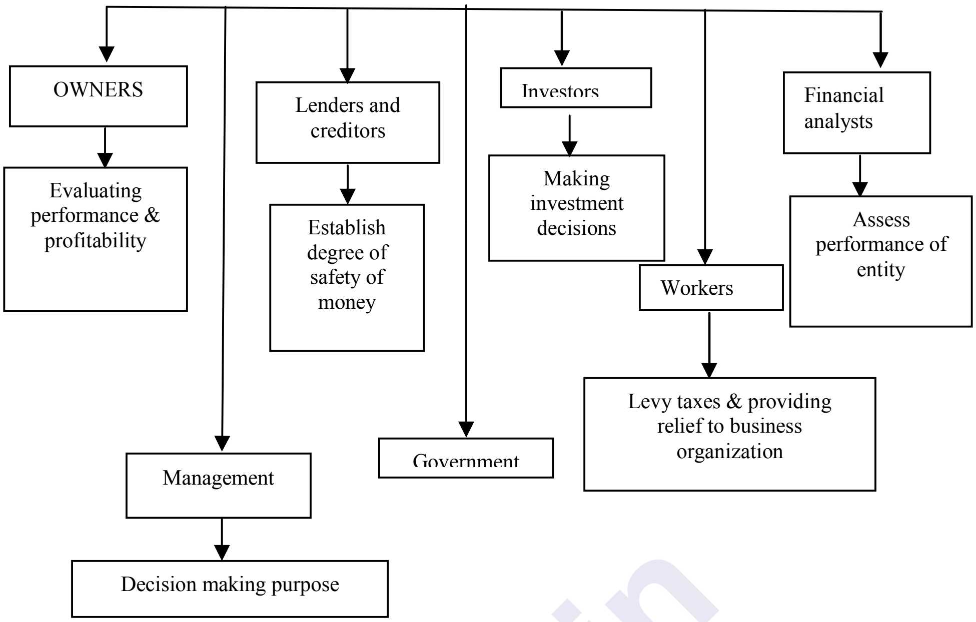
**USERS AND THEIR PURPOSE**




## 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. ICAl. 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, con version 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 (in) 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-ICAl. 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 in vested 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 asses, i.e.-the fixed Assets are shown First, followedloy the most Liquid assets, ie. the current asses: [Even under cash head, items of assets are arranged in the order of Permanance e.g. under Current A sos stace spears first and Cash & Bank balance which is the most liquid, appears last]. The Liabilities are shown in order of priority of e-amont. 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** | **Capital** | | | |
| 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.** | **Reserves and Surplus** | | | |
| 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.** | **Less : Losses & Fictitious Assets** | | | |
| 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) | | | |

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| | | | | |
|---|---|---|---|---|
| **2** | **Loan Funds/Borrowed Funds** | | | |
| **D.** | **Secured Loans / Long Term Borrowings** | | | |
| | Debentures or bonds | XX | | |
| | Loans from Banks | XX | | |
| | Loans from Financial Institutions | XX | XX | |
| **E.** | **Unsecured Loans** | | | |
| | 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** | **Net Fixed / Non-Current Assets** | | | |
| **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 |

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| | | | | |
|---|---|---|---|---|
| 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)** | | | |
| Less: | | | | |
| **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)<br>(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).

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**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) Own Funds + Loan Funds = Fixed Assets + Investments + Working Capital or OF + LF= FA + Inv. + WC

(2) TA (Total Assets) = FA + Inv. + CA = TL (Total Liabilities) = OF + LF+ CL

(3) CE (Capital Employed) = FA + WC = FA+ (CA - CL) = OF+ LE

(4) OF (Owners' Funds) = TA - CL - 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 -ICAl 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 ICAl). This 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

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## 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 Undertakinghave 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 item 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

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**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. FX. 2016-17 (vide MCA/ICAIAmended Accounting Standard 4)

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**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 | |

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| | | | |
|---|---|---|---|
| **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** | | | |
| A. Office and Administrative Expenses | | | |
| 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 | |
| B. Selling and Distribution Expenses | | | |
| 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 | |

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| | | | |
|---|---|---|---|
| <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) |

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| | | | |
|---|---|---|---|
| **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, thefollowing 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 amountof total sales of goods and services. This includes both cashand credit sales.

   Gross sales = Credit sales + cash sales

5. **Cost of Goods Sold:** This is the cost of purchases or cost ofmanufacturing 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 anorganization. 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 normalconduct of business, which are related to the business activities.Broadly, operating expenses areclassified into the following categories.

a) **Administrative Expenses:** These are the expenses pertainingto general office administrative of an organization.

b) **Selling and Distribution Expenses:** These are the expensesincurred for the purpose of increasing and maintaining thesales, 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 |

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In the books of Leena Limited

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 |

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**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 | | | |
| | 15,86,000 | | | 15,86,000 |

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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 |

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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 |
| Provision for Depreciation | | 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 |
|---|---|---|---|---|
| | **SOURCES OF FUND/EQUITY AND LIABILITY** | | | |
| 1 | **Shareholders' Funds** | | | |
| | Equity Share Capital | | 4,200 | |
| | Reserves & Surplus | | | |
| | Dividend Equalisation Reserve | 588 | | |

| | | | | |
|---|---|---|---|---|
| | General Reserve | 924 | | |
| | P & LA/ c | 1,596 | 3,108 | |
| | Less: Fictitious Assets | | | |
| | Underwriting Commission | 504 | | |
| | Preliminary Expenses | 252 | (756) | |
| | **Networth** | | | 6,552 |
| 2 | **Loan Funds** | | | |
| | Secured Loans | | | |
| | 6% Debentures | | | 2,100 |
| | **Total Sources of Funds** | | | 8,652 |
| | **APPLICATION OF FUNDS/ ASSETS** | | | |
| 3 | **Fixed Assets** | | | |
| | **Tangible Fixed Assets** | | | |
| | Land & Building | 2,688 | | |
| | Less Provision for Depreciation | (420) | 2,268 | |
| | Plant & Machinery | 5,460 | | |
| | Less Provision for Depreciation | (1,680) | 3,780 | |
| | Total Tangible Assets | | 6,048 | |
| | **Intangible Fixed Assets** | | | |
| | Patents | | 252 | |
| | Total Fixed Assets | | | 6,300 |
| 4 | **INVESTMENTS** | | | |
| | Trade Investments | | | 1,680 |
| 5 | **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 | |

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| | | | | |
|---|---|---|---|---|
| | **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 |

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**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.

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**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 |

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| 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 |

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**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 |

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Vertical Balance Sheet as on 31st March 2020

| 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.

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| 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 |
| Less: Cost of Goods Sold | | |
| 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 |

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| | | |
|---|---|---|
| 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 |

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| | | | |
|---|---|---|---|
| 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 | | | |
| 1 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 | |

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| | | | |
|---|---|---|---|
| B. Intangible | | | |
| Goodwill | | 5,00,000 | 45,00,000 |
| Total Fixed Assets | | | |
| II Investments | | | 5,00,000 |
| III Working Capital | | | |
| A Current Assets | | | |
| Quick Assets | | | |
| Cash and Bank | 1,50,000 | | |
| Trade Receivables | 8,00,000 | | |
| Bills Receivable | 5,50,000 | | |
| Total Liquid Assets | | 15,00,000 | |
| Non-Quick Assets | | | |
| 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 | | | |
| Quick Liabilities | | | |
| 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 | |
| Non-Quick Liabilities | | | |
| 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 |

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**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 befor 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 | | | |

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| | | | |
|---|---|---|---|
| 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 |

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**Additional Notes:**

You are requied 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 |

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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 | | | |
| To Depreciation | | | | | |
| 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 |

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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.

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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.

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# 3

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

**Unit Structure:**



## 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. **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.

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**Solution 01**

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

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 |
| ll. 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 |

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**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) (a + b + c) | 3,88,800 | 3,50,400 | (38,400) | (9.88) |

**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 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) |
| (il) 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) |

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**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) |

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**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 |

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**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 | 32B.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 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<br>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. 1,12,000 + 22,400 = 1,34,400
2. 11,200 ÷ 56,000 x 100 = 20.00
3. 5,600 ÷ 25% or 28,000 – 5,600 = 22,400
4. 1,12,000 ÷ 100% or 2,24,000 - 1,12,000 = 1,12,000
5. 2,24,000 + (1,34,400+67,200+28,000) = 4,53,600
6. 1,12,000[4] + (1,12,000+56,000+22,400) = 3,02,400
7. 4,53,600 – 3,02,400 = 1,51,200
8. 1,51,200 ÷ 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) | ? | ? | ? | ? |



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| | | | | |
|---|---|---|---|---|
| Operating Expenses | | | | |
| (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% |
| Cost of Goods Sold | | | | |
| 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%** |
| Operating Expenses | | | | |
| (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%** |

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**Working Notes:**

| | |
|---|---|
| 1. 4,60,000 ÷ 25% = 18,40,000 | 12. 23,000 ÷ 20% = 1,15,000 |
| 2. 1,840,000 + 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 ÷ 92,000 = 50% | 15. 11,500 ÷ 57,500 = 20.00% |
| 5. 2,30,000 ÷ 20% = 11,50,000 | 16. 5,175 ÷ 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 ÷ 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 ÷ 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 | ? | ? | ? | ? |

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**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) |

**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

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| 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 |
| II APPLICATION OF FUNDS | | |
| 1 Fixed Assets | 2,00,000 | 60.15 |

| | | |
|---|---|---|
| 2 Investments | 75,000 | 22.56 |
| 3 Working Capital | | |
| A Current Assets | | |
| 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 |
| B. Less: Current Liabilities | | 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 |

**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 Net Fixed Assets | | | |
| Net Tangible Assets | | 1,95,000 | 58.04 |
| 2. Long Term Investments | | | |
| Trade Investments | | 85,200 | 25.36 |
| 2B. Working Capital | | | |
| 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 |

**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 | | |



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| | | |
|---|---|---|
| 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 |

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| | | | | | |
|---|---|---|---|---|---|
| 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 |

**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 |
| <u>2 Less : Cost of Goods sold</u> | | | | |
| 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 |

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**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 |
| Oustanding 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 |

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**Solution 13:**

| Particulars | Amount | Percentage |
|---|---|---|
| I SOURCES OF FUNDS | | |
| 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 |
| II APPLICATION OF FUNDS | | |
| 1 Fixed Assets | 2,06,375 | 64.60 |
| 2 Working Capital | | |
| A Current Assets | | |

| | | |
|---|---|---|
| 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 |

| 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

Common Size Income Statement as on 31st March, 2020

| **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 | | ? |

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**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 |

**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 |

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| | | |
|---|---|---|
| 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 ofpurchase will reveal whether as compared to the base year, i.e. Year 1, the purchase show atrend 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 areeasy 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 abrief 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 variationsdue 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 ifthe 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.

| 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 Captial | 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 |

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### 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 I1 - 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 |

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**Illustration 19:**

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

**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 |

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**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₹ |
| I SOURCES OF FUNDS | | | | | | |
| 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 |
| II APPLICATION OF FUNDS | | | | | | |
| 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

| 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** |

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**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.

| 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 | 202B.00 | 181.25 | 159.50 | 166.75 |
| Reserve & Surplus | 108.75 | 130.50 | 174.00 | 188.50 | Furniture & Fixture | 36.25 | 42B.50 | 36.25 | 29.00 |
| 13% Debentur es | 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

| Liablilities | 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 |

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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 Lakhan 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 |

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

(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 Statementsof 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 |

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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 |

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9. The income statements of a Nisha Ltd. are given for the years ending on 31st March, 2019 and2020. You are required to prepare a comparative income statement and interpret the changes.

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 |

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| 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 inGeneral 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.

12. From the following Financial statements of Grishma Limited prepare a common size financialstatement 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 Amountand % 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 | 2B.30 |

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

❖❖❖❖

# 4

# RATIO ANALYSIS

**Unit structure:**



## 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
- Limitaions 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 comparision.
- 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 activites of the concern over a period of time and the balance sheet shows balance activites 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 weeknesses 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 amoung 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 Harne"Ratio is a yardstick used to evaluate the financial condition andperformance of a firm, relating two pieces of financial data to each other."

According to Kohler "The relation of one amountA to another B expressed as the ratioof 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 definations we conclude that ratio analysis is gives us idea about company or firms 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 providein a summarized and consise form of fairly good idea about the financial position of a unit. They are important tool for financial analysis.

Ratio is the numericl or as arithmatical relationship between two figures.
Ratio is simply one number expressed in terms of another.It is poweful 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.



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**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.1/4$^{th}$

**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 margine ratio, debt to asset ratio etc.

1. Ratio analysis is important in understanding the compamy'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 managemetn and investor point of view ratio analysis helps to understand and estimate the company's future finacials and operations. Ratios formed from past finacial statement analysis helps in estimating future fianacials, 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 actios. Leverage ratios help in preforming 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 competitiors company to understand efficiency, profitability and market share, ratio analysis is helpful for companies to perfromn 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 protrect from furture 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 efficiecy or utilisation of assets etc.

12. Ratio analysis helps the mangement for future best performance with help of past performance experience.

**Limitations of Accounting Ratios-**
The limitaions 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 differnt accounting methods if two forms follow differnent 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 informations only about the past

5. Fixed assets show the position statement at cost only. Hence, it does not reflcet 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 firn, 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 tournover 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)
Somr examples of inter statement ratios are as follows:
Return on investment
Return on equity capital ratio
Trade receivable turnover ratio
Trade payabeles 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 finanacing 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, degress 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 proft 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 liabiliites.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 intersted to know its state of liquidity because of their finaicial stake. Both lack of sufficient liquidity and excess liquidity is bad for the organization.

1. **Current Ratio:** The Currrent 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.

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

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

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

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 liquididty position of the business. It is calculated to serve as a supplimentary 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** :

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

Quick Assets = Current Assets- (Inventories+Advance tax)

= Rs1,34,000- (Rs.50,000+Rs.4,000)

= Rs 80,000

Quick Liabilities = Rs 1,04,000 – 4,000

$$\text{Quick Ratio} = \frac{\text{Rs.80,000}}{\text{Rs. 1,00,000}} = 0.80:1$$

This Ratio Provides a measures of capacity of the business to meet its short term obligation without any flaw. Normally, it is advovated 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 properietors fund to net assets and its calculated as follows:

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

OR

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

Properietary fund includes equity share capital, preference share capital and reserves and surplus
Total assets exludes 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 =

$$\frac{\text{Preference share capital + Debentures+Other borrowed funds}}{\text{Equity Share Capital+ Reserves and surplus- Losses}}$$

### 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 strucrture 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 leaverage.

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) Lonag term borrowings | |
| (b) other long term liabilities | 4,00,000 |
| (c) long term provisions | 40,000 |
| 3. Current liabilites | 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:**

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

Debt = Long term borrowings+other long term liabilities+long term Provisons
= Rs.4,00,000+Rs.40,000+Rs.60,000
= Rs.5,00,000

Equity = Share capital+Reserves and surplus+Money received against share warrants
= Rs.12,00,000+Rs.2,00,000+Rs.1,00,000
= Rs.15,00,000

Alternatively,

Equity = Non current assets+working capital-non current liabilities
= Rs.18,00,000+Rs.2,00,000-Rs.5,00,000
= Rs.15,00,000

Working Capital = Current assets-current liabilites
= Rs.7,00,000-Rs.5,00,000
= Rs.2,00,000

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



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**Revenue Statement Ratio**

**1. Gross Profit Ratio/Gross profit margin:**

Gross profit ratio as a percentage of revenu from operations is computed to have an idea about gross proft. 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 revenun from operations. Is is calculated as follow:

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

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

Cost of operation is determined by excluding non-operating incomes and expesnses 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 = $\frac{\text{Administrative exp+selling \& distribution OH}}{\text{Sales}} \times 100$

III. Operating Ratio = $\frac{\text{COGS+ Operarting expenses}}{\text{Sales}} \times 100$

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/Revene from operations × 100

Or

= Net profit/sales × 100

Or

= Earnings after taxes(EAT)/Sales × 100

Or

Pre-Tax Profit Ratio= Earnings before taxes (EBT)/Sales × 100

Generally, net profit refers to profit after tax (PAT)
It is a measures of net profit margin in relation to revenue from operations. Besides revealing profitability. It is the main variable in computaion 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 find 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 finsihed goods. It



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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.

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

Average inventory = (Opening Stock+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,

Capital Employed = Total assets - Current liabilities

Or

= Fixed assets+Working capital

Or

= Equity+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 profitability.



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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

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

**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:

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

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

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 comparision 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 reatined by the management for the business.it is calculated as follows:

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,coperate image and degree of liquidity. It is calculated as

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 | Current Asset / Current Liabilities | A simple measure that estimates whether the business can pay short term debts. Ideal ratio is 2:1 |
| 2 | Quick Ratio | Quick Assets / Current Liabilities | It measures the ability to meet current debt immediately. Ideal ratio is 1:1 |
| 3 | Proprietary Ratio | Properietary Fund / Total Assets | It measures the proportion of total assets financed by shareholders. |
| 4 | Stock working capital ratio | Closing Stock / Working Capital | This ratio indicates the extent of working capital turned over in achieving sale of the firm |
| 5 | Capital gearing ratio | (Preference+Debentures+other borowed funds / (Equity share capital+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 | Long Term Debt / Shareholder's Fund OR Total Outside Liabilities | 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. |

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

| | | | |
|---|---|---|---|
| 14 | Return on Proprietor's Funds | Profit after tax×100 / 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 | Net profit after taxes-prefernce dividend (if any) × 100 / Net worth/ equity shareholdre's funds | It indicates earnings available to equity shareholder's in comparison to equity shareholder's net worth. |
| 16 | Debtor's Turnover ratio | Credit sales × 100 / Average Debtor's | It measures the efficiency at which firm is managing its receivables. |
| 17 | Debtor's velocity | Average Debtor's × 365days / Credit Sales | It measures the velocity of collection of receivables. |
| 18 | Earning per share | Net profit available to equity shareholders / Number of equity shares outstanding | EPS measures the overall profit generated for each share in existence over a particular period. |
| 19 | Dividend payout ratio | Dividend per equity share(DPS) / Equity per share(EPS) | It measures dividend paid based on market price of shares. |
| 20 | Price Earning ratio | Market Price Per Share (MPS) / 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

= Rs.25,000+Rs.75,000=Rs1,00,00

Net purchases = Cash purchases+credit purchases-Return outwards

= Rs15000+Rs.60000-Rs.2000=Rs.73000

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

= Purchases+Decrease in inventory+Direct Expenses

= Rs.73000+Rs10000+(Rs2000+Rs5000)

= Rs 90000

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

= Rs100000-Rs90000

= Rs10000

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

= Rs 10000/Rs100000 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
= Cost of goods sold/Rs.80,000

Cost of goods sold = Rs.80,000×8
= Rs.6,40,000

Sales= Cost of goods sold×100/80

= Rs.6,40,000×100/80
= Rs.8,00,000

Gross profit= Sales-Cost of goods sold
= Rs.8,00,000-Rs.6,40,000
= 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.

Cost of goods sold=0.85×Rs.6,40,000=Rs.5,44,000
Thus, Average inventory = COGS/Inventory Turnover
= 5,44,000/5
Average inventory = Rs.1,08,000

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

Averagte receivables= (opening receivables+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 |

Average receivables = (Rs.1,76,000+Rs.80,000)/2
= Rs.1,28,000



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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:**

1) Gross profit margin = $\frac{\text{Gross profit} \times 100}{\text{Sales}}$

= $\frac{2,00,000 \times 100}{5,00,000}$

= 40%

2) Expenses ratio = $\frac{\text{Op. Expenses} \times 100}{\text{Net sales}}$

= $\frac{1,13,000 \times 100}{5,00,000}$

= 22.60%

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

= $\frac{3,00,000+1,13,000}{5,00,000} \times 100$

= 82.60%

Cost of goods sold = Op. stock+purchases+carriage and freight+wages - Closing stock

= 76,250+3,15,250+2,000+5,000-98,500

= Rs.3,00,000

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

$= \frac{84{,}000 \times 100}{5{,}00{,}000}$

= 16.8%

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

Operating profit= sales-(op exp+admin exp)

$\frac{87{,}000 \times 100}{5{,}00{,}000}$

= 17.40%

6) Stock Turnover ratio = $\frac{\text{Cost of goods sold}}{\text{Avg stock}}$

$\frac{3{,}00{,}000}{87{,}375}$

**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 Mortage | 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. 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

**CL**=16,000+4,000+4,000+4,000 = 28,000

$= \frac{40{,}000}{28{,}000}$

= **1.43:1**

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

Quick Assets = Current Assets-Stock

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

QA= 40,000-12,000

= 28,000

QL = 28,000-(4,000+4,000)

= 20,000

$= \frac{28{,}000}{20{,}000}$

= **1.40:1**

3. 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

LTL = 32,000

SHF = 40,000+8,000+12,000

= 60,000

$= \frac{32{,}000}{60{,}000}$

= **0.53:1**

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

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

Total Assets = Total Assets-Fictitious Assets

SHF = 40,000+8,000+12,000

= 60,000

TA = 1,20,000

$= \frac{60{,}000}{1{,}20{,}000}$

= **0.5:1**

**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 begining.

**Solution:**

Total Purchase = Cost of goods sold + closing stock-opening stock
= Rs.3,00,000+2,00,000 – Rs.1,00,000
= Rs.4,00,000

Credit purchase = Total purchase-cash purchase
= Rs.4,00,000-1,00,000
= Rs.3,00,000

Creditor Turnover Ratio = Net Credit Purchase / Average Creditor
Average Creditor = Rs. 3,00,000/ 3
= Rs.1,00,000

(Opening Creditor + Closing Creditor)/2=Rs.1,00,000
Opening Creditor + Closing Creditor) = Rs.2,00,000
(Opening Creditor + (Opening Creditor+3 Opening Creditor)
= Rs.2,00,000

Opening Creditor = Rs.40,000
Closing Creditor = Rs.40,000+(3×Rs.40,000)
**= Rs.1,60,000**

**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 :**

Cost of goods sold = Opening stock+net purchase + direct expenses-closing stock
= Rs. 50,000 + (Rs. 2,90,000 – Rs. 15,000) + Rs. 10,000 -Rs.75,000
= Rs. 2,60,000

Total Sales = Cash Sales + Credits Sales
= Rs.1,00,000+Rs.1,70,000
= Rs. 2,70,000
Gross profit = Total Sales-Cost of goods sold
= Rs.2,70,000-Rs.2,60,000
= Rs. 10,000

$$\text{Gross profit Ratio} = \frac{10,000 \times 100}{2,70,000}$$

= **4.704%**

**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.

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 Proft 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 |



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**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 purhases. 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 | NOPBIT<br><br>Capital Employed ×100<br><br>NOPBIT<br><br><br><br><br><br>Capital Employed | 3,28,000 x 100<br><br>24,04,000<br><br><br>6,00,000-1,50,000-60,000 - 12,000-20,000-30,000<br><br><br>8,00,000+2,00,000+3,04,000+5,00,000+6,00.000 | 14.64% |
| Creditors Turnover<br><br>Ratio | Credit Purchase<br><br>Avg Creditors + Bills payable | 2,50,000<br><br>2,00,000 | 1.25 Time |
| Price Earning Ratio<br><br><br><br><br>EPS | MPS<br><br>EPS<br><br><br><br>Net Profit-Pref. Div<br><br>No.of Equity Shares | 90<br><br>24.88<br><br><br><br>2,15,000-16,000<br><br>8,000 | 4.62<br><br><br><br><br>24.88 |
| Return on Equity Capital | NPAT - Pref. Div<br><br>Eq.Sh Cap | 2,15,000- 16,000 × 100<br><br>8,00,000 | 24.875% |
| Debit Equity Ratio | NPBIT<br><br>Interest | 2,15,000+50,000+83,000<br><br>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 an 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 changes (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) Operating profit margin = $\frac{\text{EBIT}}{\text{Sales}} = \frac{\text{Rs. } 1,60,000}{\text{Rs. } 7,20,000}$ =0.2222 or 22.22%

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

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

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

(v) 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 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 cuurent assets | 5/7 |

**Solution:**

**Workings:**

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

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

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

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

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

Or,Total liabilities = Rs.32,00,000×2 =Rs 64,00,000

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

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

Or, Net profit= Rs.32,00,000×1/5=Rs.6,40,000

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

Or, sales =Rs.6,40,000×5= Rs.32,00,000

vi. Gross profit=25% of Rs.32,00,000

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

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

Or, Average stock =Rs.2,40,000

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

Or,Opening stock =Rs.80,000

**Trading Account**

| Particulars | Rs. | Particulars | Rs. |
|---|---|---|---|
| To opening Stock | 80,000 | By Sales | 32,00,000 |
| To Manufactuing 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) Whar are the limitations of ratio analysis?
5) Discuss the benefits of ratios.
6) How are the ratio 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

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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. Oberving changes in the financial variables across the year is:

(a) Verticle 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) Proprietory 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

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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 prefernece 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)

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# 5

# SOURCES OF FINANCE AND CASH FLOW ANALYSIS

**Unit Structure:**



## 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 ofstatement of cash flow statement;
- Differentiate the operating activities,investing activities and financing activities;
- Make the statementof cash flows usingdirect method;
- Make the cashflow statement usingindirect 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 monetaryrequirements and over all purposes of corporate"



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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.

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**(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 rust time in 1990. It is an unsafe 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 repute.

**(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



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(a) GDR

(b) ADR

(c) lDR

## 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.

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## 5.4 CLASSIFICATION OF CASH FLOW STATEMENT

**1. Cash Flow -Operating Activities:**

The operating activities related to the vitalincome 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.

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- **To accomplish Cash Efficiently:**

It delivers material about the cash location by reflecting whichever anexcess 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 simplifythe Relative Study:**

It simplify 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 realarrivals 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 reductionin the cash balances.

- **To assessAdministration Decisions:**

This statement categorizes the cash dealings under three separate heads viz., operating, investing and financing cash. Such arrangement assist 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. I 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 analternative for a profit and loss statement :**

This statement cannot be used as analternative for a profit and loss statementbecause profit and loss statementis 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.

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- **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:



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**(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 dealingsconnected 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.

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**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.



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**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

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**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'sFunds :** | | | | |
| | | 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) | |

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| | | |
|---|---|---|
| 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.

| | | | | Note No. | 31.03.2018 | 31.03.2017 |
|---|---|---|---|---|---|---|
| | **Particulars** | | | **Note No.** | **31.03.2018** | **31.03.2017** |
| **I** | **Equity &Liabilities :** | | | | | |
| | **1)** | **Share holder'sFunds :** | | | | |
| | | 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** |

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| | | | | | | |
|---|---|---|---|---|---|---|
| **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'sFunds :** | | | | | |
| | | 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** |

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| | | | | | | |
|---|---|---|---|---|---|---|
| **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 :<br>Retained Farming | 60,000 | 50,000 |
| 2) | Long-term Borrowings : | | |
| | 15% Mortage 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 :**

**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 |

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**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'sFunds :** | | | | |
| | | 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.

a) The company paid interest `36,000 on its long term borrowings.

b) Deprecation 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 |

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**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'sFunds :** | | | | |
| | | 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 :**

| | | **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 |

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| | | |
|---|---|---|
| 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/c**

| 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 31st March 2018 | `125000 |
| Less : Reserve & Surplus Balance 31st 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 |

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**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'sFunds :** | | | |
| | 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 Equivalents | | 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.

**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'sFunds :** | | | | | |
| | | 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 |



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| | | |
|---|---|---|
| | | 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. 8**

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'sFunds :** | | | | |
| | | 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 | 35000 | 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'sFunds :** | | | | |
| | | 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 | | | |

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| | | | | | | |
|---|---|---|---|---|---|---|
| | | | 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 1st 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**

| 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'sFunds :** | | | | |
| | | 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% Mortage 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 mortage 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 31st March, 2018 | ₹60,000 |
| Less : Profit & Loss Balance on 31st 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 |

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**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 mortage loan<br>Loss on sale of Machinery<br>Depreciation | 14100<br>17000<br>13000 | <br><br>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% mortage loan | 35000 | |
| Interest paid on mortage 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 |

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**Problem No. 11**

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'sFunds :** | | | | |
| | | 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 |



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**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 31st March, 2018 | Rs. 45000 |
| Less : Profit & Loss Balance 31st 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<br>Depreciation | 18000<br>35000 | <br>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 |

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| | | |
|---|---|---|
| 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 |

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**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'sFunds :** | | | | |
| | | 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 31st March, 2018 | 107000 |
| Less : Reserve and Surplus on 31st 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 |
| Written down value of Machinery | 23000 |
| Sale of Amount of Machine | 35000 |
| Profit on Sale of Machinery | 12000 |

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**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'sFunds :** | | | | |
| | | 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 |



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| | | |
|---|---|---|
| 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 31st March, 2018 | 170000 |
| Less : Reserve and Surplus on 31st March, 2017 | 91000 |
| | 79000 |
| Add : Provision for Taxation for 2018 | 34000 |
| Interim Dividend | 60000 |
| | 173000 |

**Problem No. 14**

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'sFunds :** | | | | |
| | | 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 an 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 | 5000 |
| Less : Transfer to General Reserve | 12000 |
| Interim Dividend | 7000 |
| | 24500 |

**Problem No. 15**

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'sFunds :** | | | | |
| | | 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 |

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**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'sFunds :** | | | | |
| | | 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.

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**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 : | | 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'sFunds :** | | | | |
| | | 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 is10% 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 | |

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| | | |
|---|---|---|
| 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 |
| | (39000) |
| Add : Transfer to General Reserve | 1,20,000 |
| Net Profit before Tax | 81000 |

## 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

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**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

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**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

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**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

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## (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** |
| **Assets:** | | | |
| **II. (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** |

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**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. | **Log-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. | **Tangibble Assets:** | | |
| | Plant and Machinery | 11,00,000 | 7,50,000 |
| | Lesss: 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** |

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| 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 |

Additional Information: Machinery of the book value of 80,000 (accumulated depreciation ` 20,000) was sold at a loss of ` 18,000.

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# 6

# WORKING CAPITAL MANAGEMENT - I

**Unit Structure:**



## 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,

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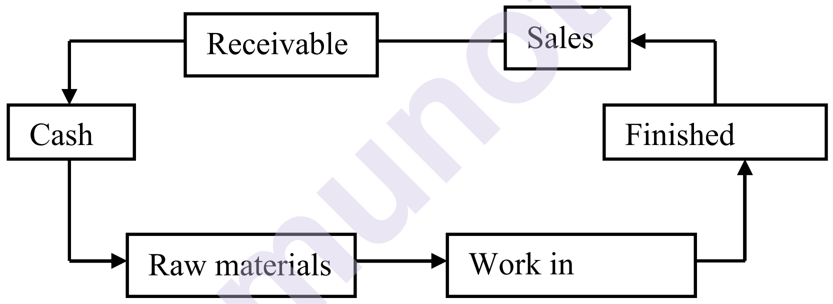
payment of direct and indirect expenses, carrying out production, investment in stocks and stores, receivables and assets to be maintained in the form of cash is generally known as working capital (fluctuating capital). In other words, this capital refers to the investment in current assets such as cash 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 in carried 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.

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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

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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

**Sources of working capital**

- Long term source
  1) Issue of shares
  2) Issue of Debentures
  3) Plugging back of profit
  4) Loans from banks
  5) Public deposits
- Short-term source
  - Internal source
    1) Depreciation
    2) Taxation provision
    3) Accrued expenses
  - External source
    1) Trade credit
    2) Credit paper
    3) Bank credit
    4) Customer's credit
    5) Govt. Assistance
    6) Loan from directors
    7) Security of employees

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## 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.

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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)**

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**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 world in progress labor & overhead are assumed to be incurred to the extent of --------------

4) It would be more practical if investment in debtors is a cetined 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** | **Group B** |
|---|---|
| 1) Gross working capital | a. Receivables |
| 2) Negative working capital | b. Excess of current Assets |
| 3) Debtors | c. Total current Assets |
| 4) Bank Balance | d. Excess of current liabilities |
| 5) Net working capital | 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 liberalities.

e) Prepaid expenses increase the amount of working capital.

**(Answer: a – False, b – False, c – False, d – True, e- True)**

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# 7

# WORKING CAPITAL MANAGEMENT - II

**Unit Structure:**



## 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.

$$\left(\text{Budgeted production (units) p.a}\right) \times \left(\text{cost of material per unit}\right) \times \left(\frac{\text{Raw material holding period}}{\text{365 days or 52 Weeks or 12 months}}\right)$$

2. **Work-in-progress:** The value of work-in-progress is decided as follows:

$$\left(\begin{array}{l}\text{Budgeted production}\\ \text{p.a (units)}\end{array}\right) \times \left(\begin{array}{l}\text{per unit cost}\\ \text{material 100\% +}\\ \text{Labour 50\% +}\\ \text{overhead 50\%}\end{array}\right) \times \left(\begin{array}{c}\text{Process period}\\ \text{(365 days or 52}\\ \text{weeks or 12 months)}\end{array}\right)$$

3. **Stock of finished goods:** The investment in finished stock by a firm is decided as follows:

$$\left(\begin{array}{l}\text{Budget production}\\ \text{p.a (units)}\end{array}\right) \times \left(\begin{array}{l}\text{Cost of goods}\\ \text{Produced p.u.}\end{array}\right) \times \left(\begin{array}{l}\text{Finished goods}\\ \text{holding period}\\ \text{(365 days or 52weeks}\\ \text{or 12 months)}\end{array}\right)$$

4. **Investment in debtors:** Debtors are calculated at sales prices as well as at cost price as follows:

**At sales price:**

**At sales price**

$$\left(\begin{array}{l}\text{Budgeted credit sales}\\ \text{p.a units}\end{array}\right) \times \left(\begin{array}{c}\text{Selling Price}\\ \text{per unit}\end{array}\right) \times \left(\begin{array}{l}\text{Debtors collections period}\\ \text{(365 days or 12 months}\\ \text{or 52 weeks)}\end{array}\right)$$

**At Cost Price**

$$\left(\begin{array}{l}\text{Budgeted credit sales}\\ \text{p.a units}\end{array}\right) \times \left(\begin{array}{l}\text{Cost of sale}\\ \text{per unit}\end{array}\right) \times \left(\begin{array}{l}\text{Debtors collections period}\\ \text{365 days or 12 months}\end{array}\right)$$

**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.

$$\left(\begin{array}{l}\text{Expenses}\\ \text{(365 days or 52 weeks}\\ \text{or 12 months)}\end{array}\right) \times \left(\text{Period of prepayment}\right)$$

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**7. Sundry Creditors: -** The amount of creditors depends on the credit purchases and the period of credit allowed by supplier is calculated as follows:

$$\left(\begin{array}{l}\text{Budgeted production}\\ \text{p.a units}\end{array}\right) \text{ x } \left(\begin{array}{l}\text{Cost per unit}\\ \text{of raw material}\end{array}\right) \text{ x } \left(\begin{array}{l}\text{Period of credit allowed}\\ \text{365 days or 52 weeks or}\\ \text{a) 12 months}\end{array}\right)$$

**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:

$$\left(\begin{array}{l}\text{Budgeted production}\\ \text{p.a. unit}\end{array}\right) \text{ x } \left(\begin{array}{l}\text{Wages or expenses}\\ \text{per unit}\end{array}\right) \text{ x } \left(\begin{array}{l}\text{Lag in payment}\\ \text{365 days or 52}\\ \text{Weeks or 12 months}\end{array}\right)$$

**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 |

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| | | | |
|---|---|---|---|
| **OR** | | | |
| Debtors at Cost | | | |
| a) Raw Materials | (Unit x Rate x Period of credit) | xxx | |
| b) Labour | (Unit x Rate x Period of credit) | xxx | |
| c) Overhead | (Unit x Rate x Period of credit) | xxx | xxx |
| **5.** Prepaid Expenses | Units x Rate x Period of Payment | | xxx |
| **6.** Advance to Supplier | | | xxx |
| **7.** Cash & Bank | | | xxx |
| **Total Current Assets** | | | **xxxx** |
| **B. Less: Current Liabilities** | | | |
| 1. Creditors for Materials | (Units x Rate X period of credit) | xxx | |
| 2. Lag in payment Wages | (Units x Rate x Lag in Payment) | xxx | |
| a) Wages | (Units x Rate x Lag in Payment) | xxx | **xxxx** |
| b) Overheads | | xxx | |
| 3. Advance from Customers | | | |
| **Total Current Liabilities** | | | |
| **C. Net Current Assets** | | | **xxxx** |
| Add: - Margin of Safety | (A - B) | | xxx |
| D. Working Capital | | | xxxx |

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## 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 | 20 |
| | 60 |
| Profit per unit | 40 |
| Sales price per unit | **100** |

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:**

a) Sales per week $\frac{50,000}{50} = 1,000$ units per week.

b) Debtors are valued at selling price and finished goods at sales loss profits.

c) 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.

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**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 | (1000 x 20 x 2 weeks x 1/2) | 20,000 | 90,000 |
| Finished goods | (1000 x 60 x 4 weeks) | | 2,40,000 |
| II. Debtors | (1000 x Rs. 100 x 10 week) | | 10,00,000 |
| 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 | (1000 x Rs.10 x 2 week) | | 20,000 |
| III) Outstanding Overheads | (1000 x 20 x 2 weeks) | | 40,000 |
| | | | 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% |

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The following additional information is available.

a) The activities of purchasing producing and selling occur evenly through and the year.

b) Raw materials equivalent to 1 months supply is stored in godown.

c) The production process takes are month.

d) Finished goods equal to three month's production are carried in stock.

e) Debtors get two month's credit.

f) Time lag in payment of wages and overheads in 1/2 months.

g) Cash and bank balance is to be maintained at 10% of the working capital.

h) 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 x $\frac{1}{12}$ x Rs.30 x 1m) | | 1,20,000 |
| Work-in-progress | | | |
| - Raw Materials | (48,000 x $\frac{1}{12}$ x Rs.30 x 1m) | 1,20,000 | |
| - Labour | (48,000 x $\frac{1}{12}$ x Rs.7.5 x $\frac{1}{2}$ m) | 15,000 | |
| - Overheads | (48,000 x $\frac{1}{12}$ x Rs.5 x $\frac{1}{2}$ m) | 10,000 | 1,45,000 |
| Finished Goods at cost | (48,000 x $\frac{1}{12}$ x Rs.42.5 x 3 m) | | 5,10,000 |
| II. Debtors at selling price | | | |
| Normal | (48,000 x $\frac{1}{12}$ x 90% x Rs.50 x 2m) | 3,60,000 | |
| Higher S.P. | (48,000 x $\frac{1}{12}$ x 10% x Rs.55 x 2m) | 44,000 | 4,04,000 |
| | Total | | 11,79,000 |
| <u>B. Current Liabilities</u> | | | |
| I. Sundry Creditors | (48,000 x $\frac{1}{12}$ x Rs.30 x 1.5m) | 1,80,000 | |
| II. O/S wages | (48,000 x $\frac{1}{12}$ x Rs.7.50 x $\frac{1}{2}$ m) | 15,000 | |
| III. O/S Overheads | (48,000 x $\frac{1}{12}$ x Rs.5 x $\frac{1}{2}$ m) | 10,000 | 2,05,000 |
| <u>C. Working capital (A-B)</u> | (90%) | | 9,74,000 |
| Add : 10% for cash & Bank balance i.e. 10% of cost | (10%) | | 1,08,222 |
| Required working capital | (100%) | | 10,82,222 |

**Working notes.**

1)

| Cost Structure | %age | Cost per unit |
|---|---|---|
| Raw material | 60 | 30.00 |
| Labour/Wages | 15 | 7.50 |
| Overheads | 10 | 5.00 |
| | 85 | 42.50 |
| Add. Profits | 15 | 7.50 |
| Selling price | | **50.00** |

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

$$\left.\begin{array}{l}\dfrac{974000\times 10}{90}=\\ =10{,}8{,}222.222\end{array}\right\}\text{Rs. } 1,08{,}222$$

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 ensuring 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 | 10.00 |
| | **85.00** |

**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. |
|---|---|---|---|
| **A. <u>Current Assets</u>** | | | |
| I. Stock | | | |
| Raw Materials | | | 1,60,000 |
| Work-in-progress | (52,000 x $\frac{1}{52}$ x Rs.40 x 4 weeks) | | |
| Raw Materials | | | |
| Labour | | | |
| Overheads | (52,000 ÷ 52 x Rs.40 x 4 weeks) | 1,60,000 | |
| Finished Goods at cost | | 30,000 | |
| | (52,000 ÷ 52 x Rs.15 x 4 weeks x $\frac{1}{2}$) | 40,000 | 2,30,000 |
| II. Debtors at selling price | | | |
| III. Bank Balance | (52,000 ÷ 52 x Rs.20 x 4 weeks x $\frac{1}{2}$) | | 3,00,000 |
| | | | 8,00,000 |
| **B.<u>Less Current Liabilities</u>** | (52,000 ÷ 52 x Rs.75 x 4 weeks) | | 50,000 |
| Sundry Creditors | | | 15,40,000 |
| **C. Working Capital (A-B)** | (52,000 ÷ 52 x Rs.100 x 8 weeks) | | |
| | | | 1,60,000 |
| | (52,000 ÷ 52 x Rs.40 x 4 weeks ) | | 13,80,000 |

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**Working Notes:**

1) 

| Particulars | Cost per unit |
|---|---|
| | **Rs.** |
| Raw materials | 40.00 |
| Labour | 15.00 |
| Manufacturing overheads | 20.00 |
| Cost of goods produced | 75.00 |
| Add: Selling & Distribution Expenses | 10.00 |
| Cost of goods sold | 85.00 |
| Add: Profit | 15.00 |
| 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.



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**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 | 7,80,000 | 4.00 |
| Total Cost Profit | 39,00,000 | 20.00 |
| Profit | 19,50,000 | 10.00 |
| Sales price | 58,50,000 | 30.00 |

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 ÷ 52 x 10 x 2w) | | 75,000 |
| II. Work-in-progress | | | |
| Raw Materials | (19,5,000 ÷ 52 x 10 x 2w) | 75,000 | |
| Labour | (19,5,000 ÷ 52 x 6 x 2w x 50%) | 22,500 | |
| Overheads | (19,5,000 ÷ 52 x 4 x 2w x 50%) | 15,000 | 11, 2,500 |
| III. Finished Goods | (19,5,000 ÷ 52 x 20 x 2w) | | 1, 50,000 |
| IV. Debtors | (19,5,000 ÷ 52 x 30 x 4w) | | 4, 50,000 |
| V. Cash | Given | | 50,000 |
| Total | | | |
| **B. Less Current Liabilities** | | | |
| I. Creditors | (19,5,000 ÷ 52 x 10 x 2w) | 75,000 | 8, 37,500 |
| II. Outstanding wages | (19,5,000 ÷ 52 x 6 x 2w) | 45,000 | |
| III. Outstanding overheads | (19,5,000 ÷ 52 x 4 x 2w) | 30,000 | |
| Total | | | |
| **C. Working Capital (A-B)** | | | 1, 50,000 |
| | | | 6, 87,500 |

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**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 | 15.00 |
| Total Cost | 102.00 |
| Profit 25% on sales (Means 331/3 of cost) | 34.00 |
| Selling price | **137.00** |

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 × 50%) | | 51,000 |
| c. Bills receivables | (9000 ÷ 12 × 136 × 4 × 50%) | | 2,04,000 |
| d. Advance to suppliers | (9000 ÷ 12 × 30 × 2 m) | | 45,000 |
| e. Prepaid fixed overhead | (9000 x 3 x 1) | | 27,000 |
| f. Bank balance | Given | | 50,000 |
| Total | | | **6,42,500** |
| B.Less Current Liabilities | | | |
| I. Creditors | (9,000 ÷ 12 x 20 x 1 m) | 15,000 | |
| II. Outstanding wages | (9,000 ÷ 12 x 25 x 1 m) | 18,750 | |
| III.Outstanding overheads | (9,000 ÷ 12 x 15 x 0.5 m) | 5,625 | |
| Total | | | **39,375** |
| C. Working Capital (A-B) | | | **6,03,125** |

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**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.

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**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 | 10, 80,000 |
| Profit (1,20,000 x Rs.1) | 1,20,000 |
| Selling price | 12, 00,000 |

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. Work-in-progress | | | |
| 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. Debtors | | | |
| 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 | | | 7, 11,000 |
| **B. Less: Current liabilities** | | | |
| Creditors | $\left(\frac{1,20,000}{12}\times 6\times 2m\right)$ | 1, 20,000 | 1, 20,000 |
| **C. Working Capital** | (A – B) | | 5, 91,000 |

## 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 | 18.00 |
| Total Cost | 48.00 |
| Profit | 12.00 |
| 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 | 72,000 | 3, 24,000 |
| Net profit | | **36,000** |

It is estimated that:

a) Raw materials are carried in stock for one months and finished goods for 15 days only.

b) The production cycle take one month.

c) One month's credit is granted both for purchase of raw materials and sales of finished goods.

d) 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:

a) Raw materials remain in the stores on an average for one month before issue to production.

b) Finished goods remain in the godown for 2 months before sales.

c) 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)**

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