Accounting for Managers

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Detail Curriculum

Introduction to Financial Accounting: The Meaning of Accounting – The Outputs of the Accounting Process – The Users of these Outputs – Generally Accepted Accounting Principles – Concepts underlying the Financial Statements.

Accounting Standards: Accounting Standards – International and Indian – The Importance of Accounting Standards – Auditor's Duties in Relation to Accounting Standards – Accounting Standards Issued by the Accounting Standards Board of the ICAI – US GAAP and differences between AS and US GAAP.

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Preparation of Financial Statements: Trial Balance and Adjustments: Preparation of a Trial Balance from General Ledger Balances – Passing Adjustment Entries for Prepayments, Outstandings, Closing Inventory, Depreciation etc. – Creating Provisions for Doubtful Receivables, Discounts, etc.

Preparation of Financial Statements: Profit and Loss Account: Preparation of Profit and Loss account from a given Trial Balance – Distinction between Capital and Revenue Expenditure – Preparation of Profit and Loss Account giving Double Effect to Adjustments given Outside the Trial Balance.

Preparation of Financial Statements: Balance Sheet: Preparation of Balance Sheet – Limitations of Balance Sheet – Vertical form of Financial Statement – Analysis of Balance Sheet.

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Chapter I

Introduction to Financial Accounting

After reading this chapter, you will be conversant with:

- The Meaning of Accounting
- The Outputs of the Accounting Process
- The Users of these Outputs
- Generally Accepted Accounting Principles
- Concepts underlying the Financial Statements

MEANING OF ACCOUNTING

All of us do some accounting, often without realizing it. It is a part of our life. Let us say you realize suddenly, one morning, that you needed to buy a book urgently. You ask one of your parents for the money. 'But' the parent says, "What happened to the money I gave last week?" You either recollect how you spent it or if you believe in being systematic and have noted it in your diary you explain how the money was spent. You are 'accounting' for the money given to you. When a housewife tries to note down her household expenses, strike the balance she has on hand at the end of the month, or determines how much she needs for the expenses which would arise, she is 'accounting' for the money she withdrew or was given to run the household.

In business, however, it is a more serious matter. The student may not be questioned by his parents or the housewife may just meet her expenses as and when they come without bothering to find out how much she spent, but in business it is a must. You cannot run a business unless you know how much you owe outsiders and how much outsiders owe you. And when you invest money in a business, wouldn't you like to know whether you've recovered it, increased it or lost it?

All this requires systematic record keeping of all that happens on a day-to-day basis in business and analyzing this information to aid business decision making.

In simple words, 'accounting' merely means, 'reckoning' or 'recounting'. In an organizational context too, 'accounting' has more or less the same meaning. As an organization comes into being and commences operations, one would like to evaluate the organization's past performance for various reasons. However, in order to be able to do so, it is necessary that as far as possible whatever has transpired in the organization be 'reckoned' or 'recounted' in a summarized form in monetary terms. Thus, the process of accounting involves recording, classifying and summarizing of past events and transactions of financial nature, with a view to enabling the user of accounts to interpret the resulting summary.

The utility of accounting information is greatly increased when it is compiled in a systematic manner and financial statements are prepared at periodic intervals. For the purpose of compilation, all monetary events are recognized as 'transactions' and classified into various 'account' heads. The 'account' heads are then summarized under related and significant groups so that interpretation becomes possible. For example, when a trader procures an item, this event is recognized as a transaction. This transaction will be recorded under the account head 'purchases'. At the end of a specified period, all purchases and other costs associated with sales would be summarized into a 'cost of goods sold' figure. On comparing the cost of goods sold with sales, the difference can be interpreted as the profit or loss for the period.

We must also understand the difference between the terms 'accounting' and 'bookkeeping'. Accounting is broader in scope than bookkeeping, which is merely concerned with orderly record keeping. Going beyond the narrow confines of bookkeeping, accounting involves analysis and judgment at different stages such as recording of transactions, classification, summarization and interpretation.

The American Institute of Certified Public Accountants defines accounting as "the art of recording, classifying and summarizing in a significant manner and in terms of money transactions and events which are, in part at least, of a financial character, and interpreting the results thereof".

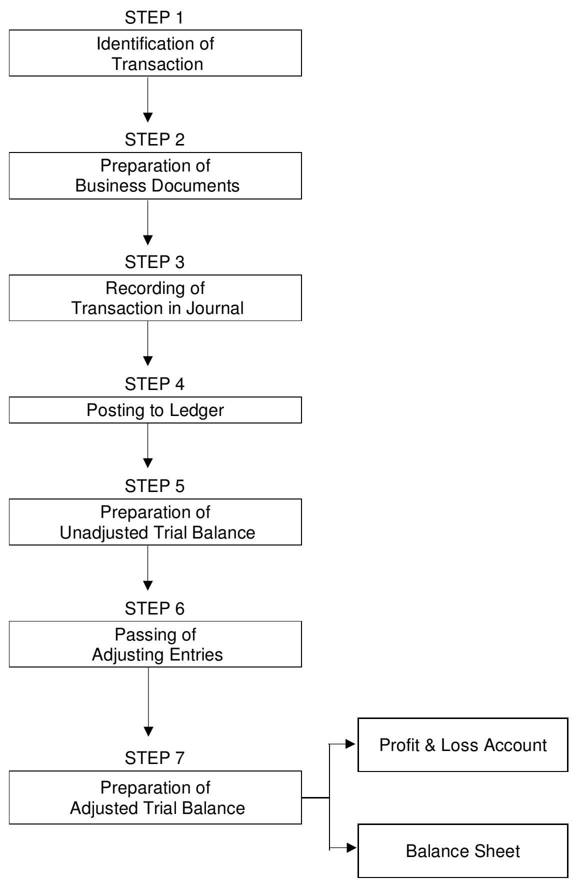
This definition brings out the following as attributes of accounting:

1. Events and transactions of a financial nature are recorded while the events of a non-financial nature cannot be recorded.

2. The record should reflect the importance of the transactions so recorded both individually and collectively, which includes summarization, thereby making it amenable to analysis.

3. The users of the financial statements should be able to obtain the message encompassed in such financial statements, and it is the knowledge of accountancy which enables the user to understand the contents of the financial statements.

Figure 1.1: The Accounting Process



Accounting is best known as the language of business and communicates the results of the business. As the accepted *lingua franca* in addition to being the medium of communication it also satisfies the role of understanding the existing as well as potential additions to the available literature. As with every credible language Accountancy also has its own rules and syntax which comprises the principles on which the system is based – known as the Generally Accepted Accounting Principles, Accounting Standards, US GAAP, etc.[1] The Indian Accounting Standards, International Accounting Standards, forming the Theoretical base of Accountancy, and the Double Entry Bookkeeping for recording the transactions provides the Practical base of the system.

To communicate the necessary, vital and relevant information, the requirements of the prospective users are identified and a systematic process is adhered to resulting in the formation of 'Financial Statements'. They are primarily the Income Statement and the Position Statement more commonly known as the 'Trading &

1. These will be explained in the chapter on "Accounting Standards".

Profit and Loss Account' and the 'Balance Sheet' respectively. The major purposes of these statements basically are:

- providing information which in turn becomes the basis for exercising decisions and actions by the potential users.
- reflecting the financial progress and present health of the business.
- aiding in the formulation of policies and procedures for the smooth and efficient conduct of the business.
- enabling the management to discharge their obligations and stewardship functions effectively.

In earlier times there used to be no distinction between the ownership and the management and was concerned only with providing information to the owners. But with their separation and the increasing emphasis on the business being managed by qualified and competent professionals, the role and purpose of financial accounting has undergone a paradigm shift to that of stewardship thereby highlighting the accountability aspect of managing the enterprise.

The cause of the new orientation is the increasing reliance by the interested entities such as stakeholders, investors, trade creditors, employees, customers, statutory authorities like Income tax and Excise departments, the Government and other agencies. They do not have any participation in the management of the affairs of the organization and as such collect the required information from the financial statements. Such interests displayed by a varied group of constituents necessitates the presentation of a true and fair portrayal of the financial conduct of the business.

This has underscored the need for developing accounting concepts, principles and standards to ensure that accounting information serves the needs of various users. Also, to impart credibility to the reported financial statements, these are required to be attested by professional accountants who perform the task of auditing (which involves examination and verification) before expressing their opinions on the financial statements.

Financial Accounting consists of creation of financial information and the subsequent use of such information.

Creation entails three steps namely Recording, Classifying and Summarizing which are dealt below:

Recording: Commences when a business transaction occurs and it has been quantified. A record of all these transactions are maintained in the order in which they occur in the Journal. Recording is based on four fundamental questions:

a. **What to record:** All the events and transactions which affect the business have to be recorded in accordance with the principles of accountancy. As money is the common unit of measurement all such events are to be expressed in monetary terms, and thus those which do not facilitate such translation will not be recorded. Distinction is to be maintained between the owner's transactions and that of the entity engaged in commercial activities.

b. **When to record:** Accounting is historical in nature because of which the recording is to be effected only after the occurrence of the subject transaction. Therefore, sale of goods cannot be recorded in the Books of Account when the goods are merely intended to be sold but only after such sale is complete and the property in the goods has been transferred to the buyer. There are a few exceptions to this rule like the Provision for income tax, etc. which will be covered in detail in later chapters.

c. **How to record:** As mentioned above, the Double Entry Bookkeeping system is the practical base of accountancy. Entries are passed in the Journal and the entries are called Journal Entries. This technique will be covered in-depth in the chapter 'Accounting Mechanics'. Suffice to state for the present that a journal entry is based on the premise of every transaction affecting the business in two ways. *Kindly note that the perfection of the concept of Journal Entry is at the core of the entire Accounting system.*

d. **Value at which it is to be recorded:** All the ingredients of the financial statements are to be assigned appropriate values. Money is the scale of measurement in accounting and we can measure only those which can be translated into monetary terms. However, it ought to be kept in mind that money changes and does not remain stable over time. Hence money as a unit of measurement is not stable in dimension for comparison over time. Value refers to the benefits to be derived from objects and different valuation bases are used in accounting, of which, the frequently used are Historical cost, Current cost, Realizable value and Present value.

Historical cost is the amount paid or payable to acquire a benefit. This is also the most commonly used measurement. Assets are recorded at the cash paid or the fair value of the consideration given at the time of acquisition. Liabilities are recorded at the amount of value received in exchange for the obligation or, in certain cases like taxes, at the expected amount to be paid to discharge the amount due. Please note that there are exceptions to this rule and your attention shall be drawn at the relevant places.

Current cost is the amount that needs to be paid if the asset is to be acquired currently. Realizable value is the net amount collectible in the event of the asset's disposal. Present value is the present discounted value of the future inflows that an item is expected to generate in the normal course of business.

Classifying: Refers to the rational segregation of the recorded information into related groups so as to make the record useful. The book containing such classified information is called the Ledger Book consisting of a number of accounts each complete in its own way. For example, all the receipts forming inflows and the payments forming outflows are grouped to ascertain the net cash position of the firm. The arrangement in this case is better known as the Cash Book. The mechanism for classification is to open accounts called ledger accounts.

Summarizing: After the Recording and Classification phases are complete the accounts containing relevant information in the Ledger Book are to be balanced and the balances listed. The Statement giving names of these accounts and their respective balances is called the Trial Balance. On the basis of the Trial Balance the summaries are generated to provide information about the Profit/Loss and the Position of the firm. The reporting of these summaries is done through Financial Statements.

Financial Statements can be said to include the Balance Sheet, the Profit and Loss Account, Notes to the Accounts and other incidental statements and explanatory material which are identified as part of financial statements.

Note: The Trial Balance, the Profit and Loss Account and the Balance Sheet are explained in detail in the succeeding chapters.

Use of Financial Statements

Decision-making requires critical analysis and careful interpretation of the published financial statements. In general, the common tools used by the management to facilitate analysis are Ratio Analysis, Funds Flow Statement, Cash Flow Statement, Comparative Statements and Common Size Statements.

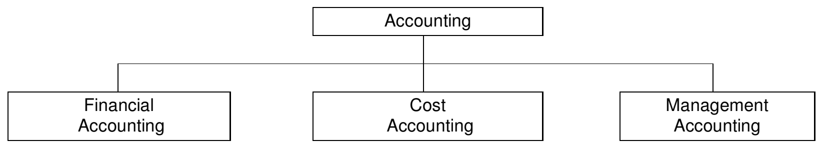
In this connection, the words of the Bombay Stock Exchange Official Directory are pertinent:

"Financial statements are prepared for the purpose of presenting a periodical review or report on progress made by management and deal with the status of investment in the business and the results achieved during the period under review. They reflect a combination of recorded facts, accounting conventions and personal judgments, and the judgments and conventions applied affect them materially. The soundness of the judgment necessarily depends on the competence and integrity of those who make them and on their adherence to the Generally Accepted Accounting Principles and Conventions".

FINANCIAL ACCOUNTING, COST ACCOUNTING AND MANAGEMENT ACCOUNTING

Accounting is generally classified into three different disciplines as shown in Figure 1.2.

Figure 1.2: Classification of Accounting



Financial Accounting: Accounting involves recording, classifying and summarizing of past events and thus is historical in nature. It is Historical accounting which is better known as Financial accounting whose primary intention is to prepare the Statements revealing the Income and financial position of the business on the basis of events which have happened in the period being reckoned.

But this information, though of immense vitality does not adequately aid the management in planning, controlling, organizing and efficiently conducting the course of the business as a result of which Cost Accounting and Management Accounting are in place.

Cost Accounting: It shows classification and analysis of costs on the basis of functions, processes, products, centers etc. It also deals with cost computation, cost saving, cost reduction, etc.

Management Accounting: It deals with the processing of data generated in financial accounting and cost accounting for managerial decision-making. It also deals with application of managerial economic concepts for decision-making.

FINANCIAL STATEMENTS

Typically, the major financial statements which result from the process of accounting are:

– Profit and Loss Account

– Balance Sheet

– Cash Flow Statement.

A profit and loss account is an account depicting how the profits or losses come about in a certain period. A balance sheet is a statement of what an organization owes and what it owns at any given point of time. A cash flow statement is a statement of the sources from which funds or cash were raised and the uses to which these funds or cash were put during a certain period.

Accounting and Financial Analysis

Accounting data is of great importance for carrying out detailed financial analysis. Financial analysis is usually carried out to study the financial position of the company from the point of view of

- Shareholders.
- Debenture holders.
- Banks (for working capital purposes).
- Financial Institutions (like State Finance Corporation, IDBI, etc.)
- Statutory Agencies (like Stock Exchanges, Registrar of Companies).
- Others (like potential buyers of companies in takeovers or mergers).

Financial analysis is carried out using accounting data available in Profit and Loss Account, and Balance Sheet. Hence a good grasp of the accounting logic underlying these statements will be of immense help in financial analysis.

FORM AND CONTENTS OF FINANCIAL STATEMENTS

Financial statements consist of Balance Sheet and Income Statement (Profit and Loss Account). The Balance Sheet shows the financial status of a business at a given point of time. That is the reason the heading of Balance Sheet reads as "Balance Sheet of xxx company as on 31st March, 20xx". The income statement on the other hand reflects the performance of the entity over a period of time and hence it is headed as "Income Statement of xxx company for the year ended 31st March, 20xx."

As per the Indian Companies Act, 1956, the Balance Sheet of a company shall be in either horizontal form or vertical form while the vertical form is the most commonly used by companies in practice, pedagogically it is more convenient to explain the contents of the balance sheet with reference to the horizontal form.

Format of Horizontal Form of Balance Sheet
Balance Sheet of xxx Ltd. as on March 31st, 20xx

Liabilities	Rs.	Assets	Rs.
Share Capital	***	Fixed Assets	***
Reserves and Surplus	***	Investments	***
Secured Loans	***	Current Assets, Loans and Advances	***
Unsecured Loans	***	– Current Assets	***
Current Liabilities and Provisions	***	– Loans	***
– Current Liabilities	***	– Advances	***
– Provisions			
	***		***

Format of Vertical Form of Balance Sheet
Balance Sheet of xxx Ltd. as on March 31st, 20xx

			Rs.
I.	Sources of Funds		
	1. Shareholders Funds		
	a. Share Capital	xxx	
	b. Reserves and Surplus	xxx	
			xxx
	2. Loan Funds		
	a. Secured Loans	xxx	
	b. Unsecured Loans	xxx	
			xxx
			xxxx
II.	Application of Funds		
	1. Fixed Assets		xxx
	2. Investments		xxx
	3. Current Assets, Loans and Advances	xxx	
	Less: Current Liabilities and Provisions	xxx	
	Net Current Assets		xxx
	4. Miscellaneous Expenditures (Not written off)		xxx
	5. Profit and Loss Account		xxx
			xxxx

The Companies Act does not prescribe any particular format for income statement which is also called as the Profit and Loss account. This statement is an adjunct to Balance Sheet because it provides details relating to net profit/loss which represents the change in owner's equity between two successive balance sheets. In fact more important and detailed information is obtained from the income statement rather than from the Balance Sheet. Though the Companies Act does not prescribe a format for the income statement, it has specified that the income statement must show specific information as required by the Schedule VI. This has attained a fair measure of uniformity for this statement. The Companies Act does require that the information provided should be adequate to reflect a true and fair picture of the operations of the company for the accounting period.

Generally accepted format of Income Statement
Profit and Loss Account for xxx Ltd. for the year ending 20xx

	Rs.
Income	
Sales	xxx
Other Income (Loss)	xxx
	xxxx
Expenditure	
Material and other expenditure	xxx
Interest	xxx
Depreciation	xxx
Profit Before Tax	xxx
Provision for Tax	xxx
Profit After Tax	xxx
Prior period adjustments	xxx
Profit Available for appropriations	
Appropriations	
Investment Allowance Reserve	xxx
Dividend	xxx
General Reserve	xxx
Surplus carried to Balance Sheet	xxx

However, the income statement can also be presented in the following format.

Trading and Profit and Loss Account of xxx Ltd. for the period ending 20xx

Dr.			Cr.
Particulars	Rs.	Particulars	Rs.
To Opening Stock	xxx	By Sales	xxx
To Manufacturing Expenses	xxx	By Closing Stock	xxx
To Gross Profit c/d	xxx		
	xxx		xxx
To Administrative Expenses	xxx	By Gross Profit b/d	xxx
To Marketing Expenses	xxx		
To Depreciation	xxx		
To Interest	xxx		
To Provision for Tax	xxx		
To Net Profit c/d	xxx		
	xxx		xxx
To Appropriations	xxx	By Balance b/f	xxx
To Dividends	xxx	By Net Profit for the Year	xxx
To Transfer to Reserves	xxx		
To Balance c/d to Balance Sheet	xxx		
	xxx		xxx

CONTENTS OF BALANCE SHEET

Assets

Broadly speaking, assets represent resources which are of some value to the firm. They have been acquired at a specific monetary cost by the firm for the conduct of its operations. Assets are classified as follows under the Companies Act:

1. Fixed assets
2. Investments
3. Current assets, loans and advances

4. Miscellaneous expenditure
5. Profit and loss account.

Fixed Assets: These assets have two characteristics: they are acquired for use over relatively long periods for carrying on the operations of the firm and they are ordinarily not meant for resale. Examples of fixed assets are land, buildings, plant, machinery, patents, and copyrights.

Investments: These are financial securities owned by the firm. Some investments represent long-term commitment of funds. (Usually these are the equity shares of other firms held for income and control purposes). Other investments are short-term in nature and may rightly be classified under current assets for managerial purposes. (Under requirements of the Companies Act, however, short-term holding of financial securities also has to be shown under investments, and not under current assets).

Currents Assets, Loans and Advances: This category consists of cash and other resources which get converted into cash during the operating cycle of the firm. Current assets are held for a short period of time as against fixed assets which are held for relatively longer periods. The major components of current assets are: cash, debtors, inventories, loans and advances, and pre-paid expenses. Cash denotes funds readily disbursable by the firm. A major part is usually in the form of bank balance, the rest comprises of currency held by the firm. Debtors (also called accounts receivable) represent the amounts owed to the firm by its customers who have bought goods, services on credit. Debtors are shown in the balance sheet at the amount owed, less an allowance for the bad debts. Inventories consist of stocks of raw materials, work-in-progress, finished goods, and stores and spares. They are usually reported at the lower of the cost or market value. Loans and advances are the amounts to employees, advances given to suppliers and contractors, and deposits made with government and other agencies. They are shown at the actual amount. Pre-paid expenses are expenditures incurred for services to be received in the future. These are shown at the cost of unexpired service.

Miscellaneous Expenditure and Losses: This category consists of two items: (i) miscellaneous expenditure, and (ii) losses. Miscellaneous expenditure represents certain outlays such as preliminary expenses and pre-operative expenses which have not been written off. From the accounting point of view, a loss represents a decrease in owners' equity. Hence, when a loss occurs, the owners' equity should be reduced by that amount. However, as per company law requirements, the share capital (representing owners' equity) cannot be reduced when a loss occurs. So the share capital is kept intact on the left hand side (the liabilities side) of the balance sheet and the loss is shown on the right hand side (the assets side) of the balance sheet.

Liabilities

Liabilities when defined very broadly represent what the business entity owes others. The Companies Act classifies liabilities as follows:

1. Share capital
2. Reserves and surplus
3. Secured loans
4. Unsecured loans
5. Current liabilities and provisions.

Share Capital: This is divided into two types: equity capital and preference capital. The first represents the contribution of equity shareholders who are theoretically the owners of the firm. Equity capital, being risk capital, carries no fixed rate of dividend. Preference capital represents the contribution of preference shareholders and the dividend rate payable on it is fixed.

Reserves and Surplus: Reserves and surplus are profits which have been retained in the firm. There are two types of reserves: revenue reserves and capital reserves. Revenue reserves represent accumulated retained earnings from the profits of normal business operations. These are held in various forms: general reserve, investment allowance reserve, capital redemption reserve, dividend equalization reserve, etc. Capital reserves arise out of gains which are not related to normal business operations. Examples of such gains are the premium on issue of shares or gain on revaluation of assets.

Surplus is the balance in the profit and loss account which has not been appropriated to any particular reserve account. It may be noted that reserves and surplus along with equity capital represent owners equity.

Secured Loans: These denote borrowings of the firm against which specific securities have been provided. The important components of secured loans are, debentures, loans from financial institutions and loans from commercial banks.

Unsecured Loans: These are borrowings of the firm against which no specific security has been provided. The major components of unsecured loans are, fixed deposits, loans and advances from promoters, inter-corporate borrowings, and unsecured loans from banks.

Current Liabilities and Provisions: Current liabilities and provisions, as per the classification under the Companies Act, consist of the following: amounts due to the suppliers of goods and services bought on credit; advance payments received; accrued expenses; unclaimed dividends; provisions for taxes, dividends, gratuity, pensions, etc.

Current liabilities (as distinct from their definition in the Companies Act) are obligations which are expected to mature in the next twelve months. So defined, they include the following: (i) loans which are payable within one year from date of balance sheet, (ii) accounts payable (creditors) on account of goods and services purchased on credit for which payment has to be made within one year, (iii) provision for taxation; (iv) accruals for wages, salaries, rentals, interest, and other expenses (these are expenses for services that have been received by the company but for which the payment has not fallen due), (v) advance payments received for goods or services to be supplied in the future.

CONTENTS OF INCOME STATEMENT

Net sales appearing in the Income Statement is the sum of the invoice price of goods sold and services rendered during the period. Sales inwards represent the invoice value of goods returned by the customers. Excise duty refers to the amount paid to the government.

Cost of goods sold is the sum of costs incurred for manufacturing procuring the goods sold during the accounting period. It consists of direct material cost, direct labor cost, and factory overheads. It should be distinguished from cost of production. The latter represents the cost of goods produced in the accounting year, not the cost of goods sold during the same period.

Gross profit is the difference between net sales and cost of goods sold.

Operating expenses consist of general administrative expenses, selling and distribution expenses and depreciation.

Operating profit is the difference between gross profit and operating expenses. As a measure of profit it reflects operating performance and is not affected by non-operating gains/losses, financial leverage, and tax factor.

Non-operating surplus represents gains arising from sources other than normal operations of the business. Its major components are income from investments and gains from disposal of assets. Likewise, non-operating deficit represents losses from activities unrelated to the normal operations of the firm.

Profit/Earnings Before Interest and Taxes (PBIT/EBIT) is the sum of operating profit and non-operating surplus/deficit. Referred to also as earnings before interest and taxes, this represents a measure of profit which is not influenced by financial leverage and the tax factor. Hence, it is pre-eminently suitable for inter-firm comparison.

Interest is the expense incurred on borrowed funds, such as term loans, debentures, public deposits, and working capital advances.

Profit before tax is obtained by deducting interest from profits before interest and taxes. Tax means income tax expense for the year. (as defined in AS 22 accounting for taxes)

Profit after tax is the difference between the profit before tax and tax for the year.

Dividends represent the amount earmarked for distribution to shareholders.

Retained earnings is the difference between profit after tax and dividends.

OBJECTIVES OF ACCOUNTANCY

1. It is a means of recording the monetary transactions and events.
2. It required to ascertain the earnings of the company, which is achieved by preparation of Profit and Loss account.
3. It is required to identify the obligations (liabilities) and resources (asset) of the organization.
4. Accounting records are required to be maintained statutorily by certain government and regulatory bodies.
5. Accounting records are also required by the management for taking the financial decisions.
6. Generally, investors and certain lenders also require the preparation of financial statements.

USERS OF FINANCIAL STATEMENTS

Management

In a company form of organization the owners or the shareholders elect a group of people to manage the day-to-day affairs of the company. Since these managers are ultimately responsible for the financial performance, they must periodically compile and interpret the financial statements.

Shareholders, Security Analysts and Investors

The major users of financial statements of business they ranges from individuals with limited shareholding to institutions like insurance companies and mutual funds which have high volume of funds at their disposal. The focus of this class of users is either on investment or stewardship.

The financial position of the company is known by the shareholders through the financial statements which states the profit gained or loss suffered and the measure of its assets and liabilities.

A realistic estimation of the safety of the intended investment and the return expected to be earned as a result of such investments can be made with the support of the financial statements.

Lenders

Banks, financial institutions and other lenders would willingly part with their money only if they are assured of the profitability and long-term solvency of the business in which they are asked to invest. Financial statements are normally used by the lenders to judge for themselves the profitability and liquidity of the business and to assure themselves of the security available for the monies lent.

Suppliers/Creditors

Suppliers of raw material, etc. to the company also would be interested in the short-term liquidity of the company.

The financial statements facilitate the creditors in ascertaining the capacity of the organization, to pay on time the consideration for the goods/services to be supplied. The primary documents for estimating the health of the firm is derived from such statements.

Customers

Legal obligations associated with guarantees, warranties and after sales service contracts tend to establish long-term relationships between a business and its customers. The financial statements may be used by the customers to draw inferences about the long-term viability of the firm.

Employees

Employees have a vested interest in the continued and profitable operations of the organization in which they work. Financial statements can be used as important sources for obtaining information regarding the current and future profitability and solvency. Sometimes, contracts tying remunerations to profits or payment of incentives based on certain financial measure would tend to magnify this interest.

Government and Regulatory Agencies

The correct assessment of income tax, sales-tax, excise duty, etc. requires a close scrutiny of the financial statements of an organization especially to detect tax evasion, if any. When contracts are entered into with the government, the business to supply all the financial information required by the former. Government, as the guardian of public interest, must also keep a close watch over the various business firms to detect profiteering and creation of monopolies. A lot of information in this regard can be gathered from a scrutiny of the financial statements of business enterprises.

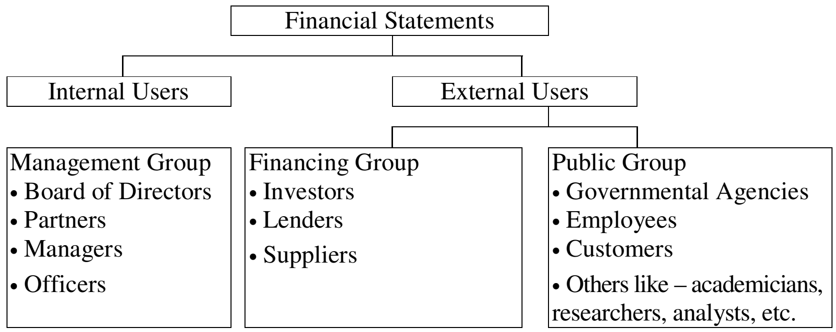
National income accounting used in macroeconomic analysis derives its fundamental inputs from financial statements. The tax payable by the enterprises as well as the compilation of countrywide statistics is discerned using the financial statements.

Research

Scholars undertaking research into management science covering diverse facets of business practices look into the financial statements for the information eventually used for analysis. Such statements serve as mirrors of the entity represented by them and thus are of great value to persons searching for company specific information.

Diverse persons such as academicians, researchers and analysts may approach business firms for information regarding their financial performance. To draw proper conclusions, these persons would have to study the financial statements in depth.

Figure 1.3: Users of Financial Statements



The Focus of Interest in Accounting

Each interested party may have a different focus. For instance, an owner may be largely interested in the profitability of his firm so that he may be able to assess his share in the assets of the firm. Income tax authorities may be preoccupied with taxable profits generated in a business. The Sales tax or Excise authorities may have a yet narrower focus. The lenders and creditors may primarily be interested in ensuring the safe-holding of their loans. The banks may be interested in assessing the working capital needs of a firm. The managers may be primarily interested in various cost and control information pertaining to different departments or functions. Thus, no one set of accounts can ever meet the requirements of all the users. However, the balance sheet, profit and loss statement and funds flow statements briefly mentioned above, are general purpose statements which are by and large of interest to everybody.

TRUE AND FAIR VIEW OF ACCOUNTS

Since each user of accounts may have a different focus in viewing the financial statements, it is necessary that the accounting statements are not biased in favor of any one interested group. It is, therefore, necessary for an accountant to ensure that the accounts represent a “true and fair” picture of the affairs of business. It may often be difficult to draw a clear line between true and untrue, and fair and unfair accounts; yet if the accountant prepares the financial statements free from any bias in favor of any user group and remains faithful to his own conscience, chances are that the accounts thus prepared will be true and fair. As accountants are but human and prone to err, there would always be the probability that the accounts presented are indeed less than true and fair. A reader of accounts must therefore, develop sufficient capability to see through such accounts or read between the lines to offset the biased presentation of accounts.

DOUBLE ENTRY SYSTEM OF FINANCIAL ACCOUNTING

Earlier, organizations used to maintain accounts in the single entry system which recognizes only cash transactions. But now, accounts are invariably maintained in the double entry system which recognizes both cash and credit transactions. Accounts are maintained on accrual basis under this system. A cost incurred (i.e. accrued) is duly accounted for irrespective of whether it is paid or not during that period. In addition, all transactions are supposed to have dual aspect – a debit aspect and a credit aspect. We will see more of debits and credits later. Since the system records both the debit and credit aspects of a transaction it is known as double entry system. Legally, a sole proprietary business, a partnership firm or a business organized by a Hindu Undivided Family (HUF) is free to choose the method and system of accounting. For income tax purposes, persons carrying on business should get their accounts audited by an accountant if the total sales, turnover, or gross receipts exceed Rs.40 lakhs in a year. A person carrying on profession is also required to get his accounts audited if his gross receipts exceed Rs.10 lakhs in a year. However, in the case of companies registered under the Companies Act, 1956 (as private limited companies or as public limited companies) the provisions of the Companies Act stipulate that accounting records should be maintained, audited and presented to shareholders every year. Such audited accounts should also be filed with the Registrar of Companies. The format of the financial statements is specified in Schedule VI of the Companies Act.

CONCEPT OF CAPITAL AND INCOME

The Accountant's Concept of Capital and Income

Capital is the contribution made by the owner(s) in the business and is regarded as a liability to the business in the nature of owners' equity. The underlying feature for this treatment is the distinction between the owner(s) and that of the business owned by them as a result of which the business is vested with an implied obligation to repay such sum to the owner(s). The income of the business is arrived at by matching the revenues of a defined period with the expenses of the same period, and it accrues to the owner(s). This matching of revenues and expenses can either be on an Accrual basis or Cash basis or the Hybrid (mixture of both accrual and cash bases).

Under the Accrual system, the actual receipts or payments are not taken as the base. The Revenues are recognized if they belong to the relevant accounting period irrespective of whether the cash or cash equivalent has been received or not. Expenses are recognized if they are relatable to the revenues earned and accounted in the said period, irrespective of whether they are paid in cash or not. Expenses shall also include an accepted allocation of past costs (e.g. depreciation) and costs which are in the nature of permanent losses (e.g. fire/theft) as such costs arise directly in the course of conducting the business with the motive of making profits.

Under the Cash system, revenues and expenses are recorded and accounted only when they are received and paid in cash respectively. The pure cash basis is not evidenced by logic as it does not facilitate the fundamental requisite of matching the revenues with the costs incurred for earning for those earnings. The expense on fixed assets when acquired is to be booked and matched against the benefits derived from their use. But under the Cash system, the expense will be accounted in the very period in which it has been paid. GAAP does not permit application of the Cash system of accounting.

Under the mixed or Hybrid system accrual basis is used for expenses and the cash basis is used for the revenues earned which undeniably leads to inconsistency and prevents a realistic estimation of the performance of the entity.

Accrual or the Mercantile system of accounting is the most widely accepted and used scientific approach. Unless otherwise specifically mentioned, the system adopted is always the Accrual basis.

The Economist's Concept of Capital and Income

According to economist J R Hicks "the purpose of income calculation is to give people an indication of the amount which they can consume without impoverishing themselves. Income is the amount which a person can consume during a period and still remain well off at the end of the period as he was at the beginning". This implies that only income representing surplus can be consumed and the income determination ought not to affect the capital.

Capital for an economist refers to assets which are used to produce goods and services. This concept has an asset orientation and is applicable to a certain point of time. If the inventory of wealth at a point of time is called the Capital, the benefits derived from such wealth during a certain defined period is called income. Income is computed by deducting the Capital at the end of the period and the

Capital as at the beginning of the period, and shows the amount available for every factor of production. The owners' equity is one factor for which the reward is in the form of profit. The deduction of the payments to other factors of production yield the residue called profit.

The capital represented by the assets of the firm is valued by discounting the expected future cash flows at the cost of capital of the business to find the Present value [Cost of capital and Present value will be explained in Financial Management].

Ex ante income = Original expectation of expected future cash flows at the end of the period – Original expectation of expected future benefits at the beginning of the period;

Ex post income = Revised expectation of expected future cash flows at the end of the period – Original expectation of expected future benefits at the beginning of the period;

The economists' concept though more elegant is riddled with subjectivity because of the extremely cumbersome task of adequately estimating the expected future cash flows and the opportunity cost (cost of capital) and such difficulty is enormously enhanced if the life of the asset is indefinite.

Capital Maintenance Concept: The accountant's methodology of ascertaining and reporting results of business helps in comprehending the concept of capital maintenance. According to both the accountant and the economist the surplus in the form of income alone is available for consumption while the capital is to be maintained intact.

Say, Z has started a business with Rs.5000 as capital. Assuming that his activity is trading of goods, he buys goods for Rs.5000 and sells them for Rs.7500. As the business is to be separated from the personal transactions of the owner, the position of the firm is that it possesses Rs.7500 in cash and owes Rs.7500 to Z.

The profit earned in this transaction is Rs.2500 which even if drawn by Z leaves the capital of Rs.5000 undisturbed.

Income is the increase in capital which can be withdrawn bereft of any distortion of the capital. In this instance, this concept of maintaining the capital is called the Financial Capital Maintenance Concept where income shall be revenue less the historical cost of goods sold.

If the present capital of Rs.5000 be shown in terms of units where the price is Rs.10, thus 500 units. The 500 units is the Real capital and Rs.5000 is the Monetary capital. Even after withdrawing Rs.2500, if there are no price fluctuations, Z will be in a position to purchase 500 units.

Thus both the monetary and the real capital are maintained.

If the price per unit goes up to Rs.15 and if Rs.2500 representing the profit from the earlier transaction is withdrawn then obviously Z will be prevented from buying 500 units with only Rs.5000 in hand and thus will not be able to maintain the real capital intact. If the Real Capital Maintenance Concept is emphasized, Z should not withdraw Rs.2500 as the full amount of Rs.7500 is required to make the purchases of 500 units. The specific price rise is considered and the accounting based on the real capital maintenance is known as Current Cost accounting.

Income shall be revenues less the current cost of goods sold.

The alternative treatment accommodated in this approach is to concentrate only on the general level of price increase and not on the specific rise. Thus in our example if the cost of goods sold are restated in terms of the general increase brought by inflation, and if the increase in rate is assumed to be 20%, then the cost of 500 units shall be Rs.6000. The excess of Rs.7500 over Rs.6000 can be withdrawn while maintaining the real capital. The accounting based on the Real Capital Maintenance concept (which considers the general price rise) is called the Current Purchasing Power accounting.

Income is the revenue less the cost of goods sold restated in terms of the general price inflation. It deals with preparation of Trial Balance, Profit and Loss Account and Balance Sheet. It shows the amount of profit earned or loss incurred during a period.

GENERALLY ACCEPTED ACCOUNTING PRINCIPLES, CONVENTIONS AND CONCEPTS

The double entry system of accounting is based on a set of principles which are called Generally Accepted Accounting Principles (GAAP). These principles enable to a certain extent standardization in recording and reporting of information so that the users, once they are aware of the principles, can read and understand the financial statements prepared by diverse organizations.

Statement No. 4 of Accounting Principles Board (USA) on 'Basic Concepts and Accounting Principles Underlying Financial Statements of Business Enterprises' describes accounting principles as follows:

"Generally accepted accounting principles incorporate the consensus at a particular time as to which economic resources and obligations should be recorded as assets and liabilities by financial accounting, which changes in assets and liabilities should be recorded, when these changes are to be recorded, how the assets and liabilities and changes in them should be measured, what information should be disclosed and which financial statement should be prepared".

The phrase 'generally accepted accounting principles' is frequently used by accountants, but its precise meaning has seldom been specified. The English case decided in 1974 – Associated Portland Cement Manufacturers Ltd., vs. Price Commission – gives some useful insight into this aspect. In this case the Price Commission contended that the words 'generally accepted' meant generally adopted or used in practice. The company argued that the words meant, generally recognized by the accounting profession as acceptable, irrespective of the degree of their use. The court supported the company's contention. In this context, Justice Lord Denning observed, "It seems to me that the phrase means generally approved accounting principles. It means principles which are generally regarded as permissible or legitimate by the accounting profession. That is sufficient even though only one company applies it in practice".

To standardize the accounting information, every organization would have to establish certain accounting policies based on GAAP. Accounting policies encompass the principles, bases, conventions, rules and procedures adopted by managements in preparing and presenting financial statements. There are many different accounting policies in use even in relation to the same subject. For example, an organization having a research and development wing, may follow the policy of deducting all the research and development expenses incurred in a year from the profits of the year. Another organization, may classify the research and development expenses into projects and may write-off the expenditure only when the project is not expected to confer any future benefits. The task of interpreting financial statements is complicated because of the adoption of diverse policies in many areas of accounting, hence in formulating the GAAP the three conventions of relevance, objectivity and feasibility are followed.

While the conventions are based on what is practicable, there are certain accounting concepts which are based on logical considerations. For example, dividing a centimeter into ten equal parts is a convention rather than a concept. Accounting concepts are ideas and assumptions which are fundamental to accounting practice. Some of the important concepts are money measurement concept, business entity concept, going concern concept, duality concept, cost concept, matching concept, realization concept and accrual concept.

The generally accepted accounting principles which are followed in several countries are as follows:

Materiality Concept

The criterion of 'True and Fair' in the preparation of the financial statements is necessary for arriving at a reasonable conclusion on the financial health of the company. This condition brings us to the relative concept of materiality, which by its very nature can be subject to variations. An error of Rs.1000 in finished goods inventory whose total is valued at a few crores of rupees is definitely meagre to warrant special attention while the same will have to be attended in the case of the total stock being valued at a few thousands of rupees. As the concept is relative, though important, a few established and accepted general rules are brought in play in determining materiality:

1. Information is material if its misstatement (i.e., omission or erroneous statement) could influence the economic decisions of users taken on the basis of the financial information. Materiality depends on the size and nature of the item, judged in the particular circumstances of its misstatement. Thus, materiality provides a threshold or cut-off point rather than being a primary qualitative characteristic which the information must have if it is to be useful.
2. Materiality should be considered individually and in aggregate.
3. The amount (quantity) and nature (quality) of misstatements both need to be considered in determining materiality.
4. The accountant needs to consider the possibility of misstatements of relatively small amounts that, cumulatively, could have a material effect on the financial information. For example, an error in a month-end (or other periodic) procedure could be an indication of a potential material misstatement if that error is repeated each month or each period, as the case may be.

Money Measurement Concept

In financial accountancy, a record is made only of information that can be expressed in monetary terms. Recording, classification and summarization of business transactions requires a common unit of measurement which is taken as money. If events cannot be quantified in monetary terms then they do not facilitate accounting. The activities and their attributes considered for inclusion in the financial statements will be based on the yardstick of whether they are amenable to be translated in currency terms. Money is the standard of exchange and the changes in purchasing power caused by inflation are ignored for the purpose of accounting because the assumption about the stability of money, notwithstanding its limitations, is a necessity for ensuring a smooth accounting process. Hence, all transactions are recorded through a common denominator, namely the monetary unit. Thus, if a certain event, no matter how significant for the health or even existence of the business, cannot be measured in monetary terms, such an event is not recorded in accounting. For example, purchase of an inconsequential asset, which is easily measured in rupee terms is accounted for in the business. However, the retirement or death of the Chairman of a company, even though it has far reaching consequences for the health of the business is not accounted for, since no monetary measurement of the event is feasible.

Needless to say if different assets and liabilities are expressed in different measures they cannot be compiled to discern the financial health of the business. This difficulty is obviated if all the assets and liabilities are expressed in money terms. The total liabilities when deducted from the total assets yield the Net worth of the organization.

Cost Concept

Cost concept implies that in accounting, all transactions are generally recorded at cost, and not at market value. For example, if a piece of land is acquired for Rs.1 lakh, it would continue to be shown in the balance sheet at Rs.1 lakh, even when the market value of the land rises to say Rs.2 lakhs. Why should this be so? This is because, cost concept is in fact closely related to the going concern concept. If the land is acquired for the operations of the business and would continue to be used for its operations and would not be sold shortly, then it is largely immaterial what the land's market value is, since it is not going to be sold anyway. Thus, it is consistent with going concern concept to keep recording the land at cost, i.e. Rs.1 lakh on an ongoing basis.

This concept is closely related to 'Going Concern Concept'. In accounting, an asset is normally entered in the accounting records at the price paid for it, i.e., cost.

Non-monetary assets are those assets which cannot be converted into fixed rupees at a point of time. They can be divided into current non-monetary assets (e.g. inventories) and fixed non-monetary assets (e.g. buildings, machinery). The cost, historical cost, at which they are entered at the time of acquisition forms the basis for subsequent accounting. Therefore the valuation does not reflect the current worth of the asset. The historical cost of non-monetary fixed assets are subject to depreciation and are reported at historical cost less accumulated depreciation.

Cost concept is used because of the intricacies involved in the accurate determination of the market value. The market price is volatile and prone to frequent fluctuations because of the continual operation of market forces in an everchanging economy. Further, the market values themselves can either be the net realizable value (price at which it can be sold) and the current replacement price (price at which it can be bought) whose choice again is not without the interference of subjective bias.

The cost concept, though sacrificing a certain degree of current relevance, provides for feasibility and objectivity.

Time Period Concept

Income (or) loss of the business is measured periodically. This is measured for a specified interval of time, called the accounting period. For the purpose of reporting to outsiders, one year is the usual accounting period.

Conservatism Concept

The idea behind this principle is that recognition of revenue requires better evidence than recognition of expenses. This principle emphasizes that revenues are to be recognized only when they are reasonably certain and expenses are to be recognized as soon as they are reasonably possible. For example, a sales manager might have finalized a deal with his client for, say, sale of 100 units of their product. But unless these items are produced and delivered to the client there is no reasonable certainty about receiving the payment for these 100 units. It is only thereafter that he can record the sales amount on those 100 units as due from the client. But, on the other hand, if he comes to know that a customer has lost all his assets and is likely to default payment, then he should immediately provide for such loss.

Consistency Concept

There are in practice several ways of treating an event that may be recorded in the accounts. The consistency concept requires that once an entity has decided on one method, it will treat all subsequent events of the same character in the same fashion unless it has a sound reason to change the method of treatment of that event. For example, if a concern is valuing its inventory by a particular method in one year it is expected to value its inventory in the subsequent years also in the same method unless there is a strong reason to change the same. Similarly, if it is charging depreciation by one method it is expected to follow the same method in the subsequent years also.

Business Entity Concept

The legal entity of a corporate business, as distinct from the entity of its owners is well understood today. Less understood, however, is the accounting entity of a business as distinct from its owners. For example, for many purposes, the legal entity of a sole proprietary business may not be very distinct from the entity of the proprietor himself. However, the business entity concept requires that this should not come in the way of treating the business as a distinct accounting entity for the purposes of treating transactions relating to the operations of the business. It is in accordance with this concept that when an owner brings capital into the business, the business in turn is deemed to owe the capital to the owner. Again, owing to the fuzziness between the legal entities of the sole proprietary concern and its sole proprietor, usually the proprietor may not pay himself a salary, even when he works for his business. However, in accordance with the business as an accounting entity, his position as an owner must not come in the way of his charging a salary (even though not actually paid) from the business for the services rendered by him in the capacity of a worker. This is because as far as the business is concerned, it is immaterial whether the service is rendered by the owner or an outsider, both being workers, and the service rendered cannot therefore be regarded cost free. The reward of ownership is to be manifested only in the form of profit, which must be arrived at after charging "all costs".

Going Concern Concept

A business entity is assumed to carry on its operations forever. Seemingly inconsequential, this is a fundamental concept which has far reaching consequences. This is because it is difficult to envisage any economic activity on the part of a business entity if its liquidation were shortly expected. Going concern concept implies that the resources of the concern would continue to be used for the purposes for which they are meant to be used. For instance, in a manufacturing concern, the land, buildings, machinery etc., are primarily required for carrying out the production and selling of certain products. Going concern concept implies that these land, buildings, machinery etc., would continue to be used for this purpose. In fact, it is because these assets would continue to be with the concern for a long time for producing and selling the end products, that these assets (as would be seen in subsequent paragraphs) are termed 'fixed assets'. If on the other hand, the above assumption were to be invalid, and these assets were to be sold off and not used for manufacturing and selling operations, then these assets could not be labeled as 'fixed assets', but would be termed 'current assets'. Thus, the very categorization of assets into 'fixed' and 'current', presupposes the going concern concept.

Duality or Accounting Equivalence Concept

It can easily be seen that in business, as elsewhere, funds can be raised in any of the following ways:

- Additional capital (increases owners' equity)
- Additional loans (increases outside liability)
- Earning revenue (increases owners' equity)
- Making profits (increases owners' equity)
- Disposing or reducing some of the assets (reduces assets).

Thus, all increases in liabilities (including owners' equity) and reduction in assets represent sources of funds.

Similarly, the funds thus raised, may be put to any of the following uses:

- Purchasing of assets (increases assets)
- Incurring operational expenses (decreases owners' equity)
- Discharging earlier liabilities (decreases liability)
- Keeping idle funds so that cash balance increases (increases assets)
- Suffering losses (decreases owners' equity).

Thus all increases in assets and decreases in liabilities (including owners' equity) are uses of funds.

A little reflection must reveal that in a business, the sum of the Sources of Funds must equal the sum of *Uses of Funds*. This is because, whatever funds are raised by the business, either through capital or operations or from outsiders, must be tied up in one or the other form of uses.

Thus the duality or accounting equivalence concept implies that:

Owners' Equity + Outside Liability = Assets

This equation is known as the 'Fundamental Accounting Equation'. We shall see that the entire mechanics of financial accounting revolves around this equation. The various liabilities and assets that appear in the Balance Sheet are governed by the concepts just mentioned above.

Accounting Period Concept

To be able to prepare the income statement for a business, the period for which it is to be prepared must first be specified. Very often the accounting period chosen is a calendar year (January 1 – December 31) or a fiscal year (April 1 – March 31). It is also not uncommon to synchronize one's accounting period with one's operating periods. In some businesses such as trading, the operating period may be relatively small, say a month or even less; while in other cases it may stretch well beyond a year. Depending on one's nature of business, one may adopt a Hindu year, or the period beginning with Diwali or any other period as one's accounting period. Under the Companies Act, a company is normally not permitted to have an accounting period extending beyond fifteen months.

Realization Concept

Realization concept deals with the point in time at which revenue may be deemed to be realized or when a sale can be said to have taken place. For example, orders may be obtained at time 1, which may be accepted at time 2, the work towards the production of the order may commence at time 3, the production process completed at time 4, the goods dispatched at time 5, and the cash received at time 6 and so on. At which time can one say that the revenue is realized, or a sale is made? Normally revenue is said to be realized when efforts rendered are rewarded either in cash (or kind) or in the form of a promise of reward some time in future. Now in the above context, a reward or a promise of reward sometime in future may be normally forthcoming only after the goods are dispatched i.e., at time 5). Thus, revenue is normally recognized only when goods or services are transferred and a reward or a promise of reward is forthcoming. If there is no transfer of goods or services, normally no reward may be expected either now or in future and hence no revenue is realized. Similarly, if there is no reward or a promise of reward in return for the goods or services rendered, then such rendering of goods or services would merely be an act of philanthropy or squandering and cannot be construed as a 'sale'. Thus, normally revenue is recognized at the time of transfer of goods or services when a return consideration is either obtained immediately or there exists a reasonable certainty of receiving a return consideration in future. However, there are exceptions to the above 'rule' of revenue recognition. Consider the following instances:

Matching Concept

In order to determine the profits or losses accrued in an accounting period, the expenses must relate to the goods or services sold during the period. For instance, assume a situation where nine products are manufactured in an accounting period, seven products are dispatched and money is received on only five. Let the selling price and cost per product be Rs.10 and Rs.6 respectively. Then, depending on whether the sale is recognized at production or dispatch or collection, the revenue would be Rs.90 or Rs.70 or Rs.50 respectively. And the cost of goods sold under the three situations will be Rs.54, Rs.42 and Rs.30 respectively. Thus it is clear that the 'cost' derives its relevance only from the 'sale' and not vice-versa. It is for this reason that revenue recognition always precedes the matching of cost. If revenue or sale is not defined, the 'cost' cannot be defined either.

FINANCIAL REPORTING

The end-users of financial statements need not necessarily be those with finance background. They might not be in a position to understand the complex technicalities of financial statements. People who do not have detailed understanding of financial accounting process and the related legal provisions are sure to fail to make any sense out of the vast plethora of information presented in the annual reports. One outcome of this dissatisfaction on the part of the end-users of the annual report has been the highlighted summarized versions of the Balance Sheet and Profit and Loss Account in non-technical language. Experts however feel that in this process of summarization, the true meaning and content of vital financial information may be diluted or lost. Because of lack of well laid out procedures, rules and regulations for financial reporting, experts felt that the accompanying graphs, pie charts etc., tend to overplay the accomplishment of the company for the year in respect of which the annual report is prepared and downplay things which have not gone on very well during that period. This has paved way for Financial Accounting Standard Board (FASB) (similar to Accounting Standard Board of the Institute of Chartered Accountants of India) to issue a series of statements on financial reporting concepts.

According to FASB, there are two main objectives of financial reporting:

1. Information about enterprise earnings and its components measured by accrual accounting provides a better indication of enterprise performance than information about current cash receipts and payments.
2. Financial reporting should also provide information about an enterprise's economic resources, obligations and owners' equity, liquidity or solvency and management's stewardship as well as management's explanations and interpretations of information provided.

FASB has issued several statements for improving the information provided in financial reporting. Taken individually each newly required disclosure provides some additional useful information to readers of financial statements. But again financial statements, footnotes, supplementary statements, etc. complicate the entire reporting process. Many users of financial statements argue that more summarized presentation may result in effective communication of financial information. Summary reporting is something less than the full text of current annual reports to shareholders but something more than the brief presentation of financial highlights and summary indicators that generally appear in the forepart of annual reports. However, one should clearly understand that summary report would not eliminate the statements to be included in the filing or annual report. The summary report would just serve as a primary information for the average or non-financial user of financial statements.

SUMMARY

- The primary function of financial accounting is to provide relevant financial information to users for making decisions and taking actions. The primary means of providing financial information to investors, creditors and other external users is through financial statements. In this chapter having learnt the steps involved in creating financial information, the various users of financial statements, form and content of financial statements and the various concepts underlying the measurement of elements constituting the financial statements, it is critical that the investors should be able to compare financial information among companies. In our next chapter we proceed to review the broad Principles and Standards employed in financial accounting to facilitate comparison.

Chapter II

Accounting Standards

After reading this chapter, you will be conversant with:

- Accounting Standards – International and Indian
- The Importance of Accounting Standards
- Auditor's Duties in Relation to Accounting Standards
- Accounting Standards Issued by the Accounting Standards Board of the ICAI
- US GAAP and differences between AS and US GAAP

ACCOUNTING STANDARDS

Accounting Bodies all over the world have tried to achieve some uniformity in the accounting policies by prescribing certain accounting standards in order to narrow the range of alternatives available to an organization in respect of collection and presentation of accounting information.

International Accounting Standards

Accounting Bodies throughout the world are striving to achieve a reasonable degree of uniformity in the accounting policies by prescribing certain accounting standards with respect to collection and presentation of accounting information. To formulate the accounting standards, they have established a committee called the International Accounting Standards Committee (IASC) in 1973. Accounting bodies of most of the countries, including the Institute of Chartered Accountants of India, are members of this body and these members have resolved to conform to the standards developed by IASC, subject to variations needed due to local conditions or laws.

The objectives of the committee according to its constitution are:

a. formulating, publishing and promoting the use of the accounting standards worldwide, and

b. to work for the improvement and harmonization of regulations, accounting standards and procedures relating to financial statements.

The International Accounting Standards have assumed great importance in recent times for the following reasons:

a. Globalization of the economy has led to Indian companies expanding their operations across the borders and this calls for uniformity in accounts of units located in different countries.

b. Foreign investors would give more weightage to the accounts of those companies which are based on International Accounting Standards.

If there is a conflict between the International Accounting Standards and the local standards or the local laws and regulations, the local standards, laws and regulations will prevail.

The list of accounting standards issued by the IASC is given below:

IAS 1	Presentation of Financial Statements
IAS 2	Inventories
IAS 7	Cash Flow Statements
IAS 8	Net Profit or Loss for the Period, Fundamental Errors and Changes in Accounting Policies
IAS 10	Events after the Balance Sheet Date
IAS 11	Construction Contracts
IAS 12	Income Taxes
IAS 14	Segment Reporting
IAS 15	Information Reflecting the Effects of Changing Prices
IAS 16	Property, Plant and Equipment
IAS 17	Leases
IAS 18	Revenue
IAS 19	Employee Benefits
IAS 20	Accounting for Government Grants and Disclosure of Government Assistance

IAS 21	The Effects of Changes in Foreign Exchange Rates
IAS 22	Business Combinations
IAS 23	Borrowing Costs
IAS 24	Related Party Disclosures
IAS 26	Accounting and Reporting by Retirement Benefit Plans
IAS 27	Consolidated Financial Statements
IAS 28	Investments in Associates
IAS 29	Financial Reporting in Hyperinflationary Economies
IAS 30	Disclosures in the Financial Statements of Banks and Similar Financial Institutions
IAS 31	Financial Reporting of Interests in Joint Ventures
IAS 32	Financial Instruments: Disclosure and Presentation
IAS 33	Earnings per Share
IAS 34	Interim Financial Reporting
IAS 35	Discontinuing Operations
IAS 36	Impairment of Assets
IAS 37	Provisions, Contingent Liabilities and Contingent Assets
IAS 38	Intangible Assets
IAS 39	Financial Instruments: Recognition and Measurement
IAS 40	Investment Property
IAS 41	Agriculture

Indian Accounting Standards

Recognizing the need to harmonize the diverse accounting policies and practices prevalent in India, The Institute of Chartered Accountants of India constituted an Accounting Standards Board (ASB) on 21st April, 1977. The main function of the ASB is to frame accounting standards which would be formally issued under the authority of the Council of the Institute of Chartered Accountants. While formulating the accounting standards, ASB will consider the applicable laws, customs, usages and business environment. Also, the accounting standards cannot and do not override the local regulations which govern the preparation and presentation of financial statements in our country. The standards are intended to apply only to items which are material. The date from which a particular standard will come to effect, as well as the class of enterprises to which it will apply, will also be specified by the Institute. Unless otherwise stated, no standard will have retrospective application. Normally, before formulating the standards, ASB will hold discussions with the representatives of the Government, Public Sector Undertakings, Industry and other organizations for ascertaining their views. An exposure draft of the proposed standard will be prepared and issued for comments by members of the Institute and the public at large. After considering the comments received, the draft of the proposed standard will be finalized by ASB and submitted to the Council which will study it, modify it if necessary and issue it under its own authority.

IMPORTANCE OF ACCOUNTING STANDARDS

The role of mandatory Accounting Standards in presenting clear-cut accounts on a uniform basis cannot be overemphasized. The standards represent the ideal practice of accounting and ensure comparability of accounts because of uniformity in their presentation. Hence, such accounts are bound to show the clear position of the state of affairs.

Recognition in Companies Act

Realizing the importance of the Accounting Standards, the Companies Amendment Act 2000, provides that a statement of all significant accounting policies adopted in the preparation of the Balance Sheet and P&L a/c shall be disclosed in the company's balance sheet and that where any of the accounting policies differ with the accounting standards and such departures are material, the particulars of the departure should be disclosed along with the reasons thereof and its financial effect. This in effect means that the company should maintain accounts based on policies in conformity with the standards, and any non-compliance with the standards in this respect has to be disclosed with the reasons thereof and its impact.

AUDITOR'S DUTIES IN RELATION TO ACCOUNTING STANDARDS

In case the company does not conform to any of the mandatory accounting standards, the auditor will have to qualify his report justifying his deviation. In case he fails to do so the ICAI can take disciplinary action against him on the ground of professional misconduct.

ACCOUNTING STANDARDS ISSUED BY ASB OF THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA

The Accounting Standards Board (ASB) of the Institute of Chartered Accountants of India, has in line with the International Standards, issued twenty nine standards to be followed by its members while auditing the accounts of companies. These standards are:

- (AS 1) Disclosure of Accounting Policies
- (AS 2) Valuation of Inventories
- (AS 3) Cash Flow Statements
- (AS 4) Contingencies and Events Occurring after the Balance Sheet Date
- (AS 5) Net Profit or Loss for the Period, Prior Period and Extraordinary Items and Changes in Accounting Policies
- (AS 6) Depreciation Accounting
- (AS 7) Construction Contracts (Revised Accounting Standard)
- (AS 8) Accounting for Research and Development
- (AS 9) Revenue Recognition
- (AS 10) Accounting for Fixed Assets
- (AS 11) (Revised 2003), The Effects of Changes in Foreign Exchange Rate
- (AS 12) Accounting for Government Grants
- (AS 13) Accounting for Investments
- (AS 14) Accounting for Amalgamations

- (AS 15) Accounting for Retirement Benefits in the Financial Statement of Employers
- (AS 16) Borrowing Costs
- (AS 17) Segment Reporting
- (AS 18) Related Party Disclosures
- (AS 19) Leases
- (AS 20) Earnings Per Share
- (AS 21) Consolidated Financial Statements
- (AS 22) Accounting for Taxes on Income
- (AS 23) Accounting for Investments in Associates in Consolidated Financial Statements
- (AS 24) Discontinuing Operations
- (AS 25) Interim Financial Reporting
- (AS 26) Intangible Assets
- (AS 27) Financial Reporting of Interests in Joint Ventures
- (AS 28) Impairment of Assets
- (AS 29) Provisions, Contingent Liabilities and Contingent Assets.

In addition to these standards, the Institute of Chartered Accountants of India has issued 'statements', 'guidance notes', 'opinions', Accounting Standard Interpretations (ASI), General Clarifications (GC), and Background material for seminars which seek to bring about uniformity in corporate accounting practices.

The Accounting Standards issued by ICAI are given below.

Accounting Standard – 1

DISCLOSURE OF ACCOUNTING POLICIES

The following is the text of the Accounting Standard (AS) 1 issued by the Accounting Standards Board, the Institute of Chartered Accountants of India on 'Disclosure of Accounting Policies'. The Standard deals with the disclosure of significant accounting policies followed in preparing and presenting financial statements.

In the initial years, this accounting standard will be recommendatory in character. During this period, this standard is recommended for use by companies listed on a recognized stock exchange and other large commercial, industrial and business enterprises in the public and private sectors.

Introduction

1. This statement deals with the disclosure of significant accounting policies followed in preparing and presenting financial statements.
2. The view presented in the financial statements of an enterprise of its state of affairs and of the profit or loss can be significantly affected by the accounting policies followed in the preparation and presentation of the financial statements. The accounting policies followed vary from enterprise to enterprise. Disclosure of significant accounting policies followed is necessary if the view presented is to be properly appreciated.

3. The disclosure of some of the accounting policies followed in the preparation and presentation of the financial statements is required by law in some cases.

4. The Institute of Chartered Accountants of India has, in Statements issued by it, recommended the disclosure of certain accounting policies, e.g., translation policies in respect of foreign currency items.

5. In recent years, a few enterprises in India have adopted the practice of including in their annual reports to shareholders a separate statement of accounting policies followed in preparing and presenting the financial statements.

6. In general, however, accounting policies are not at present regularly and fully disclosed in all financial statements. Many enterprises include in the Notes on the Accounts, descriptions of some of the significant accounting policies. But the nature and degree of disclosure vary considerably between the corporate and the non-corporate sectors and between units in the same sector.

7. Even among the few enterprises that presently include in their annual reports a separate statement of accounting policies, considerable variation exists. The statement of accounting policies forms part of accounts in some cases while in others it is given as supplementary information.

8. The purpose of this Statement is to promote better understanding of financial statements by establishing through an accounting standard the disclosure of significant accounting policies and the manner in which accounting policies are disclosed in the financial statements. Such disclosure would also facilitate a more meaningful comparison between financial statements of different enterprises.

Explanation

Fundamental Accounting Assumptions

9. Certain fundamental accounting assumptions underlie the preparation and presentation of financial statements. They are usually not specifically stated because their acceptance and use are assumed. Disclosure is necessary if they are not followed.

10. The following have been generally accepted as fundamental accounting assumptions:

    a. Going Concern

       The enterprise is normally viewed as a going concern, that is, as continuing in operation for the foreseeable future. It is assumed that the enterprise has neither the intention nor the necessity of liquidation or of curtailing materially the scale of the operations.

    b. Consistency

       It is assumed that accounting policies are consistent from one period to another.

    c. Accrual

       Revenues and costs are accrued, that is, recognized as they are earned or incurred (and not as money is received or paid) and recorded in the financial statements of the periods to which they relate. (The considerations affecting the process of matching costs with revenues under the accrual assumption are not dealt with in this Statement.)

Nature of Accounting Policies

11. The accounting policies refer to the specific accounting principles and the methods of applying those principles adopted by the enterprise in the preparation and presentation of financial statements.

12. There is no single list of accounting policies which are applicable to all circumstances. The differing circumstances in which enterprises operate in a situation of diverse and complex economic activity make alternative accounting principles and methods of applying those principles acceptable. The choice of the appropriate accounting principles and the methods of applying those principles in the specific circumstances of each enterprise calls for considerable judgement by the management of the enterprise.

13. The various statements of the Institute of Chartered Accountants of India combined with the efforts of government and other regulatory agencies and progressive managements have reduced in recent years the number of acceptable alternatives particularly in the case of corporate enterprises. While continuing efforts in this regard in future are likely to reduce the number still further, the availability of alternative accounting principles and methods of applying those principles is not likely to be eliminated altogether in view of the differing circumstances faced by the enterprises.

Areas in which Differing Accounting Policies are Encountered

14. The following are examples of the areas in which different accounting policies may be adopted by different enterprises.

    – Methods of depreciation, depletion and amortization
    – Treatment of expenditure during construction
    – Conversion or translation of foreign currency items
    – Valuation of inventories
    – Treatment of goodwill
    – Valuation of investments
    – Treatment of retirement benefits
    – Recognition of profit on long-term contracts
    – Valuation of fixed assets
    – Treatment of contingent liabilities.

15. The above list of examples is not intended to be exhaustive.

Considerations in the Selection of Accounting Policies

16. The primary consideration in the selection of accounting policies by an enterprise is that the financial statements prepared and presented on the basis of such accounting policies should represent a true and fair view of the state of affairs of the enterprise as at the balance sheet date and of the profit or loss for the period ended on that date.

17. For this purpose, the major considerations governing the selection and application of accounting policies are:

    a. Prudence

In view of the uncertainty attached to future events, profits are not anticipated but recognized only when realized though not necessarily in cash. Provision is made for all known liabilities and losses even though the amount cannot be determined with certainty and represents only a best estimate in the light of available information.

b. Substance over Form

The accounting treatment and presentation in financial statements of transactions and events should be governed by their substance and not merely by the legal form.

c. Materiality

Financial statements should disclose all "material" items, i.e. items the knowledge of which might influence the decisions of the user of the financial statements.

Disclosure of Accounting Policies

18. To ensure proper understanding of financial statements, it is necessary that all significant accounting policies adopted in the preparation and presentation of financial statements should be disclosed.

19. Such disclosure should form part of the financial statements.

20. It would be helpful to the reader of financial statements if they are all disclosed as such in one place instead of being scattered over several statements, schedules and notes.

21. Examples of matters in respect of which disclosure of accounting policies adopted will be required are contained in paragraph 14. This list of examples is not, however, intended to be exhaustive.

22. Any change in an accounting policy which has a material effect should be disclosed. The amount by which any item in the financial statements is affected by such change should also be disclosed to the extent ascertainable. Where such amount is not ascertainable, wholly or in part, the fact should be indicated. If a change is made in the accounting policies which has no material effect on the financial statements for the current period but which is reasonably expected to have a material effect in later periods, the fact of such change should be appropriately disclosed in the period in which the change is adopted.

23. Disclosure of accounting policies or of changes therein cannot remedy a wrong or inappropriate treatment of the item in the accounts.

Accounting Standard

(The Accounting Standard comprises paragraphs 24-27 of this Statement. The Standard should be read in the context of paragraphs 1-23 of this Statement and of the 'Preface to the Statements of Accounting Standards'.)

24. All significant accounting policies adopted in the preparation and presentation of financial statements should be disclosed.

25. The disclosure of the significant accounting policies as such should form part of the financial statements and the significant accounting policies should normally be disclosed in one place.

26. Any change in the accounting policies which has a material effect in the current period or which is reasonably expected to have a material effect in later periods should be disclosed. In the case of a change in accounting policies which has a material effect in the current period, the amount by which any item in the financial statements is affected by such change should also be disclosed to the extent ascertainable. Where such amount is not ascertainable, wholly or in part, the fact should be indicated.

27. If the fundamental accounting assumptions, viz. Going Concern, Consistency and Accrual are followed in financial statements, specific disclosure is not required. If a fundamental accounting assumption is not followed, the fact should be disclosed.

Accounting Standard – 4

CONTINGENCIES AND EVENTS OCCURRING AFTER THE BALANCE SHEET DATE

AS-4 deals with the treatment in financial statements of (a) contingencies and (b) events occurring after the balance sheet date. However, it does not cover certain contingencies such as liabilities of life assurance and general insurance enterprises arising from policies issued; obligations under retirement benefit plans; and commitments arising from long-term lease contracts in view of special considerations applicable to them.

Contingencies

Accounting Standard 4 defines a contingency as a condition or situation, the ultimate outcome of which, gain or loss, will be known or determined only on the occurrence, or non-occurrence, of one or more uncertain future events. The term "contingencies" used in this Statement is restricted to conditions or situations at the balance sheet date, the financial effect of which is to be determined by future events, which may or may not occur.

Estimates are required for determining the amounts to be stated in the financial statements for many on-going and recurring activities of an enterprise. One must, however, distinguish between an event, which is certain and one, which is uncertain. The fact that an estimate is involved does not, of itself, create the type of uncertainty, which characterizes a contingency. For example, the fact that estimates of useful life are used to determine depreciation does not make depreciation a contingency; the eventual expiry of the useful life of the asset is not uncertain. Also, amounts owed for services received are not contingencies as defined above, even though the amounts may have been estimated, as there is nothing uncertain about the fact that these obligations have been incurred.

The uncertainty relating to future events can be expressed by a range of outcomes. This range may be presented as quantified probabilities, but in most circumstances, this suggests a level of precision that is not supported by the available information. The possible outcomes can, therefore, usually be generally described except where reasonable quantification is practicable.

The estimates of the outcome and of the financial effect of contingencies are determined by the judgement of the management of the enterprise. This judgement is based on consideration of information available up to the date on which the financial statements are approved and will include a review of events occurring after the balance sheet date, supplemented by experience of similar transactions and, in some cases, reports from independent experts.

Accounting Treatment of Contingent Losses

The accounting treatment of a contingent loss is determined by the expected outcome of the contingency. If it is likely that a contingency will result in a loss to the enterprise, then it is prudent to provide for that loss in the financial statements.

The estimation of the amount of a contingent loss to be provided for in the financial statements may be based on information referred to in paragraph 4.4. If there is conflicting or insufficient evidence for estimating the amount of a contingent loss, then disclosure is made of the existence and nature of the contingency.

A potential loss to an enterprise may be reduced or avoided because a contingent liability is matched by a related counter-claim or claim against a third party. In such cases, the amount of the provision is determined after taking into account the probable recovery under the claim if no significant uncertainty as to its measurability or collectability exists. Suitable disclosure regarding the nature and gross amount of the contingent liability is also made.

The existence and amount of guarantees, obligations arising from discounted bills of exchange and similar obligations undertaken by an enterprise are generally disclosed in financial statements by way of note, even though the possibility that a loss to the enterprise will occur is remote. Provisions for contingencies are not made in respect of general or unspecified business risks since they do not relate to conditions or situations existing at the balance sheet date.

Accounting Treatment of Contingent Gains

Contingent gains are not recognized in financial statements since their recognition may result in the recognition of revenue, which may never be realized. However, when the realization of a gain is virtually certain, then such gain is not a contingency and accounting for the gain is appropriate.

Determination of the Amounts at which Contingencies are included in Financial Statements

The amount at which a contingency is stated in the financial statements is based on the information, which is available at the date on which the financial statements are approved. Events occurring after the balance sheet date that indicate that an asset may have been impaired, or that a liability may have existed, at the balance sheet date are, therefore, taken into account in identifying contingencies and in determining the amounts at which such contingencies are included in financial statements.

In some cases, each contingency can be separately identified, and the special circumstances of each situation considered in the determination of the amount of the contingency. A substantial legal claim against the enterprise may represent such a contingency. Among the factors taken into account by management in evaluating such a contingency are the progress of the claim at the date on which the financial statements are approved, the opinions, wherever necessary, of legal experts or other advisers, the experience of the enterprise in similar cases and the experience of other enterprises in similar situations.

If the uncertainties, which created a contingency in respect of an individual transaction, are common to a large number of similar transactions, then the amount of the contingency need not be individually determined, but may be based on the group of similar transactions. An example of such contingencies may be the estimated uncollectable portion of accounts receivable. Another example of such contingencies may be the warranties for products sold. These costs are usually incurred frequently and experience provides a means by which the amount of the liability or loss can be estimated with reasonable precision although the particular transactions that may result in a liability or a loss are not identified. Provision for these costs results in their recognition in the same accounting period in which the related transactions took place.

Disclosure

The disclosure requirements herein referred to apply only in respect of those contingencies or events, which affect the financial position to a material extent. If a contingent loss is not provided for, its nature and an estimate of its financial effect are generally disclosed by way of note unless the possibility of a loss is remote (other than the circumstances when the existence and amount of guarantees, obligations arising from discounted bills of exchange and similar obligations undertaken by an enterprise are generally disclosed in financial statements by way of note, even though the possibility that a loss to the enterprise will occur is remote). If a reliable estimate of the financial effect cannot be made, this fact is disclosed.

Events Occurring after the Balance Sheet Date

According to AS-4, Events occurring after the balance sheet date are those significant events, both favorable and unfavorable, that occur between the balance sheet date and the date on which the financial statements are approved by the Board of Directors in the case of a company, and, by the corresponding approving authority in the case of any other entity.

Two types of events can be identified:

a. those which provide further evidence of conditions that existed at the balance sheet date; and

b. those which are indicative of conditions that arose subsequent to the balance sheet date.

Events which occur between the balance sheet date and the date on which the financial statements are approved, may indicate the need for adjustments to assets and liabilities as at the balance sheet date or may require disclosure.

Adjustments to assets and liabilities are required for events occurring after the balance sheet date that provide additional information materially affecting the determination of the amounts relating to conditions existing at the balance sheet date. For example, an adjustment may be made for a loss on a trade receivable account, which is confirmed by the insolvency of a customer, which occurs after the balance sheet date.

Adjustments to assets and liabilities are not appropriate for events occurring after the balance sheet date, if such events do not relate to conditions existing at the balance sheet date. An example is the decline in market value of investments between the balance sheet date and the date on which the financial statements are approved. Ordinary fluctuations in market values do not normally relate to the condition of the investments at the balance sheet date, but reflect circumstances, which have occurred in the following period.

Events occurring after the balance sheet date which do not affect the figures stated in the financial statements would not normally require disclosure in the financial statements although they may be of such significance that they may require a disclosure in the report of the approving authority to enable users of financial statements to make proper evaluations and decisions.

There are events, which, although they take place after the balance sheet date, are sometimes reflected, in the financial statements because of statutory requirements or because of their special nature. Such items include the amount of dividend proposed or declared by the enterprise after the balance sheet date in respect of the period covered by the financial statements.

Events occurring after the balance sheet date may indicate that the enterprise ceases to be a going concern. Deterioration in operating results and financial position, or unusual changes affecting the existence or substratum of the enterprise after the balance sheet date (e.g., destruction of a major production plant by a fire after the balance sheet date) may indicate a need to consider whether it is proper to use the fundamental accounting assumption of going concern in the preparation of the financial statements.

Disclosure

When the events occurring after the balance sheet date are disclosed in the report of the approving authority, the information given comprises the nature of the events and an estimate of their financial effects or a statement that such an estimate cannot be made.

Accounting Standard – 5

NET PROFIT OR LOSS FOR THE PERIOD, PRIOR PERIOD ITEMS AND CHANGES IN ACCOUNTING POLICIES

The following is the text of the revised Accounting Standard (AS) 5, 'Net Profit or Loss for the Period, Prior Period Items and Changes in Accounting Policies', issued by the Council of the Institute of Chartered Accountants of India.

This revised standard comes into effect in respect of accounting periods commencing on or after 1.4.1996 and is mandatory in nature. It is clarified that in respect of accounting periods commencing on a date prior to 1.4.1996, Accounting Standard 5 as originally issued in November, 1982 (and subsequently made mandatory) will apply.

Objective

The objective of this Statement is to prescribe the classification and disclosure of certain items in the statement of profit and loss so that all enterprises prepare and present such a statement on a uniform basis. This enhances the comparability of the financial statements of an enterprise over time and with the financial statements of other enterprises. Accordingly, this Statement requires the classification and disclosure of extraordinary and prior period items, and the disclosure of certain items within profit or loss from ordinary activities. It also specifies the accounting treatment for changes in accounting estimates and the disclosures to be made in the financial statements regarding changes in accounting policies.

Scope

1. This Statement should be applied by an enterprise in presenting profit or loss from ordinary activities, extraordinary items and prior period items in the statement of profit and loss, in accounting for changes in accounting estimates, and in disclosure of changes in accounting policies.

2. This Statement deals with, among other matters, the disclosure of certain items of net profit or loss for the period. These disclosures are made in addition to any other disclosures required by other Accounting Standards.

3. This Statement does not deal with the tax implications of extraordinary items, prior period items, changes in accounting estimates, and changes in accounting policies for which appropriate adjustments will have to be made depending on the circumstances.

Definitions

4. The following terms are used in this Statement with the meanings specified:

   Ordinary activities are any activities which are undertaken by an enterprise as part of its business and such related activities in which the enterprise engages in furtherance of, incidental to, or arising from, these activities.

   Extraordinary items are income or expenses that arise from events or transactions that are clearly distinct from the ordinary activities of the enterprise and, therefore, are not expected to recur frequently or regularly.

   Prior period items are income or expenses which arise in the current period as a result of errors or omissions in the preparation of the financial statements of one or more prior periods.

   Accounting policies are the specific accounting principles and the methods of applying those principles adopted by an enterprise in the preparation and presentation of financial statements.

Net Profit or Loss for the Period

5. All items of income and expense which are recognized in a period should be included in the determination of net profit or loss for the period unless an Accounting Standard requires or permits otherwise.
6. Normally, all items of income and expense which are recognized in a period are included in the determination of the net profit or loss for the period. This includes extraordinary items and the effects of changes in accounting estimates.
7. The net profit or loss for the period comprises the following components, each of which should be disclosed on the face of the statement of profit and loss:
   a. profit or loss from ordinary activities; and
   b. extraordinary items.

Extraordinary Items

8. Extraordinary items should be disclosed in the statement of profit and loss as a part of net profit or loss for the period. The nature and the amount of each extraordinary item should be separately disclosed in the statement of profit and loss in a manner that its impact on current profit or loss can be perceived.
9. Virtually all items of income and expense included in the determination of net profit or loss for the period arise in the course of the ordinary activities of the enterprise. Therefore, only on rare occasions does an event or transaction give rise to an extraordinary item.
10. Whether an event or transaction is clearly distinct from the ordinary activities of the enterprise is determined by the nature of the event or transaction in relation to the business ordinarily carried on by the enterprise rather than by the frequency with which such events are expected to occur. Therefore, an event or transaction may be extraordinary for one enterprise but not so for another enterprise because of the differences between their respective ordinary activities. For example, losses sustained as a result of an earthquake may qualify as an extraordinary item for many enterprises. However, claims from policyholders arising from an earthquake do not qualify as an extraordinary item for an insurance enterprise that insures against such risks.
11. Examples of events or transactions that generally give rise to extraordinary items for most enterprises are:
    – attachment of property of the enterprise; or
    – an earthquake.

Profit or Loss from Ordinary Activities

12. When items of income and expense within profit or loss from ordinary activities are of such size, nature or incidence that their disclosure is relevant to explain the performance of the enterprise for the period, the nature and amount of such items should be disclosed separately.

13. Although the items of income and expense described in paragraph 12 are not extraordinary items, the nature and amount of such items may be relevant to users of financial statements in understanding the financial position and performance of an enterprise and in making projections about financial position and performance. Disclosure of such information is sometimes made in the notes to the financial statements.

14. Circumstances which may give rise to the separate disclosure of items of income and expense in accordance with paragraph 12 include:

    a. the write-down of inventories to net realizable value as well as the reversal of such write-downs;

    b. a restructuring of the activities of an enterprise and the reversal of any provisions for the costs of restructuring;

    c. disposals of items of fixed assets;

    d. disposals of long-term investments;

    e. legislative changes having retrospective application;

    f. litigation settlements; and

    g. other reversals of provisions.

Prior Period Items

15. The nature and amount of prior period items should be separately disclosed in the statement of profit and loss in a manner that their impact on the current profit or loss can be perceived.

16. The term 'prior period items', as defined in this Statement, refers only to income or expenses which arise in the current period as a result of errors or omissions in the preparation of the financial statements of one or more prior periods. The term does not include other adjustments necessitated by circumstances, which though related to prior periods, are determined in the current period, e.g., arrears payable to workers as a result of revision of wages with retrospective effect during the current period.

17. Errors in the preparation of the financial statements of one or more prior periods may be discovered in the current period. Errors may occur as a result of mathematical mistakes, mistakes in applying accounting policies, misinterpretation of facts, or oversight.

18. Prior period items are generally infrequent in nature and can be distinguished from changes in accounting estimates. Accounting estimates by their nature are approximations that may need revision as additional information becomes known. For example, income or expense recognized on the outcome of a contingency which previously could not be estimated reliably does not constitute a prior period item.

19. Prior period items are normally included in the determination of net profit or loss for the current period. An alternative approach is to show such items in the statement of profit and loss after determination of current net profit or loss. In either case, the objective is to indicate the effect of such items on the current profit or loss.

Changes in Accounting Estimates

20. As a result of the uncertainties inherent in business activities, many financial statement items cannot be measured with precision but can only be estimated. The estimation process involves judgments based on the latest information available. Estimates may be required, for example, of bad debts, inventory obsolescence or the useful lives of depreciable assets. The use of reasonable estimates is an essential part of the preparation of financial statements and does not undermine their reliability.

21. An estimate may have to be revised if changes occur regarding the circumstances on which the estimate was based, or as a result of new information, more experience or subsequent developments. The revision of the estimate, by its nature, does not bring the adjustment within the definitions of an extraordinary item or a prior period item.

22. Sometimes, it is difficult to distinguish between a change in an accounting policy and a change in an accounting estimate. In such cases, the change is treated as a change in an accounting estimate, with appropriate disclosure.

23. The effect of a change in an accounting estimate should be included in the determination of net profit or loss in:

    a. the period of the change, if the change affects the period only; or

    b. the period of the change and future periods, if the change affects both.

24. A change in an accounting estimate may affect the current period only or both the current period and future periods. For example, a change in the estimate of the amount of bad debts is recognized immediately and therefore affects only the current period. However, a change in the estimated useful life of a depreciable asset affects the depreciation in the current period and in each period during the remaining useful life of the asset. In both cases, the effect of the change relating to the current period is recognized as income or expense in the current period. The effect, if any, on future periods, is recognized in future periods.

25. The effect of a change in an accounting estimate should be classified using the same classification in the statement of profit and loss as was used previously for the estimate.

26. To ensure the comparability of financial statements of different periods, the effect of a change in an accounting estimate which was previously included in the profit or loss from ordinary activities is included in that component of net profit or loss. The effect of a change in an accounting estimate that was previously included as an extraordinary item is reported as an extraordinary item.

27. The nature and amount of a change in an accounting estimate which has a material effect in the current period, or which is expected to have a material effect in subsequent periods, should be disclosed. If it is impracticable to quantify the amount, this fact should be disclosed.

Changes in Accounting Policies

28. Users need to be able to compare the financial statements of an enterprise over a period of time in order to identify trends in its financial position, performance and cash flows. Therefore, the same accounting policies are normally adopted for similar events or transactions in each period.

29. A change in an accounting policy should be made only if the adoption of a different accounting policy is required by statute or for compliance with an accounting standard or if it is considered that the change would result in a more appropriate presentation of the financial statements of the enterprise.

30. A more appropriate presentation of events or transactions in the financial statements occurs when the new accounting policy results in more relevant or reliable information about the financial position, performance or cash flows of the enterprise.

31. The following are not changes in accounting policies:

    a. the adoption of an accounting policy for events or transactions that differ in substance from previously occurring events or transactions, e.g., introduction of a formal retirement gratuity scheme by an employer in place of ad hoc ex-gratia payments to employees on retirement; and

    b. the adoption of a new accounting policy for events or transactions which did not occur previously or that were immaterial.

32. Any change in an accounting policy which has a material effect should be disclosed. The impact of, and the adjustments resulting from, such change, if material, should be shown in the financial statements of the period in which such change is made, to reflect the effect of such change. Where the effect of such change is not ascertainable, wholly or in part, the fact should be indicated. If a change is made in the accounting policies which has no material effect on the financial statements for the current period but which is reasonably expected to have a material effect in later periods, the fact of such change should be appropriately disclosed in the period in which the change is adopted.

Note: The Council of the Institute of Chartered Accountants of India has made a limited revision of this standard and decided to add the following paragraph after paragraph 32 of AS 5:

33. A change in accounting policy consequent upon the adoption of an Accounting Standard should be accounted for in accordance with the specific transitional provisions, if any, contained in that Accounting Standard. However, disclosures required by paragraph 32 of this Statement should be made unless the transitional provisions of any other Accounting Standard require alternative disclosures in this regard.

The above revision comes into effect in respect of accounting periods commencing on or after 1.4.2001.

Accounting Standard – 7

ACCOUNTING FOR CONSTRUCTION CONTRACTS

Accounting Standard (AS) 7, Construction Contracts (revised), issued by the Council of the Institute of Chartered Accountants of India, comes into effect in respect of all contracts entered into during accounting periods commencing on or after 1-4-2003 and is mandatory in nature[2] from that date. Accordingly, Accounting Standard (AS) 7, 'Accounting for Construction Contracts', issued by the Institute in December 1983, is not applicable in respect of such contracts. Early application of this Standard is, however, encouraged.

The following is the text of the revised Accounting Standard.

Objective

The objective of this Statement is to prescribe the accounting treatment of revenue and costs associated with construction contracts. Because of the nature of the activity undertaken in construction contracts, the date at which the contract activity is entered into and the date when the activity is completed usually fall into different accounting periods. Therefore, the primary issue in accounting for construction contracts is the allocation of contract revenue and contract costs to the accounting periods in which construction work is performed. This Statement uses the recognition criteria established in the Framework for the Preparation and Presentation of Financial Statements to determine when contract revenue and contract costs should be recognised as revenue and expenses in the statement of profit and loss. It also provides practical guidance on the application of these criteria.

Scope

1. This Statement should be applied in accounting for construction contracts in the financial statements of contractors.

Definitions

2. The following terms are used in this Statement with the meanings specified:

   A construction contract is a contract specifically negotiated for the construction of an asset or a combination of assets that are closely interrelated or interdependent in terms of their design, technology and function or their ultimate purpose or use.

   A fixed price contract is a construction contract in which the contractor agrees to a fixed contract price, or a fixed rate per unit of output, which in some cases is subject to cost escalation clauses.

   A cost plus contract is a construction contract in which the contractor is reimbursed for allowable or otherwise defined costs, plus percentage of these costs or a fixed fee.

3. A construction contract may be negotiated for the construction of a single asset such as a bridge, building, dam, pipeline, road, ship or tunnel. A construction contract may also deal with the construction of a number of assets which are closely interrelated or interdependent in terms of their design, technology and function or their ultimate purpose or use; examples of such contracts include those for the construction of refineries and other complex pieces of plant or equipment.

4. For the purposes of this Statement, construction contracts include:

   a. contracts for the rendering of services which are directly related to the construction of the asset, for example, those for the services of project managers and architects; and

   b. contracts for destruction or restoration of assets, and the restoration of the environment following the demolition of assets.

5. Construction contracts are formulated in a number of ways which, for the purposes of this Statement, are classified as fixed price contracts and cost plus contracts. Some construction contracts may contain characteristics of both a fixed price contract and a cost plus contract, for example, in the case of a cost plus contract with an agreed maximum price. In such circumstances, a contractor needs to consider all the conditions in paragraphs 22 and 23 in order to determine when to recognise contract revenue and expenses.

Combining and Segmenting Construction Contracts

6. The requirements of this Statement are usually applied separately to each construction contract. However, in certain circumstances, it is necessary to apply the Statement to the separately identifiable components of a single contract or to a group of contracts together in order to reflect the substance of a contract or a group of contracts.

7. When a contract covers a number of assets, the construction of each asset should be treated as a separate construction contract when:

   a. separate proposals have been submitted for each asset;

   b. each asset has been subject to separate negotiation and the contractor and customer have been able to accept or reject that part of the contract relating to each asset; and

   c. the costs and revenues of each asset can be identified.

8. A group of contracts, whether with a single customer or with several customers, should be treated as a single construction contract when:

   a. the group of contracts is negotiated as a single package;

   b. the contracts are so closely interrelated that they are, in effect, part of a single project with an overall profit margin; and

   c. the contracts are performed concurrently or in a continuous sequence.

9. A contract may provide for the construction of an additional asset at the option of the customer or may be amended to include the construction of an additional asset. The construction of the additional asset should be treated as a separate construction contract when:

   a. the asset differs significantly in design, technology or function from the asset or assets covered by the original contract; or

   b. the price of the asset is negotiated without regard to the original contract price.

Contract Revenue

10. Contract revenue should comprise:

    a. the initial amount of revenue agreed in the contract; and

    b. variations in contract work, claims and incentive payments:

       i. to the extent that it is probable that they will result in revenue; and

       ii. they are capable of being reliably measured.

11. Contract revenue is measured at the consideration received or receivable. The measurement of contract revenue is affected by a variety of uncertainties that depend on the outcome of future events. The estimates often need to be revised as events occur and uncertainties are resolved. Therefore, the amount of contract revenue may increase or decrease from one period to the next. For example:

    a. a contractor and a customer may agree to variations or claims that increase or decrease contract revenue in a period subsequent to that in which the contract was initially agreed;

b. the amount of revenue agreed in a fixed price contract may increase as a result of cost escalation clauses;

c. the amount of contract revenue may decrease as a result of penalties arising from delays caused by the contractor in the completion of the contract; or

d. when a fixed price contract involves a fixed price per unit of output, contract revenue increases as the number of units is increased.

12. A variation is an instruction by the customer for a change in the scope of the work to be performed under the contract. A variation may lead to an increase or a decrease in contract revenue. Examples of variations are changes in the specifications or design of the asset and changes in the duration of the contract. A variation is included in contract revenue when:

    a. it is probable that the customer will approve the variation and the amount of revenue arising from the variation; and

    b. the amount of revenue can be reliably measured.

13. A claim is an amount that the contractor seeks to collect from the customer or another party as reimbursement for costs not included in the contract price. A claim may arise from, for example, customer caused delays, errors in specifications or design, and disputed variations in contract work. The measurement of the amounts of revenue arising from claims is subject to a high level of uncertainty and often depends on the outcome of negotiations. Therefore, claims are only included in contract revenue when:

    a. negotiations have reached an advanced stage such that it is probable that the customer will accept the claim; and

    b. the amount that it is probable will be accepted by the customer can be measured reliably.

14. Incentive payments are additional amounts payable to the contractor if specified performance standards are met or exceeded. For example, a contract may allow for an incentive payment to the contractor for early completion of the contract. Incentive payments are included in contract revenue when:

    a. the contract is sufficiently advanced that it is probable that the specified performance standards will be met or exceeded; and

    b. the amount of the incentive payment can be measured reliably.

Contract Costs

15. Contract costs should comprise:

    a. costs that relate directly to the specific contract;

    b. costs that are attributable to contract activity in general and can be allocated to the contract; and

    c. such other costs as are specifically chargeable to the customer under the terms of the contract.

16. Costs that relate directly to a specific contract include:

    a. site labor costs, including site supervision;

    b. costs of materials used in construction;

c. depreciation of plant and equipment used on the contract;

d. costs of moving plant, equipment and materials to and from the contract site;

e. costs of hiring plant and equipment;

f. costs of design and technical assistance that is directly related to the contract;

g. the estimated costs of rectification and guarantee work, including expected warranty costs; and

h. claims from third parties.

These costs may be reduced by any incidental income that is not included in contract revenue, for example, income from the sale of surplus materials and the disposal of plant and equipment at the end of the contract.

17. Costs that may be attributable to contract activity in general and can be allocated to specific contracts include:

a. insurance;

b. costs of design and technical assistance that is not directly related to a specific contract; and

c. construction overheads.

Such costs are allocated using methods that are systematic and rational and are applied consistently to all costs having similar characteristics. The allocation is based on the normal level of construction activity. Construction overheads include costs such as the preparation and processing of construction personnel payroll. Costs that may be attributable to contract activity in general and can be allocated to specific contracts also include borrowing costs as per Accounting Standard (AS) 16, Borrowing Costs.

18. Costs that are specifically chargeable to the customer under the terms of the contract may include some general administration costs and development costs for which reimbursement is specified in the terms of the contract.

19. Costs that cannot be attributed to contract activity or cannot be allocated to a contract are excluded from the costs of a construction contract. Such costs include:

a. general administration costs for which reimbursement is not specified in the contract;

b. selling costs;

c. research and development costs for which reimbursement is not specified in the contract; and

d. depreciation of idle plant and equipment that is not used on a particular contract.

20. Contract costs include the costs attributable to a contract for the period from the date of securing the contract to the final completion of the contract. However, costs that relate directly to a contract and which are incurred in securing the contract are also included as part of the contract costs if they can be separately identified and measured reliably and it is probable that the contract will be obtained. When costs incurred in securing a contract are recognised as an expense in the period in which they are incurred, they are not included in contract costs when the contract is obtained in a subsequent period.

Recognition of Contract Revenue and Expenses

21. When the outcome of a construction contract can be estimated reliably, contract revenue and contract costs associated with the construction contract should be recognised as revenue and expenses respectively by reference to the stage of completion of the contract activity at the reporting date. An expected loss on the construction contract should be recognised as an expense immediately in accordance with paragraph 35.

22. In the case of a fixed price contract, the outcome of a construction contract can be estimated reliably when all the following conditions are satisfied:

    a. total contract revenue can be measured reliably;

    b. it is probable that the economic benefits associated with the contract will flow to the enterprise;

    c. both the contract costs to complete the contract and the stage of contract completion at the reporting date can be measured reliably; and

    d. the contract costs attributable to the contract can be clearly identified and measured reliably so that actual contract costs incurred can be compared with prior estimates.

23. In the case of a cost plus contract, the outcome of a construction contract can be estimated reliably when all the following conditions are satisfied:

    a. it is probable that the economic benefits associated with the contract will flow to the enterprise; and

    b. the contract costs attributable to the contract, whether or not specifically reimbursable, can be clearly identified and measured reliably.

24. The recognition of revenue and expenses by reference to the stage of completion of a contract is often referred to as the percentage of completion method. Under this method, contract revenue is matched with the contract costs incurred in reaching the stage of completion, resulting in the reporting of revenue, expenses and profit which can be attributed to the proportion of work completed. This method provides useful information on the extent of contract activity and performance during a period.

25. Under the percentage of completion method, contract revenue is recognised as revenue in the statement of profit and loss in the accounting periods in which the work is performed. Contract costs are usually recognised as an expense in the statement of profit and loss in the accounting periods in which the work to which they relate is performed. However, any expected excess of total contract costs over total contract revenue for the contract is recognised as an expense immediately in accordance with paragraph 35.

26. A contractor may have incurred contract costs that relate to future activity on the contract. Such contract costs are recognised as an asset provided it is probable that they will be recovered. Such costs represent an amount due from the customer and are often classified as contract work in progress.

27. When an uncertainty arises about the collectability of an amount already included in contract revenue, and already recognised in the statement of profit and loss, the uncollectable amount or the amount in respect of which recovery has ceased to be probable is recognised as an expense rather than as an adjustment of the amount of contract revenue.

28. An enterprise is generally able to make reliable estimates after it has agreed to a contract which establishes:

    a. each party's enforceable rights regarding the asset to be constructed;

    b. the consideration to be exchanged; and

    c. the manner and terms of settlement.

    It is also usually necessary for the enterprise to have an effective internal financial budgeting and reporting system. The enterprise reviews and, when necessary, revises the estimates of contract revenue and contract costs as the contract progresses. The need for such revisions does not necessarily indicate that the outcome of the contract cannot be estimated reliably.

29. The stage of completion of a contract may be determined in a variety of ways. The enterprise uses the method that measures reliably the work performed. Depending on the nature of the contract, the methods may include:

    a. the proportion that contract costs incurred for work performed up to the reporting date bear to the estimated total contract costs; or

    b. surveys of work performed; or

    c. completion of a physical proportion of the contract work.

    Progress payments and advances received from customers may not necessarily reflect the work performed.

30. When the stage of completion is determined by reference to the contract costs incurred up to the reporting date, only those contract costs that reflect work performed are included in costs incurred up to the reporting date. Examples of contract costs which are excluded are:

    a. contract costs that relate to future activity on the contract, such as costs of materials that have been delivered to a contract site or set aside for use in a cointract but not yet installed, used or applied during contract performance, unless the materials have been made specially for the contract; and

    b. payments made to subcontractors in advance of work performed under the subcontract.

31. When the outcome of a construction contract cannot be estimated reliably:

    a. revenue should be recognised only to the extent of contract costs incurred of which recovery is probable; and

    b. contract costs should be recognised as an expense in the period in which they are incurred.

    An expected loss on the construction contract should be recognised as an expense immediately in accordance with paragraph 35.

32. During the early stages of a contract it is often the case that the outcome of the contract cannot be estimated reliably. Nevertheless, it may be probable that the enterprise will recover the contract costs incurred. Therefore, contract revenue is recognised only to the extent of costs incurred that are expected to be recovered. As the outcome of the contract cannot be estimated reliably, no profit is recognised. However, even though the outcome of the contract cannot be estimated reliably, it may be probable that total contract costs will exceed total contract revenue. In such cases, any expected excess of total contract costs over total contract revenue for the contract is recognised as an expense immediately in accordance with paragraph 35.

33. Contract costs recovery of which is not probable are recognised as an expense immediately. Examples of circumstances in which the recoverability of contract costs incurred may not be probable and in which contract costs may, therefore, need to be recognised as an expense immediately include contracts:

    a. which are not fully enforceable, that is, their validity is seriously in question;

    b. the completion of which is subject to the outcome of pending litigation or legislation;

    c. relating to properties that are likely to be condemned or expropriated;

    d. where the customer is unable to meet its obligations; or

    e. where the contractor is unable to complete the contract or otherwise meet its obligations under the contract.

34. When the uncertainties that prevented the outcome of the contract being estimated reliably no longer exist, revenue and expenses associated with the construction contract should be recognised in accordance with paragraph 21 rather than in accordance with paragraph 31.

Recognition of Expected Losses

35. When it is probable that total contract costs will exceed total contract revenue, the expected loss should be recognised as an expense immediately.

36. The amount of such a loss is determined irrespective of:

    a. whether or not work has commenced on the contract;

    b. the stage of completion of contract activity; or

    c. the amount of profits expected to arise on other contracts which are not treated as a single construction contract in accordance with paragraph 8.

Changes in Estimates

37. The percentage of completion method is applied on a cumulative basis in each accounting period to the current estimates of contract revenue and contract costs. Therefore, the effect of a change in the estimate of contract revenue or contract costs, or the effect of a change in the estimate of the outcome of a contract, is accounted for as a change in accounting estimate (see Accounting Standard (AS) 5, Net Profit or Loss for the Period, Prior Period Items and Changes in Accounting Policies). The changed estimates are used in determination of the amount of revenue and expenses recognised in the statement of profit and loss in the period in which the change is made and in subsequent periods.

Disclosure

38. An enterprise should disclose:

    a. the amount of contract revenue recognised as revenue in the period;

    b. the methods used to determine the contract revenue recognised in the period; and

    c. the methods used to determine the stage of completion of contracts in progress.

39. An enterprise should disclose the following for contracts in progress at the reporting date:

    a. the aggregate amount of costs incurred and recognised profits (less recognised losses) up to the reporting date;

b. the amount of advances received; and

c. the amount of retentions.

40. Retentions are amounts of progress billings which are not paid until the satisfaction of conditions specified in the contract for the payment of such amounts or until defects have been rectified. Progress billings are amounts billed for work performed on a contract whether or not they have been paid by the customer. Advances are amounts received by the contractor before the related work is performed.

41. An enterprise should present:

a. the gross amount due from customers for contract work as an asset; and

b. the gross amount due to customers for contract work as a liability.

42. The gross amount due from customers for contract work is the net amount of:

a. costs incurred plus recognised profits; less

b. the sum of recognised losses and progress billings

for all contracts in progress for which costs incurred plus recognised profits (less recognised losses) exceeds progress billings.

43. The gross amount due to customers for contract work is the net amount of:

a. the sum of recognised losses and progress billings; less

b. costs incurred plus recognised profits

for all contracts in progress for which progress billings exceed costs incurred plus recognised profits (less recognised losses).

44. An enterprise discloses any contingencies in accordance with Accounting Standard (AS) 4, Contingencies and Events Occurring After the Balance Sheet Date. Contingencies may arise from such items as warranty costs, penalties or possible losses.

Appendix

The appendix is illustrative only and does not form part of the Accounting Standard. The purpose of the appendix is to illustrate the application of the Accounting Standard to assist in clarifying its meaning.

Disclosure of Accounting Policies

The following are examples of accounting policy disclosures:

Revenue from fixed price construction contracts is recognised on the percentage of completion method, measured by reference to the percentage of labor hours incurred up to the reporting date to estimated total labor hours for each contract.

Revenue from cost plus contracts is recognised by reference to the recoverable costs incurred during the period plus the fee earned, measured by the proportion that costs incurred up to the reporting date bear to the estimated total costs of the contract.

The Determination of Contract Revenue and Expenses

The following example illustrates one method of determining the stage of completion of a contract and the timing of the recognition of contract revenue and expenses (see paragraphs 21 to 34 of the Standard). (Amounts shown hereinbelow are in Rs.lakhs)

A construction contractor has a fixed price contract for Rs.9,000 to build a bridge. The initial amount of revenue agreed in the contract is Rs.9,000. The contractor's initial estimate of contract costs is Rs.8,000. It will take 3 years to build the bridge.

By the end of year 1, the contractor's estimate of contract costs has increased to Rs.8,050.

In year 2, the customer approves a variation resulting in an increase in contract revenue of Rs.200 and estimated additional contract costs of Rs.150. At the end of year 2, costs incurred include Rs.100 for standard materials stored at the site to be used in year 3 to complete the project.

The contractor determines the stage of completion of the contract by calculating the proportion that contract costs incurred for work performed up to the reporting date bear to the latest estimated total contract costs. A summary of the financial data during the construction period is as follows:

(amount in Rs. lakh)

	Year 1	Year 2	Year 3
Initial amount of revenue agreed in contract	9,000	9,000	9,000
Variation	–	200	200
Total contract revenue	9,000	9,200	9,200
Contract costs incurred up to the reporting date	2,093	6,168	8,200
Contract costs to complete	5,957	2,032	–
Total estimated contract costs	8,050	8,200	8,200
Estimated Profit	950	1,000	1,000
Stage of completion	26%	74%	100%

The stage of completion for year 2 (74%) is determined by excluding from contract costs incurred for work performed up to the reporting date, Rs.100 of standard materials stored at the site for use in year 3.

The amounts of revenue, expenses and profit recognised in the statement of profit and loss in the three years are as follows:

	Up to the Reporting Date	Recognised in Prior years	Recognised in Current Year
Year 1	–		–
Revenue (9,000x .26)	~~2,340~~		~~2,340~~
Expenses (8,050x .26)	2,093		2,093
Profit	247		247
Year 2			
Revenue (9,200x .74)	~~6,808~~	~~2,340~~	~~4,468~~
Expenses (8,200x .74)	~~6,068~~	~~2,093~~	~~3,975~~
Profit	740	247	493
Year 3			
Revenue (9,200x 1.00)	~~9,200~~	~~6,808~~	~~2,392~~
Expenses	~~8,200~~	~~6,068~~	~~2,132~~
Profit	1,000	740	260

Contract Disclosures

A contractor has reached the end of its first year of operations. All its contract costs incurred have been paid for in cash and all its progress billings and advances have been received in cash. Contract costs incurred for contracts B, C and E include the cost of materials that have been purchased for the contract but which have not been used in contract performance up to the reporting date. For contracts B, C and E, the customers have made advances to the contractor for work not yet performed.

The status of its five contracts in progress at the end of year 1 is as follows:

Contract (amount in Rs. lakh)

	A	B	C	D	E	Total
Contract Revenue recognised in accordance with paragraph 21	145	520	380	200	55	1,300
Contract Expenses recognised in accordance with paragraph 21	110	450	350	250	55	1,215
Expected Losses recognised in accordance with paragraph 35				40	30	70
Recognised profits less recognised losses	35	70	30	(90)	(30)	15
Contract Costs incurred in the period	110	510	450	250	100	1,420
Contract Costs incurred recognised as contract expenses in the period in accordance with paragraph 21	110	450	350	250	55	1,215
Contract Costs that relate to future activity recognised as an asset in accordance with paragraph 26	–	60	100	–	45	205
Contract Revenue (see above)	145	520	380	200	55	1,300
Progress Billings (paragraph 40)	100	520	380	180	55	1,235
Unbilled Contract Revenue	45	–	–	20	–	65
Advances (paragraph 40)	–	80	20	–	25	125

The amounts to be disclosed in accordance with the Standard are as follows:

Contract revenue recognised as revenue in the period (paragraph 38(a))	1,300
Contract costs incurred and recognised profits (less recognised losses) up to the reporting date (paragraph 39(a))	1,435
Advances received (paragraph 39(b))	125
Gross amount due from customers for contract work – presented as an asset in accordance with paragraph 41(a)	220
Gross amount due to customers for contract work – presented as a liability in accordance with paragraph 41(b)	(20)

The amounts to be disclosed in accordance with paragraphs 39(a), 41(a) and 41(b) are calculated as follows:

(amount in Rs. lakh)

	A	B	C	D	E	Total
Contract Costs incurred	110	510	450	250	100	1,420
Recognised profits less recognised losses	35	70	30	(90)	(30)	15
	145	580	480	160	70	1,435
Progress billings	100	520	380	180	55	1,235
Due from customers	45	60	100	–	15	220
Due to customers	–	–	–	(20)	–	(20)

The amount disclosed in accordance with paragraph 39(a) is the same as the amount for the current period because the disclosures relate to the first year of operation.

Accounting Standard – 11

The Effects of Changes in Foreign Exchange Rates

Accounting Standard (AS) 11, The Effects of Changes in Foreign Exchange Rates (revised 2003), issued by the Council of the Institute of Chartered Accountants of India, comes into effect in respect of accounting periods commencing on or after 1-4-2004 and is mandatory in nature[1] from that date. The revised Standard supersedes Accounting Standard (AS) 11, Accounting for the Effects of Changes in Foreign Exchange Rates (1994), except that in respect of accounting for transactions in foreign currencies entered into by the reporting enterprise itself or through its branches before the date this Standard comes into effect, AS 11 (1994) will continue to be applicable.

The following is the text of the revised Accounting Standard.

OBJECTIVE

An enterprise may carry on activities involving foreign exchange in two ways. It may have transactions in foreign currencies or it may have foreign operations. In order to include foreign currency transactions and foreign operations in the financial statements of an enterprise, transactions must be expressed in the enterprise's reporting currency and the financial statements of foreign operations must be translated into the enterprise's reporting currency.

The principal issues in accounting for foreign currency transactions and foreign operations are to decide which exchange rate to use and how to recognise in the financial statements the financial effect of changes in exchange rates.

SCOPE

1. This Statement should be applied:
    a. in accounting for transactions in foreign currencies; and
    b. in translating the financial statements of foreign operations.
2. This Statement also deals with accounting for foreign currency transactions in the nature of forward exchange contracts.
3. This Statement does not specify the currency in which an enterprise presents its financial statements. However, an enterprise normally uses the currency of the country in which it is domiciled. If it uses a different currency, this Statement requires disclosure of the reason for using that currency. This Statement also requires disclosure of the reason for any change in the reporting currency.
4. This Statement does not deal with the restatement of an enterprise's financial statements from its reporting currency into another currency for the convenience of users accustomed to that currency or for similar purposes.
5. This Statement does not deal with the presentation in a cash flow statement of cash flows arising from transactions in a foreign currency and the translation of cash flows of a foreign operation (see AS 3, Cash Flow Statements).

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1 Reference may be made to the section titled 'Announcements of the Council regarding status of various documents issued by the Institute of Chartered Accountants of India' appearing at the beginning of this Compendium for a detailed discussion on the implications of the mandatory status of an accounting standard.

6. This Statement does not deal with exchange differences arising from foreign currency borrowings to the extent that they are regarded as an adjustment to interest costs (see paragraph 4(e) of AS 16, Borrowing Costs).

DEFINITIONS

7. The following terms are used in this Statement with the meanings specified:

Average rate is the mean of the exchange rates in force during a period.

Closing rate is the exchange rate at the balance sheet date.

Exchange difference is the difference resulting from reporting the same number of units of a foreign currency in the reporting currency at different exchange rates.

Exchange rate is the ratio for exchange of two currencies.

Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

Foreign currency is a currency other than the reporting currency of an enterprise.

Foreign operation is a subsidiary[2], associate[3], joint venture[4] or branch of the reporting enterprise, the activities of which are based or conducted in a country other than the country of the reporting enterprise.

Forward exchange contract means an agreement to exchange different currencies at a forward rate.

Forward rate is the specified exchange rate for exchange of two currencies at a specified future date.

Integral foreign operation is a foreign operation, the activities of which are an integral part of those of the reporting enterprise.

Monetary items are money held and assets and liabilities to be received or paid in fixed or determinable amounts of money.

Net investment in a non-integral foreign operation is the reporting enterprise's share in the net assets of that operation.

Non-integral foreign operation is a foreign operation that is not an integral foreign operation.

Non-monetary items are assets and liabilities other than monetary items.

Reporting currency is the currency used in presenting the financial statements.

FOREIGN CURRENCY TRANSACTIONS

Initial Recognition

8. A foreign currency transaction is a transaction which is denominated in or requires settlement in a foreign currency, including transactions arising when an enterprise either:

   a. buys or sells goods or services whose price is denominated in a foreign currency;

   b. borrows or lends funds when the amounts payable or receivable are denominated in a foreign currency;

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2 As defined in AS 21, Consolidated Financial Statements.

3 As defined in AS 23, Accounting for Investments in Associates in Consolidated Financial Statements.

4 As defined in AS 27, Financial Reporting of Interests in Joint Ventures.

c. becomes a party to an unperformed forward exchange contract; or

d. otherwise acquires or disposes of assets, or incurs or settles liabilities, denominated in a foreign currency.

9. A foreign currency transaction should be recorded, on initial recognition in the reporting currency, by applying to the foreign currency amount the exchange rate between the reporting currency and the foreign currency at the date of the transaction.

10. For practical reasons, a rate that approximates the actual rate at the date of the transaction is often used, for example, an average rate for a week or a month might be used for all transactions in each foreign currency occurring during that period. However, if exchange rates fluctuate significantly, the use of the average rate for a period is unreliable.

Reporting at Subsequent Balance Sheet Dates

11. At each balance sheet date:

a. foreign currency monetary items should be reported using the closing rate. However, in certain circumstances, the closing rate may not reflect with reasonable accuracy the amount in reporting currency that is likely to be realised from, or required to disburse, a foreign currency monetary item at the balance sheet date, for example, where there are restrictions on remittances or where the closing rate is unrealistic and it is not possible to effect an exchange of currencies at that rate at the balance sheet date. In such circumstances, the relevant monetary item should be reported in the reporting currency at the amount which is likely to be realised from, or required to disburse, such item at the balance sheet date;

b. non-monetary items which are carried in terms of historical cost denominated in a foreign currency should be reported using the exchange rate at the date of the transaction; and

c. non-monetary items which are carried at fair value or other similar valuation denominated in a foreign currency should be reported using the exchange rates that existed when the values were determined.

12. Cash, receivables, and payables are examples of monetary items. Fixed assets, inventories, and investments in equity shares are examples of non-monetary items. The carrying amount of an item is determined in accordance with the relevant Accounting Standards. For example, certain assets may be measured at fair value or other similar valuation (e.g., net realisable value) or at historical cost. Whether the carrying amount is determined based on fair value or other similar valuation or at historical cost, the amounts so determined for foreign currency items are then reported in the reporting currency in accordance with this Statement. The contingent liability denominated in foreign currency at the balance sheet date is disclosed by using the closing rate.

Recognition of Exchange Differences

13. Exchange differences arising on the settlement of monetary items or on reporting an enterprise's monetary items at rates different from those at which they were initially recorded during the period, or reported in previous financial statements, should be recognised as income or as expenses in the

period in which they arise, with the exception of exchange differences dealt with in accordance with paragraph 15.

14. An exchange difference results when there is a change in the exchange rate between the transaction date and the date of settlement of any monetary items arising from a foreign currency transaction. When the transaction is settled within the same accounting period as that in which it occurred, all the exchange difference is recognised in that period. However, when the transaction is settled in a subsequent accounting period, the exchange difference recognised in each intervening period up to the period of settlement is determined by the change in exchange rates during that period.

Net Investment in a Non-integral Foreign Operation

15. **Exchange differences arising on a monetary item that, in substance, forms part of an enterprise's net investment in a non-integral foreign operation should be accumulated in a foreign currency translation reserve in the enterprise's financial statements until the disposal of the net investment, at which time they should be recognised as income or as expenses in accordance with paragraph 31.**

16. An enterprise may have a monetary item that is receivable from, or payable to, a non-integral foreign operation. An item for which settlement is neither planned nor likely to occur in the foreseeable future is, in substance, an extension to, or deduction from, the enterprise's net investment in that non-integral foreign operation. Such monetary items may include long-term receivables or loans but do not include trade receivables or trade payables.

FINANCIAL STATEMENTS OF FOREIGN OPERATIONS

Classification of Foreign Operations

17. The method used to translate the financial statements of a foreign operation depends on the way in which it is financed and operates in relation to the reporting enterprise. For this purpose, foreign operations are classified as either "integral foreign operations" or "non-integral foreign operations".

18. A foreign operation that is integral to the operations of the reporting enterprise carries on its business as if it were an extension of the reporting enterprise's operations. For example, such a foreign operation might only sell goods imported from the reporting enterprise and remit the proceeds to the reporting enterprise. In such cases, a change in the exchange rate between the reporting currency and the currency in the country of foreign operation has an almost immediate effect on the reporting enterprise's cash flow from operations. Therefore, the change in the exchange rate affects the individual monetary items held by the foreign operation rather than the reporting enterprise's net investment in that operation.

19. In contrast, a non-integral foreign operation accumulates cash and other monetary items, incurs expenses, generates income and perhaps arranges borrowings, all substantially in its local currency. It may also enter into transactions in foreign currencies, including transactions in the reporting currency. When there is a change in the exchange rate between the reporting currency and the local currency, there is little or no direct effect on the present and future cash flows from operations of either the non-integral foreign operation or the reporting enterprise. The change in the exchange rate

affects the reporting enterprise's net investment in the non-integral foreign operation rather than the individual monetary and non-monetary items held by the non-integral foreign operation.

20. The following are indications that a foreign operation is a non-integral foreign operation rather than an integral foreign operation:

    a. while the reporting enterprise may control the foreign operation, the activities of the foreign operation are carried out with a significant degree of autonomy from those of the reporting enterprise;

    b. transactions with the reporting enterprise are not a high proportion of the foreign operation's activities;

    c. the activities of the foreign operation are financed mainly from its own operations or local borrowings rather than from the reporting enterprise;

    d. costs of labour, material and other components of the foreign operation's products or services are primarily paid or settled in the local currency rather than in the reporting currency;

    e. the foreign operation's sales are mainly in currencies other than the reporting currency;

    f. cash flows of the reporting enterprise are insulated from the day-to-day activities of the foreign operation rather than being directly affected by the activities of the foreign operation;

    g. sales prices for the foreign operation's products are not primarily responsive on a short-term basis to changes in exchange rates but are determined more by local competition or local government regulation; and

    h. there is an active local sales market for the foreign operation's products, although there also might be significant amounts of exports.

The appropriate classification for each operation can, in principle, be established from factual information related to the indicators listed above. In some cases, the classification of a foreign operation as either a non-integral foreign operation or an integral foreign operation of the reporting enterprise may not be clear, and judgement is necessary to determine the appropriate classification.

Integral Foreign Operations

21. The financial statements of an integral foreign operation should be translated using the principles and procedures in paragraphs 8 to 16 as if the transactions of the foreign operation had been those of the reporting enterprise itself.

22. The individual items in the financial statements of the foreign operation are translated as if all its transactions had been entered into by the reporting enterprise itself. The cost and depreciation of tangible fixed assets is translated using the exchange rate at the date of purchase of the asset or, if the asset is carried at fair value or other similar valuation, using the rate that existed on the date of the valuation. The cost of inventories is translated at the exchange rates that existed when those costs were incurred. The recoverable amount or realisable value of an asset is translated using the exchange rate that existed when the recoverable amount or net realisable value was determined. For example, when the net realisable value of an item of inventory is determined in a foreign currency, that value is translated using the exchange rate at the date as at which the net realisable value is

determined. The rate used is therefore usually the closing rate. An adjustment may be required to reduce the carrying amount of an asset in the financial statements of the reporting enterprise to its recoverable amount or net realisable value even when no such adjustment is necessary in the financial statements of the foreign operation. Alternatively, an adjustment in the financial statements of the foreign operation may need to be reversed in the financial statements of the reporting enterprise.

23. For practical reasons, a rate that approximates the actual rate at the date of the transaction is often used, for example, an average rate for a week or a month might be used for all transactions in each foreign currency occurring during that period. However, if exchange rates fluctuate significantly, the use of the average rate for a period is unreliable.

Non-integral Foreign Operations

24. **In translating the financial statements of a non-integral foreign operation for incorporation in its financial statements, the reporting enterprise should use the following procedures:**

    a. **the assets and liabilities, both monetary and non-monetary, of the non-integral foreign operation should be translated at the closing rate;**

    b. **income and expense items of the non-integral foreign operation should be translated at exchange rates at the dates of the transactions; and**

    c. **all resulting exchange differences should be accumulated in a foreign currency translation reserve until the disposal of the net investment.**

25. For practical reasons, a rate that approximates the actual exchange rates, for example, an average rate for the period, is often used to translate income and expense items of a foreign operation.

26. The translation of the financial statements of a non-integral foreign operation results in the recognition of exchange differences arising from:

    a. translating income and expense items at the exchange rates at the dates of transactions and assets and liabilities at the closing rate;

    b. translating the opening net investment in the non-integral foreign operation at an exchange rate different from that at which it was previously reported; and

    c. other changes to equity in the non-integral foreign operation.

These exchange differences are not recognised as income or expenses for the period because the changes in the exchange rates have little or no direct effect on the present and future cash flows from operations of either the non-integral foreign operation or the reporting enterprise. When a non-integral foreign operation is consolidated but is not wholly owned, accumulated exchange differences arising from translation and attributable to minority interests are allocated to, and reported as part of, the minority interest in the consolidated balance sheet.

27. Any goodwill or capital reserve arising on the acquisition of a non-integral foreign operation is translated at the closing rate in accordance with paragraph 24.

28. A contingent liability disclosed in the financial statements of a non-integral foreign operation is translated at the closing rate for its disclosure in the financial statements of the reporting enterprise.

29. The incorporation of the financial statements of a non-integral foreign operation in those of the reporting enterprise follows normal consolidation procedures, such as the elimination of intra-group balances and intra-group transactions of a subsidiary (see AS 21, Consolidated Financial Statements, and AS 27, Financial Reporting of Interests in Joint Ventures). However, an exchange difference arising on an intra-group monetary item, whether short-term or long-term, cannot be eliminated against a corresponding amount arising on other intra-group balances because the monetary item represents a commitment to convert one currency into another and exposes the reporting enterprise to a gain or loss through currency fluctuations. Accordingly, in the consolidated financial statements of the reporting enterprise, such an exchange difference continues to be recognised as income or an expense or, if it arises from the circumstances described in paragraph 15, it is accumulated in a foreign currency translation reserve until the disposal of the net investment.

30. When the financial statements of a non-integral foreign operation are drawn up to a different reporting date from that of the reporting enterprise, the non-integral foreign operation often prepares, for purposes of incorporation in the financial statements of the reporting enterprise, statements as at the same date as the reporting enterprise. When it is impracticable to do this, AS 21, Consolidated Financial Statements, allows the use of financial statements drawn up to a different reporting date provided that the difference is no greater than six months and adjustments are made for the effects of any significant transactions or other events that occur between the different reporting dates. In such a case, the assets and liabilities of the non-integral foreign operation are translated at the exchange rate at the balance sheet date of the non-integral foreign operation and adjustments are made when appropriate for significant movements in exchange rates up to the balance sheet date of the reporting enterprises in accordance with AS 21. The same approach is used in applying the equity method to associates and in applying proportionate consolidation to joint ventures in accordance with AS 23, Accounting for Investments in Associates in Consolidated Financial Statements and AS 27, Financial Reporting of Interests in Joint Ventures.

Disposal of a Non-integral Foreign Operation

31. On the disposal of a non-integral foreign operation, the cumulative amount of the exchange differences which have been deferred and which relate to that operation should be recognised as income or as expenses in the same period in which the gain or loss on disposal is recognised.

32. An enterprise may dispose of its interest in a non-integral foreign operation through sale, liquidation, repayment of share capital, or abandonment of all, or part of, that operation. The payment of a dividend forms part of a disposal only when it constitutes a return of the investment. In the case of a partial disposal, only the proportionate share of the related accumulated exchange differences is included in the gain or loss. A write-down of the carrying amount of a non-integral foreign operation does not constitute a partial disposal. Accordingly, no part of the deferred foreign exchange gain or loss is recognised at the time of a write-down.

Change in the Classification of a Foreign Operation

33. When there is a change in the classification of a foreign operation, the translation procedures applicable to the revised classification should be applied from the date of the change in the classification.

34. The consistency principle requires that foreign operation once classified as integral or non-integral is continued to be so classified. However, a change in the way in which a foreign operation is financed and operates in relation to the reporting enterprise may lead to a change in the classification of that foreign operation. When a foreign operation that is integral to the operations of the reporting enterprise is reclassified as a non-integral foreign operation, exchange differences arising on the translation of non-monetary assets at the date of the reclassification are accumulated in a foreign currency translation reserve. When a non-integral foreign operation is reclassified as an integral foreign operation, the translated amounts for non-monetary items at the date of the change are treated as the historical cost for those items in the period of change and subsequent periods. Exchange differences which have been deferred are not recognised as income or expenses until the disposal of the operation.

ALL CHANGES IN FOREIGN EXCHANGE RATES

Tax Effects of Exchange Differences

35. Gains and losses on foreign currency transactions and exchange differences arising on the translation of the financial statements of foreign operations may have associated tax effects which are accounted for in accordance with AS 22, Accounting for Taxes on Income.

FORWARD EXCHANGE CONTRACTS

36. An enterprise may enter into a forward exchange contract or another financial instrument that is in substance a forward exchange contract, which is not intended for trading or speculation purposes, to establish the amount of the reporting currency required or available at the settlement date of a transaction. The premium or discount arising at the inception of such a forward exchange contract should be amortised as expense or income over the life of the contract. Exchange differences on such a contract should be recognised in the statement of profit and loss in the reporting period in which the exchange rates change. Any profit or loss arising on cancellation or renewal of such a forward exchange contract should be recognised as income or as expense for the period.

37. The risks associated with changes in exchange rates may be mitigated by entering into forward exchange contracts. Any premium or discount arising at the inception of a forward exchange contract is accounted for separately from the exchange differences on the forward exchange contract. The premium or discount that arises on entering into the contract is measured by the difference between the exchange rate at the date of the inception of the forward exchange contract and the forward rate specified in the contract. Exchange difference on a forward exchange contract is the difference between (a) the foreign currency amount of the contract translated at the exchange rate at the reporting date, or the settlement date where the transaction is settled during the reporting period, and (b) the same foreign currency amount translated at the latter of the date of inception of the forward exchange contract and the last reporting date.

38. A gain or loss on a forward exchange contract to which paragraph 36 does not apply should be computed by multiplying the foreign currency amount of the forward exchange contract by the difference between the forward rate

available at the reporting date for the remaining maturity of the contract and the contracted forward rate (or the forward rate last used to measure a gain or loss on that contract for an earlier period). The gain or loss so computed should be recognised in the statement of profit and loss for the period. The premium or discount on the forward exchange contract is not recognised separately.

39. In recording a forward exchange contract intended for trading or speculation purposes, the premium or discount on the contract is ignored and at each balance sheet date, the value of the contract is marked to its current market value and the gain or loss on the contract is recognised.

DISCLOSURE

40. An enterprise should disclose:

    a. the amount of exchange differences included in the net profit or loss for the period; and

    b. net exchange differences accumulated in foreign currency translation reserve as a separate component of shareholders' funds, and a reconciliation of the amount of such exchange differences at the beginning and end of the period.

41. When the reporting currency is different from the currency of the country in which the enterprise is domiciled, the reason for using a different currency should be disclosed. The reason for any change in the reporting currency should also be disclosed.

42. When there is a change in the classification of a significant foreign operation, an enterprise should disclose:

    a. the nature of the change in classification;

    b. the reason for the change;

    c. the impact of the change in classification on shareholders' funds; and

    d. the impact on net profit or loss for each prior period presented had the change in classification occurred at the beginning of the earliest period presented.

43. The effect on foreign currency monetary items or on the financial statements of a foreign operation of a change in exchange rates occurring after the balance sheet date is disclosed in accordance with AS 4, Contingencies and Events Occurring after the Balance Sheet Date.

44. Disclosure is also encouraged of an enterprise's foreign currency risk management policy.

TRANSITIONAL PROVISIONS

45. On the first time application of this Statement, if a foreign branch is classified as a non-integral foreign operation in accordance with the requirements of this Statement, the accounting treatment prescribed in paragraphs 33 and 34 of the Statement in respect of change in the classification of a foreign operation should be applied.

Appendix

Note: This Appendix is not a part of the Accounting Standard. The purpose of this appendix is only to bring out the major differences between Accounting Standard 11 (revised 2003) and corresponding International Accounting Standard (IAS) 21 (revised 1993).

COMPARISON WITH IAS 21, THE EFFECTS OF CHANGES IN FOREIGN EXCHANGE RATES (REVISED 1993)

Revised AS 11 (2003) differs from International Accounting Standard (IAS) 21, The Effects of Changes in Foreign Exchange Rates, in the following major respects in terms of scope, accounting treatment, and terminology.

1. **Scope**

   Inclusion of forward exchange contracts

   Revised AS 11 (2003) deals with forward exchange contracts both intended for hedging and for trading or speculation. IAS 21 does not deal with hedge accounting for foreign currency items other than the classification of exchange differences arising on a foreign currency liability accounted for as a hedge of a net investment in a foreign entity. It also does not deal with forward exchange contracts for trading or speculation. The aforesaid aspects are dealt with in IAS 39, Financial Instruments: Recognition and Measurement. Although, an Indian accounting standard corresponding to IAS 39 is under preparation, it has been decided to deal with accounting for forward exchange contracts in the revised AS 11 (2003), since the existing AS 11 deals with the same. Thus, accounting for forward exchange contracts would not remain unaddressed untill the issuance of the Indian accounting standard on financial instruments.

2. **Accounting treatment**

   Recognition of exchange differences resulting from severe currency devaluations

   IAS 21, as a benchmark treatment, requires, in general, that exchange differences on transactions be recognised as income or as expenses in the period in which they arise. IAS 21, however, also permits as an allowed alternative treatment, that exchange differences that arise from a severe devaluation or depreciation of a currency be included in the carrying amount of an asset, if certain conditions are satisfied. In line with the preference of the Council of the Institute of Chartered Accountants of India, to eliminate alternatives, where possible, revised AS 11 (2003) adopts the benchmark treatment as the only acceptable treatment.

3. **Terminology**

   Foreign operation

   The revised AS 11 (2003) uses the terms, *integral foreign operation* and *non-integral foreign operation* respectively for the expressions “foreign operations that are integral to the operations of the reporting enterprise” and “foreign entity” used in IAS 21. The intention is to communicate the meaning of these terms concisely. This change has no effect on the requirements in revised AS 11 (2003). Revised AS 11 (2003) provides additional implementation guidance by including two more indicators for the classification of a foreign operation as a non-integral foreign operation.

Accounting Standard – 12

ACCOUNTING FOR GOVERNMENT GRANTS

The following is the text of the Accounting Standard (AS) 12 issued by the Council of the Institute of Chartered Accountants of India on 'Accounting for Government Grants'.

The Standard comes into effect in respect of accounting periods commencing on or after 1.4.1992 and will be recommendatory in nature for an initial period of two years. Accordingly, the Guidance Note on 'Accounting for Capital Based Grants' issued by the Institute in 1981 shall stand withdrawn from this date. This Standard will become mandatory in respect of accounts for periods commencing on or after 1.4.1994.

Introduction

1. This Statement deals with accounting for government grants. Government grants are sometimes called by other names such as subsidies, cash incentives, duty drawbacks, etc.
2. This Statement does not deal with:
   i. The special problems arising in accounting for government grants in financial statements reflecting the effects of changing prices or in supplementary information of a similar nature;
   ii. Government assistance other than in the form of government grants;
   iii. Government participation in the ownership of the enterprise.

Definitions

3. The following terms are used in this Statement with the meanings specified:

3.1 Government refers to government, government agencies and similar bodies whether local, national or international.

3.2 Government grants are assistance by government in cash or kind to an enterprise for past or future compliance with certain conditions. They exclude those forms of government assistance which cannot reasonably have a value placed upon them and transactions with government which cannot be distinguished from the normal trading transactions of the enterprise.

Explanation

4. The receipt of government grants by an enterprise is significant for preparation of the financial statements for two reasons. Firstly, if a government grant has been received, an appropriate method of accounting therefor is necessary. Secondly, it is desirable to give an indication of the extent to which the enterprise has benefited from such grant during the reporting period. This facilitates comparison of an enterprise's financial statements with those of prior periods and with those of other enterprises.

Accounting Treatment of Government Grants

5. **Capital Approach versus Income Approach**

5.1 Two broad approaches may be followed for the accounting treatment of government grants: the 'capital approach', under which a grant is treated as part of shareholders' funds, and the 'income approach', under which a grant is taken to income over one or more periods.

5.2 Those in support of the 'capital approach' argue as follows:

   i. Many government grants are in the nature of promoters' contribution, i.e., they are given with reference to the total investment in an undertaking or by way of contribution towards its total capital outlay and no repayment is ordinarily expected in the case of such grants. These should, therefore, be credited directly to shareholders' funds.

ii. It is inappropriate to recognize government grants in the profit and loss statement, since they are not earned but represent an incentive provided by government without related costs.

5.3 Arguments in support of the 'income approach' are as follows:

i. Government grants are rarely gratuitous. The enterprise earns them through compliance with their conditions and meeting the envisaged obligations. They should therefore be taken to income and matched with the associated costs, which the grant is intended to compensate.

ii. As income tax and other taxes are charges against income, it is logical to deal also with government grants, which are an extension of fiscal policies, in the profit and loss statement.

iii. In case grants are credited to shareholders' funds, no correlation is done between the accounting treatment of the grant and the accounting treatment of the expenditure to which the grant relates.

5.4 It is generally considered appropriate that accounting for government grant should be based on the nature of the relevant grant. Grants, which have the characteristics similar to those of promoters' contribution, should be treated as part of shareholders' funds. Income approach may be more appropriate in the case of other grants.

5.5 It is fundamental to the 'income approach' that government grants be recognized in the profit and loss statement on a systematic and rational basis over the periods necessary to match them with the related costs. Income recognition of government grants on a receipts basis is not in accordance with the accrual accounting assumption (see Accounting Standard (AS) 1, Disclosure of Accounting Policies).

5.6 In most cases, the periods over which an enterprise recognizes the costs or expenses related to a government grant are readily ascertainable and thus grants in recognition of specific expenses are taken to income in the same period as the relevant expenses.

6. **Recognition of Government Grants**

6.1 Government grants available to the enterprise are considered for inclusion in accounts:

i. where there is reasonable assurance that the enterprise will comply with the conditions attached to them; and

ii. where such benefits have been earned by the enterprise and it is reasonably certain that the ultimate collection will be made.

Mere receipt of a grant is not necessarily conclusive evidence that conditions attaching to the grant have been or will be fulfilled.

6.2 An appropriate amount in respect of such earned benefits, estimated on a prudent basis, is credited to income for the year even though the actual amount of such benefits may be finally settled and received after the end of the relevant accounting period.

6.3 A contingency related to a government grant, arising after the grant has been recognized, is treated in accordance with Accounting Standard (AS) 4, Contingencies and Events Occurring After the Balance Sheet Date.

6.4 In certain circumstances, a government grant is awarded for the purpose of giving immediate financial support to an enterprise rather than as an incentive to undertake specific expenditure. Such grants may be confined to an individual enterprise and may not be available to a whole class of enterprises. These circumstances may warrant taking the grant to income in the period in which the enterprise qualifies to receive it, as an extraordinary item if appropriate (see Accounting Standard (AS) 5, Prior Period and Extraordinary Items and Changes in Accounting Policies).

6.5 Government grants may become receivable by an enterprise as compensation for expenses or losses incurred in a previous accounting period. Such a grant is recognized in the income statement of the period in which it becomes receivable, as an extraordinary item if appropriate (see Accounting Standard (AS) 5, Prior Period and Extraordinary Items and Changes in Accounting Policies).

7. **Non-monetary Government Grants**

7.1 Government grants may take the form of non-monetary assets, such as land or other resources, given at concessional rates. In these circumstances, it is usual to account for such assets at their acquisition cost. Non-monetary assets given free of cost are recorded at a nominal value.

8. **Presentation of Grants Related to Specific Fixed Assets**

8.1 Grants related to specific fixed assets are government grants whose primary condition is that an enterprise qualifying for them should purchase, construct or otherwise acquire such assets. Other conditions may also be attached restricting the type or location of the assets or the periods during which they are to be acquired or held.

8.2 Two methods of presentation in financial statements of grants (or the appropriate portions of grants) related to specific fixed assets are regarded as acceptable alternatives.

8.3 Under one method, the grant is shown as a deduction from the gross value of the asset concerned in arriving at its book value. The grant is thus recognized in the profit and loss statement over the useful life of a depreciable asset by way of a reduced depreciation charge. Where the grant equals the whole, or virtually the whole, of the cost of the asset, the asset is shown in the balance sheet at a nominal value.

8.4 Under the other method, grants related to depreciable assets are treated as deferred income, which is recognized in the profit and loss statement on a systematic and rational basis over the useful life of the asset. Such allocation to income is usually made over the periods and in the proportions in which depreciation on related assets is charged. Grants related to non-depreciable assets are credited to capital reserve under this method, as there is usually no charge to income in respect of such assets. However, if a grant related to a non-depreciable asset requires the fulfillment of certain obligations, the grant is credited to income over the same period over which the cost of meeting such obligations is charged to income. The deferred income is suitably disclosed in the balance sheet pending its apportionment to profit and loss account. For example, in the case of a company, it is shown after 'Reserves and Surplus' but before 'Secured Loans' with a suitable description, e.g., 'Deferred government grants'.

8.5 The purchase of assets and the receipt of related grants can cause major movements in the cash flow of an enterprise. For this reason and in order to show the gross investment in assets, such movements are often disclosed as separate items in the statement of changes in financial position regardless of whether or not the grant is deducted from the related asset for the purpose of balance sheet presentation.

9. **Presentation of Grants Related to Revenue**

9.1 Grants related to revenue are sometimes presented as a credit in the profit and loss statement, either separately or under a general heading such as 'Other Income'. Alternatively, they are deducted in reporting the related expense.

9.2 Supporters of the first method claim that it is inappropriate to net income and expense items and that separation of the grant from the expense facilitates comparison with other expenses not affected by a grant. For the second method, it is argued that the expense might well not have been incurred by the enterprise if the grant had not been available and presentation of the expense without offsetting the grant may therefore be misleading.

10. **Presentation of Grants of the Nature of Promoters' Contribution**

10.1 Where the government grants are of the nature of promoters' contribution, i.e., they are given with reference to the total investment in an undertaking or by way of contribution towards its total capital outlay (for example, central investment subsidy scheme) and no repayment is ordinarily expected in respect thereof, the grants are treated as capital reserve which can be neither distributed as dividend nor considered as deferred income.

11. **Refund of Government Grants**

11.1 Government grants sometimes become refundable because certain conditions are not fulfilled. A government grant that becomes refundable is treated as an extraordinary item (see Accounting Standard (AS) 5, Prior Period and Extraordinary Items and Changes in Accounting Policies).

11.2 The amount refundable in respect of a government grant related to revenue is applied first against any unamortized deferred credit remaining in respect of the grant. To the extent that the amount refundable exceeds any such deferred credit, or where no deferred credit exists, the amount is charged immediately to profit and loss statement.

11.3 The amount refundable in respect of a government grant related to a specific fixed asset is recorded by increasing the book value of the asset or by reducing the capital reserve or the deferred income balance, as appropriate, by the amount refundable. In the first alternative, i.e., where the book value of the asset is increased, depreciation on the revised book value is provided prospectively over the residual useful life of the asset.

11.4 Where a grant, which is in the nature of promoters' contribution, becomes refundable, in part or in full, to the government on non-fulfillment of some specified conditions, the relevant amount recoverable by the government is reduced from the capital reserve.

12. **Disclosure**

12.1 The following disclosures are appropriate:

i. The accounting policy adopted for government grants, including the methods of presentation in the financial statements;

ii. The nature and extent of government grants recognized in the financial statements, including grants of non-monetary assets given at a concessional rate or free of cost.

Accounting Standard

(The Accounting Standard comprises paragraphs 13-23 of this Statement. The Standard should be read in the context of paragraphs 1-12 of this Statement and of the Preface to the Statements of Accounting Standards.)

13. Government grants should not be recognized until there is reasonable assurance that (i) the enterprise will comply with the conditions attached to them, and (ii) the grants will be received.

14. Government grants related to specific fixed assets should be presented in the balance sheet by showing the grant as a deduction from the gross value of the assets concerned in arriving at their book value. Where the grant related to a specific fixed asset equals the whole, or virtually the whole, of the cost of the asset, the asset should be shown in the balance sheet at a nominal value. Alternatively, government grants related to depreciable fixed assets may be treated as deferred income which should be recognized in the profit and loss statement on a systematic and rational basis over the useful life of the asset, i.e., such grants should be allocated to income over the periods and in the proportions in which depreciation on those assets is charged. Grants related to non-depreciable assets should be credited to capital reserve under this method. However, if a grant related to a non-depreciable asset requires the fulfillment of certain obligations, the grant should be credited to income over the same period over which the cost of meeting such obligations is charged to income. The deferred income balance should be separately disclosed in the financial statements.

15. Government grants related to revenue should be recognized on a systematic basis in the profit and loss statement over the periods necessary to match them with the related costs, which they are intended to compensate. Such grants should either be shown separately under ‘other income’ or deducted in reporting the related expense.

16. Government grants of the nature of promoters’ contribution should be credited to capital reserve and treated as a part of shareholders’ funds.

17. Government grants in the form of non-monetary assets, given at a confessional rate, should be accounted for on the basis of their acquisition cost. In case a non-monetary asset is given free of cost, it should be recorded at a nominal value.

18. Government grants that are receivable as compensation for expenses or losses incurred in a previous accounting period or for the purpose of giving immediate financial support to the enterprise with no further related costs, should be recognized and disclosed in the profit and loss statement of the period in which they are receivable, as an extraordinary item if appropriate (see Accounting Standard (AS) 5, Prior Period and Extraordinary Items and Changes in Accounting Policies).

19. A contingency related to a government grant, arising after the grant has been recognized, should be treated in accordance with Accounting Standard (AS) 4, Contingencies and Events Occurring After the Balance Sheet Date.

20. Government grants that become refundable should be accounted for as an extraordinary item (see Accounting Standard (AS) 5, Prior Period and Extraordinary Items and Changes in Accounting Policies).

21. The amount refundable in respect of a grant related to revenue should be applied first against any unamortized deferred credit remaining in respect of the grant. To the extent that the amount refundable exceeds any such deferred credit, or where no deferred credit exists, the amount should be charged to

profit and loss statement. The amount refundable in respect of a grant related to a specific fixed asset should be recorded by increasing the book value of the asset or by reducing the capital reserve or the deferred income balance, as appropriate, by the amount refundable. In the first alternative, i.e., where the book value of the asset is increased, depreciation on the revised book value should be provided prospectively over the residual useful life of the asset.

22. Government grants in the nature of promoters' contribution that become refundable should be reduced from the capital reserve.

Disclosure

23. The following should be disclosed:

    i. The accounting policy adopted for government grants, including the methods of presentation in the financial statements;

    ii. The nature and extent of government grants recognized in the financial statements, including grants of non-monetary assets given at a consessional rate or free of cost.

Accounting Standard – 14

ACCOUNTING FOR AMALGAMATIONS

The following is the text of Accounting Standard (AS) 14, 'Accounting for Amalgamations', issued by the Council of the Institute of Chartered Accountants of India.

This standard will come into effect in respect of accounting periods commencing on or after 1.4.1995 and will be mandatory in nature. The Guidance Note on Accounting Treatment of Reserves in Amalgamations issued by the Institute in 1983 will stand withdrawn from the aforesaid date.

Introduction

1. This statement deals with accounting for amalgamations and the treatment of any resultant goodwill or reserves. This statement is directed principally to companies although some of its requirements also apply to financial statements of other enterprises.

2. This statement does not deal with cases of acquisitions which arise when there is a purchase by one company (referred to as the acquiring company) of the whole or part of the shares, or the whole or part of the assets, of another company (referred to as the acquired company) in consideration for payment in cash or by issue of shares or other securities in the acquiring company or partly in one form and partly in the other. The distinguishing feature of an acquisition is that the acquired company is not dissolved and its separate entity continues to exist.

Definitions

3. The following terms are used in this statement with the meanings specified:

    a. Amalgamation means an amalgamation pursuant to the provisions of the Companies Act, 1956 or any other statute which may be applicable to companies.

    b. Transferor company means the company which is amalgamated into another company.

    c. Transferee company means the company into which a transferor company is amalgamated.

d. Reserve means the portion of earnings, receipts or other surplus of an enterprise (whether capital or revenue) appropriated by the management for a general or a specific purpose other than a provision for depreciation or diminution in the value of assets or for a known liability.

e. Amalgamation in the nature of merger is an amalgamation which satisfies all the following conditions.

   i. All the assets and liabilities of the transferor company become, after amalgamation, the assets and liabilities of the transferee company.

   ii. Shareholders holding not less than 90% of the face value of the equity shares of the transferor company (other than the equity shares already held therein, immediately before the amalgamation, by the transferee company or its subsidiaries or their nominees) become equity shareholders of the transferee company by virtue of the amalgamation.

   iii. The consideration for the amalgamation receivable by those equity shareholders of the transferor company who agree to become equity shareholders of the transferee company is discharged by the transferee company wholly by the issue of equity shares in the transferee company, except that cash may be paid in respect of any fractional shares.

   iv. The business of the transferor company is intended to be carried on, after the amalgamation, by the transferee company.

   v. No adjustment is intended to be made to the book values of the assets and liabilities of the transferor company when they are incorporated in the financial statements of the transferee company except to ensure uniformity of accounting policies.

f. Amalgamation in the nature of purchase is an amalgamation which does not satisfy any one or more of the conditions specified in sub-paragraph (e) above.

g. Consideration for the amalgamation means the aggregate of the shares and other securities issued and the payment made in the form of cash or other assets by the transferee company to the shareholders of the transferor company.

h. Fair value is the amount for which an asset could be exchanged between a knowledgeable, willing buyer and a knowledgeable, willing seller in an arm's length transaction.

i. Pooling of interests is a method of accounting for amalgamations the object of which is to account for the amalgamation as if the separate businesses of the amalgamating companies were intended to be continued by the transferee company. Accordingly, only minimal changes are made in aggregating the individual financial statements of the amalgamating companies.

Explanation

Types of Amalgamations

4. Generally speaking, amalgamations fall into two broad categories. In the first category are those amalgamations where there is a genuine pooling not merely of the assets and liabilities of the amalgamating companies but also of the shareholders' interests and of the businesses of these companies. Such amalgamations are amalgamations which are in the nature of 'merger' and

the accounting treatment of such amalgamations should ensure that the resultant figures of assets, liabilities, capital and reserves more or less represent the sum of the relevant figures of the amalgamating companies. In the second category are those amalgamations which are in effect a mode by which one company acquires another company and, as a consequence, the shareholders of the company which is acquired normally do not continue to have a proportionate share in the equity of the combined company, or the business of the company which is acquired is not intended to be continued. Such amalgamations are amalgamations in the nature of 'purchase'.

5. An amalgamation is classified as an 'amalgamation in the nature of merger' when all the conditions listed in paragraph 3(e) are satisfied. There are, however, differing views regarding the nature of any further conditions that may apply. Some believe that, in addition to an exchange of equity shares, it is necessary that the shareholders of the transferor company obtain a substantial share in the transferee company even to the extent that it should not be possible to identify any one party as dominant therein. This belief is based in part on the view that the exchange of control of one company for an insignificant share in a larger company does not amount to a mutual sharing of risks and benefits.

6. Others believe that the substance of an amalgamation in the nature of merger is evidenced by meeting certain criteria regarding the relationship of the parties, such as the former independence of the amalgamating companies, the manner of their amalgamation, the absence of planned transactions that would undermine the effect of the amalgamation, and the continuing participation by the management of the transferor company in the management of the transferee company after the amalgamation.

Methods of Accounting for Amalgamations

7. There are two main methods of accounting for amalgamations:

   a. the pooling of interests method; and

   b. the purchase method.

8. The use of the pooling of interests method is confined to circumstances which meet the criteria referred to in paragraph 3(e) for an amalgamation in the nature of merger.

9. The object of the purchase method is to account for the amalgamation by applying the same principles as are applied in the normal purchase of assets. This method is used in accounting for amalgamations in the nature of purchase.

The Pooling of Interests Method

10. Under the pooling of interests method, the assets, liabilities and reserves of the transferor company are recorded by the transferee company at their existing carrying amounts (after making the adjustments required in paragraph 11).

11. If, at the time of the amalgamation, the transferor and the transferee companies have conflicting accounting policies, a uniform set of accounting policies is adopted following the amalgamation. The effects on the financial statements of any changes in accounting policies are reported in accordance with Accounting Standard (AS) 5, 'Prior Period and Extraordinary Items and Changes in Accounting Policies'.

The Purchase Method

12. Under the purchase method, the transferee company accounts for the amalgamation either by incorporating the assets and liabilities at their existing carrying amounts or by allocating the consideration to individual identifiable assets and liabilities of the transferor company on the basis of their fair values at the date of amalgamation. The identifiable assets and liabilities may include assets and liabilities not recorded in the financial statements of the transferor company.

13. Where assets and liabilities are restated on the basis of their fair values, the determination of fair values may be influenced by the intentions of the transferee company. For example, the transferee company may have a specialized use for an asset, which is not available to other potential buyers. The transferee company may intend to effect changes in the activities of the transferor company which necessitate the creation of specific provisions for the expected costs, e.g. planned employee termination and plant relocation costs.

Consideration

14. The consideration for the amalgamation may consist of securities, cash or other assets. In determining the value of the consideration, an assessment is made of the fair value of its elements. A variety of techniques is applied in arriving at fair value. For example, when the consideration includes securities, the value fixed by the statutory authorities may be taken to be the fair value. In case of other assets, the fair value may be determined by reference to the market value of the assets given up. Where the market value of the assets given up cannot be reliably assessed, such assets may be valued at their respective net book values.

15. Many amalgamations recognize that adjustments may have to be made to the consideration in the light of one or more future events. When the additional payment is probable and can reasonably be estimated at the date of amalgamation, it is included in the calculation of the consideration. In all other cases, the adjustment is recognized as soon as the amount is determinable [see Accounting Standard (AS) 4, Contingencies and Events Occurring after the Balance Sheet Date].

Treatment of Reserves on Amalgamation

16. If the amalgamation is an 'amalgamation in the nature of merger', the identity of the reserves is preserved and they appear in the financial statements of the transferee company in the same form in which they appeared in the financial statements of the transferor company. Thus, for example, the General Reserve of the transferor company becomes the General Reserve of the transferee company, the Capital Reserve of the transferor company becomes the Capital Reserve of the transferee company and the Revaluation Reserve of the transferor company becomes the Revaluation Reserve of the transferee company. As a result of preserving the identity, reserves which are available for distribution as dividend before the amalgamation would also be available for distribution as dividend after the amalgamation. The difference between the amount recorded as share capital issued (plus any additional consideration in the form of cash or other assets) and the amount of share capital of the transferor company is adjusted in reserves in the financial statements of the transferee company.

17. If the amalgamation is an 'amalgamation in the nature of purchase', the identity of the reserves, other than the statutory reserves dealt with in

paragraph 18, is not preserved. The amount of the consideration is deducted from the value of the net assets of the transferor company acquired by the transferee company. If the result of the computation is negative, the difference is debited to goodwill arising on amalgamation and dealt with in the manner stated in paragraphs 19-20. If the result of the computation is positive, the difference is credited to Capital Reserve.

18. Certain reserves may have been created by the transferor company pursuant to the requirements of, or to avail of the benefits under, the Income-tax Act, 1961; for example, Development Allowance Reserve, or Investment Allowance Reserve. The Act requires that the identity of the reserves should be preserved for a specified period. Likewise, certain other reserves may have been created in the financial statements of the transferor company in terms of the requirements of other statutes. Though, normally, in an amalgamation in the nature of purchase, the identity of reserves is not preserved, an exception is made in respect of reserves of the aforesaid nature (referred to hereinafter as 'statutory reserves') and such reserves retain their identity in the financial statements of the transferee company in the same form in which they appeared in the financial statements of the transferor company, so long as their identity is required to be maintained to comply with the relevant statute. This exception is made only in those amalgamations where the requirements of the relevant statute for recording the statutory reserves in the books of the transferee company are complied with. In such cases the statutory reserves are recorded in the financial statements of the transferee company by a corresponding debit to a suitable account head (e.g., 'Amalgamation Adjustment Account') which is disclosed as a part of 'miscellaneous expenditure' or other similar category in the balance sheet. When the identify of the statutory reserves is no longer required to be maintained, both the reserves and the aforesaid account are reversed.

Treatment of Goodwill arising on Amalgamation

19. Goodwill arising on amalgamation represents a payment made in anticipation of future income and it is appropriate to treat it as an asset to be amortized to income on a systematic basis over its useful life. Due to the nature of goodwill, it is frequently difficult to estimate its useful life with reasonable certainty. Such estimation is, therefore, made on a prudent basis. Accordingly, it is considered appropriate to amortize goodwill over a period not exceeding five years unless a somewhat longer period can be justified.

20. Factors which may be considered in estimating the useful life of goodwill arising on amalgamation include:

- the foreseeable life of the business or industry;
- the effects of product obsolescence, changes in demand and other economic factors;
- the service life expectancies of key individuals or groups of employees;
- expected actions by competitors or potential competitors; and
- legal, regulatory or contractual provisions affecting the useful life.

Balance of Profit and Loss Account

21. In the case of an 'amalgamation in the nature of merger', the balance of the Profit and Loss Account appearing in the financial statements of the transferor company is aggregated with the corresponding balance appearing

in the financial statements of the transferee company. Alternatively, it is transferred to the General Reserve, if any.

22. In the case of an 'amalgamation in the nature of purchase', the balance of the Profit and Loss Account appearing in the financial statements of the transferor company, whether debit or credit, loses its identity. Treatment of Reserves Specified in a Scheme of Amalgamation

23. The scheme of amalgamation sanctioned under the provisions of the Companies Act, 1956 or any other statute may prescribe the treatment to be given to the reserves of the transferor company after its amalgamation. Where the treatment is so prescribed, the same is followed.

Disclosure

24. For all amalgamations, the following disclosures are considered appropriate in the first financial statements following the amalgamation:

    a. names and general nature of business of the amalgamating companies;

    b. effective date of amalgamation for accounting purposes;

    c. the method of accounting used to reflect the amalgamation; and

    d. particulars of the scheme sanctioned under a statute.

25. For amalgamations accounted for under the pooling of interests method, the following additional disclosures are considered appropriate in the first financial statements following the amalgamation:

    a. description and number of shares issued, together with the percentage of each company's equity shares exchanged to effect the amalgamation;

    b. the amount of any difference between the consideration and the value of net identifiable assets acquired, and the treatment thereof.

26. For amalgamations accounted for under the purchase method, the following additional disclosures are considered appropriate in the first financial statements following the amalgamation:

    a. consideration for the amalgamation and a description of the consideration paid or contingently payable; and

    b. the amount of any difference between the consideration and the value of net identifiable assets acquired, and the treatment thereof including the period of amortization of any goodwill arising on amalgamation.

Amalgamation after the Balance Sheet Date

27. When an amalgamation is effected after the balance sheet date but before the issuance of the financial statements of either party to the amalgamation, disclosure is made in accordance with AS 4, 'Contingencies and Events Occurring after the Balance Sheet Date', but the amalgamation is not incorporated in the financial statements. In certain circumstances, the amalgamation may also provide additional information affecting the financial statements themselves, for instance, by allowing the going concern assumption to be maintained.

Accounting Standard

(The Accounting Standard comprises paragraphs 28-46 of this Statement. The Standard should be read in the context of paragraphs 1-27 of this Statement and of the 'Preface to the Statements of Accounting Standards'.)

28. An amalgamation may be either –
    a. an amalgamation in the nature of merger, or
    b. an amalgamation in the nature of purchase.
29. An amalgamation should be considered to be an amalgamation in the nature of merger when all the following conditions are satisfied:
    i. All the assets and liabilities of the transferor company become, after amalgamation, the assets and liabilities of the transferee company.
    ii. Shareholders holding not less than 90% of the face value of the equity shares of the transferor company (other than the equity shares already held therein, immediately before the amalgamation, by the transferee company or its subsidiaries or their nominees) become equity shareholders of the transferee company by virtue of the amalgamation.
    iii. The consideration for the amalgamation receivable by those equity shareholders of the transferor company who agree to become equity shareholders of the transferee company is discharged by the transferee company wholly by the issue of equity shares in the transferee company, except that cash may be paid in respect of any fractional shares.
    iv. The business of the transferor company is intended to be carried on, after the amalgamation, by the transferee company.
    v. No adjustment is intended to be made to the book values of the assets and liabilities of the transferor company when they are incorporated in the financial statements of the transferee company except to ensure uniformity of accounting policies.
30. An amalgamation should be considered to be an amalgamation in the nature of purchase, when any one or more of the conditions specified in paragraph 29 is not satisfied.
31. When an amalgamation is considered to be an amalgamation in the nature of merger, it should be accounted for under the pooling of interests method described in paragraphs 33-35.
32. When an amalgamation is considered to be an amalgamation in the nature of purchase, it should be accounted for under the purchase method described in paragraphs 36-39.

The Pooling of Interests Method

33. In preparing the transferee company's financial statements, the assets, liabilities and reserves (whether capital or revenue or arising on revaluation) of the transferor company should be recorded at their existing carrying amounts and in the same form as at the date of the amalgamation. The balance of the Profit and Loss Account of the transferor company should be aggregated with the corresponding balance of the transferee company or transferred to the General Reserve, if any.
34. If, at the time of the amalgamation, the transferor and the transferee companies have conflicting accounting policies, a uniform set of accounting policies should be adopted following the amalgamation. The effects on the financial statements of any changes in accounting policies should be reported in accordance with Accounting Standard (AS) 5 'Prior Period and Extraordinary Items and Changes in Accounting Policies'.
35. The difference between the amount recorded as share capital issued (plus any additional consideration in the form of cash or other assets) and the amount of share capital of the transferor company should be adjusted in reserves.

The Purchase Method

36. In preparing the transferee company's financial statements, the assets and liabilities of the transferor company should be incorporated at their existing carrying amounts or, alternatively, the consideration should be allocated to

individual identifiable assets and liabilities on the basis of their fair values at the date of amalgamation. The reserves (whether capital or revenue or arising on revaluation) of the transferor company, other than the statutory reserves, should not be included in the financial statements of the transferee company except as stated in paragraph 39.

37. Any excess of the amount of the consideration over the value of the net assets of the transferor company acquired by the transferee company should be recognized in the transferee company's financial statements as goodwill arising on amalgamation. If the amount of the consideration is lower than the value of the net assets acquired, the difference should be treated as Capital Reserve.

38. The goodwill arising on amalgamation should be amortized to income on a systematic basis over its useful life. The amortization period should not exceed five years unless a somewhat longer period can be justified.

39. Where the requirements of the relevant statute for recording the statutory reserves in the books of the transferee company are complied with, statutory reserves of the transferor company should be recorded in the financial statements of the transferee company. The corresponding debit should be given to a suitable account head (e.g., 'Amalgamation Adjustment Account') which should be disclosed as a part of 'miscellaneous expenditure' or other similar category in the balance sheet. When the identity of the statutory reserves is no longer required to be maintained, both the reserves and the aforesaid account should be reversed.

Common Procedures

40. The consideration for the amalgamation should include any non-cash element at fair value. In case of issue of securities, the value fixed by the statutory authorities may be taken to be the fair value. In case of other assets, the fair value may be determined by reference to the market value of the assets given up. Where the market value of the assets given up cannot be reliably assessed, such assets may be valued at their respective net book values.

41. Where the scheme of amalgamation provides for an adjustment to the consideration contingent on one or more future events, the amount of the additional payment should be included in the consideration if payment is probable and a reasonable estimate of the amount can be made. In all other cases, the adjustment should be recognized as soon as the amount is determinable [see Accounting Standard (AS) 4, Contingencies and Events Occurring after the Balance Sheet Date].

Treatment of Reserves Specified in a Scheme of Amalgamation

42. Where the scheme of amalgamation sanctioned under a statute prescribes the treatment to be given to the reserves of the transferor company after amalgamation, the same should be followed.

Disclosure

43. For all amalgamations, the following disclosures should be made in the first financial statements following the amalgamation:

    a. names and general nature of business of the amalgamating companies;
    b. effective date of amalgamation for accounting purposes;
    c. the method of accounting used to reflect the amalgamation; and
    d. particulars of the scheme sanctioned under a statute.

44. For amalgamations accounted for under the pooling of interests method, the following additional disclosures should be made in the first financial statements following the amalgamation:

a. description and number of shares issued, together with the percentage of each company's equity shares exchanged to effect the amalgamation;

b. the amount of any difference between the consideration and the value of net identifiable assets acquired, and the treatment thereof.

45. For amalgamations accounted for under the purchase method, the following additional disclosures should be made in the first financial statements following the amalgamation:

a. consideration for the amalgamation and a description of the consideration paid or contingently payable; and

b. the amount of any difference between the consideration and the value of net identifiable assets acquired, and the treatment thereof including the period of amortization of any goodwill arising on amalgamation.

Amalgamation after the Balance Sheet Date

46. When an amalgamation is effected after the balance sheet date but before the issuance of the financial statements of either party to the amalgamation, disclosure should be made in accordance with AS 4, 'Contingencies and Events Occurring after the Balance Sheet Date', but the amalgamation should not be incorporated in the financial statements. In certain circumstances, the amalgamation may also provide additional information affecting the financial statements themselves, for instance, by allowing the going concern assumption to be maintained.

Accounting Standard on Retirement Benefits – Accounting Standard – 15

(issued 1995)

Accounting for Retirement Benefits in the Financial Statements of Employers

The following is the text of Accounting Standard (AS) 15, 'Accounting for Retirement Benefits in the Financial Statements of Employers', issued by the Council of the Institute of Chartered Accountants of India.

The Standard will come into effect in respect of accounting periods commencing on or after 1.4.1995 and will be mandatory in nature[2]. The 'Statement on the Treatment of Retirement Gratuity in Accounts' issued by the Institute will stand withdrawn from the aforesaid date.

INTRODUCTION

1. This Statement deals with accounting for retirement benefits in the financial statements of employers.

2. Retirement benefits usually consist of:

a. Provident fund

b. Superannuation/pension

c. Gratuity

d. Leave encashment benefit on retirement

e. Post-retirement health and welfare schemes

f. Other retirement benefits.

This Statement applies to retirement benefits in the form of provident fund, superannuation/pension and gratuity provided by an employer to employees, whether in pursuance of requirements of any law or otherwise. It also applies to retirement benefits in the form of leave encashment benefit, health and welfare schemes and other retirement benefits, if the predominant characteristics of these benefits are the same as those of provident fund, superannuation/pension or gratuity benefit, i.e, if such a retirement benefit is in the nature of either a defined contribution scheme or a defined benefit scheme as described in this Statement. This Statement does not apply to those retirement benefits for which the employer's obligation cannot be reasonably estimated, for example, ad hoc ex-gratia payments made to employees on retirement.

Definitions

3. The following terms are used in this Statement with the meanings specified:

   Retirement benefit schemes are arrangements to provide provident fund, superannuation or pension, gratuity, or other benefits to employees on leaving service or retiring or, after an employee's death, to his or her dependants.

   Defined contribution schemes are retirement benefit schemes under which amounts to be paid as retirement benefits are determined by contributions to a fund together with earnings thereon.

   Defined benefit schemes are retirement benefit schemes under which amounts to be paid as retirement benefits are determinable usually by reference to employee's earnings and/or years of service.

   Actuary means an actuary within the meaning of sub-section (1) of Section (2) of the Insurance Act, 1938.

   Actuarial valuation is the process used by an actuary to estimate the present value of benefits to be paid under a retirement benefit scheme and the present values of the scheme assets and, sometimes, of future contributions.

   Pay-as-you-go is a method of recognising the cost of retirement benefits only at the time payments are made to employees on, or after, their retirement.

EXPLANATION

4. Retirement benefit schemes are normally significant elements of an employer's remuneration package for employees. It is, therefore, important that retirement benefits are properly accounted for and that appropriate disclosures in respect thereof are made in the financial statements of an employer.
5. Provident fund benefit normally involves either creation of a separate trust to which contributions of both employees and employer are made periodically or remittance of such contributions to the employees' provident fund, administered by the Central Government.
6. Superannuation/pension benefit (hereinafter referred to as 'superannuation benefit') is basically of two types.
   a. The first type of benefit is known as defined contribution scheme. Under this type of benefit, the employer makes a contribution once a year (or more frequently in some cases) towards a separately created trust fund or to a scheme administered by an insurer. These contributions earn interest and the accumulated balance of contributions and interest is used to pay the retirement benefit to the employee.

Superannuation available under defined contribution scheme has relevance to only total of accumulated contributions and interest and bears no relationship, whatsoever, with the final salary or number of years of service put in by an employee. The defined contribution scheme for superannuation/pension is, in most respects, similar to the provident fund, so far as the accounting treatment is concerned. It also presupposes payment of contributions every year, either once in a year or more frequently.

b. The second type of superannuation scheme is the defined benefit scheme. Under this scheme, the benefit payable to the employee is determined with reference to factors such as a percentage of final salary (e.g. the average of one, three or five years' salary), number of years of service and the grade of the employee. The contribution required to finance such a scheme is actuarially determined and is generally expressed as a percentage of salary for the entire group of employees covered by the scheme. For defined benefit superannuation/pension schemes, a trust fund can be created or an arrangement can be negotiated with an insurer so that the annual contributions, calculated actuarially, can be made each year. In such a case, benefits to employees on entitlement would be paid by the trust fund or by the insurer. Alternatively, the superannuation benefit can be paid by the employer as and when an employee leaves.

7. Gratuity benefit is in the nature of a defined benefit. Gratuity can be paid by the employer as and when an employee leaves. Alternatively, a trust fund can be created, or an arrangement can be negotiated with an insurer so that the annual contributions, calculated actuarially, can be made each year. Benefits to employees on entitlement would in such a case be paid by the trust fund or by the insurer[5].

8. In certain cases, a retirement benefit scheme may stipulate the basis of contributions on which the benefits are determined and, because of this, may appear to be a defined contribution scheme. However, the provisions of the scheme may also result in the employer being responsible for specified benefits or a specified level of benefits. In this case, the scheme is, in substance, a defined benefit scheme and should be accounted for accordingly.

9. While provident fund schemes are generally contributory schemes from the point of view of employees, gratuity schemes are non-contributory. The superannuation schemes, on the other hand, can be contributory or non-contributory.

10. Defined benefit schemes, especially those that promise benefits related to remuneration at or near retirement, present significant difficulties in the determination of periodic charge to the statement of profit and loss.

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5 A new section 4A has been inserted in the Payment of Gratuity Act by the Payment of Gratuity (Amendment) Act, 1987. From the date of this section coming into force, an employer (other than an employer or an establishment belonging to, or under the control of, the Central or a State Government) who is liable to pay gratuity under the above Act will have to obtain an insurance in the prescribed manner to meet his liability for payment of gratuity. Such insurance should be obtained from the Life Insurance Corporation of India or any other prescribed insurer. However, the Government may grant exemption to every employer who has already established an approved gratuity fund in respect of his employees and who desires to continue such fund, or to every employer who is employing 500 or more persons and who establishes an approved gratuity fund in the prescribed manner.

The extent of an employer's obligation under such schemes is usually uncertain and requires estimation. In estimating the obligation, assumptions may need to be made regarding future conditions and events which are largely outside the employer's control.

11. As a result of various factors that frequently enter into the computation of retirement benefits under defined benefit schemes and the length of the period over which the benefits are earned, allocation problems arise in determining how the costs of the retirement benefits should be recognised in the financial statements of the employer. Furthermore, long-term uncertainties may give rise to adjustments of estimates of earlier years that can be very significant in relation to current service cost.

12. The cost of retirement benefits to an employer results from receiving services from the employees who are entitled to receive such benefits. Consequently, the cost of retirement benefits is accounted for in the period during which these services are rendered. Accounting for retirement benefit cost only when employees retire or receive benefit payments (i.e., as per pay-as-you-go method) does not achieve the objective of allocation of those costs to the periods in which the services were rendered.

Funding

13. When there is a separate retirement benefit fund, it is sometimes assumed that the amount paid by an employer to the fund during an accounting period provides an appropriate charge to the statement of profit and loss. While, in many cases, the amount funded may provide a reasonable approximation of the amount to be charged to the statement of profit and loss, there is a vital distinction between the periodic funding of retirement benefits and the allocation of the cost of providing these benefits.

14. The objective of funding is to make available amounts to meet future obligations for the payment of retirement benefits. Funding is a financing procedure and in determining the periodical amounts to be funded, the employer may be influenced by such factors as the availability of money and tax considerations.

15. On the other hand, the objective of accounting for the cost of a retirement benefit scheme is to ensure that the cost of benefits is allocated to accounting periods on a systematic basis related to the receipt of the employees' services.

Accounting

16. In respect of retirement benefits in the form of provident fund and other defined contribution schemes, the contribution payable by the employer for a year is charged to the statement of profit and loss for the year. Thus, besides the amount of contribution paid, a shortfall of the amount of contribution paid compared to the amount payable for the year is also charged to the statement of profit and loss for the year. On the other hand, if contribution paid is in excess of the amount payable for the year, the excess is treated as a pre-payment.

17. In respect of gratuity benefit and other defined benefit schemes, the accounting treatment depends on the type of arrangement which the employer has chosen to make.

    i. If the employer has chosen to make payment for retirement benefits out of his own funds, an appropriate charge to the statement of profit and loss for the year is made through a provision for the accruing liability. The accruing liability is calculated according to actuarial valuation. However, many enterprises which employ only a few persons do not calculate the accrued liability by using actuarial methods. They calculate the accrued liability by reference to some other rational method, for example, a method based on the assumption that such benefits are payable to all employees at the end of the accounting year.

    ii. In case the liability for retirement benefits is funded through creation of a trust, the cost incurred for the year is determined actuarially. Many employers undertake such valuations every year while others undertake them less frequently, usually once in every three years. If actuarial valuations are conducted every year, the annual accrual of retirement benefit cost can be easily determined. If, however, the actuarial valuations are not conducted annually, the actuary's report specifies the contributions to be made by the employer on annual basis during the inter-valuation period. This annual contribution (which is in addition to the contribution that may be required to finance unfunded past service cost) reflects proper accrual of retirement benefit cost for each of the years during the inter-valuation period and is charged to the statement of profit and loss for each such year. Where the contribution paid during a year is lower than the amount required to be contributed during the year to meet the accrued liability as certified by the actuary, the shortfall is charged to the statement of profit and loss for the year. Where the contribution paid during a year is in excess of the amount required to be contributed during the year to meet the accrued liability as certified by the actuary, the excess is treated as a pre-payment.

    iii. In case the liability for retirement benefits is funded through a scheme administered by an insurer, it is usually considered necessary to obtain an actuarial certificate or a confirmation from the insurer that the contribution payable to the insurer is the appropriate accrual of the liability for the year. Where the contribution paid during a year is lower than the amount required to be contributed during the year to meet the accrued liability as certified by the actuary or confirmed by the insurer, as the case may be, the shortfall is charged to the statement of profit and loss for the year. Where the contribution paid during a year is in excess of the amount required to be contributed during the year to meet the accrued liability as certified by the actuary or confirmed by the insurer, as the case may be, the excess is treated as a pre-payment.

Actuarial Principles

18. A number of actuarial valuation methods have been developed by the actuarial profession to estimate employer's obligations under defined benefit schemes. While these methods are primarily designed to calculate funding

requirements, they are also frequently used to determine retirement benefit costs for accounting purposes.

19. The actuarial method selected for determining accrual of liability and the assumptions made can have a significant effect on the expense to be recorded in each accounting period. Therefore, in carrying out a periodical valuation, an actuary chooses a suitable valuation method and, in consultation with the employer, makes appropriate assumptions about the variable elements affecting the computations.

20. The assumptions relate to the expected inflow from future contributions and from investments as well as to the expected outgo for benefits. The uncertainty inherent in projecting future trends in rates of inflation, salary levels and earnings on investments are taken into consideration by the actuary in the actuarial valuations by using a set of compatible assumptions. Usually, these projections are extended until the expected date of death of the last pensioner in case of a superannuation scheme, expected date of death etc. of the beneficiary in case of family pension, and expected service in case of gratuity and are, accordingly, long-term.

Past Service Cost and Review of Actuarial Assumptions

21. An actuarially determined past service cost arises on the introduction of a retirement benefit scheme for existing employees or on the making of improvements to an existing scheme, etc. This cost gives employees credit for benefits for services rendered before the occurrence of one or more of these events.

22. Views differ as to how to account for this cost. One view is that this cost should be recognised as soon as it has been determined. Others believe that the entitlement giving rise to past service cost is in return for services to be rendered by employees in future and therefore this cost ought to be allocated over the periods during which the services are to be rendered.

23. In making an actuarial valuation, the actuary may sometimes effect a change in the actuarial method used or in the assumptions adopted for determining the retirement benefit costs. Any alterations in the retirement benefit costs so arising are charged or credited to the statement of profit and loss for the year or, alternatively, spread over a period not more than the expected remaining working lives of the participating employees. A change in the actuarial method used for determining the retirement benefit costs constitutes a change in an accounting policy and is disclosed accordingly.

Retired Employees

24. When a retirement benefit scheme for retired employees is amended, due to inflation or for other reasons, to provide additional benefits to retired employees, any additional costs are charged to the statement of profit and loss of the year.

Disclosures

25. In view of the diversity of practices used for accounting of retirement benefits costs, adequate disclosure of method followed in accounting for them is essential for an understanding of the significance of such costs to an employer.

26. Retirement benefit costs are sometimes disclosed separately for statutory compliance. In other cases, they are considered to be an element of employee remuneration and their separate disclosure is not usually made.

Accounting Standard

(The Accounting Standard comprises paragraphs 27-31 of this Statement. The Standard should be read in the context of paragraphs 1-26 of this Statement and of the 'Preface to the Statements of Accounting Standards'.)

27. In respect of retirement benefits in the form of provident fund and other defined contribution schemes, the contribution payable by the employer for a year should be charged to the statement of profit and loss for the year. Thus, besides the amount of contribution paid, a shortfall of the amount of contribution paid compared to the amount payable for the year should also be charged to the statement of profit and loss for the year. On the other hand, if contribution paid is in excess of the amount payable for the year, the excess should be treated as a pre-payment.

28. In respect of gratuity benefit and other defined benefit schemes, the accounting treatment will depend on the type of arrangement which the employer has chosen to make.

    i. If the employer has chosen to make payment for retirement benefits out of his own funds, an appropriate charge to the statement of profit and loss for the year should be made through a provision for the accruing liability. The accruing liability should be calculated according to actuarial valuation. However, those enterprises which employ only a few persons may calculate the accrued liability by reference to any other rational method, for example,. a method based on the assumption that such benefits are payable to all employees at the end of the accounting year.

    ii. In case the liability for retirement benefits is funded through creation of a trust, the cost incurred for the year should be determined actuarially. Such actuarial valuation should normally be conducted at least once in every three years. However, where the actuarial valuations are not conducted annually, the actuary's report should specify the contributions to be made by the employer on annual basis during the inter-valuation period. This annual contribution (which is in addition to the contribution that may be required to finance unfunded past service cost) reflects proper accrual of retirement benefit cost for each of the years during the inter-valuation period and should be charged to the statement of profit and loss for each such year. Where the contribution paid during a year is lower than the amount required to be contributed during the year to meet the accrued liability as certified by the actuary, the shortfall should be charged to the statement of profit and loss for the year. Where the contribution paid during a year is in excess of the amount required to be contributed during the year to meet the accrued liability as certified by the actuary, the excess should be treated as a pre-payment.

    iii. In case the liability for retirement benefits is funded through a scheme administered by an insurer, an actuarial certificate or a confirmation from the insurer should be obtained that the contribution payable to the insurer is the appropriate accrual of the liability for the year. Where the contribution paid during a year is lower than amount required to be contributed during the year to meet the accrued liability as certified by the actuary or confirmed by the insurer, as the case may be, the shortfall should be charged to the statement of profit and loss for the year. Where the contribution paid during a year is in excess of the amount required to be contributed during the year to meet the accrued liability as certified by the actuary or confirmed by the insurer, as the case may be, the excess should be treated as a pre-payment.

29. Any alterations in the retirement benefit costs arising from –

    a. introduction of a retirement benefit scheme for existing employees or making of improvements to an existing scheme, or

    b. changes in the actuarial method used or assumptions adopted, should be charged or credited to the statement of profit and loss as they arise in accordance with Accounting Standard (AS) 5, 'Prior Period and Extraordinary Items and Changes in Accounting Policies'[6]. Additionally, a change in the actuarial method used should be treated as a change in an accounting policy and disclosed in accordance with Accounting Standard (AS) 5, 'Prior Period and Extraordinary Items and Changes in Accounting Policies.

30. When a retirement benefit scheme is amended with the result that additional benefits are provided to retired employees, the cost of the additional benefits should be accounted for in accordance with paragraph 29.

Disclosures

31. The financial statements should disclose the method by which retirement benefit costs for the period have been determined. In case the costs related to gratuity and other defined benefit schemes are based on an actuarial valuation, the financial statements should also disclose whether the actuarial valuation was made at the end of the period or at an earlier date. In the latter case, the date of the actuarial valuation should be specified and the method by which the accrual for the period has been determined should also be briefly described, if the same is not based on the report of the actuary.

US GAAP

The foundation of accounting consists of a set of accounting principles known as generally accepted accounting principles or GAAP. The US GAAP is established by the Financial Accounting Standard Board (FASB) and the American Institute of Certified Public Accountants (AICPA). To develop standards, committees are formed, exposure drafts are prepared which are circulated to the accounting, financial and business communities, and if approved these drafts become standards. Though they are not legally binding they are expected to be adhered by the members of AICPA. Failure to comply with the standards is reported in the external auditors report. Securities Exchange Commission (SEC) develops regulations and standards for financial reporting of publicly held companies and firms selling bonds or other types of securities in the US.

6 AS 5 has been revised in February 1997. The title of revised AS 5 is 'Net Profit or Loss for the Period, Prior Period Items and Changes in Accounting Policies'.

The Financial Statements include three reports (1) Balance sheet, (2) Income statement, and (3) Funds Flow statement (not required in India). The financial accounting, management accounting and income tax accounting are essentially separate processes in the United States. GAAP provides the principles for financial accounting, management accounting and the IRS (the Internal Revenue Service) for tax accounting purposes.

Though there is basic similarity in accounting principles throughout the world, Indian Accounting Standards differ in some respects from US GAAP. The US GAAP has nearly 100 accounting standards as compared to 15 in India.

The essential differences between the Indian accounting standards and the US GAAP needs to be looked as beyond mere accounting adjustments. The theme of the difference or the inherent superiority of the US GAAP over the Indian accounting standards needs to be evaluated on the following four parameters:

1. Reporting versus disclosure
2. Form versus substance
3. Accounting versus analysis
4. Globalization versus localization.

Firstly, the accent of the Indian accounting standards is on reporting whereas the accent of the US GAAP is on disclosure and transparency. Consider the following. In India it is not necessary to disclose the portion of long-term debt which has an unexpired term to maturity of less than one year. This gives an erroneous picture of the potential short-term liabilities of the company and the liquidity risk that the company could face in such an eventuality. The US GAAP on the contrary insists on disclosing the portion of long-term debt separately which has an unexpired term to maturity of less than one year.

Secondly, the accent of the Indian accounting standards is on form whereas the accent of the US GAAP is on the substance of the transaction. For example, while accounting for a lease in India the depreciation benefit is available to the lessor because in form a lease deal is not a sale. On the contrary, in the US GAAP a lease deal confers the depreciation benefit on the lessee since the benefits of the productive use of the asset rests with the lessee. Another example can be cited of the method of accounting for deferred taxation. Both the Indian accounting standards and US GAAP permit different depreciation methods for the accounting statements and tax purposes. But the difference lies in the treatment. Consider the following example. Companies provide depreciation as per SLM in the financial statements but as per WDV in the tax statements. This enables them to show good profits at the same time getting the benefit of lower tax outflow currently. However, this has a downside since in later years this gain will translate into a potential loss since the available depreciation in future years will reduce. The Indian accounting standards do not require the company to disclose this potential loss since by form it is a current gain. The US GAAP, on the contrary, requires the company to make a deferred tax liability provision for the potential loss. The logic of the GAAP is that although in form it is a current gain, in substance it is offset by a future loss which needs to be provided for today.

It needs no reiteration that the US GAAP due to its transparency and better disclosure is better attuned to a globalized environment. Indian companies like Infosys and HDFC who have sought Nasdaq listing have already appreciated the wisdom in restating their accounts as per US GAAP. It will not be long before other Indian companies are also forced to follow suit. In such situations the US GAAP will provide the best benchmark for greater transparency and disclosure.

The following abbreviations are used in the text to represent accounting and auditing principles.

APB – Accounting Principles Board Opinion

ARB – Accounting Research Bulletin

ASR – Accounting Series Release

FAS – FASB Statement of Financial Accounting Standards

FIN – FASB Interpretation.

The following are the major differences between US GAAP and Indian GAAP:

1. No specific format is required for the preparation of financial statement, as long as they comply with the disclosure requirements of US accounting standards.
2. Consolidation of group company accounts is compulsory.
3. Deferred tax assets or liabilities should be booked using the asset-liability approach.
4. Disclosure of Earning per Share data is compulsory.
5. Revaluation of assets is not permitted. Depreciation is over the useful economic lives of assets. Depreciation and profit/loss on sale is based on historical costs.
6. Investments in own shares is permitted. It is shown as a reduction from shareholders equity.
7. Research & Development costs are expenses as incurred.
8. Related party transactions

   Disclosures are stringent and require descriptions of nature of relationships and control, transactions, amounts involved and amounts due.
9. Goodwill is treated as any other intangible asset, and is capitalized and amortized. The carry forward period is 40 years.
10. The concept of pre-operative expenses does not exist.
11. Current and long-term components of assets and liabilities should be disclosed separately. Current component normally refers to one year of the period of the operating cycle.
12. Exchange gain/loss is taken to the income statement. The concept of capitalization of exchange fluctuations arising from foreign currency liabilities incurred for acquiring fixed assets does not exist.
13. Segmental reporting is mandatory for SEC registered companies.
14. Impairment evaluation is compulsory for all assets. Future undiscounted cash flows from use and disposal of the assets are first compared to its carrying value to determine the impairment situation. Impairment loss is then recognized on the basis of the fair value of the asset. Disclosure of the facts and circumstances that led to impairment is compulsory.
15. Mandatory fair values are ascertained based on certain specific principles for items, such as loans, current assets, current liabilities, etc.
16. Cash flow statement is compulsory.
17. Financial leases are to be capitalized.

SUMMARY

- The flexibilities offered by a choice of accounting treatments distinctly diminish, and even distort the comparability of relevant information in the financial statements. Pressures on the accounting profession to establish uniform accounting standards, led to evolution of 'Accounting Standards' (AS) as used in India and as 'Generally Accepted Accounting Principles' (GAAP) in the United States of America. The International Accounting Standards Committee was formed to develop world wide accounting standards, called International Accounting Standards (IAS), to alleviate the problems faced by multinational companies having to comply with multiple accounting Standards. In this chapter having learnt the various Accounting Standards promulgated by various organizations, we proceed to review the accounting mechanics, the books to be maintained and process required to identify, analyze the events and transactions and the record their effect on the companies' financial position using the Accounting equation in the next chapter.

Chapter III

Accounting Mechanics: Basic Records

After reading this chapter, you will be conversant with:

- Basic Accounting Mechanics
- Rules of Debit and Credit
- Types of Accounts
- Books of Accounts
- Maintenance of the Cashbook and Petty Cashbook
- The Special Journals and Ledger maintained by an Organization
- Recording the Transaction in the Various Books
- Journalizing the Transactions
- Posting Entries in Ledger Accounts

All the business transactions have twofold effect. Recording of both aspects of a transaction is called Double Entry system of bookkeeping.

In Chapter I, it was stated that, under the duality concept that sources of funds must always equal to uses of funds and from this equality was derived. The fundamental accounting equation:

Total Liabilities = Total Assets

(or)

Owners' Equity + Outside Liability = Assets

Where assets refer to resources which are owned by business enterprises, liabilities are debts payable to parties external to business and capital means the amount payable to owner of the business enterprise.

It was also evident from the earlier discussions that any of the following is a source of funds, in business:

– Incurring Liability (including owners' equity)
– Earning Revenue
– Making Profits.

It stands to reason that a decrease in liability, revenue or profit must be a use of funds being the opposite of a source.

Similarly, any of the following is a use of funds:

– Acquiring Assets
– Incurring Expenses
– Incurring Losses.

Also a decrease in assets, expenses or losses must be a source of funds, being the opposite of a use.

Thus, no matter what event transpires in the business, it must be possible to capture that event in the balance sheet in such a way that the liabilities (sources) and assets (uses) remain equal. For instance, consider the following example.

A business is started with a capital of Rs.10,000 brought in cash. The above event gives rise to a cash balance of Rs.10,000, which, being an increase in an asset (namely cash), is a use.

At the same time, the business now owes Rs.10,000 to the owner who invests the capital in it, so that the owners' equity in the business is Rs.10,000. This being a liability of the business towards the owner, constitutes a source.

Thus, the balance sheet of the business at the end of the above event would look as follows:

Liabilities (Sources)	Assets (Uses)
Owners' Equity Rs.10,000	Cash Rs.10,000

Now assume that in the above business, land and buildings worth Rs.8,000 are bought for cash.

The above event would make the balance sheet look as follows:

Liabilities (Sources)	Rs.	Assets (Uses)	Rs.
Owners' Equity	10,000	Land & Buildings	8,000
		Cash	2,000
	10,000		10,000

It is clear from the above that the purchase of land and building is the use (being an increase in an asset), whereas the decrease in the cash balance is a source (being a decrease in an asset).

A vehicle is purchased for Rs.4,000 by taking a loan for the purpose. The balance sheet would now look as follows:

Liabilities (Sources)	Rs.	Assets (Uses)	Rs.
Owners' Equity	10,000	Land & Building	8,000
Loan	4,000	Vehicle	4,000
		Cash	2,000
	14,000		14,000

Here the asset creation (namely the vehicle) is the use and the liability created (namely the loan) is the source.

Goods worth Rs.1,500 are purchased for cash.

The balance sheet gets modified to:

Liabilities (Sources)	Rs.	Assets (Uses)	Rs.
Owners' Equity	10,000	Land & Building	8,000
Loan	4,000	Vehicle	4,000
		Goods Inventory	1,500
		Cash	500
	14,000		14,000

In this case, the inventory build-up is the use, whereas the cash depletion is the source.

Now assume that Rs.1,000 worth of goods from the inventory are sold for Rs.1,200 on cash.

On account of the sale made, revenue worth Rs.1,200 is realized. Whatever revenue is earned by the business, it must owe that revenue to the owners. Thus revenue may be regarded as increasing the owners' equity. Similarly, the cost of the goods sold in this case is Rs.1,000. This expense must ultimately be borne by the owners, so that the expense may be viewed as decreasing the owners' equity.

Now on account of the above event of sale, the balance sheet would stand modified as shown below:

Liabilities (Sources)		Rs.	Assets (Uses)	Rs.
Owners' Equity		10,000	Land & Building	8,000
Add: Revenue	1,200		Vehicle	4,000
Less: Expenses	–1,000	200	Goods Inventory	500
		10,200	Cash	1,700
Loan		4,000		
		14,200		14,200

Also, it can be observed that following the above sale, the owners' equity has gone up from Rs.10,000 at the time of inception of the business, to Rs.10,200 after the above sale was made. This increase in owners' equity is clearly the profit made by the business during the period (similarly in the above case, had Rs.1,000 worth of goods been sold for Rs.800 instead, the balance sheet would indicate an owners' equity of Rs.9,800 indicating thereby a loss of Rs.200).

SYMBOLS FOR SOURCES AND USES

Since 'Sources' and 'Uses' are relatively longer words, as in Chemistry, they can be replaced by short symbols. The accepted symbol for sources is Cr. and that for uses is Dr. These symbols are purely incidental and could well have been switched or entirely changed without any loss in generality whatsoever. However, the symbol Cr. is commonly pronounced as 'CREDIT' and the symbol Dr. as 'DEBIT'. In accounting, the terms CREDIT and DEBIT are merely two different sounds and do not have the same implications as they have in English language.

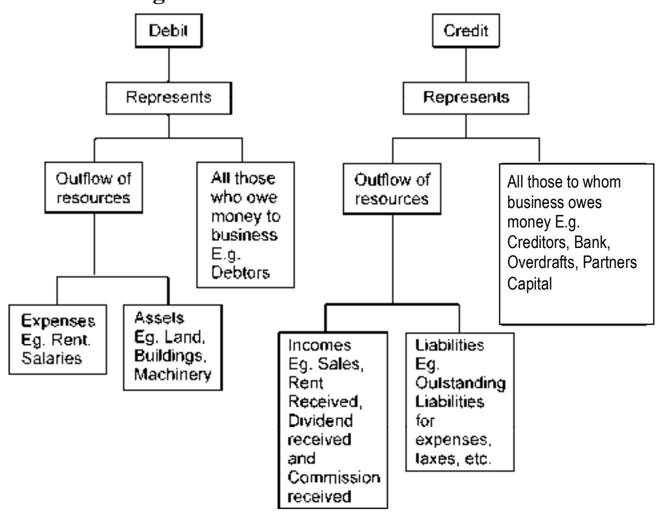
Thus, increase in liabilities, revenues or profits being sources of funds are all called ‘Cr’ items. Similarly, increase in assets, expenses and losses being uses of funds are all called ‘Dr’ items. This may be expressed by the following matrix.

	Increase	Decrease
Liability, Revenue and Profit	CR = Source	DR = Use
Asset, Expense and Loss	DR = Use	CR = Source

DEBIT AND CREDIT

It is necessary to point out at the outset that the words ‘debit’ and ‘credit’ represent two different concepts. The nature of Debit and Credit is explained in Figure 3.1.

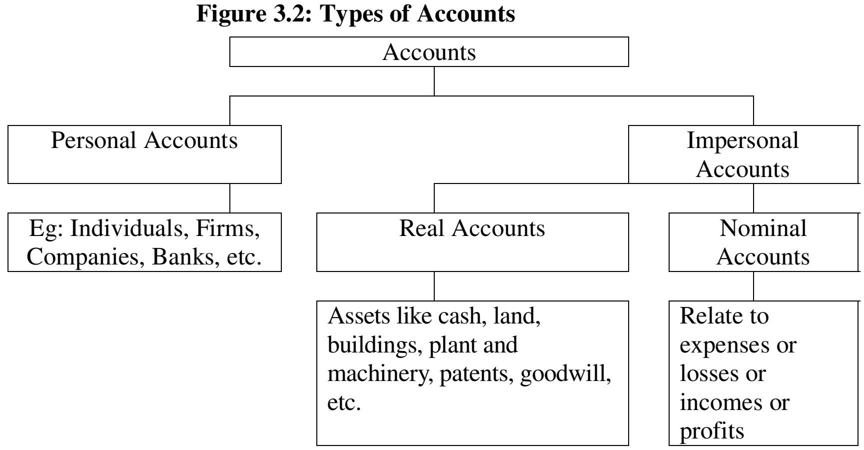
Figure 3.1: Nature of Debit and Credit



TYPES OF ACCOUNTS

The accounts maintained by a business organization are classified into three types as shown in Figure 3.2.

Figure 3.2: Types of Accounts



Personal Account: It deals with accounts of individuals like creditors, debtors, bank, etc. It shows the balance due to these individuals or due from them on a particular date.

Real Account: It represents assets like plant and machinery, land and buildings, goodwill, etc. As on a particular date, this account shows the worth of the asset.

Nominal Account: It consists of different types of expenses or incomes or loss or profit. These accounts show the amount of income earned or expenses incurred for a particular period say a month, a year, etc.

Whether an Account has to be debited or credited is decided by using the rules indicated in Figure 3.3.

Figure 3.3: Rules of Debit and Credit

Rules of Debit and Credit

	Personal Accounts	**Real Accounts**	**Nominal Accounts**
Debit:	The receiver	What comes in	All expenses and losses
Credit:	The giver	What goes out	All incomes and gains

BOOKS OF ACCOUNTS

A business organization maintains three important books of accounts, namely

Cashbook

To record cash receipts and payments including receipts and payments through a bank. A separate Cashbook is kept to record petty expenses. The petty Cashbook is recorded by imprest system.

Journal

To record non-cash transactions like credit sales, credit purchases, sales returns, purchase returns, year-end adjustments, if any. These books are also called subsidiary books. Format of these books is given in the subsequent pages.

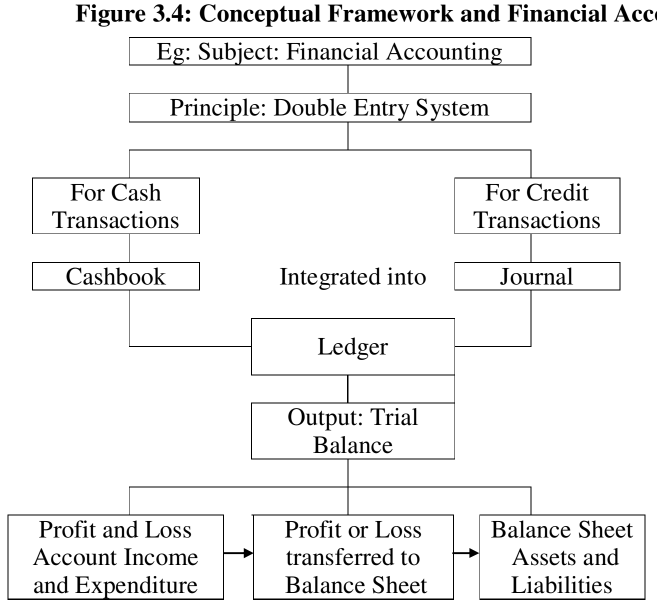
Ledger

Ledger contains a classified summary of all transactions recorded in Cashbook and journal. A ledger is not an independent record. The transactions recorded in a ledger are derived from either Cashbook or journal.

A CONCEPTUAL FRAMEWORK OF FINANCIAL ACCOUNTING

In Figure 3.4: a conceptual framework is presented for Financial Accounting.

Figure 3.4: Conceptual Framework and Financial Accounting



In other words:

- The subject of Financial Accounting is based on the double entry system of accounting using debits and credits.
- Cash transactions are entered in Cashbook.
- Credit transactions (non-cash transactions) are entered in the Journal.
- The transactions of Cashbook and journal are integrated into the Ledger, which is a summary of all cash and credit entries.
- When all the ledger accounts are tabulated as a summary statement it is known as ‘Trial Balance’.
- Trial Balance establishes the arithmetical accuracy of the accounting records.
- From the trial balance two separate accounting documents are prepared namely Profit and Loss Account and Balance Sheet.
- All income and expenditure accounts are taken to Profit and Loss Account.
- All assets and liabilities accounts are taken to Balance Sheet.
- The net result of Profit and Loss Account namely Profit or Loss is taken to Balance Sheet.

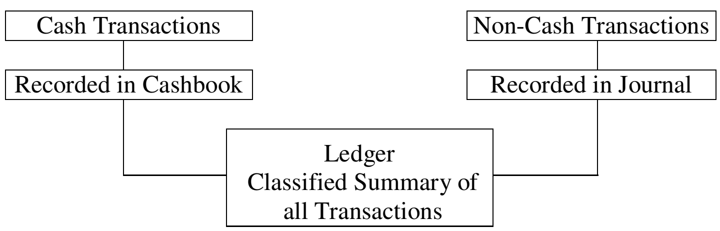
Thus the Balance Sheet tallies.

These points are discussed in detail in the coming chapters.

RECORDING OF TRANSACTIONS

The recording of transactions in the books of accounts may be represented as in Figure 3.5.

Figure 3.5: Recording of Transactions



Journal

The daily business transactions are recorded in a book called Journal. The journal is called ‘book of original entry.’ All the transactions are first entered in the journal in the order of their occurrence. Recording of entries in the journal is known as journalizing. With the growth in business, and consequent increase in the number of transactions, it became difficult to record all the transactions in the journal. Therefore, to facilitate recording of similar transactions, large concerns maintain special journals also known as subsidiary books. Now the purpose of journal is restricted to recording special entries like opening, closing, transfer, rectification and entries which cannot be entered in other subsidiary books.

Format of a Journal

Date	Particulars	L.F.	Debit Rs.	Credit Rs.

The date on which transactions have taken place is entered in the date column. Two aspects of the transaction are recorded in the particulars column. A brief description of the transaction is also given in the particulars column. The Ledger Folio (L.F.) column is meant for writing the number of the page in the ledger in which the particular transaction is entered. The amount to be debited is entered in the debit column and the amount to be credited is entered in the credit column.

Steps in Journalizing

1. Analyze the transaction and identify the two accounts that are being affected by the transaction.
2. Ascertain the nature of the accounts involved as real, personal or nominal.
3. Determine which rule of debit and credit is applicable for each of accounts involved.
4. Ascertain the account to be debited and the account to be credited.
5. Write the name of the account to be debited along with the abbreviation "Dr" on the same line against the name of the account in particulars column and the amount to be debited in the debit amount column against the name of the account.
6. Write the name of the account to be credited in the next line preceded by the word "To" at a few spaces towards the right in the particulars column, and the amount to be credited in the credit amount column against the name of the account.
7. Write Narration (a brief description of the transaction) within brackets in the next line in particulars column.

Example:

XYZ Ltd. received Rs.1,000 from Geet & Co. on 5-1-2001.

Recording the journal entry in the books of XYZ Ltd.

Step 1:

The two accounts involved in the above transaction are (i) money being received, and (ii) the person paying the amount i.e., Geet & Co.

Step 2:

The nature of the accounts are (i) Real account, and (ii) Personal account respectively.

Step 3:

a. The rule applicable to real account is 'debit what comes in and credit what goes out'. In the given transaction, cash is coming in, therefore debit cash account.

b. The rule for personal account is 'debit the receiver and credit the giver'. In the above transaction, Geet & Co. is the giver, therefore credit Geet & Co.

Journal

Date	Particulars	L.F.	Debit. Rs.	Credit Rs.
5.1.2001	Cash a/c Dr. To Geet & Co. a/c (Being cash received from Geet & Co.)		1,000	1,000

Let us apply the rules of debit and credit for a few sample transactions after ascertaining dual aspects.

Transaction	Aspects	Account Debited	Reason for the Debit	Account Credited	Reason for the Credit
ABC Ltd. received Rs.5,000 from Gupta & Company (In the books of ABC Ltd.)	Aspect 1 cash of Rs.5,000 is received. Aspect 2 The amount is given by Gupta & Co.	Cash a/c	Cash a/c is a Real a/c. The rule of 'Debit what comes in' applies.	Gupta & Co.	Gupta & Co a/c is a Personal a/c. The rule of 'Credit the giver' applies.
PQR Ltd. purchased Rs.6,000 worth of goods from X Co. (In the books of PQR Ltd.)	Aspect 1 Goods of Rs.6,000 are received. Aspect 2 The goods are supplied by X Co.	Inventory a/c (or Purchases a/c)	Inventory a/c or Purchases a/c in Nominal a/c. The Rule is Debt all Expenses.	X Co. a/c	X Co. a/c is a personal a/c. The rule of 'Credit the giver' applies.
XYZ Ltd. paid the salaries of Rs.15,500 to its staff for the month through bank transfer. (In the books of XYZ Ltd.)	Aspect 1 Payment of an expense of Rs.15,500. Aspect 2 Bank balance is reduced by Rs.15,500.	Salaries a/c	Salaries a/c is a Nominal a/c. The rule of 'Debit all expenses' applies.	Bank a/c	Bank a/c is a personal a/c the rule of 'Credit the giver' applies.

Illustration 3.1

Journalize the following transactions in the books of Dixit Enterprises.

i. Started business with a capital of Rs.7,50,000.

ii. Opened a bank account with State Bank of India for Rs.2,00,000.

iii. Purchased goods from Tandon & Co. for cash Rs.1,00,000.

iv. Purchased goods from Burman for Rs.2,00,000.

v. Goods returned to Mr Burman Rs.50,000.

vi. Paid Rs.1,40,000 to Mr Burman in full settlement of his dues.

vii. Paid Mr Dharam, the landlord Rs.50,000 towards rent.

viii. Withdrew cash for household expenses Rs.60,000.

ix. Sold goods to Mr Karan for cash Rs.2,50,000.

x. Sold goods to Mr Dev on credit Rs.1,00,000.

xi. Goods returned by Mr Dev for Rs.25,000.

xii. Received cash from Mr Dev Rs.70,000 in full settlement.

xiii. Paid cartage on goods purchased Rs.35,000.

xiv. Paid cartage on goods sold Rs.80,000.

xv. Purchased furniture for office purpose Rs.1,00,000.

xvi. Purchased furniture for re-sale Rs.1,00,000.

xvii. Sold furniture out of those meant for resale Rs.1,50,000.

xviii. Paid rent out of personal cash Rs.40,000.

Solution

In the Books of Dixit Enterprises
Journal Entries

Date	Particulars		L.F	Debit Rs.	Credit Rs.
i.	Cash A/c	Dr.		7,50,000	
	To Capital A/c				7,50,000
	(Being cash invested in the business)				
ii.	Bank A/c	Dr.		2,00,000	
	To Cash A/c				2,00,000
	(Being cash deposited in the Bank)				
iii.	Purchases A/c	Dr.		1,00,000	
	To Cash A/c				1,00,000
	(Being goods purchased from Tandon & Co. for cash)				
iv.	Purchases A/c	Dr.		2,00,000	
	To Burman A/c				2,00,000
	(Being goods purchased from Burman on credit)				
v.	Burman A/c	Dr.		50,000	
	To Returns outward A/c				50,000
	(Being goods returned to Burman)				
vi.	Burman A/c	Dr.		1,50,000	
	To Cash A/c				1,40,000
	To Discount Received A/c				10,000
	(Being cash paid to Mr Burman and received discount)				

Date	Particulars		L.F	Debit Rs.	Credit Rs.
vii.	Rent A/c	Dr.		50,000	
	To Cash A/c				50,000
	(Being rent paid in cash)				
viii.	Drawings A/c	Dr.		60,000	
	To Cash				60,000
	(Being cash withdrawn for household expenses)				
ix.	Cash A/c	Dr.		2,50,000	
	To Sales A/c				2,50,000
	(Being goods sold for cash)				
x.	Dev A/c	Dr.		1,00,000	
	To Sales A/c				1,00,000
	(Being goods sold to Dev on credit)				
xi.	Returns Inward A/c	Dr.		25,000	
	To Dev A/c				25,000
	(Being goods returned by Dev)				
xii.	Cash A/c	Dr.		70,000	
	Discount Allowed A/c	Dr.		5,000	
	To Dev A/c				75,000
	(Being cash received from Dev and allowed him discount)				
xiii.	Cartage Inward A/c	Dr.		35,000	
	To Cash A/c				35,000
	(Being cartage paid on goods purchased)				
xiv.	Cartage Outwards A/c	Dr.		80,000	
	To Cash A/c				80,000
	(Being cartage paid on goods sold)				
xv.	Furniture A/c	Dr.		1,00,000	
	To Cash A/c				1,00,000
	(Being furniture purchased on cash for office)				
xvi.	Purchases A/c	Dr.		1,00,000	
	To Cash A/c				1,00,000
	(Being furniture purchased on cash for re-sale)				
xvii.	Cash A/c	Dr.		1,50,000	
	To Sales A/c				1,50,000
	(Being furniture meant for resale sold for cash)				
xviii.	Rent A/c	Dr.		40,000	
	To Capital A/c				40,000
	(Being rent paid out of personal cash)				

Illustration 3.2

Special Transactions

Journalize the following transactions in the Books of Rakesh for the month of January, 2001.

Date	Transactions
2.1.2001	Withdrawn cash for personal use Rs.2,500
8.1.2001	Withdrawn goods for personal use (Sale price Rs.1,500, Cost Rs.1,250)
9.1.2001	Goods distributed to children in an orphanage (Sale price Rs.2,000 Cost Rs.17,000)
10.1.2001	Goods distributed as free samples (Sale price Rs.1,200; Cost Rs.1,000)
11.1.2001	Goods stolen (Sale price Rs.1,000 Cost Rs.800)
12.1.2001	Goods destroyed by fire (Sale price Rs.1,500 Cost Rs.1,250)
12.1.2001	Goods used in furnishing the office (Sale prices Rs.2,000 Cost price Rs.1,750)
25.1.2001	Recovered from Pramod half the amount which was written off as bad Rs.300 was written off as bad earlier.
28.1.2001	Rs.250 payable by Rakesh was written off as bad.

Solution

In the Books of Rakesh

Journal Entries

Date	Particulars		L.F.	Debit Rs.	Credit Rs.
2.1.2001	Drawings a/c	Dr.		2,500	
	To Cash a/c				2,500
	(Being cash withdrawn for personal use)				
8.1.2001	Drawings a/c.	Dr.		1,250	
	To Purchases a/c				1,250
	(Being goods withdrawn for personal use)				
9.1.2001	Donation a/c	Dr.		1,700	
	To Purchases a/c				1,700
	(Being goods distributed to the children in an orphanage)				
10.1.2001	Sales Promotion a/c	Dr.		1,000	
	To Purchases a/c				1,000
	(Being goods distributed as free samples)				
11.1.2001	Loss by Theft a/c	Dr.		800	
	To Purchases a/c				800
	(Being goods stolen)				
12.1.2001	Loss by fire a/c	Dr.		1,250	
	To Purchases a/c				1,250
	(Being goods destroyed by fire)				
12.1.2001	Office furniture a/c	Dr.		1,750	
	To Purchases a/c				1,750
	(Being goods used in furnishing the office)				
25.1.2001	Cash a/c	Dr.		150	
	To Bad Debts Recovered a/c				150
	(Being cash recovered out of an amount which was written off as bad earlier)				
28.1.2001	Bad Debts a/c	Dr.		250	
	To Rakesh a/c				250
	(Being amount due from Rakesh written off as bad)				

Illustration 3.3

Compound Entry

Journalize the following transactions:

Date	Transaction
2.1.2001	Purchased goods from Arora at the list price of Rs.8,000. A trade discount of 10% was allowed.
8.1.2001	Sold goods to Flora at a list price of Rs.4,000. A trade discount of 5% was allowed.
15.1.2001	Received a cheque from Flora for Rs.3,600 in full settlement.
20.1.2001	Paid Arora Rs.7,000 by cheque in full settlement.
25.1.2001	Shyam is declared insolvent and received from his official receiver, a first & final dividend of 60 paise in a rupee against a debt of Rs.2,500.

Solution

Journal Entries

Date	Particulars		L.F.	Debit Rs.	Credit Rs.
2.1.2001	Purchases a/c	Dr.		7,200	
	To Arora a/c				7,200
	(Being goods purchased from Arora for Rs.8,000 at a trade discount of 10%)				
8.1.2001	Flora a/c	Dr.		3,800	
	To Sales a/c				3,800
	(Being goods sold to Flora for Rs.4,000 at a trade discount of 5%)				
15.1.2001	Bank a/c	Dr.		3,600	
	Discount Allowed a/c	Dr.		200	
	To Flora a/c				3,800
	(Being cheque received from Flora in full settlement)				
20.1.2001	Arora a/c	Dr.		7,200	
	To Bank a/c				7,000
	To Discount received a/c				200
	(Being cheque paid to Arora in full settlement)				
25.1.2001	Cash a/c	Dr.		1,500	
	Bad Debts a/c	Dr.		1,000	
	To Shyam a/c				2,500
	(Being 60 paise in a rupee received from Shyam in full settlement of dues)				

Ledger

Ledger contains a classified summary of all transactions recorded in Cashbook and journal. It is the main book of account. Ledger is also called Principal book as final information pertaining to the financial position of a business emerges only from the accounts.

Format of Ledger

Dr. **Account Title** Cr.

Date	Particulars	J.F.	Amount	Date	Particulars	J.F.	Amount

The date column records the year, month and date of the transactions. Particulars column records the title of the other account affected. Name of the account in particulars column on the debit and credit side are preceded by the words ‘To’ and ‘By’ respectively. Journal Folio (J.F.) column records the page number of the journal from which the posting to the ledger has taken place. Amount column on debit and credit side records the amount mentioned in journal entry against the title of the account prepared.

LEDGER POSTING

The process of transferring of debits and credits entries from the journal to the ledger is called ledger posting.

A separate account is opened in ledger for each account. All the debit entries and credit entries are duly entered. At the end, the accounts are properly balanced. In other words, the total of all debit entries is adjusted against the total of credit entries and balance is carried forward to the next accounting period. In case of personal accounts and real accounts the balances in nominal accounts are transferred to trading, profit and loss account.

Steps in Ledger Posting

The amount to be debited is posted as follows:

First of all the opening balance (if any) has to be posted. The opening entry for various assets should be posted by writing 'To Balance b/f'on the debit side of the relevant account. Similarly, liabilities accounts should be posted by writing 'By Balance b/f' on the credit side of the relevant account.

1. Enter the date of the transaction on the debit side of the relevant account.
2. The title of the account to be credited is preceded by the word "To" is entered in the particulars column.
3. In Journal Folio (J.F.) column enter the page number of the journal on which the journal entry is passed.
4. Amount column records the amount mentioned in the journal against title of the account under consideration.

For posting of the account to be credited, above mentioned steps are followed but with one difference. Now the recording is done on the credit side of the account and in the particulars column title of the amount to be debited is preceded by the word "By".

Illustration 3.4

Cash received from Geet & Co. Rs.1,000 on 5.1.2001

Cash a/c	Dr.	1,000	
To Geet & Co. a/c			1,000

Dr. **Cash Account** Cr.

Date	Particulars	J.F.	Amount	Date	Particulars	J.F.	Amount
5.1.2001	To Geet & Co		1,000				

Dr. **Geet & Co.** Cr.

Date	Particulars	J.F.	Amount	Date	Particulars	J.F.	Amount
				5.1.2001	By Cash a/c		1,000

Balancing of Ledger

After the posting has been completed accounts are balanced. Balancing of an account means to make the total of amounts column appearing on the debit and credit side equal to each other. If the total of debit side is greater than the credit side, the difference between the two sides is known as debit balance and likewise, if the total of credit side is greater, the difference is known as credit balance. The difference is placed on the shorter side, saying "To (or By) balance carried down. The total is written on both sides opposite each other and the account is ruled off. Personal accounts and real accounts like capital accounts, machinery account, building account, etc. are balanced. But nominal accounts representing expenses, revenues and incomes are not balanced. They are transferred to the trading and profit and loss account at the end of the year.

Illustration 3.5

From the following information prepare the ledger account of Garewal in the books of Rahman and bring down the balance as on 31st January, 2001.

1.1.2001	Sold goods for Rs.1,00,000 less 25% trade discount.
4.1.2001	Garewal paid Rs.40,000 on account, discount allowed Rs.4,000.
6.1.2001	Sold goods for Rs.50,000 less 25% trade discount.
9.1.2001	Received back 1/3rd of the goods sold on 6th January.
15.1.2001	Received cheque for Rs.60,000, discount allowed thereon Rs.6,000.
18.1.2001	Sold goods Rs.2,00,000 less 25% trade discount.
20.1.2001	Bills Receivable accepted by Garewal for Rs.1,00,000.
25.1.2001	Cheque received on 15th January was returned dishonored.
28.1.2001	Received cash Rs.75,000.

Solution

In the Books of Rahman
Garewal's Account

Dr. Cr.

Date	Particulars	J.F.	Amount Rs.	Date	Particulars	J.F.	Amount Rs.
1.1.2001	To Sales A/c		75,000	4.1.2001	By Cash A/c		40,000
6.1.2001	To Sales A/c		37,500	4.1.2001	By Discount Allowed a/c		4,000
18.1.2001	To Sales A/c		1,50,000	9.1.2001	By Returns Inward		12,500
25.1.2001	To Bank A/c			15.1.2001	By Bank A/c		60,000
	Cheque dishonored		60,000	15.1.2001	By Discount Allowed A/c		6,000
					By Bills Receivable A/c		1,00,000
				28.1.2001	By Cash a/c		75,000
25.1.2001	To Discount Allowed Cancellation of discount		6,000	31.1.2001	By Balance c/d		31,000
			3,28,500				3,28,500
1.2.2001	To Balance b/d		31,000				

Cashbook

Cashbook is a special journal in which all cash transactions are recorded directly. Cashbook shows the cash receipts and the cash payments. The Cashbook resembles a ledger with the debit and credit sides, and the balance represents cash on hand at the end of the accounting period. As soon as the cash transaction takes place, it is recorded in the Cashbook. Cash account is not opened separately, when a Cashbook is maintained because Cashbook serves the purpose of the ledger also.

KINDS OF CASHBOOK

1. Simple Cashbook/Single Column Cashbook
2. Double Column Cashbook
3. Three Column Cashbook.

Simple Cashbook

In simple Cashbook all the cash transactions are recorded in chronological order. All cash receipts are entered on the debit side and cash payments on the credit side of the Cashbook. The difference between the two sides is the cash in hand.

Illustration 3.6

Simple Cashbook/Single Column Cashbook

Prepare a single column Cashbook of Raja Ram from the following particulars:

1.1.2001 He commenced business with Rs.1,00,000 of which Rs.20,000 was borrowed from Mr. Basant.

2.1.2001 Purchased furniture for office use worth Rs.5,000.

3.1.2001 Paid petty cash expenses of Rs.2,000.

4.1.2001 Bought goods from Mohan for cash Rs.20,000.

4.1.2001 Paid Rs.20,000 to Charat for goods purchased on credit.

5.1.2001 Sold goods to Shyam for cash Rs.10,000. Received Rs.38,000 from Hari for goods sold on credit.

16.1.2001 Drew cash for personal use Rs.1,000.

31.1.2001 Paid salary to Sri Ram, an employee, Rs.1,500.

31.1.2001 Repaid the loan taken from Mr. Basant including interest @18% p.a.

Solution

Dr. **Cashbook** Cr.

Date	Particulars	LF	Rs.	Date	Particulars	LF	Rs.
1.1.2001	To Capital a/c		80,000	2.1.2001	By Furniture a/c		5,000
1.1.2001	To Loan from Basant a/c		20,000	3.1.2001	By Petty Expenses a/c		2,000
5.1.2001	To Sales		10,000	4.1.2001	By Purchases a/c		20,000
5.1.2001	To Hari's a/c		38,000	4.1.2001	By Charat a/c		20,000
				16.1.2001	By Drawings a/c		1,000
				31.1.2001	By Salary a/c		1,500
				31.1.2001	By Interest on Loan a/c		300
				31.1.2001	By Loan from Basant a/c		20,000
				31.1.2001	By Balance c/d		78,200
			1,48,000				1,48,000
	To Balance b/d		78,200				

Double Column Cashbook (Cashbook with cash and discount columns)

This Cashbook is an extension of simple Cashbook. An additional column is maintained to record discount involved in the settlement of debtors and creditors in the double column Cashbook. Cash discount usually occurs in the settlement of trade debts. It is an allowance made by the receiver of cash to the payer for the prompt payment. Cash received from debtors is recorded in the cash column and discount allowed in the discount column on the debit side of the Cashbook. Similarly, credit side of the Cashbook records cash paid to the creditors in cash column and discount received in the discount column.

A cash discount may be distinguished from trade discount which is given on the invoice price, especially when orders for large quantities are placed. The trade discount is, therefore, reflected as a reduction in the sale price itself and it is not recorded in the books of accounts.

Double column cashbook also can be with cash and bank columns. In this type of cashbook, the transactions involving cash and transactions involving receipts and payments by cheques are recorded. It facilitates and enables the business to maintain both cash and bank accounts simultaneously.

Illustration 3.7

Compile Cashbook with discount column from the following transactions for the month of March, 2001:

1.3.2001 Mr. Ganesh commenced business with cash Rs.65,000.
3.3.2001 Bought goods for cash Rs.6,850.
4.3.2001 Paid Mr. Mohan cash Rs.950; discount was allowed thereon Rs.50.
6.3.2001 Deposited in bank Rs.40,000
6.3.2001 Paid for office furniture by cash Rs.4,650.
9.3.2001 Sold goods for cash Rs.30,000.
12.3.2001 Paid wages by cash Rs.1,200.
13.3.2001 Paid for stationery Rs.400.
15.3.2001 Sold goods for cash Rs.25,000.
17.3.2001 Paid for Miscellaneous expenses Rs.450.
19.3.2001 Received cash from Mr. Tilak 4,850; Allowed him discount Rs.150.
21.3.2001 Purchased a radio set for Rs.2,500 for personal use.
22.3.2001 Paid salary Rs.4,000.
25.3.2001 Paid rent Rs.900.
28.3.2001 Paid electricity bill Rs.350.
29.3.2001 Paid advertising expenses Rs.400.
31.3.2001 Paid into bank Rs.25,000.

Solution

Dr. **Cashbook** Cr.

Date	Particulars	LF	Discount Rs.	Cash Rs.	Date		L.F	Discount Rs.	Cash Rs.
1.3.2001	To Capital A/c			65,000	3.3.2001	By Purchases a/c			6,850
9.3.2001	To Sales A/c			30,000	4.3.2001	By Mohan a/c		50	950
15.3.2001	To Sales A/c			25,000	6.3.2001	By Bank a/c			40,000
19.3.2001	To Tilak A/c		150	4,850	6.3.2001	By Office Furniture a/c			4,650
					12.3.2001	By Wages a/c			1,200
					13.3.2001	By Stationary a/c			400
					17.3.2001	By Miscellaneous Expenses a/c			450
					21.3.2001	By Drawings a/c			2,500
					22.3.2001	By Salary a/c			4,000
					25.3.2001	By Rent a/c			900
					28.3.2001	By Electricity a/c			350
					29.3.2001	By Advertising a/c			400
					31.3.2001	By Bank a/c			25,000
					31.3.2001	By Balance c/d			37,200
			150	1,24,850				50	1,24,850

Three Column Cashbook (Cashbook with cash, discount and bank columns)

With the development of banking sector, and frequent use of banking instrument, Cashbook with additional column for bank transactions came into existence. Thus, the three column Cashbook is nothing but ledger accounts for cash and bank with additional information about discount allowed and discount received.

An illustrative format of this type of Cashbook is given below:

Cashbook of Excellent Enterprises

Dr. Cr.

Date	Receipts	Discount allowed	Cash	Bank	Date	Payments	Discount received	Cash	Bank
2001 April, 1	To Balance b/f		1,500	13,000	2001 April, 2	By Wages for Casual Sweeper		50	
6	To Sales		800		5	By Electricity			400
7	To Arvind Co	50		2,000	8	By Plumbing Repairs		400	
11	To Beta Corpn.	60		2,350	15	By Y Ltd.	150		10,800
20	To Sales		500		30	By Balance c/f		2,350	6,150
		110	2,800	17,350			150	2,800	17,350

The Cashbook normally carries columns for Cash Memo No., Ledger Folio No., Voucher No., etc.

The unique feature of the Cashbook is that it performs the functions of a Journal and the General Ledger with regard to the cash and bank transactions. In other words, Cashbook is the book of first entry for all such transactions and the ledger accounts for cash in hand and cash at bank will not be maintained in the General Ledger.

Contra Entries

If a transaction affects both cash account and bank account in the opposite sides, the entry for recording the transaction is called a contra entry. Entries which are made on both sides of the Cashbook are called contra entries. For contra entries no posting is required because the double entry is completed in the Cashbook itself. For example, cash deposited into bank and cash withdrawn from bank affect cash and bank account only. Both aspects of these transactions are recorded in cash column and bank column of the Cashbook respectively. No ledger posting is required, because both aspects of the transaction are recorded in the Cashbook itself. This fact is indicated in the Cashbook by writing ‘C’ in L.F. column.

Illustration 3.8

Prepare a triple column Cashbook from the following transactions of Madona Enterprises for the month of March, 2001 and bring down the balance at the end of the month:

		Rs.
1.3.2001	Cash in hand	2,500
	Cash at bank	10,000
2.3.2001	Paid into bank	1,000
5.3.2001	Bought furniture and issued cheque	2,000
8.3.2001	Purchased goods for cash	500
12.3.2001	Received cash from Mohinder	980
	Discount allowed to him	20
14.3.2001	Cash Sales	4,000
16.3.2001	Paid to Amaranth by cheque	1,450
	Discount received	50
19.3.2001	Paid into Bank	400
23.3.2001	Withdrawn from Bank for private expenses	600
24.3.2001	Received cheque from Patel	1,430
	allowed him discount	20
28.3.2001	Withdrawn cash from bank for office use	2,000
30.3.2001	Paid rent by cheque	800

Solution

Cashbook

Dr. Cr.

Date	Particulars	LF	Discount Allowed	Cash	Bank	Date	Particulars	LF	Discount	Cash	Bank
1.3.2001	To Balance b/f			2,500	10,000	2.3.2001	By Bank a/c	C	–	1,000	–
2.3.2001	To Cash a/c	C			1,000	5.3.2001	By Furniture a/c		–	–	2,000
12.3.2001	To Mohinder a/c		20	980	–	8.3.2001	By Purchases a/c		–	500	–
14.3.2001	To Sales a/c			4,000	–	16.3.2001	By Amaranth a/c		50	–	1,450
19.3.2001	To Cash	C			400	19.3.2001	By Bank a/c	C	–	400	–
24.3.2001	To Patel a/c		20		1,430	23.3.2001	By Drawings a/c		–	–	600
28.3.2001	To Bank	C		2,000		28.3.2001	By Cash a/c	C	–	–	2,000
						30.3.2001	By Rent a/c		–	–	800
						30.3.2001	By Balance c/d		–	7,580	5,980
			40	9,480	12,830				50	9,480	12,830
31.3.2001	To Balance b/d			7,580	5,980						

PETTY CASHBOOK

When the petty cash fund is operated as an imprest fund, the recording of the petty expenses paid will be made in the Petty Cashbook. This would also avoid recording too many small value transactions in the main Cashbook. The Petty Cashbook would contain a number of analytical columns for grouping the various expenses under a few classifications which would facilitate subsequent posting into the General Ledger. A specimen Petty Cashbook is given below.

Analytical Petty Cashbook of Excellent Enterprises

Amount Received	Date	Particulars	Total amount paid	Postage & Telegrams	Printing & Stationery	Carriage	Traveling expenses	Sundry expenses
	2001							
300	April, 1	To Bank a/c						
		(check encashed)						
	April, 7	By Postal stamps	80	80				
	April, 10	By Stationery	32		32			
	April, 15	By Carriage	16			16		
	April, 20	By Auto fare of salesman	20				20	
	April, 22	By Telegrams	5	5				
	April, 27	By Tea to customers	15					15
	April, 30	By Stationery	36		36			
			204	85	68	16	20	15
	April, 30	By Balance c/d	96					
300			300					
	2001							
96	May, 1	To Balance b/d						
204	May, 1	To Bank a/c						
		(Cheque encashed)						

THE IMPREST SYSTEM

When an analytical Petty Cashbook is maintained for recording the petty expenses, it will be practically more convenient to consider the petty cash as a separate account and take cheques issued for the petty cash imprest as a debit to petty cash account and all petty expenses paid as credits in petty cash account. The journal entries in the months of April and May, 2001 in the books of Excellent Enterprises will be as follows:

2001			Rs.	Rs.
April, 1	Petty Cash Account	Dr	300	
	To Bank Account			300
	(being the imprest amount released for petty expenses)			
April, 30	Postage & Telegrams Account	Dr	85	
	Printing & Stationery Account	Dr	68	
	Carriage Account	Dr	16	
	Traveling Expenses Account	Dr	20	
	Sundry Expenses Account	Dr	15	
	To Petty Cash Account			204
	(being the petty expenses incurred during April)			
May, 1	Petty Cash Account	Dr	204	
	To Bank Account			204
	(being the reimbursement of petty expenses)			

If credit for all the expenses is also given in the Cash Account (or Bank a/c) as described in the textbook, then the Cash a/c will be understated (due to two credits-one in respect of release of imprest and the other in respect of actual expenses), and to counterbalance the understatement the balance in Petty Cash Account must be added to that of the Cash Account.

Subsidiary Books

The Books of Accounts maintained by an organization other than the Cashbook may be classified into Journals and Ledgers. The Journal is used as the book of first entry for all transactions which cannot be recorded in the Cashbook. In other words, all non-cash transactions should be recorded in the journal. The journal is inadequate as the single book of the original entry when the transactions are voluminous in number. The journal is divided into divisions and they are commonly termed as subsidiary books. Some of the subsidiary books are:

i. Purchase Book
ii. Purchase Returns Book
iii. Sales Book
iv. Sales Returns Book
v. Bills Receivable Book
vi. Bills Payable Book
vii. Journal Proper.

Specimen formats of these books and brief explanations regarding their use are given in the following sections:

Purchases Book

Also known as the Purchases Journal, this book is used to record credit purchases of goods only. The term 'goods' covers only those items procured by the business for resale.

Purchases Book of Excellent Enterprises

Date	Particulars (Name of Supplier, etc.)	Ledger Folio	Inward Invoice No.	Amount Rs.
2001				
April 2	Y Limited		3354	10,950
12	Sharp Enterprises		401	2,700
20	Best and Company		5542	3,900
	Total			17,550

Purchases Returns Book

This subsidiary book is used to record the goods purchased on credit and sent back to suppliers as not conforming to specifications or for any other reason.

Purchases Returns Book of Excellent Enterprises

Date	Name of Supplier	Ledger Folio	Debit Note No.*	Amount Rs.
2001				
April, 15	Sharp Enterprises		80	1,000
25	Best and Company		81	900
	Total			1,900

* Refer Glossary

Sales Book

Also known as the Sales Journal, this subsidiary book is used to record the sale of goods on credit.

Sales Book of Excellent Enterprises

Date	Name of Customer	Ledger Folio	Outward Invoice No.	Amount Rs.
2001				
April, 3	Beta Corporation		1001	2,410
5	Zeta Company		1002	3,940
6	Quality Dealers		1003	4,900
15	Sooraj Traders		1004	1,800
25	Star Enterprises		1005	19,500
	Total			32,550

Sales Returns Book

This book is used to record the transactions relating to goods sold on credit and received back from the customers as not conforming to the specifications or for any other reason.

Sales Returns Book of Excellent Enterprises

Date	Name of Customer	Ledger Folio	Credit Note No.*	Amount Rs.
2001				
April, 10	Zeta Company		10	540
27	Star Enterprises		11	2,000
	Total			2,540

* Refer Glossary

Bills Receivable Book

The Bills Receivable of an enterprise consists of all Promissory Notes given or Bills of Exchange accepted by customers in respect of amounts due from them. The bills receivable book is used to record all promissory notes given or Bills of Exchange accepted by customers.

Bills Receivable Book of Excellent Enterprises

S. No.	Date	From whom received	Acceptor	Date of Bill	Term	Date of Maturity	LF	Where Payable	Amount Rs.	How Disposed
	2001									
1	April 12	Quality Dealers	Quality Dealers	8.4.01	90 days	10.7.01		Bank of India, Mumbai	4,900	Discounted on 20.4.01
2	April 18	Sooraj Traders	Sooraj Traders	16.4.x1	60 days	10.6.01		Union Bank, Mumbai	1,800	
									6,700	

Bills Payable Book

The Bills Payable consists of all Promissory Notes given or Bills of Exchange accepted by the business in respect of amounts owing to its suppliers. The Bills Payable Book is used to record all such Promissory Notes given or Bills of Exchange accepted by the business.

Bills Payable Book of Excellent Enterprises

S.No.	Date Accepted	Name of the Drawer	Payee	Date of Bill	Term	Date of Maturity	LF	Where Payable	Amount Rs.	Remarks
	2001									
1	April 25	Best & Co.	Best & Co.	25.4.01	90 days	27.7.01		Canara Bank, Mumbai	3,000	
									3,000	

Journal Proper

This book is used to record all transactions which cannot be included in the Cashbook or any of the other six subsidiary books discussed so far. The transactions that will be recorded in journal proper are, purchase or sale of fixed assets and investments on credit, adjusting entries, rectification entries, etc.

Journal Proper of Excellent Enterprises

Date	Particulars	Doc. Ref.	Ledger Folio	Debit Rs.	Credit Rs.
2001 April, 10	Furniture and Fittings a/c Dr.			4,000	
	To Furniture Mart a/c				4,000
	(being the purchase of furniture on credit)				
30	Repairs to Machinery a/c Dr.			500	
	To Machinery a/c				500
	(being the rectification of a wrong posting of a repair expense to asset a/c)				

We will now take up the transactions of a business during a month and study how they will be recorded in the books of accounts. In the first part of the solution, the detailed journal entries of the transactions are given to explain the dual aspects and the rules of debit and credit. The second part of the solution demonstrates how the transactions will be recorded in the Cashbook and various subsidiary books and then posted to the General Ledger.

Illustration 3.9

During January 2001, Narayan transacted the following business:

Date		Rs.
1.	Commenced business with cash	40,000
2.	Purchased goods on credit from Shyam	30,000
3.	Purchased goods for cash	1,000
4.	Paid Gopalan an advance for goods ordered	2,000
5.	Received cash from Murthy as advance for goods ordered by him	3,000
6.	Purchased furniture for office use for cash	2,000
7.	Paid wages	500
8.	Received commission (in cash)	600
9.	Goods returned to Shyam	200

Date		Rs.
10.	Goods sold to Kamal	10,000
11.	Paid for postage and telegrams	200
13.	Goods returned by Kamal	500
15.	Paid for stationery	200
18.	Paid into bank	500
20.	Goods sold for cash	750
22.	Bought goods for cash	1,000
25.	Paid salaries	700
28.	Paid rent	500
31.	Drew cash for personal use	1,000

Journal Entries

Date 2001	Particulars		Debit Rs.	Credit Rs.
Jan. 1	Cash Account	Dr.	40,000	
	To Narayan's Capital Account			40,000
	(being the cash brought into business as capital)			
	(Logic: Cash is a real account, Debit what comes in. Proprietor's capital is a personal account. Credit the giver.)			
Jan. 2	Purchases Account	Dr.	30,000	
	To Shyam Account			30,000
	(being the goods purchased on credit)			
	(Logic: A purchase of goods is expense. Nominal account rule is debit all expenses. Shyam is a personal account. Credit the giver.)			
Jan. 3	Purchases Account	Dr.	1,000	
	To Cash Account			1,000
	(being the goods purchased for cash)			
	(Logic: A purchase of goods is expense. Nominal account rule is Debit all expenses. Cash is a real account. Credit what goes out.)			
Jan. 4	Gopalan Account	Dr.	2,000	
	To Cash Account			2,000
	(being the amount paid to Gopalan)			
	(Logic: Gopalan is a personal account. Debit the receiver. Cash is a real account. Credit what goes out.)			
Jan. 5	Cash Account	Dr.	3,000	
	To Murthy Account			3,000
	(being the cash received from Murthy)			
	(Logic: Cash is real account. Debit what comes in. Murthy is a personal account. Credit the giver.)			
Jan. 6	Furniture Account	Dr.	2,000	
	To Cash Account			2,000
	(being the furniture purchased for office use for cash)			
	(Logic: Furniture is a real account. Debit what comes in. Cash is a real account. Credit what goes out.)			

Date 2001	Particulars		Debit Rs.	Credit Rs.
Jan. 7	Wages Account	Dr.	500	
	To Cash Account			500
	(being the wages paid)			
	(Logic: Wages is a nominal account. Debit all expenses. Cash is a real account. Credit what goes out.)			
Jan. 8	Cash Account	Dr.	600	
	To Commission Received a/c			600
	(being the commission received)			
	(Logic: Cash is a real account. Debit what comes in. Commission (received) is a nominal account. Credit all incomes.)			
Jan. 9	Shyam Account	Dr.	200	
	To Purchases returns Account			200
	(being goods returned to Shyam)			
	(Logic: Shyam is a personal account. Debit the receiver. A purchase of goods is expense. Nominal account rule is Debit all expenses.)			
Jan. 10	Kamal Account	Dr.	10,000	
	To Sales Account			10,000
	(being goods sold to Kamal on credit)			
	(Logic: Kamal is a personal account. Debit the receiver. A purchase of goods is expense. Nominal account rule is Debit all expenses.)			
Jan. 12	Postage & Telegrams Account	Dr.	200	
	To Cash Account			200
	(being the amount paid for postages & telegrams)			
	(Logic: Postages and telegrams is a nominal account. Debit all expenses. Cash is a real account. Credit what goes out.)			
Jan. 13	Sales returns Account	Dr.	500	
	To Kamal Account			500
	(being the goods returned by Kamal)			
	(Logic: Sales return is a nominal account. Debit all expenses. Kamal is a personal account. Credit the giver.)			
Jan. 15	Stationery Account	Dr.	200	
	To Cash Account			200
	(being the amount paid for stationery)			
	(Logic: Stationery is a personal account. Debit the receiver. Cash is a real account. Credit what goes out.)			
Jan. 18	Bank Account	Dr.	500	
	To Cash Account			500
	(being the amount deposited into the bank)			
	(Logic: Bank is a personal account. Debit the receiver. Cash is a nominal account. Credit what goes out.)			

Date 2001	Particulars		Debit Rs.	Credit Rs.
Jan. 20	Cash Account	Dr.	750	
	To Sales Account			750
	(being the goods sold for cash)			
	(Logic: Cash is a real account. Debit what comes in. Sales is a nominal account. Credit all incomes.)			
Jan. 22	Purchases Account	Dr.	1,000	
	To Cash Account			1,000
	(being the goods purchased for cash)			
	(Logic: Purchases is a nominal account. Debit all expenses. Cash is a real account. Credit what goes out.)			
Jan. 25	Salaries Account	Dr.	700	
	To Cash Account			700
	(being the amount paid as salaries)			
	(Logic: Salaries is a nominal account. Debit all expenses. Cash is a real account. Credit what goes out.)			
Jan. 28	Rent Account	Dr.	500	
	To Cash Account			500
	(being the rent paid)			
	(Logic: Rent is a nominal account. Debit all expenses. Cash is a real account. Credit what goes out.)			
Jan. 31	Narayan's Drawings Account	Dr.	1,000	
	To Cash Account			1,000
	(being the cash drawn for personal use)			
	(Logic: Personal drawings is a personal account. Debit the receiver. Cash is a real account. Credit what goes out.)			

Cashbook, Subsidiary Books and General Ledger

Cashbook

Dr. Cr.

Date	Receipts	Ledger Folio	Cash Rs.	Bank Rs.	Date	Payments	Ledger Folio	Cash Rs.	Bank Rs.
2001					2001				
Jan. 1	To Capital a/c		40,000		Jan. 3	By Purchases a/c		1,000	
Jan. 5	To Murthy a/c		3,000		Jan. 4	By Gopalan a/c		2,000	
Jan. 8	To Commission a/c		600		Jan. 6	By Furniture a/c		2,000	
Jan.18	To Cash a/c	C		500	Jan. 7	By Wages a/c		500	
Jan.20	To Sales a/c		750		Jan.12	By Postage & Telegrams a/c		200	
					Jan.15	By Stationery a/c		200	
					Jan.18	By Bank a/c	C	500	
					Jan.22	By Purchases a/c		1,000	
					Jan.25	By Salaries a/c		700	
					Jan.28	By Rent a/c		500	
					Jan.31	By Drawings a/c		1,000	
					Jan.31	By Balance c/d		34,750	500
			44,350	500				44,350	500

Note: The letter 'C' in the Ledger Folio column denotes a 'contra entry'. That is an entry for which the debit and credit aspects are found in the Cashbook itself.

Purchases Book

Date	Name of Supplier	Ledger Folio	Inward Invoice No.	Amount Rs.
2001 Jan. 2	Shyam			30,000
			Total	30,000

Purchases Returns Book

Date	Name of Supplier	Ledger Folio	Debit Note No.	Amount Rs.
2001 Jan. 9	Shyam			200
			Total	200

Sales Book

Date	Name of Customer	Ledger Folio	Outward Invoice No.	Amount Rs.
2001 Jan. 10	Kamal			10,000
			Total	10,000

Sales Returns Book

Date	Name of Customer	Ledger Folio	Credit Note No.	Amount Rs.
2001 Jan. 13	Kamal			500
			Total	500

General Ledger

Capital Account

Dr. Cr.

Date	Particulars	JF No.	Amount Rs.	Date	Particulars	JF No.	Amount Rs.
2001 Jan.31	To Balance c/d		40,000	2001 Jan.1	By Cash a/c		40,000
			40,000				40,000
				Feb.1	By Balance b/d		40,000

Shyam Account

Dr. Cr.

Date	Particulars	JF No.	Rs.	Date	Particulars	JF No.	Rs.
2001 Jan. 9	To Purchases returns		200	2001 Jan.2	By Purchases a/c		30,000
Jan. 31	To Balance c/d		29,800				
			30,000				30,000
				Feb.1	By Balance b/d		29,800

Purchases Account

Dr. Cr.

Date	Particulars	JF No.	Rs.	Date	Particulars	JF No.	Rs.
2001 Jan. 2	To Shyam a/c		30,000	2001 Jan.31	By Balance c/d		32,000
Jan. 3	To Cash a/c		1,000				
Jan.22	To Cash a/c		1,000				
			32,000				32,000
Feb. 1	To Balance b/d		32,000				32,000

Sales Account

Dr. Cr.

Date	Particulars	JF No.	Rs.	Date	Particulars	JF No.	Rs.
2001 Jan. 31	To Balance c/d		10,750	2001 Jan. 13	By Kamal a/c		10,000
				Jan. 20	By Cash		750
			10,750				10,750
				Feb. 1	By Balance b/d		10,750

Purchases Returns Account

Dr. Cr.

Date	Particulars	JF No.	Rs.	Date	Particulars	JF No.	Rs.
2001 Jan. 31	To Balance c/d		200	2001 Jan. 9	By Shyam a/c		200
			200				200
				Feb.1	By Balance b/d		200

Sales Returns Account

Dr. Cr.

Date	Particulars	JF No.	Rs.	Date	Particulars	JF No.	Rs.
2001 Jan. 13	To Kamal a/c		500	2001 Jan.31	By Balance c/d		500
			500				500
Feb.1	To Balance b/d		500				

Gopalan Account

Dr. Cr.

Date	Particulars	Rs.	Date	Particulars	JF No.	Rs.
2001 Jan. 4	To Cash a/c	2,000	2001 Jan.31	By Balance c/d		2,000
		2,000				2,000
Feb.1	To Balance b/d	2,000				

Wages Account

Dr. Cr.

Date		JF No.	Rs.	Date	Particulars	JF No.	Rs.
2001 Jan.7	To Cash a/c		500	2001 Jan.31	By Balance c/d		500
			500				500
Feb.1	To Balance b/d		500				

Commission Received Account

Dr. Cr.

Date	Particulars	Rs.	Date	Particulars	JF No.	Rs.
2001 Jan.31	To Balance c/d	600	2001 Jan.8	By Cash a/c		600
		600				600
			Feb.1	By Balance b/d		600

Kamal's Account

Dr. Cr.

Date	Particulars	JF No.	Rs.	Date	Particulars	JF No.	Rs.
2001 Jan.10	To Sales a/c		10,000	2001 Jan.13	By Sales returns a/c		500
				Jan.31	By Balance c/d		9,500
			10,000				10,000
Feb.1	To Balance b/d		9,500				

Postage and Telegrams Account

Dr. Cr.

Date	Particulars	JF No.	Rs.	Date	Particulars	JF No.	Rs.
2001 Jan.12	To Cash a/c		200	2001 Jan.31	By Balance c/d		200
			200				200
Feb.1	To Balance b/d		200				

Stationery Account

Dr. Cr.

Date	Particulars	JF No.	Rs.	Date	Particulars	JF No.	Rs.
2001 Jan.15	To Cash a/c		200	2001 Jan.31	By Balance c/d		200
			200				200
Feb.1	To Balance b/d		200				

Salaries Account

Dr. Cr.

Date	Particulars	JF No.	Rs.	Date	Particulars	JF No.	Rs.
2001 Jan.25	To Cash a/c		700	2001 Jan.31	By Balance c/d		700
			700				700
Feb.1	To Balance b/d		700				

Rent Account

Dr. Cr.

Date	Particulars	JF No.	Rs.	Date	Particulars	JF No.	Rs.
2001 Jan.28	To Cash a/c		500	2001 Jan.31	By Balance c/d		500
			500				500
Feb.1	To Balance b/d		500				

Drawings Account

Dr. Cr.

Date	Particulars	JF No.	Rs.	Date	Particulars	JF No.	Rs.
2001 Jan.31	To Cash a/c		1,000	2001 Jan.31	By Balance c/d		1,000
			1,000				1,000
Feb.1	To Balance c/d		1,000				

Murthy's Account

Dr. Cr.

Date	Particulars	JF No.	Rs.	Date	Particulars	JF No.	Rs.
2001 Jan. 31	To Balance c/d		3,000	2001 Jan. 5	By Cash a/c		3,000
			3,000				3,000
				Feb.1	By Balance b/d		3,000

Furniture Account

Dr. Cr.

Date	Particulars	JF No.	Rs.	Date	Particulars	JF No.	Rs.
2001 Jan.6	To Cash a/c		2,000	2001 Jan.31	By Balance c/d		2,000
			2,000				2,000
Feb.1	To Balance b/d		2,000				

SUMMARY

- In this chapter, we have learnt the double entry system, which is used to process transactions or events. After determining the dual effect of the events on the accounting equation, the transactions are recorded in a journal. Recording of transactions in the journal is known as journalizing. The next step in the accounting process is to post the debit and credit from the journal to the various accounts in the general ledger. This process is known as posting. Having learnt the various types of Cash books, we now proceed to discuss the preparation of trial balance in the next chapter.

<u>**Chapter IV**</u>

Preparation of Financial Statements: Trial Balance and Adjustments

After reading this chapter, you will be conversant with:

- Preparation of a Trial Balance from General Ledger Balances
- Passing Adjustment Entries for Prepayments, Outstandings, Closing Inventory, Depreciation etc.
- Creating Provisions for Doubtful Receivables, Discounts, etc.

SECTION 1

A Trial Balance is a summary of all the General Ledger Balances outstanding as on a particular date. All the debit balances from the ledger are shown on one side and all the credit balances are shown on the other side. You are aware that a debit balance in a general ledger account indicates an excess of debit side over the credit side of the ledger. Similarly, a credit balance in a ledger account indicates the excess of credit side over the debit side. Now, if all the debit and credit balances were recorded on the two sides of the Trial Balance, it stands to reason that the two sides should be equal, since in the journal for each item of debit, there was a credit item.

EXTRACTING THE TRIAL BALANCE

If the two sides do not match, it should be obvious that there must be some error in recording the transactions somewhere. However, sometimes even when the two sides match, there could be some errors which are concealed by a Trial Balance. Detailed examples of such errors are discussed in a subsequent section. However, it is to be remembered that a tallied Trial Balance is only a proof of the arithmetical accuracy of the ledger balances. The extraction of a Trial Balance forms the first step towards preparation of the Final Accounts of an organization.

Illustration 4.1

In chapter III, we have examined the transactions of Shri Narayan's business during the month of January, 2001 and posted them in ledger accounts. If we extract a Trial Balance as on January 31, 2001 by placing the debit and credit ledger balances appropriately, it would be as follows:

Trial Balance of Narayan as on January 31, 2001

Particulars	Debit Rs.	Credit Rs.
Cash	34,750	
Capital		40,000
Purchases	32,000	
Sales		10,750
Sales returns	500	
Purchase returns		200
Shyam		29,800
Gopalan	2,000	
Murthy		3,000
Furniture	2,000	
Wages	500	
Commission received		600
Kamal	9,500	
Postage and Telegrams	200	–
Stationery	200	–
Bank	500	–
Salaries	700	–
Rent	500	–
Drawings	1,000	–
	84,350	84,350

You may notice from the above trial balance that the total of debits is equal to the total of credits. When the trial balance tallies it establishes the arithmetical accuracy of records. There should be no surprise in this, because all the entries and ledger accounts are prepared using the double entry system. Hence the total of all debits should be equal to the total of all credits.

Illustration 4.2

From the following balances pertaining to Kiran Kumar, prepare the Trial Balance as on March 31, 2001.

Particulars	Rs.
Kiran Kumar's Capital	25,000 (Cr)
Salaries	6,000 (Dr)
Purchases	26,000 (Dr)
Sales	47,000 (Cr)
Trade expenses	1,000 (Dr)
Wages	7,800 (Dr)
Freight inwards	400 (Dr)
Office expenses	500 (Dr)
Discount received	200 (Cr)
Commission paid	600 (Dr)
Postage & Telegrams	1,200 (Dr)
Accounts receivable (1)	30,000 (Dr)
Accounts payable (2)	21,000 (Cr)
Furniture	3,000 (Dr)
Machinery	10,000 (Dr)
Insurance	400 (Dr)
Bills receivable (3)	2,000 (Dr)
Bills payable (4)	6,800 (Cr)
Opening inventory (5)	7,000 (Dr)
Cash in hand	500 (Dr)
Cash at bank	3,600 (Dr)

Notes:

1. Receivables indicate the total of all personal accounts which have a debit balance. They owe money to Kiran Kumar.
2. Payables indicate the total of all personal accounts, which have a credit balance. Kiran Kumar owes money to them.
3. Bills receivable indicate the bills of exchange accepted by Kiran Kumar's debtors. Bills receivable become due for payments by debtors on specified dates.
4. Bills payable indicate the bills of exchange accepted by Kiran Kumar himself in favor of his creditors. Bills payable become due for payments by Kiran Kumar on specified dates.
5. Opening inventory indicates the opening inventory of goods at the beginning of the period.

Solution

Trial Balance of Kiran Kumar as on 31.03.2001

Particulars	Debit Rs.	Credit Rs.
Kiran Kumar's Capital		25,000
Salaries	6,000	
Purchases	26,000	
Sales		47,000
Trade expenses	1,000	
Wages	7,800	
Freight inwards	400	
Office expenses	500	
Discount received		200
Commission paid	600	
Postage & Telegrams	1,200	
Accounts receivable	30,000	
Accounts payable		21,000
Furniture	3,000	
Machinery	10,000	
Insurance	400	
Bills receivable	2,000	
Bills payable		6,800
Opening inventory	7,000	
Cash in hand	500	
Cash at bank	3,600	
Total	1,00,000	1,00,000

SECTION 2

Trial Balance and Adjustments

Before an accountant can proceed to prepare the financial statements from the trial balance, he has to process some additional information, which he either already knows or receives from some other divisions or departments. The following are a few examples showing where adjustment entries would be required:

a. The accountant may know (or be instructed by the Accounts Manager) that the depreciation on building is to be charged at the rate of 5%.

b. The accountant would ascertain that the salary of three workers for January is unpaid at the end of the month.

c. The accountant is informed by the storekeeper that the goods lying unsold in the store (representing closing stock) is worth Rs.17,000 at cost.

d. The accountant knows or is informed that the loan of Rs.2,00,000 was taken at an interest of 12% per annum. He also knows that the interest accrued for

January is unpaid as on January 31, since there is no ledger account for any interest paid.

e. The accountant knows that the insurance premium was paid for the whole year, whereas the accounts are being prepared for one month.

f. The accountant is informed that Rs.500 may not be collected from PQR Company owing to some technical dispute.

In view of the above information, certain "adjustment entries" will have to be made in the Journal. Adjustment entries usually represent the recording of additional information and not actual transactions. Different types of adjustment entries are discussed below.

Closing Inventory

Under the periodic verification method, the closing inventory of every item is arrived at by physically counting the inventory available and assigning a value to the same. In concerns adopting the periodic verification method, the value of closing inventory will be brought into the books of accounts through the following journal entry:

Closing Inventory a/c Dr
To Trading a/c

While the closing inventory appears on the credit side of the trading account to reduce the cost of goods sold, it also appears as an asset in the balance sheet.

Outstanding or Accrued Expense

The nominal accounts record the actual expense paid during the accounting period. However, prior to the preparation of the financial statements, it must be ensured that all expenses which have fallen due to be paid but which have not been paid during the accounting period are also brought into the books to help in the proper matching of revenues and expenses. For example, ABC Trading Company has the practice of paying the salaries of the employees on the 4th of the subsequent month. During the financial year ending 31st March, 2001 the salaries account shows a debit balance of Rs.55,000. The salaries of Rs.6,000 pertaining to March, 2001 were paid on 4th April, 2001.

While preparing the financial statements for the year ending 31st March, 2001, the salaries of Rs.6,000 of March must also be included. This is done with the following adjusting journal entry:

Salaries a/c Dr	6,000	
To Outstanding Salaries a/c		6,000

The above journal entry increases the salaries to the correct amount of Rs.61,000 and the outstanding salaries of Rs.6,000 will be shown as a liability in the balance sheet.

The adjusting journal entry to record any outstanding or accrued expense is

Expense a/c Dr

To Outstanding Expense a/c

While the amount of expense taken from the trial balance will be increased by the amount outstanding and shown in the trading and profit and loss account, the actual amount outstanding will be shown as a liability in the balance sheet.

In the subsequent accounting period, the outstanding expense liability will be transferred to the expense or nominal account and will be set-off by the entry of actual payment when it is made.

Prepaid Expense

Certain expenses paid may relate to more than one accounting period. In such cases, it is necessary to identify that portion of the expenditure for which the benefit is yet to be received by the concern and treat that part of the expenditure as prepaid.

ABC Trading Company took an insurance cover for all assets against fire on 1st October, 2000 and paid the annual premium of Rs.2,400 on the same day. Since the benefit of the entire expenditure will expire only on 30th September, 2001, it becomes necessary to recognize this aspect while preparing the financial statements as on 31st March, 2001.

The amount of expense prepaid on 1st October, 2000 = (1/2) 2,400 = Rs.1,200

The adjusting entry to record the prepaid insurance is,

Prepaid Insurance a/c	Dr	1,200	
To Insurance a/c			1,200

This entry ensures that the insurance expense is reported at the correct figure of Rs.1,200 in the profit and loss account and the prepaid amount is shown as an asset in the balance sheet.

The journal entry to record any prepaid expense is,

Prepaid Expense a/c Dr
To Expense a/c

In the subsequent accounting period, the balance in the prepaid expense account will be transferred back to the expense account.

Outstanding or Accrued Income

An income appearing in the ledger account may not represent the income that must have been received during the year. If a portion of an income has not yet been received or is outstanding as at the end of the accounting period then the outstanding amount must be brought into books.

ABC Trading Company holds 14% Debentures of the face value of Rs.5,000 in Bright Limited as investments. The interest is payable on 30th June and 31st December of every year. The debentures were purchased on 1st July, 2000.

While ABC Trading Company would have received the interest of Rs.350 (5,000 (14/100) 1/2) during the accounting period ending 31st March, 2000 the interest of Rs.350 for the next six months will be received only in the subsequent accounting period. However, while preparing the financial statements, the total interest revenue to be recognized is the amount of Rs.350 actually received plus the interest of Rs.175 pertaining to the period 1st January, 2001 to 31st March, 2001.

The following adjusting entry will bring into books the amount of outstanding interest:

Outstanding Interest a/c	Dr	175	
To Interest Received a/c			175

While the interest received will be increased to Rs.525 and shown in the profit and loss account, the outstanding interest account will be listed as an asset in the balance sheet.

In the subsequent accounting period, the amount in the Outstanding Interest a/c will be transferred to Interest Received a/c and the actual receipt of the interest will offset the former transfer entry.

To record any outstanding income in the books of accounts, the journal entry is:

Outstanding Income a/c Dr
To Income a/c

Income Received in Advance

While preparing the financial statements, adjustments may be necessary in respect of any incomes received in advance.

Law Publications has received subscriptions amounting to Rs.50,000 during the financial year ending 31st December, 2001. Out of this Rs.2,500 represent subscriptions relating to the next financial year.

The entry to adjust for the income received in advance will be,

Subscriptions a/c Dr 2,500
To Subscriptions received in Advance a/c 2,500

With the posting of the above journal entry, the subscriptions account will be shown in the profit and loss account at the correct figure of Rs.47,500 and in the balance sheet, the subscriptions received in advance will be listed as a liability. Any income received in advance is a liability as benefits are yet to be conferred to the person from whom the amount has been received.

The journal entry to record the adjustment of any income received in advance is

Income a/c Dr

To Income Received in Advance a/c

PROVISIONS FOR BAD DEBTS, CASH DISCOUNTS PAYABLE AND CASH DISCOUNTS RECEIVABLE

Bad Debts

The sales revenue recorded in the books of accounts of an organization represents the amount realized/to be realized from the sale of goods. When goods are sold on credit it may sometimes happen that even though customers bought them with every intention of paying for them, (owing to certain subsequent change in circumstances,) they may not be able to fulfill their obligations. For instance, if a customer, subsequent to the date of credit sales, is adjudged as insolvent and his estate cannot pay anything towards satisfaction of the amount due from him, then, logically, the entry passed at the time of sale should be removed by reversing it, as the situation is similar to the sale not having taken place. In practice, however, instead of reversing the previous entry, the amount which cannot be recovered is considered as a loss called “bad debts”.

Example 4.1

ABC Ltd. had debtors outstanding to the extent of Rs.75,000 as on 31st March, 2001. Mr X, who owed Rs.1,500 to the company was adjudged insolvent and his estate is unable to pay anything.

The journal entry to record the above loss would be,

Bad Debts a/c Dr 1,500
To X a/c 1,500

Please note that the sales account remains unchanged. However, in the income statement, while sales revenue will appear at the full figure, the bad debts will appear as a loss and thus the reduction in the amount realized will be accounted for. The Accounts Receivable account will also appear in the balance sheet at the realizable value of Rs.73,500.

The general journal entry for recording bad debts is

Bad debts a/c Dr
To Accounts Receivable a/c

Provision for Bad and Doubtful Debts

We have already seen that according to the realization concept, the amount to be recognized as revenue is the amount that is reasonably certain to be realized. When there is a possibility that all the sales revenue may not be realized in the future due to occurrence of bad debts, the sales revenue taken in the income statement should reflect this position. However, in practice, the sales revenue is shown as the gross figure and any possible loss due to bad debts is shown as an expense.

When bad debts are expected to occur in the future, (a) the exact amount of loss may not be known and (b) a particular debtor's account cannot be identified to write-off the expected loss or even if the debtor's account can be identified, a reduction in claim can be given effect to only when it becomes one hundred percent certain. To circumvent these problems, usually, a provision is made for the expected bad debts loss out of profits of the current year. This reduces the profit (and hence the income statement conforms to the realization principle) and also prevents an estimated portion of profits from being distributed to the proprietors. The provision in this context means any amount retained by providing for any known dimunition in value of assets of which the amount cannot be determined with substantial accuracy. For creating the provision for bad and doubtful debts, the journal entry is,

Profit and Loss a/c Dr
    To Provision for Bad Debts a/c

Example 4.2

The Accounts Receivables of PQR Ltd. was Rs.1,50,000 as on 31st March, 1999. It was estimated that Rs.5,000 of the amount due may turn out to be uncollectable during the forthcoming year.

For creation of the provision the journal will be,

Profit and Loss a/c Dr 5,000
    To Provision for Bad Debts a/c 5,000

While the amount of the possible loss will appear on the debit side of the profit and loss account, the provision created, though a liability, will be shown as a deduction from Accounts Receivable on the assets side of the balance sheet. This would ensure that the current asset is shown at the realizable value.

Balance Sheet of PQR Ltd., as on 31/3/1999

Liabilities	Assets	Rs.	Rs.
	Accounts Receivable	1,50,000	
	Less: Provision for bad debts	5,000	1,45,000

Estimating Bad and Doubtful Debts

Any one of the following methods may be used to estimate the amount of possible bad debts.

1. Bad debts may be estimated as a percentage of total sales during the year. This method can be used only when there are no cash sales or such sales are negligible.
2. Bad debts may be estimated as a percentage of credit sales.
3. Estimate bad debts as a percentage of receivables outstanding at the end of the accounting period.

The percentage used will be based on the judgement of the management and the past experience with regard to bad debts. Another logical way to estimate bad debts would be to draw up an aging schedule for the outstanding debtors and apply different percentages for amounts outstanding for various lengths of time.

Treatment of Bad Debts when a Provision for Bad Debts Exists

Let us extend the example of PQR Ltd., to the financial year ending 31st March, 2000.

The following details are available:

Bad debts during the year 3,500

Accounts receivable as on 31/3/1999 1,70,000

PQR Ltd., would like to maintain the provision at 5% of sundry debtors.

The accounts receivable of Rs.1,70,000 as on 31/3/2000 is after accounting for the bad debts of Rs.3,500.

When bad debts occurred, the following entry would have been passed.

Bad Debts a/c Dr 3,500
To Sundry Debtors a/c 3,500

Since a provision for bad debts to the extent of Rs.5,000 already exists, the actual bad debts of Rs.3,500 will be transferred at the end of the year to this provision account and not to the profit and loss account. The entry for the transfer will be,

Provision for Bad Debts a/c Dr 3,500
To Bad Debts a/c 3,500

At this point the provision account will appear as under:

Provision for Bad Debts Account

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
31.3.2000		1.4.1999	
To Bad Debts a/c	3,500	By Balance b/d	5,000

Since the provision has been utilized to the extent of Rs.3,500, only Rs.1,500 is left for setting off any bad debts in the forthcoming year. However, PQR Ltd. wishes to maintain the provision at 5% on debtors. So, the balance required in the provision account as on 31.3.2000 is, (5/100) 1,70,000 = Rs.8,500

To bring up the provision to the required balance a further appropriation of Rs.7,000 (8,500 – 1,500) will have to be made from the profit and loss account. Entry will be,

Profit and Loss a/c Dr 7,000
To Provision for Bad Debts a/c 7,000

The provision account, after posting this entry, will appear as follows:

Provision for Bad Debts Account

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
31.3.2000		1.4.1999	
To Bad Debts	3,500	By Balance b/d	5,000
31.3.2000		31.3.2000	
To Balance c/d	8,500	By Profit and Loss a/c	7,000
	12,000		12,000

The balance sheet will again show the Accounts Receivable at their realizable value.

Balance Sheet of PQR Ltd. as on 31.3.2000

Liabilities	Assets	Rs.	Rs.
	Accounts Receivable	1,70,000	
	Less: Provision for Bad Debts	8,500	1,61,500

We will extend the above example to yet another financial year.

The following details are available for the year ending 31.3.2001

Bad Debts during the year 1,000
Sundry Debtors as on 31.3.2001 1,10,000

PQR Ltd. would like to maintain the provision for bad debts as 5% of debtors.

As in the previous year, the total bad debts will be transferred to the provision for bad debts.

Provision for Bad Debts a/c Dr. 1,000
To Bad Debts a/c 1,000

The provision account after the above transfer will appear as

Provision for Bad Debts Account

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
31.3.1993		1.4.1992	
To Bad Debts a/c	1,000	By Balance b/d	8,500

The provision required on the closing debtors will be (5/100) x 1,10,000 = Rs.5,500

The opening provision of Rs.8,500 has been utilized only to the extent of Rs.1,000 and therefore, Rs.7,500 is the amount available for further appropriation. Since the balance to be carried forward to the next accounting year is only Rs.5,500, a sum of Rs.2,000 (7,500 – 5,500) can be transferred back to Profit and Loss account as excess provision which is not required to be carried forward. So, to retain a balance of Rs.5,500 in the provision account, the journal will be,

Provision for Bad Debts a/c Dr 2,000
To Profit and Loss a/c 2,000

Provision for Bad Debts Account

Dr. Cr.

	Particulars	Rs.		Particulars	Rs.
31.3.2001	To Bad Debts a/c	1,000	1.4.2000	By Balance b/d	8,500
31.3.2001	To Profit & Loss a/c	2,000			
31.3.2001	To Balance c/d	5,500			
		8,500			8,500

The balance sheet will show the realizable value of sundry debtors.

Balance Sheet of PQR Ltd., as on 31.3.2001

Liabilities	Assets	Rs.	Rs.
	Accounts Receivable	1,10,000	
	Less: Provision for Bad Debts	5,500	1,04,500

Recovery of Bad Debts Written off

Sometimes, an amount written off as bad debts may be subsequently recovered. Any such recovery must be treated as a windfall and transferred to the Profit and Loss account as a gain.

The journal entries will be,

At the time of receipt of the amount

Cash a/c Dr
To Bad Debts Recovered a/c

At the end of the financial year,

Bad Debts Recovered a/c Dr
To Profit and Loss a/c

Provision for Discounts on Accounts Receivable

The organizations which allow the facility of making payments before the due date and enable their debtors to avail of cash discounts, must take into account the possible amount of discounts that may be allowed on closing debtors in the forthcoming year. This is necessary to show the closing debtors at their realizable value.

The principles for creation and maintenance of the provision for discounts on debtors are the same as those discussed in the section on provision for bad debts. The only additional point to be noted is that discounts will be estimated on debts considered good, i.e. closing sundry debtors minus provision for bad debts.

The illustration 4.8 clearly explains the mechanics of maintaining a provision for discounts on debtors. The following details are available for M Limited.

Illustration 4.8

	Year Ending		
	31.3.1999 Rs.	31.3.2000 Rs.	31.3.2001 Rs.
Accounts Receivable	5,00,000	4,50,000	6,00,000
Discounts Allowed		1,000	8,000

While the company maintains 5% provision for bad debts, it would like to maintain 3% provision for discounts beginning from 31.3.2001.

Solution

The entries in the provision for discounts on receivables and the relevant extracts from the balance sheets are shown below:

Provision for Discounts on Accounts Receivable Account

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
31.3.1999		31.3.1999	
To Balance c/d	14,250	By Profit and Loss a/c	14,250
	14,250		14,250
31.3.2000		1.4.1999	
To Discounts allowed	1,000	By Balance b/d	14,250
To Profit & Loss a/c.	425		
To Balance c/d	12,825		

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
	14,250		14,250
31.3.2001		1.4.2000	
To Discounts allowed	8,000	By Balance b/d	12,825
To Balance c/d	17,100	By Profit and Loss a/c	12,275
	25,100		25,100

Working Notes:

	Rs.
31.3.1999 Accounts Receivable	5,00,000
Less: Provision for bad debts at 5%	25,000
Debts considered good	4,75,000
Provision for discounts on Accounts Receivable = (3/100) x 4,75,000	14,250
31.3.2000	
Accounts Receivable	4,50,000
Less: Provision for bad debts at 5%	22,500
Debts considered good	4,27,500
Provision for discount on Accounts Receivable = (3/100) x 4,27,500	12,825
Opening balance of Provision	14,250
Less: Discounts allowed during the year	1,000
	13,250

Since provision to be carried forward is only Rs.12,825, an amount of Rs.425 would be transferred to Profit and Loss account as excess provision.

	Rs.
31.3.2001	
Accounts Receivable	6,00,000
Less: Provision for bad debts at 5%	30,000
Debts considered good	5,70,000
Provision for discounts on Receivables (3/100) x 5,70,000	17,100
Opening balance of provision	12,825
Less: Discounts allowed	8,000
	4,825

Additional amount to be transferred from

Profit and Loss account (17,100 – 4,825) = 12,275

Balance Sheet of M Ltd. as on 31.3.1999

Liabilities	Assets	Rs.	Rs.
	Accounts Receivable	5,00,000	
	Less: Provision for Bad debts	25,000	
		4,75,000	
	Less: Provision for discounts	14,250	4,60,750

Balance Sheet of M Ltd. as on 31.3.2000

Liabilities	Assets	Rs.	Rs.
	Accounts Receivable	4,50,000	

	Less: Provision for bad debts	22,500	
		4,27,500	
	Less: Provision for Discounts	12,825	4,14,675

Balance Sheet of M Ltd., as on 31.3.2001

Liabilities	Assets	Rs.	Rs.
	Accounts Receivable	6,00,000	
	Less: Provision for bad debts	30,000	
		5,70,000	
	Less: Provision for Discounts	17,100	5,52,900

Reserve for Discounts on Accounts Payable

Organizations may like to show the sundry creditors in the balance sheet at the net payable value by estimating in advance the amount of cash discounts that may be received at the time of settlement of amounts due. This is usually done by creating a reserve for discounts on creditors and then transferring the discounts received to such reserve. Since, income in respect of discounts receivable is recognized in advance, the journal for creation of the reserve will be

Reserve for Discount on
Accounts Payable a/c Dr
To Profit and Loss a/c

The illustration 4.9 explains the mechanics of maintaining the reserve for discount on creditors.

Illustration 4.9

The following details are available from the books of R Limited.

	Year Ending		
	31.3.1999 Rs.	31.3.2000 Rs.	31.3.2001 Rs.
Accounts Payable	2,20,000	3,25,000	2,75,000
Discounts Received		3,200	900

R Limited would like to maintain a reserve for discount on Accounts Payable at 2% beginning from 31.3.1999.

Solution

The reserve account and the relevant extracts from the balance sheet are shown below:

Reserve for Discounts on Accounts Payable Account

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
31.3.1999		31.3.1999	
To Profit and Loss a/c	4,400	By Balance c/d	4,400
	4,400		4,400
1.4.1999		31.3.2000	
To Balance b/d	4,400	By discounts received a/c	3,200
31.3.2000		31.3.2000	
To Profit and Loss a/c	5,300	By Balance c/d	6,500

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
	9,700		9,700
1.4.2000 To Balance b/d	6,500	31.3.2001 By discounts received a/c	900
		31.3.2001 By Profit and Loss a/c	100
		31.3.2001 By Balance c/d	5,500
	6,500		6,500

Working Notes:

	Rs.
31.3.1999	
Accounts Payable	2,20,000
Reserve for discounts on Accounts Payable at 2%	4,400
31.3.2000	
Accounts Payable	3,25,000
Reserve for discounts at 2%	6,500
Opening balance of reserve	4,400
Less: Discounts received	3,200
	1,200
Additional reserve required = 6,500 – 1,200 =	5,300
31.3.2001	
Accounts Payable	2,75,000
Reserve for discounts at 2%	5,500
Opening balance of reserve	6,500
Less: Discounts received	900
	5,600

Since the available reserve exceeds the amount to be carried forward, the amount of excess – Rs.100 will be transferred to the profit and loss account to offset the income taken in excess in the previous year.

Balance Sheet of R Limited as on 31.3.1999

Liabilities	Rs.	Rs.	Assets	Rs.	Rs.
Accounts Payable	2,20,000				
Less: Reserve for discounts	4,400	2,15,600			

Balance Sheet of R Limited as on 31.3.2000

Liabilities	Rs.	Rs.	Assets	Rs.	Rs.
Accounts Payable	3,25,000				
Less: Reserve for discounts	6,500	3,18,500			

Balance Sheet of R Limited as on 31.3.2001

Liabilities	Rs.	Rs.	Assets	Rs.	Rs.
Accounts Payable	2,75,000				
Less: Reserve for discounts	5,500	2,69,500			

The concept of Receivables is explained in greater detail under the chapter head "Accounting for Receivables".

Illustration 4.10

Give the necessary adjusting entries for the following items as on 31st March, 2001.

a. Closing Stock as on 31st March, 2001 Rs.10,000
b. Salary due but not paid – Rs.1,000
c. Unexpired insurance on 31st March, 2001 Rs.2,000
d. Rent received in advance – Rs.3,000
e. Interest due but not received – Rs.600
f. Depreciation on fixed assets @ 33%
g. Bad Debts to be written off Rs.5,000
h. Create provision for Bad and Doubtful Debts @ 10%
i. Create provisions for Discount on Debtors @ 2%
j. Create Reserve for discount on Creditors @ 2%
k. Allow interest on capital @ 10% charge interest on drawing @ 12%.

Information as per Trial Balance:

Fixed Assets Rs.60,000; Debtors Rs.2,05,000; Creditors Rs.1,00,000; Capital Rs.5,00,000; Drawings Rs.10,000

Solution

Journal

	Particulars		Dr. Amount	Cr. Amount
a.	Closing Stock a/c.	Dr.	10,000	
	To Trading a/c.			10,000
	(Being Closing Stock brought into account)			
b.	Salaries a/c.		1,000	
	To Outstanding salary			1,000
	(Being the outstanding expenses brought into account).			
c.	Prepaid Insurance a/c.	Dr.	2,000	
	To Insurance premium a/c.			2,000
	(Being prepaid expenses brought into account)			
d.	Rent a/c.	Dr.	3,000	
	To Rent received in advance			3,000
	(Being rent received in advance brought into account)			
e.	Interest due but not received a/c.	Dr.	600	
	To Interest a/c.			600
	(Being interest due but not received brought into account)			
f.	Depreciation a/c.	Dr.	20,000	
	To Fixed Assets a/c.			20,000
	(Being depreciation charged)			
g.	Bad Debts	Dr.	5,000	
	To Debtors a/c.			5,000
	(Being bad debts provided for)			
h.	Profit and Loss a/c	Dr.	20,000	
	To Provisions for Bad and Doubtful Debts			20,000
	(Being provision for Bad Debts (10% on [2,05,000 (–) 5,000]			

	Particulars		Dr. Amount	Cr. Amount
i.	Profit and Loss a/c	Dr.	3,600	
	To provisions for Discount on Debtors provided			3,600
	(Being provisions made for discount on debtors) (2% [2,05,000 (–) 5,000 (–) 20,000)			
j.	Reserve for discount on Creditors	Dr.	2,000	
	To Profit and Loss a/c			2,000
	(Being reserve for discount on creditors provided 2% (1,00,000)			
k.	Interest on Capital a/c	Dr.	50,000	
	To Capital a/c			50,000
	(Being interest on Capital allowed @10%)			
	Capital a/c		1,200	
	To Interest on Drawings a/c			1,200
	(Being interest on drawing charged)			

Thus, the construction of a Trial Balance with the objective of rectifying all the observable errors is the first step towards preparation of the Final Accounts of an organization.

Note: Refer chart in the Appendix of this chapter for a pictorial representation of the types of errors and their rectification.

SUMMARY

- A trial balance is a list of accounts and their balances on a particular date. The preparation of a trial balance ensures arithmetical accuracy, facilitates detection, and provides a summary of accounts. After completing this chapter, we are now conversant with the preparation of trial balance. We have also learnt the adjusting entries required to satisfy the realization principle and the matching principle and which are essential to implement the accrual accounting model. Now that we are ready for the preparation of Financial statements, in our next chapter we shall discuss the Preparation of Profit and Loss Accounts which are one of the primary financial statements.

Chapter V

Preparation of Financial Statements: Profit and Loss Account

After reading this chapter, you will be conversant with:

- Preparation of Profit and Loss account from a given Trial Balance
- Distinction between Capital and Revenue Expenditure
- Preparation of Profit and Loss Account giving Double Effect to Adjustments given Outside the Trial Balance

Introduction

From a given Trial Balance we can prepare a Trading and Profit and Loss account to determine the profit or loss made by a business organization during a particular period. At the time of preparation of Profit and Loss account, the following points may be kept in mind:

- All expenses are debited to Profit and Loss account.
- All incomes are credited to Profit and Loss account.
- In addition to treating the incomes and expenses found in the Trial Balance, we may have to give special treatment to certain 'Adjustments' also (They are discussed in detail in the subsequent paragraphs).
- The profit is credited to Reserves account. If there is net loss, it is debited to Reserves account in the Balance Sheet, in the case of companies and in the case of sole trader and partnership, the net profit is credited to capital account and net loss is debited to capital account.

Trading account is prepared to ascertain the Gross Profit. Gross profit is the difference between sales and cost of goods sold. Sometimes it is possible to first determine the gross profit (arising out of trading operations) and then deduct all administrative and selling expenses from gross profit and to determine the net profit. Profit and Loss account is prepared to ascertain net profit. Net profit is calculated by deducting other expenses (like general, administrative or selling and distribution expenses) from gross profit. Whether a separate Trading account is prepared to determine gross profit or not, the net profit remains the same.

It is necessary to emphasize here that Profit and Loss account (including Trading account) is usually prepared on 'Accrual' basis. In other words all expenses incurred and due are debited to Profit and Loss account whether they are actually paid for or not. Similarly all incomes earned and due are credited to Profit and Loss account whether they are actually received or not.

Format of a Trading account is given below:

Trading Account of XYZ Co. for the year ending 31st March, 2001

Dr. Cr.

Date	Particulars	J.F	Amount Rs.	Date	Particulars	J.F	Amount Rs.
	To Opening stock				By Sales		
	Add: Purchases				Less: Returns		
	Less: Returns						
	To Wages				By Closing stock		
	To Carriage inward						
	To Gas, Water, Fuel, etc.						
	To Packaging charges						
	To Other factory expenses						
	Gross Profit						

A Simple Example: Trading Account

The following is a simple example of a Trading Account.

Trading Account for the period ending 31.03.2001

Rs.		Rs.		Rs.	Rs.
To Opening Inventory			By Sales	7,90,000	
Raw Materials	90,000		Less: Returns	10,000	
Work-in-progress	70,000				7,80,000
Finished goods	2,40,000		By Closing Inventory		
		4,00,000	Raw Materials	40,000	
To Purchases	5,00,000		Work-in-progress	80,000	
Less: Returns	15,000		Finished goods	3,00,000	
		4,85,000			4,20,000
To Carriage Inwards		10,000			
To Wages		40,000			
To Factory Expenses		20,000			
To Fuel and Power		5,000			
To Trading Expenses		15,000			
To Gross Profit Transferred to P & L a/c		2,25,000			
		12,00,000			12,00,000

Important Points

- Opening Inventory is debited to Trading account. Closing Inventory is credited to Trading account. (The information relating to opening inventory is usually provided in Trial Balance. The closing stock figure is indicated in the 'Adjustments' outside the Trial Balance).
- Purchases (less returns) are debited to Trading Account. Sales (less returns) are credited to Trading account.
- All expenses relating to trading and manufacturing activities are debited to Trading account.
- The Gross Profit (or Loss) is then transferred to Profit and Loss account.

Please note that there is no hard and fast rule about segregation of expenses between Trading account and Profit and Loss account. What is indicated above is based on generally accepted principles. However, in specific circumstances it may become necessary to adopt a flexible approach. The question of segregation of expenses does not arise where only the Profit and Loss account is prepared without a separate Trading account.

CAPITAL AND REVENUE EXPENDITURE

Capital Expenditure

Capital expenditure refers to expenditure that the benefit of which is not fully derived in one year but spread over several periods. Examples for capital expenditure are – acquisition of assets for the purpose of earning, additions to fixed assets to improve its capacity, expenditure resulting in long-term benefit to the business, etc. Expenses like Preliminary expenses, Research and Development expenditure, Interest paid during Construction period, etc. are taken to assets side of Balance Sheet and shown under 'Miscellaneous Expenditure'.

Revenue Expenditure

It is an expenditure incurred and the benefit of which is derived in the year in which the expenditure was incurred. Examples are – raw materials, repairs, depreciation, rent, wages, etc. Such expenses are debited to Profit and Loss account. Any incomes and gains are credited to Profit and Loss account. Examples are – Commission received, Dividend received, Interest received etc. Net Profit is transfered to capital account in the balance sheet. Format of Profit and Loss account is given below.

Profit and Loss Account for the year ending 31st March, 2001

Dr. Cr.

Date	Particulars	J.F	Amount Rs.	Date	Particulars	J.F	Amount Rs.
	To Office salaries and wages				By Gross profit		
	To Office rent, rates and taxes				By Cash discounts received		
	To Office lighting and insurance				By Bad debts recovered		
	To Printing and stationery				By Income from investments		
	To Postage and telegrams				By Commission received		
	To Legal expenses				By Interest on deposits		
	To Trade expenses				By Gain on sale of fixed assets		
	To Audit fees						
	To Car upkeep expenses						
	To Telephone expenses						
	To General expenses						
	To Cash discounts allowed						
	To Interest on capital						
	To Interest on loans						
	To Discount or Rebate on bills of exchange						
	To Bad debts						
	To Store charges						
	To Carriage, Freight, Cartage outwards						
	To Cost of samples, catalogue expenses						
	To Salesmen's salaries, expenses and commission						
	To Advertising expenses						
	To Depreciation on fixed assets						
	To Net profit (transferred to capital account)						

A Simple Example: Profit and Loss Account

Given below is a simple example of a Profit and Loss account. You may notice that it starts with gross profit (on credit side). If there is no separate Trading account all the debits and credits of Trading account appear individually in the Profit and Loss account. Where a separate Trading account is prepared, only the figure of gross profit (or loss as the case may be) appears in the Profit and Loss account as a starting point.

What is shown below is not an exhaustive list of expenses and incomes. It is a simplified version of a typical Profit and Loss account without taking any "adjustments" to be made into account.

Profit and Loss Account for the period ending 31.3.2001

Dr. Cr.

	Rs.		Rs.
To Salaries	30,000	By Gross profit	2,25,000
To Printing & Stationery	15,000	By Rent received	2,000
To Postage & Telephone	2,500	By Other income	10,000
To Audit fee	4,000		
To Office rent	5,000		
To Insurance	10,000		
To Repairs and Maintenance	5,000		
To General Expenses	4,000		
To Interest on loans	8,000		
To Net profit transferred to Reserves or Capital	1,53,500		
	2,37,000		2,37,000

Illustration 5.1

From the following Trial Balance of Sovera Medicos prepare a Profit and Loss account for the year ended March 31, 2001.

Trial Balance

Particulars	Dr. Rs.	Cr. Rs.
Capital		2,50,000
Inventory (on April 1, 2000)	60,000	
Accounts receivable	1,00,000	
Accounts payable		70,000
Sales		6,00,000
Purchases	3,70,000	
Sales returns	20,000	
Purchase returns		10,000
Discount received		10,000
Bills payable		40,000
Rent received		10,000
Insurance	10,000	
Drawings	20,000	

Particulars	Dr. Rs.	Cr. Rs.
Land and Buildings	1,50,000	
Freehold property	50,000	
Plant and Machinery	50,000	
Petty expenses	6,000	
Cash at bank	20,000	
Furniture	30,000	
Freight	20,000	
Wages	15,000	
Salaries	15,000	
Advertising	10,000	
Postage and Telephones	10,000	
General expenses	34,000	
Total	9,90,000	9,90,000

Adjustments:

1. Inventory was valued on March 31, 2001 at Rs.95,000.
2. Depreciate Plant and Machinery by 15% and Furniture by 10%.
3. Provide for Interest on Capital at 10% and Interest on Drawings at 6%.
4. Provide for following outstanding expenses:

Wages	Rs.10,000
Salaries	Rs.7,000
General expenses	Rs.5,000

5. Insurance was prepaid to the extent of Rs.3,000
6. A sum of Rs.2,000 was earned by way of discount, but not yet received and hence not included in accounts.
7. A sum of Rs.3,000 represents rent received in advance but not yet due.
8. A provision of 2% is required on debtors towards bad and doubtful debts.
9. A provision of 50% towards taxation on profits (before taxation) is required.

Solution

While preparing a solution it is necessary to remember the following points: All the items shown in Trial Balance do not necessarily figure in Profit and Loss account. Only such items which represent income and expenses including opening inventory are taken to Profit and Loss account. Other items representing assets and liabilities (including capital and drawings) go to Balance Sheet. All adjustments should be given double-entry effect. Usually one of the effects of double-entry is reflected in Profit and Loss account and the other in Balance Sheet. (However, there could be some particular cases where both effects are reflected either in Profit and Loss account or in Balance Sheet).

What we are attempting in this illustration is only Profit and Loss account. In the next chapter we will attempt balance sheet based on the same data.

Sovera Medicos Trading & Profit and Loss Account for the year ended March 31, 2001

Dr Cr.

	Rs.	Rs.		Rs.	Rs.
To Opening Inventory		60,000	By Sales	6,00,000	
To Purchases	3,70,000		Less: Returns	20,000	
Less: Returns	10,000				5,80,000
		3,60,000	By Closing Inventory		95,000
To Wages	15,000				
Add: Outstanding due	10,000				
		25,000			
To Freight		20,000			
To Gross Profit c/d		2,10,000			
		6,75,000			6,75,000
To Insurance	10,000		By Gross Profit b/d		2,10,000
Less: Prepaid	3,000		By Discount received	10,000	
		7,000			
To Petty expenses		6,000	Add: Discount earned	2,000	12,000
To Salaries	15,000				
Add: Outstanding due	7,000				
		22,000	By Rent received	10,000	
To Advertising		10,000	Less: Rent received in advance	3,000	
To Postage and Telephones		10,000			7,000
To General Expenses	34,000		By Interest on Drawings		1,200
Add: Outstanding due	5,000				
		39,000			
To Interest on Capital		25,000			
To Depreciation:					
Plant & Machinery	7,500				
Furniture	3,000				
		10,500			
To Provision for Bad & Doubtful Debts		2,000			
To Provision for taxation (1)		49,350			
To Net profit (after taxation) transferred to capital		49,350			
		2,30,200			2,30,200

Note: The provision for taxation is calculated @ 50% on the profit, before tax of Rs.98,700.

Illustration 5.2

The following is the Trial Balance of Gupta as on 30th June, 2001.

Trial Balance of Gupta for the year ending 30th June, 2001

Dr. Cr.

	Rs.		Rs.
Cash	540	Sales account	98,780
Cash at Bank	2,630	Returns outwards	500
Purchases	40,675	Capital	62,000
Return inwards	680	Accounts payable	6,300
Wages	8,480	Rent	9,000
Fuel and power	4,730		
Carriage on sales	3,200		
Carriage on Purchases	2,040		
Inventory (1st July, 2000)	5,760		
Buildings	32,000		
Freehold land	10,000		
Machinery	20,000		
Patents	7,500		
Salaries	15,000		
General expenses	3,000		
Insurance	600		
Drawings	5,245		
Accounts receivable	14,500		
	1,76,580		1,76,580

Taking into account the following adjustments prepare the Trading, Profit and Loss account as on 30th June, 2001.

1. Inventory on hand on 30th June, 2001 is Rs.6,800.
2. Machinery is to be depreciated at the rate of 10% and Patents at the rate of 20%.
3. Salaries for the month of June 2001amounting to Rs.1,500 were unpaid.
4. Insurance includes an annual premium of Rs.170 on a policy expiring on 31st December, 2001.
5. Bad debts to be written off are Rs.725.
6. Rent receivable Rs.1,000.

Solution

Trading and Profit and Loss account of Gupta
for the year ending 30th June, 2001

Dr. Cr.

	Rs.	Rs		Rs.	Rs.
To Opening Inventory		5,760	By Sales	98,780	
To Purchases	40,675		Less: Returns	680	
Less: Returns	500	40,175			98,100
To Wages		8,480	By Closing Inventory		6,800
To Carriage on Purchases		2,040			
To Factory fuel and Power		4,730			
To Gross profit c/d		43,715			
		1,04,900			1,04,900
To Carriage on sales		3,200	By Gross profit b/d		43,715
To Salaries	15,000		By Rent	9,000	
Add: Outstanding	1,500	16,500	Add: Accrued rent	1,000	10,000
To General Expenses		3,000			
To Insurance	600				
Less: Unexpired insurance	85	515			
To Depreciation on:					
Machinery	2,000				
Patents	1,500	3,500			
To Bad debts		725			
To Net Profit transferred to Capital a/c		26,275			
		53,715			53,715

Illustration 5.3

From the following Trial Balance extracted from the books of Sujan Singh, prepare a Trading and Profit and Loss account for the year ended on 30th June, 2001.

Trial Balance

Dr. Cr.

	Rs.		Rs.
Drawings	6,480	Sales	91,230
Land and Buildings	25,000	Capital Account	90,000
Plant and Machinery	14,270	Bad Debts Provision (as on 1st July, 2000	2,470
Furniture and Fittings	1,250		
Carriage Inwards	4,370	Discount Account	120
Wages	21,470	Purchase Returns	8,460
Salaries	4,670	Accounts Payable	12,170
Sales Returns	1,760	Apprentice Premium	500

Dr.			Cr.
	Rs.		Rs.
Bank Charges	140		
Coal, Gas and Water	720		
Rates and Taxes	840		
Purchases	42,160		
Bills Receivable	1,270		
Trade Expenses	1,990		
Accounts Receivables	37,800		
Inventory (1st July, 2000)	26,420		
Fire Insurance Premium	490		
Cash at Bank	13,000		
Cash in hand	850		
	2,04,950		2,04,950

Adjustments

1. Charge depreciation on Land and Buildings account at 2.5%, on Plant and Machinery at 10%, and on Furniture and Fixtures at 10%.
2. Make a provision of 5% on Accounts Receivable for Doubtful Debts.
3. Carryforward the unexpired amounts for Fire Insurance Rs.125, Rates and Taxes Rs.240, and Apprentice Premium Rs.400.
4. Charge 5% interest on capital and interest on drawings is Rs.300.
5. The value of inventory as on 30th June, 2001, was Rs.29,390.

Solution

Trading and Profit and Loss Account of Sujan Singh
for the year ended 30th June, 2001

Dr.					Cr.
	Rs.	Rs.		Rs.	Rs.
To Opening inventory		26,420	By Sales	91,230	
To Purchases	42,160		Less: Returns	1,760	
Less: Returns	8,460				89,470
		33,700			
To Carriage inwards		4,370	By Closing inventory		29,390
To Wages		21,470			
To Coal, Gas and Water		720			
To Gross profit c/d		32,180			
		1,18,860			1,18,860
To Salaries		4,670	By Gross profit b/d		32,180
To Bank charges		140	By Discount		120
To Rates and Taxes	840		By Apprentice premium	500	
Less: Prepaid	240	600	Less: Received in advance	400	100
To Trade expenses		1,990			
To Fire insurance	490		By Bad debts provision	2,470	
Less: Prepaid	125	365	Less: New provision	1,890	580
To Depreciation:					
Land and Buildings		625			

Dr. Cr.

	Rs.	Rs.		Rs.	Rs.
Plant and Machinery		1,427	By Interest on drawings		300
Furniture and Fittings		125			
To Interest on Capital		4,500			
To Net profit transferred to capital a/c		18,838			
		33,280			33,280

Illustration 5.4

From the following Trial Balance of A. Atmaram as at 30th June, 2001, you are required to prepare a Trading and Profit and Loss Account for the year ended 30th June, 2001.

Trial Balance

	Dr. (Rs.)	Cr. (Rs.)
Atmaram's Capital Account		80,000
A. Atmaram's Drawings Account	6,000	
Plant and Machinery (balance on 1st July, 2000)	20,000	
Plant and Machinery (additions on 1st Jan., 2001)	5,000	
Inventory on 1st Jan, 2000	15,000	
Purchases	82,000	
Returns inwards	2,000	
Accounts receivable	20,600	
Furniture and Fittings	5,000	
Freight and Duty	2,000	
Carriage outwards	500	
Rent, Rates and Taxes	4,600	
Printing and Stationery	800	
Trade expenses	400	
Accounts payable		10,000
Sales		1,20,000
Return outwards		1,000
Postage and Telegrams	800	
Provision for doubtful debts		400
Discounts		800
Rent of premises sub-let for the year up to 31st December, 2001		1,200
Insurance charges	700	
Salaries and Wages	21,300	
Cash in hand	6,200	
Cash at Bank	20,500	
	2,13,400	2,13,400

Adjustments:

1. Inventory on 30th June, 2001 was valued at Rs.14,600.
2. Write off Rs.600 as bad debts.
3. The provision for doubtful debts is to be maintained at 5% on Sundry Debtors.
4. Create a provision for Discounts on Accounts Receivable and Reserve for Discounts on Accounts Payable at 2%.

5. Provide for depreciation on Furniture and Fittings at 5% per annum, and on Plant and Machinery at 20% per annum.
6. Insurance prepaid was Rs.100.
7. A fire occurred on 25th June, 2001 in the godown and stock of the value of Rs.5,000 was destroyed. It was fully insured and the Insurance Company admitted the claim fully.

When fire occurs and stock destroys, inventory should be reduced and the stock destroyed should be shown as loss in P&L account. However, if the goods are insured and insurance company admits the claim, the amount to be received should be shown as asset in balance sheet. If the claim is less than the amount of stock destroyed then the difference should be shown as loss in P&L account.

Solution

Trading and Profit & Loss Account of A. Atmaram for the year ending 30th June, 2001

Dr. Cr.

	Rs.	Rs.		Rs.	Rs.
To Opening Inventory		15,000	By Sales	1,20,000	
To Purchases	82,000		Less: Returns	2,000	1,18,000
Less: Returns	1,000		By Closing Stock		14,600
	81,000				
Less: Goods destroyed by fire	5,000	76,000			
To Freight and Duty		2,000			
To Gross Profit c/d		39,600			
		1,32,600			1,32,600
To Salaries & Wage		21,300	By Gross Profit b/d		39,600
To Rent, Rates & Taxes		4,600	By Reserve for Discount on Creditors	200	
To Printing & Stationery		800	Add: Discounts allowed	800	1,000
To Trade expenses		400	By Rent Received	1,200	
To Insurance harges	700		Less: Received in advance	600	
Less: Prepaid	100	600			600
To Depreciation:					
Plant & Machinery	4,500				
Furniture & Fixtures	250	4,750			
To Postage & Telegram		800			
To Provision for doubtful debts required	1,000				
Add: Bad Debts	600				
	1,600				
Less: Existing Provision	400	1,200			
To Provision for discount on debtors		380			
To Carriage outwards		500			
To Net Profit transferred to Capital account		5,870			
		41,200			41,200

Illustration 5.5

Fairdealer is the proprietor of a large business of cotton goods. The following Trial Balance was prepared from his books as on 30th June, 2001.

Trial Balance of Mr. Fairdealer for the year ending 30.06.2001

Dr.	Rs.	Cr.	Rs.
Land & Buildings	40,000	Sales	4,68,100
Purchases	3,26,700	Income from Investments	990
Returns Inward	2,500	12% bank loan secured on fixed assets (no movements during the year)	40,000
Traveling Expenses	6,900		
Printing & Stationery	1,600	Mr. Fairdealer's capital a/c	80,000
Cash at Bank	30,795	Bills Payable	2,600
Discount Allowed	1,800		
Miscellaneous Expenses	18,620	Accounts Payable	63,100
Accounts Receivable	64,000	Returns outward	3,700
Postage	800	Discount Received	1,200
Furniture	8,000		
Cash in Hand	5,900		
Motor Car	16,000		
Investment (Market value Rs.14,000)	12,000		
Drawings	10,000		
Bills Receivable	4,800		
Inventory (1-07-2000)	63,680		
Interest on Bank loan	3,000		
Salaries (ncluding Advance Rs.1,500)	22,000		
Establishment Expenses	1,595		
Carriage inwards	3,000		
Advertisements	16,000		
	6,59,690		6,59,690

The following further information was obtained.

1. Inventory as on 30th June, 2001 was Rs.1,20,000.
2. Accounts Receivables include a sum of Rs.3,000 due from B and Accounts Payable include a sum of Rs.4,000 due to B.
3. The Reserve for Doubtful Receivables is to be maintained at 10% on Accounts Receivables and Reserve for Discount on Receivables and Discount on Payables are to be created at 5%.
4. Bills Receivable include a dishonored bill for Rs.600.
5. Inventory worth Rs.10,000 destroyed by fire on 25-06-2001 in respect of which the insurance company admits claim for only Rs.7,500.

6. The manager of Fairdealer is entitled to a commission of 10% of Net Profit calculated after charging such commission.
7. 3/4 of the Advertisement Expenses is to be carried forward.
8. 2.5% of the Net Profit is to be carried to Reserve Fund.
9. Depreciation is to be charged on:
   i. Land and Buildings at 2.5%
   ii. Furniture at 10%
   iii. Motor Car at 20%

You are required to prepare the Trading and Profit & Loss account for the year ended 30th June, 2001.

Solution

Trading and Profit and Loss Account of Fairdealer for the year ending 30th June, 2001

Dr. Cr.

		Rs.			Rs.
To Opening Inventory		63,680	By Sales	4,68,100	
To Purchases	3,26,700		Less: Returns	2,500	
Less: Returns	3,700				4,65,600
	3,23,000				
Less: Goods destroyed	10,000	3,13,000			
To Carriage		3,000	By Closing Inventory		1,20,000
To Gross Profit c/d		2,05,920			
		5,85,600			5,85,600
To Traveling Expenses		6,900	By Gross Profit b/d		2,05,920
To Printing & Stationery		1,600	By Income from Investments		990
To Misc. Expenses		18,620	By Reserve for Discount** on Creditors	3,005	
To Postage		800	Add: Discount	1,200	4,205
To Interest on Bank Loan	3,000				
Add: Outstanding	1,800	4,800			
To Establishment expenses		1,595			
To Salaries	22,000				
Less: Prepaid	1,500				
		20,500			
To Advertisement	16,000				
Less: Carried forward	12,000				
		4,000			

Dr.			Cr.
To Loss by fire		2,500	
To Provision for Doubtful Debts		6,160*	
To Provision for Discount on Debtors	2,772		
Add: Discount	1,800	4,572	
To Depreciation on Land and Buildings	1,000		
Furniture	800		
Motor Car	3,200	5,000	
To Manager's Commission		12,188	
To Net Profit Reserve Fund	1,18,833		
		1,21,880	
		2,11,115	2,11,115

* Accounts receivable of Rs.64,000 – Rs.3,000 due from B + Rs.600 dishonored bill

** Accounts payable of Rs.63,100 – Rs.3000 due from B.

Illustration 5.6

From the following Trial Balance of Prathibha and Company, prepare Trading, Profit and Loss account for the year ending 30th June, 2001 after giving effect to the undermentioned adjustments.

Trial Balance for the year ending 30th June, 2001

Dr.	Rs.	Cr.	Rs.
Opening stock	8,000	Capital a/c on 30-06-2001	50,000
Purchases	20,000	Sales	80,000
Sales Returns	1,500	Purchase Returns	400
Carriage Inwards	1,200	Apprenticeship Premium	1,500
Carriage Outwards	2,500	Bills Payable	2,500
Wages	3,300	Sundry Creditors	15,800
Salaries	5,500		
Rent	1,100		
Freight	2,400		
Fire Insurance Premium	900		
Bad Debts	2,100		
Discount	500		
Printing and Stationery	250		
Rates and Taxes	350		
Traveling Expenses	150		
Sundry Trade Expenses	200		
Business Premises	55,000		
Furniture and Fixtures	2,500		
Bills Receivable	3,000		
Sundry Debtors	20,000		
Packing Machinery	4,500		
Loan given to Smith	5,000		
Investments	3,500		
Cash in hand	250		
Cash at Bank	3,500		
Proprietor's withdrawals	3,000		
	1,50,200		1,50,200

Adjustments to be made for the current period are:

1. Inventory in hand on 30th June, 2001, Rs.7000.
2. Wages to Laborers of Rs.300 for the last month are outstanding.
3. Salaries to clerks for the month of June, 2001 are outstanding Rs.500.
4. Rent of godowns for the last month is outstanding Rs.100.
5. Fire Insurance Premium include Rs.600 paid on 17th Jan., 2001, to run for one year from 1st Jan., 2001 to 31st December, 2001.
6. Apprenticeship Premiums are for three years, paid in advance on 1st July, 2000.
7. A Stationery bill for Rs.30 remains unpaid and unrecorded.
8. Depreciate: Business Premises by 5%, Furniture and Fixtures by 10%, and Packing Machinery by 10%.
9. Interest on Smith's Loan for one year has accrued at 7%.
10. Interest on Investments Rs.75 has accrued as on 30th June, 2000.
11. Interest on Capital to be allowed at 5% for the year.
12. Interest on provision on debtors for doubtful debts at 5% and discount at 3%.

14. Create a reserve Drawings to be charged to him as ascertained for the year Rs.80.

13. Create a on creditors for discount at 3%.

Solution

Book of Pratibha and Company Trading and Profit and Loss Account for the year ending 30th June, 2001

Dr. Cr.

	Rs.	Rs.		Rs.	Rs.
To Opening Inventory		8,000	By Sales	80,000	
To Purchases	20,000		Less: Returns	1,500	
Less: Returns	400	19,600			78,500
To Carriage Inwards		1,200	By Closing Inventor		7,000
To Wages	3,300				
Add: Outstanding	300				
		3,600			
To Freight		2,400			
To Gross Profit c/d		50,700			
		85,500			85,500
To Carriage Outwards		2,500	By Gross Profit b/d		50,700
To Salaries	5,500		By Apprentice Premium	1,500	
Add: Outstanding	500				
		6,000	Less: Received in Advance	1,000	500
To Rent	1,100				
Add: Outstanding	100	1,200			
			By Interest on Smith		350

Dr. Cr.

	Rs.	Rs.		Rs.	Rs.
			Loan		
To Fire Insurance Premium	900		By Accrued Interest on Investments		75
Less Prepaid	300		By Interest on Drawings		80
		600			
To Bad Debts		2,100	By Reserve for Discount on Creditors		474
To Printing & Stationery	250				
Add: Outstanding	30				
		280			
To Rent and Rates		350			
To Traveling Expenses		150			
To Sundry Trade Expenses		200			
To Depreciation on:					
Business Premises		2,750			
Furniture and Fixtures		250			
Packing Machinery		450			
To Interest on Capital		2,500			
To Provision for Doubtful Debts		1,000			
To Provision for Discount on Debtors	570				
Add: Discount	500	1070			
To Net Profit transferred to Capital a/c		30,779			
		52,179			52,179

SUMMARY

- The profit and loss account is also known as the Income statement. It can be said as a report that summarizes the operating activities of an enterprise during a certain period. It enables the users understand the changes in the equity or the owners' capital that occurred during the period as a result of the operating activities of the business. The income statement reflects the performance of the entity over a period of time. In this chapter we have learnt the contents of the Profit and Loss Account, the format of the Profit and Loss Account and the Preparation of Profit and Loss Account resulting in the measurement of income accrued to the enterprise. In the next chapter, we shall discuss the preparation of the next important financial statement – The Balance Sheet.

Chapter VI

Preparation of Financial Statements: Balance Sheet

After reading this chapter, you will be conversant with:

- Preparation of Balance Sheet
- Limitations of Balance Sheet
- Vertical form of Financial Statement
- Analysis of Balance Sheet

Introduction

A balance sheet is a statement of assets and liabilities of a business organization at any particular date. At the end of each accounting period, every business organization prepares a Balance Sheet to have a clear understanding of its assets and liabilities, which indicate the financial position of the concern.

The Balance Sheet is prepared from the point of view of the business (as a separate entity, distinguished from its owners). Another way to understand a Balance Sheet is to consider it as a statement of sources of funds (i.e., liabilities) and utilization of funds (i.e., assets). A simplified version of a typical Balance Sheet is given. The registered companies are required to follow Part I of Schedule VI of Companies Act, 1956 for recording assets and liabilities in the Balance Sheet. But there is no such law for the order of writing assets and liabilities in case of sole trader and partnership firms. Even then they may also record the assets and liabilities on (a) liquidity basis and (b) fixity basis.

When assets and liabilities are arranged according to their realizability and payment preference, it is liquidity order basis.

When fixed assets and liabilities are arranged on the assumption that these will be sold and paid only on the liquidation of business it is the fixity basis.

Balance Sheet of MSY Ltd. as on 31.03.2001

Liabilities			Assets	
	Rs.	Rs.		Rs.
Capital:	1,90,000		Fixed Assets:	
Add: Interest	10,000		(Net of Depreciation)	
Profits	15,000		Land	10,000
	2,15,000		Buildings	15,000
			Plant & Machinery	1,25,000
Less: Drawings			Motor Vehicles	30,000
(Including Interest)	15,000		Furniture & Fittings	10,000
		2,00,000	Misc. Fixed Assets	5,000
Reserves		15,500	Current Assets:	
Loans :			Stock	10,000
Bank Overdraft		25,000	Cash at Bank	21,200
From others		10,000	Cash on Hand	1,800
			Debtors (net of provision for bad & doubtful debts)	30,000
			Bills Receivables	8,000
Current Liabilities:				
Creditors		15,000	Loans & Advances:	6,000
Bills Payable		5,000	Prepaid expenses	2,000
Outstanding expenses		3,000	Income earned but not received	1,500
Income received in advance		2,000		
		2,75,500		2,75,500

An Illustration of Balance Sheet

Taking the example of Sovera Medicos given in chapter on `Preparation of Financial Statements: Profit and Loss Account' we will now prepare a Balance Sheet.

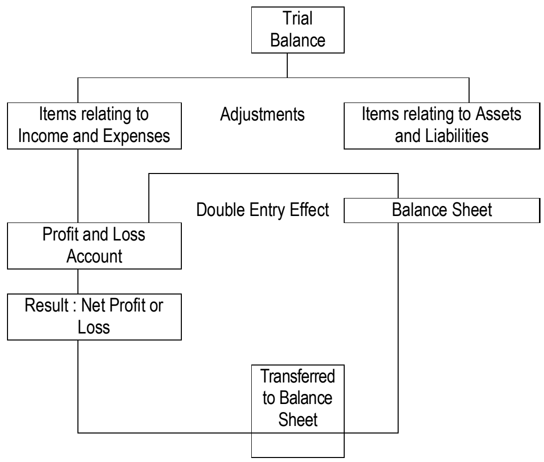
Balance Sheet of Sovera Medicos as on 31st December, 2001

Liabilities			Assets		
	Rs.	Rs.		Rs.	Rs.
Capital	2,50,000		Fixed Assets:		
Add: Interest on Capital	25,000		Land & Buildings		1,50,000
Net Profit	49,350	3,24,350	Freehold Property		50,000
			Plant & Machinery	50,000	
			Less: Depreciation	7,500	
					42,500
Less: Drawings	20,000		Furniture	30,000	
			Less: Depreciation	3,000	
					27,000
Interest on Drawings	1,200	21,200			
		3,03,150	Current Assets:		
Current Liabilities:			Cash at Bank		20,000
Accounts Payable		70,000	Accounts Receivables	1,00,000	
Bills Payable		40,000	Less: Provision for doubtful debts	2,000	98,000
Outstanding Expenses:					
Wages	10,000				
Salaries	7,000		Inventory		95,000
General Expenses	5,000	22,000	Prepaid Expenses (Insurance)		3,000
Rent received in advance		3,000	Income earned but not received (Discount)		2,000
Provision for Taxation		49,350			
		4,87,500			4,87,500

LINKAGE BETWEEN TRIAL BALANCE, PROFIT & LOSS ACCOUNT AND BALANCE SHEET

It is necessary to understand the linkage between Trial Balance, Profit and Loss Account and Balance Sheet as shown in Figure 11.1

Figure 11.1



In other words,

– We start with a tallied trial balance.
– We give double-entry effect to all adjustments outside trial balance.
– We take some of the trial balance items (including adjustments) to Profit and Loss Account.
– We take the result of profit and loss Account (net profit or net loss) to Balance Sheet (Reserves or Capital).
– We take the rest of the items of trial balance (including adjustments) to Balance Sheet.

Hence the Balance Sheet has to tally. Assets side should be equal to liabilities side. Utilization of Funds (Assets) should be equal to sources of funds (Liabilities).

- Start with a tallied trial balance. It proves the arithmetical accuracy of entries made in the books namely cash book, journal and ledger. However, there are certain errors which are not disclosed by a trial balance.
- On account of certain errors if the trial balance is not tallied, the Suspense Account is opened with the difference of two sides and the same is inserted on the side having deficit. If Suspense Account shows:
  a. Debit balance, record on the asset side of Balance Sheet.
  b. Credit balance, record on the liabilities side of Balance Sheet.

  The Suspense Account is closed after rectifying the errors.
  Real and Personal Accounts items alone are taken to Balance Sheet.
- Adjustments given at the end of a trial balance should be given double-entry effect. Otherwise accounts will not be complete.
  The balance sheet will not tally.

The treatment of adjustments for expenses and incomes in balance sheetis:

a. Outstanding liabilities for expenses shown on liabilities side;
b. Prepaid expenses shown on assets side;
c. Income received in advance shown on liabilities side;
d. Income earned but not received, and income accrued but not due, shown on assets side;
e. Fixed assets are recorded at cost minus depreciation;
f. Closing stock recorded at cost price or market price whichever is less.

To sum up our discussion on Profit and Loss Account and Balance Sheet let us take note of the following important points.

Profit and loss account may be divided into three components:

Trading Account	To reflect gross profit or loss arising out of trading and manufacturing operations.
Profit and Loss Account	To reflect the net profit or loss of the entire business after duly accounting for all administrative and selling expenses.
Profit and Loss Appropriation Account	To reflect the various appropriations made out of disposable profits like dividends, transfer to reserves etc.

It is not always necessary to prepare a separate trading account.

Balance Sheet is just a statement of assets and liabilities. It is not an account like profit and loss account. Hence Debit (Dr.) or Credit (Cr.) do not figure in a balance sheet.

Profit and Loss account is prepared for an accounting period. On the other hand a balance sheet is prepared as on a particular day (usually the last day of the accounting period). Profit and Loss account is like a moving picture whereas balance sheet is like a still photograph.

LIMITATIONS OF BALANCE SHEET

At this stage it may be worthwhile to come to grips with some important limitations of balance sheet. Just because a balance sheet is tallied or because the auditors have certified the balance sheet it does not however mean that a balance sheet is without any limitations.

Balance Sheet is considered to be a static document and it reflects the position of the concern at a moment of time. The real position of the concern may be changing day-to-day, and the same is not depicted in Balance Sheet.

Balance Sheet is not a valuation statement. The values shown in it are not real values of assets. Thus the exact position of the business cannot be gauged from balance sheet.

We have noted earlier that a balance sheet is prepared based on certain accounting policies. Such policies relate to inventory valuation (i.e., closing stock), depreciation etc. Inventory may be valued using several methods like First-In-First-Out (FIFO), Last-In-First-Out (LIFO), weighted average cost etc. Similarly, depreciation may be provided using straight line method or written down value method. The management may select a rate of depreciation (which is not less than the statutory minimum rate) suitable to its own business needs.

Similarly, accounting policies may differ from company to company in respect of accounting for prepaid expenses, prior period adjustments, classification between revenue and capital expenditure, writing-off preliminary expenses etc.

However, the auditors do insist that the same accounting policies are consistently used by management from year to year. Whenever there is a change in accounting policy, the effect of such a change is indicated in the notes to balance sheet.

In addition to such basic differences relating to accounting policies, we come across here and there deliberate window-dressing of balance sheets to forecast a better picture to shareholders, bankers and financial institutions. It is a rosier picture than what it actually is.

Window-dressing is accomplished in general ways – by not making adequate provisions (though prudence would require them) for expenses and potential losses, by taking into account income even before its actual accrual, by playing around with inter-corporate adjustments etc.

VERTICAL FORM OF PROFIT AND LOSS ACCOUNT AND BALANCE SHEET

Now-a-days many organizations publish their profit and loss account and balance sheet in a vertical form (as opposed to the traditional `T' form). The data, of course, remain the same. It is only the presentation which changes. In vertical format the profit and loss account appears as given below (using the same figures as given on Page 155 of chapter 'Preparation of Financial Statements: Profit and Loss Account'.

Profit and Loss Account of Sovera Medicos for the year ended

Particulars	Rs.	Rs.
INCOME		
Sales	5,80,000	
Other income	20,200	
Increase in stocks	35,000	
		6,35,200
EXPENDITURE		
Purchases	3,60,000	
Wages	25,000	
Insurance	7,000	
Petty expenses	6,000	
Freight	20,000	
Salaries	22,000	
Advertising	10,000	
Postage and Telegrams	10,000	
General Expenses	39,000	
Interest on Capital	25,000	
Depreciation	10,500	
Provision for bad & doubtful debts	2,000	
		5,36,500
Profit before tax		98,700

In a vertical format the Balance Sheet given on Page No. 135 of this chapter would appear as follows:

Balance Sheet of Sovera Medicos

	Rs.	Rs.
FUNDS EMPLOYED:		
Shareholders' Funds		
Capital	2,53,800	
Reserves	49,350	
		3,03,150
Loan Funds:		
Banks	–	
Others	–	
		3,03,150
FUNDS UTILIZED:		
Fixed Assets		2,69,500
Net Current assets		
Current assets	2,18,000	
Less: Current Liabilities	1,84,350	
		33,650
		3,03,150

Many people find it more convenient to use the vertical format. Hence there is a gradual switch over from `T' shape presentation to vertical formats.

ANALYSIS OF BALANCE SHEET

The data shown in Balance Sheet and Profit and Loss account are not only the balances of individual accounts but sometimes they are grouped balances of many accounts and they lack uniformity and homogeneity. For the purpose of making comparisons and of interpretation these items of data are to be split or broken up into many components. This process is known as analysis. Financial analysis involves the division of facts on the basis of some definite plans, classifying them into classes on the basis of certain conditions and presenting them in the most convenient, simple and understandable form, i.e. its classification and arrangement of data.

A clear and correct understanding of the basic divisions of the balance sheet and the meanings which they signify and the amount which they represent is very essential for the proper analysis and interpretation of financial statements. The various items of the balance sheet may be grouped as under.

Fixed Assets

All assets which are acquired for the purpose of using them in the conduct of business operations and not for reselling to earn profit. These assets are not readily convertible into cash in the normal course of business operations. Examples are Machinery, Buildings, etc.

Current Assets

All assets which are acquired for reselling during the course of business are to be treated as current assets. These are acquired through cash and are easily convertible into cash. Examples are Cash & Bank balances, Inventory, Accounts Receivables, etc.

Intangible Assets

The assets which do not have physical existence, and their real value depends upon the earning capacity of the business concern. Example Goodwill.

Other Assets

The assets that possess a tangible form but are not directly used in the operations of business.

Deferred Expenditures

The expenditures which are not incurred repeatedly and do not arise from the present operations. These expenditures contribute income or benefit in future years. Thus, these expenditures are written off gradually over several years of operations, treating each year's share in such expenditures as a charge on profits for that year. The amount of such expenditure not written off at a point of time is shown as an asset in Balance Sheet. For example, research & development expenses of Rs.1,00,000 resulting in a new product may be written off over 5 years. At the end of the first year, an amount of Rs.80,000 being Rs.1,00,000 – 20,000 will be shown in the Balance Sheet as deferred expenditure and 20,000 will be shown each year for 5 years in the Profit and Loss account.

Net Worth

Net worth is the amount of funds invested at the risk of the owners of the business concern. It is arrived after deducting all outside liabilities both current and non-current from total assets of the concern. Hence Net worth equals the capital and reserves of the concern.

Financial Analysts analyze the balance sheets and profit and loss accounts in great detail to assess the financial position of the companies by comparing the performance over a period of time and also by comparing performance of one company with others in similar business. Such comparisons with similar other companies are called inter-firm comparisons.

Financial Analysts use several financial ratios calculated from the data available in balance sheet and profit and loss account to assess the solvency, liquidity and profitability of an organization.

Non-Current Liabilities

All such liabilities payable over a longer period of time, generally after one year, are non-current liabilities. Eg. Debentures, Long-term loans, etc.

Current Liabilities

All short-term obligations generally due and payable within one year are current liabilities. Example: Bills payable, Accounts payable etc.

The following adjustments are explained with respect to preparation of financial statements i.e. – Profit and Loss Account and Balance Sheet.

	Adjustment		Treatment	Reasons
1.	*Closing Stock*			
	a. If it is given as an adjustment (not included in trial balance)	i. ii.	Credit Profit & Loss Account Show as Current Asset in Balance Sheet	Since it is an adjustment double effect is to be given as per double entry concept.
	b. If it is shown as debit balance in Trial Balance	i.	Show only as a current asset in Balance Sheet	It is included in Trial Balance means it is already adjusted in cost of goods sold.
	c. If market value of stock is also given		Take cost or market value whichever is less.	
2.	*Bad debts recovered*		Credit to profit and loss account	Since it is debited to profit and loss account in the year of occurrence, it should be taken as income in the year of recovery.
3.	*Income tax provision :*	i.	Debit to profit & loss account i.e. above the line.	It is not an appropriation of profits
	Relating to current year	ii	Show as a current liability in Balance Sheet	Hence it should be debited to profit & loss account.
	Relating to previous year	i.	It is a charge against profit & loss appropriation account	All previous year expenses are to be debited to profit & loss appropriation account. In the same way, all prior year revenues are to be credited to profit & loss appropriation account.
4.	*Live Stock*		Show as fixed asset in Balance Sheet	As per Schedule VI of the Companies Act.
5.	*Investments*		Cost value is to be shown in the Balance Sheet	Market value is to be shown in the inner column for information (Schedule VI requirement).

	Adjustment	Treatment	Reasons
6.	*Secured loans* Interest due and accrued Interest due but not accrued	i. Both are to be debited to profit & loss account. ii. Interest due and accrued is to be added to loan amount in Balance Sheet iii. Interest due but not accrued is to be added to current liabilities in Balance Sheet	As per Schedule VI of the Companies Act.
7.	*Depreciation*	i. Debited to profit and loss account ii. Reduced from fixed assets in Balance Sheet	As per Accounting Standard guidelines.
	Change of method of calculation of depreciation	i. Effect due to change in the method of depreciation up to the beginning of the year of change (i.e. prior period adjustment) is to be debited/credited to profit and loss appropriation account. ii Depreciation charged as per new method for the current year is to be debited to profit and loss account.	
8.	*Insurance prepaid*	i Out of total insurance paid only the proportionate amount pertaining to that particular year is to be debited to profit and loss account. ii. Amount prepaid will be shown as current asset in Balance Sheet.	Since it does not belong to the current year.
9.	*Outstanding Expenditure*	i Debited to profit and loss account ii. Shown as current liability in Balance Sheet	Since it is an expenditure relating to that particular year.
10.	*Manager's and Managing Director's Salary.*	i. It should be debited to profit and loss account but not to profit and loss appropriation account. ii. It should be shown separately in profit and loss account without clubbing with Administrative Salaries. iii. It should be shown as a current liability in the balance sheet	Since it is a charge against the profits of the company.
11.	*Dividends*	Debited to profit and loss appropriation account. It should be calculated on the paid-up amount of capital i.e., issued and called up capital minus calls in arrears.	

	Adjustment	Treatment	Reasons
	Interim and Final dividend		
12.	*Provision for doubtful debts and bad debts.*	i. Bad debts account is to be debited to profit and loss account. ii. For calculation of provision for doubtful debts first reduce bad debts given as adjustment from debtors and then calculate provision for doubtful debts. iii. Debit the same to profit and loss account iv. In the Balance Sheet the presentation should be Debtors XXX Less : Bad debts XXX Less : Provision for doubtful debts XXX Balance	
13.	*Compulsory transfer of profits to reserves.*	i. Transfer 2.5% of current year profits to reserves	If dividend proposed exceeds 10% but less than 12.5% of the paid-up capital
		ii. Transfer 5%.	If dividend proposed exceeds 12.5% but not 15%.
		iii. Transfer 7.5%	If dividend proposed exceeds 15% but not 20%
		iv. Transfer 10% of the current year profits to reserves account This transfer is to be made through profit and loss appropriation account.	If dividend proposed exceeds 20%
14.	*Goods sent to customers on "Sale or return basis"*		Should be taken as closing stock only when the confirmation from the customer is received treating the same as sale.
15.	*Calls-in-arrears*	Deduct from called up amount of share capital on the liabilities side of the Balance Sheet.	As per Schedule VI of the Companies Act.

	Adjustment	Treatment	Reasons
16.	*Auditor's fees*	Should be clearly mentioned wherever possible as fees, paid i. As auditor ii. As advisor in respect of a. Taxation matter b. Company law matter c. Management services iii. In any other manner.	As per Schedule VI of the Companies Act.
17.	*Sundry debtors*	In the Balance Sheet wherever information is available it should be mentioned as sundry debtors a. Debts outstanding for a period exceeding six months b. Other debts. c. Amounts due from directors should be separately shown.	As per Schedule VI.
18.	*Miscellaneous Expenses*	The following expenses to the extent not written-off should be presented as miscellaneous expenses in the Balance Sheet i. Preliminary expenses ii. Expenses including brokerage, commission on underwriting of shares, debentures iii. Discount on issue of shares/debentures iv. Interest paid out of capital during construction The total of above expenses should not be debited to profit and loss account, whereas they can be written-off i.e., debited to P&L account on a fixed percentage basis.	As per Schedule VI.
19.	*Railway sidings, patents, trade marks and designs and live stock*	All these will appear as fixed assets in the Balance Sheet.	As per Schedule VI.
20.	*Importance of Period – the year of accounting*	Expenditure/Revenue to be taken into profit and loss account should relate to the year of accounting Income/Expenditure relating to prior year or future year or of capital nature should be excluded.	

Illustrations on Balance Sheet

Illustration 6.1

From the following Trial Balance of Evergreen and Company prepare Trading and Profit and Loss account and Balance Sheet.

Trial Balance as on December 31, 2001

Particulars	Debit Rs.	Credit Rs.
Cash in hand	2,400	
Purchases	2,40,000	
Stock as on 1-1-2001	70,000	
Debtors	1,00,000	
Plant & Machinery	1,20,000	
Furniture	30,000	
Bills Receivable	40,000	
Rent & Taxes	20,000	
Wages	32,000	
Salaries	37,600	
Capital		2,00,000
Bills Payable		44,000
Creditors		48,000
Sales		4,00,000
Total	6,92,000	6,92,000

Additional information:

1. Closing Inventory as on December 31, 2001, Rs.50,000.
2. Outstanding wages Rs.5,000.
3. Depreciation on Plant & Machinery at 10% and Furniture at 5%.

Solution

Evergreen and Company

Trading and Profit and Loss Account for the year ending 31.12.2001

Dr. Cr.

Particulars		Rs.	Particulars	Rs.
To Opening Inventory		70,000	By Sales	4,00,000
To Purchases		2,40,000	By Closing Inventory	50,000
To Wages	32,000			
Add: Outstanding	5,000			
		37,000		

Dr.			Cr.
Particulars	Rs.	Particulars	Rs.
To Gross Profit c/d	1,03,000		
	4,50,000		4,50,000
To Depreciation:		By Gross Profit b/d	1,03,000
Plant & Machinery	12,000		
Furniture	1,500		
To Rent & Taxes	20,000		
To Salaries	37,600		
To Net Profit transferred to Reserves	31,900		
	1,03,000		1,03,000

Evergreen and Company

Balance Sheet as on 31.12.2001

Liabilities		Rs.	Assets	Rs.	Rs.
Capital		2,00,000	Fixed Assets:		
Reserves (Profit)		31,900	Plant & Machinery	1,20,000	
			Less: Depreciation	12,000	
					1,08,000
			Furniture	30,000	
			Less: Depreciation	1,500	28,500
					1,36,500
Current Liabilities:			Current Assets:		
Outstanding wages	5,000		Cash in hand	2,400	
Bills Payable	44,000		Accounts Receivable	1,00,000	
Accounts Payable	48,000		Bills Receivable	40,000	
		97,000	Inventory	50,000	
					1,92,400
		3,28,900			3,28,900

Illustration 6.2

From the following Trial Balance of Sun Shine and Company prepare Trading, Profit and Loss account and Balance Sheet.

Trial Balance as on 31.12.2001

Particulars	Debit Rs.	Credit Rs.
Capital		25,000
Loans		5,000
Sales		35,000
Accounts Payable		4,000
Bills Payable		5,000

Particulars	Debit Rs.	Credit Rs.
Purchase Returns		2,000
Dividends Received		3,000
Plant & Machinery	13,000	
Buildings	17,000	
Receivables	9,650	
Purchases	18,000	
Discount allowed	1,200	
Wages	7,000	
Salaries	3,000	
Traveling Expenses	750	
Freight	200	
Insurance	300	
Commission paid	100	
Cash on hand	100	
Bank	1,600	
Repairs	500	
Interest on loans	600	
Opening Inventory	6,000	
Total	79,000	79,000

Additional Data:

1. Closing Inventory Rs.8,000.
2. Depreciation on Plant & Machinery at 15% and 10% on Buildings.
3. Provision for doubtful receivables Rs.500.
4. Insurance prepaid Rs.50
5. Outstanding rent Rs.100.

Solution

Sun Shine and Company

Trading and Profit and Loss Account for the year ending 31.12.2001

Dr. Cr.

Particulars	Rs.	Rs.		Rs.
To Opening Inventory		6,000	By Sales	35,000
To Purchases	18,000		By Closing Inventory	8,000
Less: Returns	2,000			
		16,000		
To Wages		7,000		
To Gross Profit c/d		14,000		
		43,000		43,000
To Discount allowed		1,200	By Gross Profit b/d	14,000
To Salaries		3,000	By Dividends received	3,000
To Traveling expenses		750		
To Freight		200		
To Insurance	300			
Less: Prepaid	50			

Dr. Cr.

Particulars	Rs.	Rs.		Rs.
		250		
To Commission paid		100		
To Repairs		500		
To Interest on loan		600		
To Rent outstanding		100		
To Provision for doubtful receivables		500		
To Depreciation:				
Plant & Machinery		1,950		
Buildings		1,700		
To Net Profit c/d		6,150		
		17,000		17,000

Sun Shine and Company

Balance Sheet as on 31.12.2001

Liabilities	Rs.	Rs.	Assets	Rs.	Rs.
Capital	25,000		Fixed Assets :		
Add: Net Profit	6,150	31,150	Plant & Machinery	13,000	
Loan Current Liabilities:		5,000	Less: Depreciation	1,950	11,050
Accounts Payable		4,000	Buildings	17,000	
Bills Payable		5,000	Less: Depreciation		
Outstanding Rent		100		1,700	15,300
			Current Assets:		
			Cash on hand		100
			Cash at Bank		1,600
			Accounts Receivable	9,650	
			Less: Provisions for doubtful debts	500	9,150
			Closing Inventory		8,000
			Insurance		50
		45,250			45,250

Illustration 6.3

Prepare Trading and Profit and Loss account and Balance Sheet from the following data of Premier and Company.

Trial Balance as on 31.12.2001

Particulars	Debit Rs.	Credit Rs.
Sales		3,00,000
Plant & Machinery	1,20,000	
Rent, Rates & Taxes	20,000	
Sales Returns	30,000	
Freight	4,000	
Accounts Receivable	70,000	
Opening Inventory	1,20,000	
Purchases	2,30,000	
Discount paid	5,000	
Interest on Bank loan	5,000	
Salaries	70,000	
Cash in Hand	5,000	
Purchase Returns		10,000

Particulars	Debit Rs.	Credit Rs.
Bank loan		1,50,000
Capital		1,81,500
Accounts Payable		40,000
Bills Payable		26,000
Legal Charges	500	
General Expenses	8,000	
Cash at Bank	20,000	
Total	7,07,500	7,07,500

Adjustments:

1. Provision for bad & doubtful receivables @ 5% on Accounts Receivable.
2. Interest on Bank Loan outstanding Rs.7,000.
3. Closing inventory as on 31.12.2001 Rs.1,20,000.

Solution

Premier and Company

Trading and Profit and Loss Account for the year ending 31.12.2001

Dr. Cr.

Particulars	Rs.	Rs.	Particulars	Rs.	Rs.
To Opening Inventory		1,20,000	By Sales	3,00,000	
To Purchases	2,30,000		Less: Returns	30,000	
Less: Returns	10,000				2,70,000
		2,20,000	By Closing Inventory		1,20,000
To Gross Profit c/d		50,000			
		3,90,000			3,90,000
To Rent, Rates and Taxes		20,000	By Gross Profit b/d		50,000
To Freight		4,000	By Net Loss c/d		73,000
To Discount paid		5,000			
To Interest on bank loan	5,000				
Add: Outstanding	7,000				
		12,000			
To Salaries		70,000			
To Legal Charges		500			
To General Charges		8,000			
To Provision for bad and doubtful receivables		3,500			
		1,23,000			1,23,000

Premier and Company

Balance Sheet as on 31.12.2001

Liabilities	Rs.	Rs.	Assets	Rs.	Rs.
Capital	1,81,500		Fixed Assets		
Less: Net Loss	73,000		Plant & Machinery		1,20,000
		1,08,500			
Bank Loan		1,50,000			
Current Liabilities:			Current Assets		
Accounts Payable		40,000	Debtors	70,000	
Bills Payable			Less: Provision for bad and doubtful		
		26,000	receivables	3,500	66,500
Outstanding Interest on loan		7,000			
			Cash in hand		5,000
			Cash at bank		20,000
			Closing Inventory		1,20,000
		3,31,500			3,31,500

Illustration 6.4

The following is the Trial Balance of Raman Traders as on 31st December, 2001.

Trial Balance

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
Cash on hand	1,500	Sales	2,50,000
Cash at bank	3,000	Returns outwards	2,000
Purchases	1,10,000	Capital	56,000
Returns inwards	1,500	Accounts payable	30,000
Wages	20,000		
Power and fuel	8,000		
Carriage outwards	6,000		
Carriage inwards	5,000		
Opening inventory	6,000		
Land	10,000		
Buildings	80,000		
Machinery	30,000		
Patents	15,000		
Salaries	12,000		
Sundry expenses	6,000		
Insurance	1,000		
Drawings	8,000		
Accounts receivable	15,000		
Total	3,38,000	Total	3,38,000

You are required to prepare Trading and Profit and Loss account for the year ended 31.12.2001 and a Balance Sheet as at 31.12.2001. Adjustments to be made are given below:

1. Closing Inventory as at 31.12.2001, Rs.20,000.
2. Provision for bad & doubtful receivables at 5% on debtors.
3. Outstanding salaries Rs.5,000, outstanding wages Rs.3,000.
4 Depreciation @ 10% on all assets.

Solution

Raman Traders

Trading and Profit and Loss Account for the year ending 31.12.2001

Dr. Cr.

Particulars	Rs.	Rs.	Particulars	Rs.	Rs.
To Opening Inventory		6,000	By Sales	2,50,000	
To Purchases	1,10,000		Less: Returns	1,500	
Less: Returns	2,000				2,48,500
		1,08,000	By Closing Inventory		20,000
To Wages	20,000				
Add: Outstanding	3,000				
		23,000			
To Fuel and Power		8,000			
To Carriage inwards		5,000			
To Gross Profit c/d		1,18,500			
		2,68,500			2,68,500
To Carriage outwards		6,000	By Gross Profit b/d		1,18,500
To Salaries	12,000				
Add: Outstanding	5,000				
		17,000			
To Sundry expenses		6,000			
To Insurance		1,000			
To Provision for bad and doubtful debts		750			
To Depreciation :					
Buildings	8,000				
Machinery	3,000				
Patents	1,500				
		12,500			
To Net Profit c/d		75,250			
		1,18,500			1,18,500

Raman Traders

Balance Sheet as on 31.12.2001

Liabilities	Rs.	Rs.	Assets	Rs.	Rs.
Capital	56,000		Land		10,000
Add: Net Profit	75,250		Buildings	80,000	
			Less: Depreciation	8,000	
	1,31,250				72,000
Less: Drawings	8,000		Machinery	30,000	
		1,23,250	Less: Depreciation	3,000	
Accounts Payable		30,000			27,000
Outstanding salaries		5,000	Patents	15,000	
Outstanding wages		3,000	Less: Depreciation	1,500	
					13,500
			Accounts Receivable	15,000	
			Less: Provision for bad and doubtful debts	750	14,250
			Cash in hand		1,500
			Cash at bank		3,000
			Closing Stock		20,000
		1,61,250			1,61,250

Illustration 6.5

The following is the Trial Balance of Kamal Enterprises for the year ended 31st December, 2001. You are required to prepare a Profit and Loss account and Balance Sheet after taking into account the adjustments given below.

Trial Balance

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
Cash in hand	500	Sales	1,50,300
Cash at bank	1,200	Purchase returns	5,000
Office Furniture	6,000	Accounts Payable	12,000
Accounts Receivables	15,000	Bills Payable	8,000
Commissions	1,200	Discount received	1,000
Bills receivable	3,500	Dividend received	2,000
Power and Fuel	6,000	Rent received	3,500
Plant and Machinery	24,000	Capital	27,000
Office expenses	2,000		
Carriage inwards	1,200		
Carriage outwards	3,500		
Rent, Rates and Taxes	1,700		
Leasehold Premises	25,000		
Wages	30,000		
Salaries	7,000		
Opening Inventory	12,000		
Sales Returns	2,000		
Purchases	60,000		
Drawings	7,000		
	2,08,800		2,08,800

Adjustments:

1. Closing Inventory as on 31-12-2001, Rs.18,000.
2. Depreciate Plant & Machinery at 10%.
3. Salaries outstanding Rs.1,000, Power & Fuel outstanding Rs.2,000.
4. Rs.5,000 was spent on Plant & Machinery but wrongly included in wages.
5. To provide for bad & doubtful debts for Rs.1,500.
6. Discount earned but not received Rs.100.
7. Commission due but not recorded Rs.200.
8. Rent received includes Rs.500 received in advance.

Solution

Kamal Enterprises
Trading and Profit and Loss Account for the year ending 31.12.2001

Dr. Cr.

Particulars	Rs.	Rs.	Particulars	Rs.	Rs.
To Opening Inventory		12,000	By Sales	1,50,300	
To Power and Fuel	6,000		Less: Returns	2,000	
Add: Outstanding	2,000				1,48,300
		8,000	By Closing Inventory		18,000
To Carriage inwards		1,200			
To Wages	30,000				
Less: Spent on Plant & Machinery	5,000				
		25,000			
To Purchases	60,000				
Less: Returns	5,000				
		55,000			
To Gross Profit c/f		65,100			
		1,66,300			1,66,300
To Commissions	1,200		By Gross Profit b/d		65,100
Add: Outstanding	200		By Discounts Received	1,000	
		1,400	Add: Discounts earned but not received	100	
To Office expenses		2,000			1,100
To Carriage Outwards		3,500			
To Rent, Rates & Taxes		1,700	By Dividend received		2,000
To Salaries	7,000		By Rent received	3,500	
Add: Outstanding	1,000	8,000	Less: Received in advance	500	3,000
To Provision for bad and doubtful receivables		1,500			
To Depreciation:					
Plant and Machinery		2,900			
(calculated on Rs.29,000)					
To Net Profit c/d		50,200			
		71,200			71,200

Kamal Enterprises

Balance Sheet as on 31.12.2001

Liabilities	Rs.	Rs.	Assets	Rs.	Rs.
Capital	27,000		Fixed Assets:		
Add: Net Profit	50,200		Plant & Machinery	29,000	
	77,200		Less: Depreciation	2,900	
					26,100
Less: Drawings	7,000		Office Furniture		6,000
		70,200	Leasehold Premises		25,000
Accounts Payable		12,000			
Bills Payable		8,000	Current Assets:		
Salaries outstanding		1,000	Accounts Receivable	15,000	
Fuel and Power outstanding		2,000	Less: Provision for bad and doubtful receivables	1,500	
Commission due		200			13,500
Rent received in advance		500	Discount earned but not received		100
			Bills Receivable		3,500
			Closing Inventory		18,000
			Cash in hand		500
			Cash at bank		1,200
		93,900			93,900

Illustration 6.6

The following is the Trial Balance of Rajan Jewellers as on July 31, 2001.

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
Opening Inventory	72,000	Capital	5,00,000
Purchases	2,25,000	Sales	3,50,000
Furniture	15,000	Purchase returns	1,800
Motor Car	30,000	Murthy	32,000
Buildings	4,25,800	Varadan	24,000
Gangappa	12,000	Commission	7,500
Gourishankar	20,000		
Mathews	18,000		
Advertisement	22,000		
Repairs and Maintenance	13,000		
General Expenses	16,000		
Insurance	7,000		
Cash in hand	3,500		
Cash at bank	6,000		
Salaries	30,000		
	9,15,300		9,15,300

Note:

To arrive at Accounts Receivable and Accounts Payable you have to add necessary ledger accounts.

You are required to draft Profit and Loss account and Balance Sheet as on July 31, 2001.

1. Closing Inventory as at 31.07.2001, Rs.80,000
2. Interest on Capital at 6%.
3. Prepaid advertisement Rs.2,000.
4. Goods used for domestic purpose Rs.1,800.
5. Outstanding salaries Rs.3,000.
6. Depreciation on Buildings at 5%, Furniture 5% and Motor Car at 10%.

Solution

Rajan Jewellers

Trading and Profit and Loss Account for the year ending 31.07.2001

Particulars	Rs.	Rs.	Particulars	Rs.
To Opening Inventory		72,000	By Sales	3,50,000
To Purchases	2,25,000		By Closing Inventory	80,000
Less: Drawings	1,800			
	2,23,200			
Less: Returns	1,800			
		2,21,400		
To Gross Profit c/d		1,36,600		
		4,30,000		4,30,000
To Advertizement	22,000		By Gross Profit b/d	1,36,600
Less: Prepaid	2,000		By Commission	7,500
		20,000		
To General Expenses		16,000		
To Repairs & Maintenance		13,000		
To Insurance		7,000		
To Salaries	30,000			
Add: outstanding	3,000			
		33,000		
To Interest on Capital		30,000		
To Depreciation :				
Buildings	21,290			
Furniture	750			
Motor Car	3,000			
		25,040		
To Net Profit c/d		60		
		1,44,100		1,44,100

Rajan Jewellers

Balance Sheet as on 31.07.2001

Liabilities	Rs.	Rs.	Assets	Rs.	Rs.
Capital	5,00,000		Buildings	4,25,800	
Add: Net Profit	60		Less: Depreciation	21,290	
Interest on Capital	30,000				4,04,510
			Furniture	15,000	
			Less: Depreciation	750	
	5,30,060				14,250
Less: Drawings	1,800		Motor Car	30,000	
		5,28,260	Less: Depreciation	3,000	
					27,000
Current Liabilities:			Current Assets:		
Accounts Payable			Accounts Receivable		
Murthy	32,000		Gangappa	12,000	
Varadan	24,000		Gourishankar	20,000	
		56,000	Mathews	18,000	
Outstanding Salaries		3,000			50,000
			Cash in hand		3,500
			Cash at Bank		6,000
			Closing Inventory		80,000
			Prepaid Advertisement		2,000
		5,87,260			5,87,260

Having seen how the transactions of a business organization are entered in the books and the financial statements are prepared therefrom in general we will consider the special points relating to the accounts and financial statements of limited companies in the chapter IV of Volume II.

SUMMARY

- The Balance Sheet is a positional statement that depicts the assets, liabilities and equity on a particular date. After reading this chapter we are now conversant with the form and content of balance sheet, the limitation of balance sheet and the two important formats of balance sheet. Having seen how the transactions of a business organization are entered in the books and how the financial statements are prepared there from in general, we will consider in our next chapter, the accounting process when the business activities of an organization expand, which necessitates the opening of branches geographically.

Chapter VII

Preparation of Financial Statements of Limited Companies

After reading this chapter, you will be conversant with:

- Requirements of the Companies Act for Presentation of Profit and Loss Account and Balance Sheet of a Company
- Treatment of Special Items, Relating to Company Final Accounts

GENERAL REQUIREMENTS OF THE COMPANIES ACT

The joint stock companies, are legally required to prepare a set of financial statements to periodically assess the profits earned and to know the financial position of the company as on a specified date. Thus, as in the case of other business enterprises, a limited company prepares the Income Statement and the Balance Sheet. However, in the case of companies registered under the Companies Act, the Act specifies the books of accounts to be maintained and also prescribes the format and content of the financial statements. In addition, the accounts must be statutorily audited by an external person called the auditor and it is the duty of the auditor to submit a report in the prescribed format to the shareholders.

Since the owners or shareholders elect the Board of Directors to manage the company and rely on the ability and skills of these directors to conduct the business in the most profitable manner, the Companies Act tries to protect the shareholders' interest by prescribing a set of convenants according to which the financial statements are to be prepared and presented to the shareholders. The objective of the Companies Act in laying down various provisions with respect to accounts and audit is to ensure that adequate information is provided to the shareholders in order for them to judge the performance of the directors during an accounting period. The legal requirements laid down by the Companies Act, therefore, assumes a great importance in the preparation of the financial statements of a joint stock company.

Books of Accounts

Section 209 of the Companies Act specifies the books of accounts to be maintained by a company. According to this Section, every company should keep at its registered office proper books of accounts with respect to:

a. All sums of money received and expended by the company and the matters in respect of which the receipt and expenditure take place.
b. All sales and purchases of goods by the company.
c. The assets and liabilities of the company.

In the case of companies which are engaged in manufacturing, production, processing or mining activities, in addition to the financial accounts mentioned above, a set of cost accounts (if prescribed by the Central Government) must be maintained to show the utilization of material, labor and other items of cost.

This Section also specifies that a company will not be deemed to be maintaining proper books of accounts unless,

i. All the books necessary to give a true and fair view of the state of affairs of the company and to explain the transactions are maintained; and
ii. The books of accounts are maintained on the accrual basis and according to the double entry system of accounting.

Companies have to compulsorily maintain their accounts only on the accrual basis. Cash basis of accounting cannot be followed. Also, only the double entry system of accounting should be followed.

The books of account and other books and papers shall be open to inspection by any director during business hours. Also, the books of accounts for a period of eight years preceding the current year together with the vouchers (documentary evidence) relating to any entry in such books of account should be preserved in good condition.

The books of accounts and other books and papers of a company must be open to inspection during business hours by the Registrar or such authorized government officer to carry-out such inspection.

Legal Requirements Regarding Annual Accounts

The Companies Act specifies the following with regard to the annual accounts to be drawn up by a company.

- At every annual general meeting of the shareholders, the Board of Directors of the company should lay before the shareholders, a balance sheet as at the end of the accounting period which has just ended and also a profit and loss account for such accounting period.
- The annual accounts of the company must be submitted in an annual general meeting within six months counted from the last day of the accounting period to which the accounts relate.

The period to which the accounts relate is known as the financial year and it may be less than, equal to or greater than 12 months but cannot exceed 15 months. Where special permission has been granted by the Registrar, the financial year may extend to eighteen months.

- The balance sheet should give a true and fair view of the state of affairs of the company as at the end of the financial year and should be in the form set out in Part I of Schedule VI of the Companies Act, 1956. This prescribed format is given in Appendix I of this chapter. This format, however, does not apply to banking companies, insurance companies and companies engaged in the generation or supply of electricity.
- The profit and loss account should give a true and fair view of the profit or loss for the company for the financial year and should comply with the requirements of Part II of Schedule VI of the Companies Act, 1956. The requirements of Part II of Schedule VI is given in Appendix II.

The Companies Act provides that a statement of all significant accounting policies adopted in the preparation and the presentation of the Balance Sheet and Profit and Loss account shall be disclosed in the company's Balance Sheet. And where any of the accounting policies is not in conformity with accounting standards, and the particulars of departures from accounting standards is material, the said particulars of departure from accounting standards is material, the said particulars of the departures shall be disclosed together with the reasons thereof and the financial effect thereof.

Requirements of the Companies Act with Respect to Profit and Loss Account

Part II of Schedule VI of the Companies Act 1956 (Appendix II) does not prescribe any format for the profit and loss account but only outlines the information to be included. In general, the profit and loss account should be so made out as to clearly disclose the result of the working of the company during the period covered by the account. The profit and loss account should also disclose every material feature, including credits or receipts and debits or expenses in respect of non-recurring transactions or transactions of an exceptional nature. The various items of receipts and expenses should be arranged under the most convenient heads.

REVENUES

With respect to revenues received by a company, the following are required to be shown as per Part II of Schedule VI.

a. The turnover or the aggregate amount of sales effected by the company. If more than one class of goods have been sold by the company, then the amount of sales in respect of each class of goods sold along with details of quantities sold should be disclosed.

b. In the case of companies rendering or supplying services, the gross income derived from services rendered or supplied.

c. Amount of income from investment distinguishing between trade investments and other investments.

d. Other income by way of interest, specifying the nature of income.

e. Profits on investments.

f. Profits (which are material in amount) in respect of transaction which are of a kind not usually undertaken by the company or undertaken in circumstances of an exceptional or non-recurring nature.

g. Miscellaneous income.

h. Dividends from subsidiary companies.

EXPENSES

The following are the expenses which must be disclosed in the Profit and Loss Account.

a. In the case of manufacturing companies, the value of the raw materials consumed, giving item-wise break up and the quantities consumed. While giving this break up, as far as possible, all important basic raw materials should be shown as separate items. In the case of intermediates or components procured from other manufacturers and consumed, if the number of items are too many to be included in the break up, then such items should be grouped under suitable headings without mentioning the quantities. However, all those items which in value individually account for 10 percent or more of the total value of the raw material consumed should be shown distinctly in the break up with details of quantities consumed.

b. In the case of manufacturing companies, the opening and closing stock of goods produced, giving break up in respect of each class of goods indicating the quantities of each class of goods produced.

c. In the case of trading companies, the value of purchases made and of the opening and closing stocks. This information should be provided in respect of each class of goods traded by the company. The quantity details should also be provided.

d. If a company is both a manufacturing and a trading company, it is sufficient if the total amounts are shown in respect of the opening and closing stocks, purchases, sales and consumption of raw material with value and quantity details.

e. In the case of companies having works-in-progress, the opening and closing values of the works-in-progress.

f. The amount provided for depreciation, renewals or diminution in value of fixed assets. If no provision has been made for depreciation, this fact should be stated and the quantum of arrears of depreciation should be disclosed by way of a note.

g. Consumption of stores and spare parts.

h. Power and fuel.

i. Rent.

j. Repairs to buildings.

k. Repairs to machinery.

l. Salaries, wages and bonus.

m. Contribution to provident fund and other funds.

n. Workmen and staff welfare expenses.

o. Insurance.

p. Rates and taxes, excluding taxes on income.

q. Miscellaneous expenses. Any item under which expenses exceed one percent of the total revenue of the company or Rs.5,000 whichever is higher must be shown as a separate and distinct item against an appropriate account head in the Profit and Loss Account and should not be combined with any other item and shown under this head of 'Miscellaneous Expenses'.

r. Losses on investments.

s. Losses on transaction which are of a kind, not usually undertaken by the company or undertaken in circumstances of an exceptional or non-recurring nature, if material in amount.

t. The amount of interest on the company's debentures and other fixed loans stating separately the amount of interest, in any, paid or payable to the managing director or manager.

u. The amount of income tax payable.

v. The aggregate amount of the dividends paid, and proposed, and stating whether such amounts are subjected to deduction of income tax or not.

w. Provisions for losses of subsidiary companies.

x. Amounts reserved for repayment of share capital and repayment of loans.

y. Any material amounts set aside to reserves, but not including provisions made to meet any specific liability, contingency or commitment. Any material amounts withdrawn from such reserves.

z. Any material amounts set aside to provisions made for meeting specified liabilities, contingencies or commitments. Any material amounts withdrawn from such provisions, as no longer required.

In addition to the above expenses, expenses relating to sales such as commission paid, brokerage and discount on sales, other than the usual trade discount should also be shown separately.

The amount by which any items shown in the profit and loss account are affected by any change in the basis of accounting if material should be disclosed separately.

In respect of all items shown in the profit and loss account, the corresponding amounts for the immediately preceding financial year should also be given.

NOTES TO PROFIT AND LOSS ACCOUNT

According to Part II of Schedule VI, certain information has to be provided by way of notes to Profit and Loss Account. The information to be so provided is outlined below:

- The following payments are provided or made during the financial year to the directors (including managing directors or manager, if any, of the company, the subsidiaries of the company and any other person):

  i. Managerial remuneration paid or payable under Section 198 of the Companies Act.

  ii. Other allowances and commission including guarantee commission.

  iii. Any other perquisites or benefits in cash or in kind (stating approximate money value where practicable).

  iv. Pensions.

  v. Gratuities.

  vi. Payments to provident funds, in excess of subscriptions and interest thereon.

  vii. Compensation for loss of office.

  viii. Consideration in connection with retirement from office.

- If commission is payable to the directors including managing director or manager as a percentage of profits, then the notes should give a statement showing the computation of net profit in accordance with the provisions of the Act and also give details of the calculation of such commission.
- The notes should contain detailed information with regard to amounts paid to the auditor, whether as fees, expenses or otherwise for services rendered. These payments should be classified into payments received by the auditor as,
  a. Auditor
  b. Advisor, or in any other capacity, in respect of
     i. Taxation matters
     ii. Company law matters
     iii. Management services
  c. In any other manner.
- In the case of manufacturing companies, the notes should give detailed quantitative information in respect of each class of goods manufactured with regard to the following:
  a. The licensed capacity (where license is in force);
  b. The installed capacity; and
  c. The actual production.
- The notes to the Profit and Loss Account should also contain the following information:
  a. Value of imports calculated on C.I.F basis by the company during the financial year in respect of
     i. Raw materials
     ii. Components and spare parts
     iii. Capital goods.
  b. Expenditure in foreign currency during the financial year on account of royalty, know-how, professional, consultation fees, interest and other matters.
  c. Value of all imported raw materials, spare parts and components consumed during the financial year and the value of all indigenous raw materials, spare parts and components similarly consumed and the percentage of each to the total consumption.
  d. The amount remitted during the year in foreign currencies on account of dividends, with a specific mention of the non-resident shareholders and the number of shares held by them on which dividends were paid.
  e. Earnings in foreign exchange classified under the following heads, namely:
     i. Export of goods calculated in F.O.B. basis;
     ii. Royalty, know-how, professional and consultation fees;
     iii. Interest and dividend;
     iv. Other income, indicating the nature thereof.

Profit and Loss Appropriation Account

Sometimes, companies divide their income statement into three parts:

a. Trading account – showing the gross profit earned,
b. Profit and Loss Account – showing the profit earned after tax and available for appropriation,
c. Profit and Loss Appropriation Account.

The Profit and Loss Appropriation Account shows in detail the appropriations made from the profits in respect of dividends and transfer to reserves, etc. The format of the Profit and Loss Appropriation Account is given under:

Profit and Loss Appropriation Account for the year ended……………

Dr. Cr.

	Particulars	Rs.		Particulars	Rs.
To	Interim Dividend		By	Balance b/d (Operating credit balance of Profit & Loss a/c in the Trial balance)	
To	Proposed final dividend				
To	General Reserve (or any transfers to reserves)		By	Profit and Loss a/c (Current year's profits)	
To	Balance c/d (accumulated balance in Profit & Loss Account carried forward)				

The balance in the Profit and Loss Appropriation Account, if it is a credit balance, will be shown on the liability side of the balance sheet under the heading 'Reserves and Surplus'. While in the case of sole proprietorships and partnerships, the balance in the Profit and Loss Account will be transferred to the proprietors' capital accounts, in the case of a company it will be carried forward as a part of reserves. If there is a closing debit balance in the Profit and Loss Appropriation Account (that is, a loss), then such balance will be shown on the Asset side under the heading 'Miscellaneous Expenditure'.

Requirements of the Companies Act with respect to Balance Sheet

Part I of Schedule VI of the Companies Act specifies both the form and content of the balance sheet of a company (please see Appendix I of this chapter). The requirements of this Schedule are summarized below:

- The assets of a company should be classified into
  i. Fixed Assets
  ii. Investments
  iii. Current Assets, Loans and Advances, and
  iv. Miscellaneous Expenditure (to the extent not written-off or adjusted).

  The fixed assets must be as far as possible classified under the following categories:

  a. Goodwill,
  b. Land,
  c. Buildings,
  d. Leasehold,
  e. Railway Sidings,
  f. Plant and Machinery,
  g. Furniture and Fittings,
  h. Development of Property,
  i. Patents, Trade Marks and Designs,
  j. Livestock,
  k. Vehicles, etc.

- Under each of the categories mentioned above, the original cost, additions during the accounting period and deductions therefrom during the period should be shown. Also the total depreciation written-off or provided up to the end of accounting period should also be stated.
- Where the fixed assets have been written up on revaluation or have been reduced in value either due to a reduction of capital or revaluation, each balance sheet for the first five years subsequent to the revaluation or reduction should show the amount of increase effected or the reduction made as the case may be. Also every balance sheet subsequent to the writing up or reduction must show the increased or decreased value of the asset as the original cost.
- The investments held by a company as on the date of the balance sheet must be classified into
  - i. Investments in Government or Trust Securities
  - ii. Investments in shares, debentures or bonds
  - iii. Immovable properties and
  - iv. Investments in the capital of partnership firms
  - v. Balance of unutilized monies raised by issue.

While listing the investments in shares, debentures or bonds, the following additional information must also be given:

i. The shares which are fully paid-up and those which are partly paid-up should be shown separately.

ii. The shares must be distinguished into different classes.

iii. In the case of investments in shares, debentures or bonds of subsidiary companies, information in respect of (i) and (ii) above should be shown separately.

iv. The mode of valuation of investments (whether cost or market value) should be disclosed.

v. In the case of quoted investments, the aggregate amount of such investments and also their market value should be shown.

vi. The aggregate value of the unquoted investments should also be disclosed.

vii. A separate disclosure of unutilized monies indicating the form in which such unutilized funds have been invested.

- Under Current Assets, Loans and Advances head assets should be, first of all, broadly classified into Current Assets and Loans and Advances. Under the category of Current Assets, the following should be listed individually.
  - i. Interest accrued on investments,
  - ii. Stores and Spare parts,
  - iii. Loose Tools,
  - iv. Stock-in-trade,
  - v. Work-in-Progress,
  - vi. Sundry debtors,
  - vii. Cash balance on hand, and
  - viii. Bank balances.
- With respect of inventory, the mode of valuation of stock and work-in-progress should be stated and the value of the stock of raw material should be disclosed separately where possible.
- The Sundry Debtors must be broadly classified into:
  - a. Debts outstanding for a period exceeding six months
  - b. Other Debts.

The provision for doubtful debts should be shown as a deduction from the debtors. The other particulars to be given in respect of debtors include the following:

i. Debts considered good and in respect of which the company is fully secured.

ii. Debts considered good for which the company holds no security other than debtor's personal security.

iii. Debts considered doubtful or bad.

If the provision for doubtful debts exceeds the amount of debts classified as considered doubtful or bad, then the surplus, if it represents a provision already created, should be shown on the liabilities side of the balance sheet under 'Reserves and Surplus'. The other details to be added with regard to debtors are:

i. Debts due by directors or other officers of the company or any of them either severally or jointly with any other person

ii. Debts due by firms or private companies in which any director is a partner or a director or a member

iii. Debts due from the other companies under the same management.

The maximum amount due by directors or other officers of the company at any time during the year to be shown by way of a note.

- Under the category of Loans and Advances, the following should be shown:
  a. Advances and Loans to subsidiaries
  b. Advances and Loans and partnership firms in which the company or any of its subsidiaries is a partner
  c. Bills of Exchange
  d. Advances recoverable in cash or in kind or for value to be received, e.g., Rates, Taxes, Insurance, etc.
  e. Balances with Customs, Port Trust, etc.

The classifications and details shown with respect to sundry debtors should be followed and disclosed for 'Loans and Advances' also.

- Under the head 'Miscellaneous Expenditure', the following should be listed:
  i. Preliminary expenses
  ii. Expenses including commission or brokerage on unwriting or subscription of shares or debentures
  iii. Discount allowed on the issue of shares or debentures
  iv. Interest paid out of capital during construction (also stating the rate of interest)
  v. Development expenditure not adjusted
  vi. Other items (specifying nature).

The amounts shown against all the items listed above, should be amounts to the extent they have not been written-off to the Profit and Loss Account or adjusted in any other manner.

- The debit balance of Profit and Loss Account, if any, carried forward after deduction of the uncommitted reserves should be shown as the last item on the asset side of the balance sheet against the description 'Profit and Loss Account'.
- Items appearing on liabilities side of the balance sheet should be classified under the following major heads:
  i. Share Capital
  ii. Reserves and Surplus
  iii. Secured Loans
  iv. Unsecured Loans
  v. Current Liabilities and Provisions.

- In the case of share capital, the following details are to be included:
  i. Authorized capital – mentioning the total number of shares and the face value of each share.
  ii. Issued capital – must be distinguished between the various classes of shares issued to the public and in respect of each class of shares, the number issued and the face value should be specified.
  iii. Subscribed capital – must be distinguished between the various classes of shares actually taken up by the public and in respect of each class, the number of shares actually taken up and the face value should be disclosed. If shares have been allotted as fully paid-up for consideration other than cash (say, shares issued in the takeover of a business), then the number of such shares so allotted must be disclosed. Also, the number of shares which have been allotted as fully paid-up by way of bonus shares should also been disclosed.
  iv. The called-up capital and any calls unpaid or in arrears should be shown as a deduction from the called-up capital to arrive at the paid-up capital.
  v. In respect of calls-in-arrears, the calls unpaid by directors and by others must be shown distinctly.
  vi. Any forfeited shares to the extent they have not been reissued and to the extent of the value originally paid-up must be shown as an addition to the capital.
  vii. Particulars of different classes of preference shares should be given.
  viii. Terms of redemption or conversion (if any), of any redeemable preference share capital should be stated together with earliest date of redemption or conversion.
  ix. The source from which the bonus shares have been issued, e.g., capitalization of profits or reserves or from share premium account, should also be specified.
- The following items should be listed under the heading 'Reserves and Surplus'.
  i. Capital Reserves
  ii. Capital Redemption Reserve
  iii. Share Premium Account
  iv. Other Reserves specifying the nature of each reserve and the amount less any debit balance in the Profit and Loss Account (if any)
  v. Surplus, that is, balance in Profit and Loss Account after providing for dividend, bonus or reserves
  vi. Proposed additions to reserves
  vii. Sinking Funds.
- In respect of each of the item listed under 'Reserves and Surplus', the additions and deductions since the last balance sheet would be shown.
- The word 'fund' in relation to any 'Reserve' should be used only where such reserve is specifically represented by earmarked investments.
- The share premium account should include details of its utilization in the manner specified under the Companies Act.
- Under the next major heading 'Secured Loans', the following should be listed:
  i. Debentures
  ii. Loans and Advances from Banks
  iii. Loans and Advances from Subsidiaries
  iv. Other Loans and Advances.

- The nature of the security offered to the secured loans should be specified for each loan. The other particulars to be shown under 'Secured Loans' are as follows:
    i. Loans from Directors or manager should be shown separately
    ii. Interest accrued and due on the secured loans should be included along with the loan to which it relates
    iii. Where loans have been guaranteed by directors or manager, the mention of the fact should be made and also the aggregate of such guaranteed loans under each head should be shown
    iv. Terms of redemption or conversion, if any, of debentures issued should be stated together with the earliest date of redemption or conversion.
- Under the heading 'Unsecured Loans', the following items should be shown:
    i. Fixed Deposits
    ii. Loans and Advances from Subsidiaries
    iii. Short-term Loans and Advances
        a. From Banks
        b. From Others
    iv. Other Loans and Advances
        a. From Banks
        b. From Others.

The similar details required to be disclosed in respect of Secured Loans should be disclosed in respect of Unsecured Loans also. The short-term loans will include those which are due for not more than one year as at the date of the balance sheet.

- The 'Current Liabilities and Provisions' should be broadly classified into:
    A. Current Liabilities, and
    B. Provisions.

    Under Current Liabilities, the following items should be listed:

    i. Acceptances or Bills Payable
    ii. Sundry Creditors
    iii. Amounts due to subsidiary companies
    iv. Advance payments received and unexpired discounts for the portions for which value has still to be given, for example, in the case newspaper, fire insurance, clubs, banking, steamship companies etc.
    v. Unclaimed dividends
    vi. Others Liabilities (if any)
    vii. Interest accrued but not due on loans.
- Under the heading 'Provisions', the following items should be listed:
    i. Provision for Taxation
    ii. Proposed Dividends
    iii. Provisions for contingencies
    iv. Provisions for Provident Fund and other schemes
    v. Provisions for insurance, pension and similar staff benefit schemes
    vi. Other provisions.

- A company should also show, by way of notes to the balance sheet, certain contingent liabilities listed below:
  i. Claims against the company not acknowledged as debts
  ii. Uncalled liability on shares partly paid
  iii. Arrears of fixed cumulative dividends
  iv. Estimated amount of contracts remaining to be executed on capital account and not provided for
  v. Other money for which the company is contingently liable.
- The other general instructions for preparation of the balance sheet include the following:
  i. Corresponding amounts for the immediately preceding financial year for all the items shown in the balance sheet should also be given in the balance sheet.
  ii. If the information required to be given cannot be included conveniently in the balance sheet itself, then they should be furnished in a separate schedule or schedules to be annexed to and to form part of the balance sheet.
  iii. In the case of subsidiary companies the number of shares held by the holding company as well as by the ultimate holding company and its subsidiaries must be separately stated.
  iv. Depreciation written-off or provided should be allocated under the different asset heads and deducted in arriving at the value of fixed assets.
  v. Dividends declared by subsidiary companies after the date of the balance sheet should not be included unless they are in respect of a period which closed on or before the date of the balance sheet.
  vi. Particulars of any redeemed debentures which the company has power to issue should be given.
  vii. All investments must be classified into trade and other investments and the names of the companies in which such investments have been made should also be disclosed.
- A company may prepare its balance sheet either in the horizontal form specified in Part I of Schedule VI or may prepare it in a statement form, stating the liabilities as sources of funds in the first part and listing the assets as applications of funds in the second part (Please see Appendix I of this chapter for the format).

ACCOUNTING TREATMENT OF SPECIAL ITEMS IN THE FINANCIAL STATEMENTS OF A LIMITED COMPANY

Depreciation

The Companies Act requires the provision of adequate depreciation for the following purposes:

1. For determination of the profits out of which dividends can be declared.
2. For determination of profits for the purpose of calculation of managerial remuneration.

According to the Companies Act, dividend can be declared or paid by a company for any financial year only out of the profits arrived at after providing for depreciation. The depreciation so provided shall be either –

i. to the extent specified in Section 350; or

ii. in respect of each item of depreciable asset, for such an amount as is arrived at by dividing ninety-five percent of the original cost of the asset to the company by the specified period in respect of such asset; or

iii. on any other basis approved by the Central Government which has the effect of writing-off by way of depreciation ninety-five percent of the original cost of the asset on the expiry of the specified period.

The depreciation to be written-off to Profit and Loss Account is the amount of depreciation chargeable for the calculation of divisible profits. Depreciation as an expense is brought into the books by passing either one of the following entries:

i. Depreciation Account Dr.
To Asset Account

or

ii. Depreciation Account Dr.
To Provision for Depreciation Account

The Companies Act provides that in the balance sheet, in respect of each asset, the original cost, the accumulated depreciation to date and the written down value of the asset should be disclosed. So, companies mostly maintain a provision for depreciation.

Depreciation, when it appears as an adjustment will be written-off to the Profit and Loss Account and also be shown as a deduction from the value of the asset in the balance sheet.

Interest on Debentures

When a company has raised funds by floating debentures, the Profit and Loss Account must be charged with the interest on the debentures for the financial year or where the debentures had been floated only in the current financial year, for the period for which they have been outstanding.

Illustration 7.1

Trial Balance of Sharp Limited as on 31.3.2004

	Dr. Rs.	Cr. Rs.
14% Debentures		20,00,000
Interest on Debentures	70,000	

Interest for the full year on Rs.20,00,000 at 14% p.a., is Rs.2,80,000. Since an amount of Rs.70,000 is shown in the Trial Balance against interest, we may assume that an amount of Rs.2,10,000 is outstanding. Usually, debenture interest is payable every six months. In the given illustration, we may assume the due dates of interest to be 30th June and 31st December of every year. While the interest due on 30th June, 2003 has been paid, the amount due on 31st December, 2003 has not been paid and in addition, interest has accrued for the three months period up to 31st March, 2004. In the Profit and Loss Account, the Interest on debenture will be shown as follows:

Profit and Loss Account of Sharp Limited

	Rs.	Rs.
To Debenture Interest	70,000	
Add: Outstanding interest	2,10,000	2,80,000

The Interest of Rs.1,40,000 being the interest due for the six-month period up to 31st December, 2003 is termed as 'Interest Accrued and Due' and though this outstanding amount is a short-term liability, as per the Companies Act, it must be shown in the balance sheet along with the amount outstanding in respect of debentures. The interest of Rs.70,000 being the interest due for the three month period up to 31st March, 2004 is termed as 'Interest Accrued but not Due' since the next due date for payment of interest is only 30th June, 2004.

Interest Accrued but not Due should be shown in the balance sheet as a current liability.

Balance Sheet of Sharp Limited as on 31.3.2004

Liabilities	Rs.	Rs.
Secured Loans		
14% Debentures	20,00,000	
Add: Interest Accrued and Due	1,40,000	21,40,000
Current Liabilities and Provisions		
Interest accrued but not due on Debentures		70,000

Income Tax

Dividends to both the equity and the preference shareholders can be paid only out of profits available after taking into account the income tax. The profits on which income tax is payable is termed as taxable profits and the calculation of taxable profits is based on the provisions as per the Income Tax Act.

Though the actual amount of tax can be calculated only when the books of accounts are closed for the accounting period and profits are ascertained, the Income Tax Act requires a business to pay advance tax by forecasting the likely profits that would accrue during the year. Another point to be noted in the case of income tax is that though a company may determine the tax liability, pay the tax and file its return, the Income Tax Officer will scrutinize the return and assess the tax payable by recomputing the taxable profits.

If the Income Tax Officer arrives at taxable profits which differs from that stated by the company in its return, then the tax assessed and to be settled will also differ. The process of assessment may take quite some time to be completed and until such completion, the exact tax liability will not be known to the company. Thus, the accounting treatment of income tax must take into account the following three stages:

i. Payment of Advance Income Tax.

ii. Determination of the tax liability by the company from its books of accounts, making a provision for such liability and payment of difference, if any, between advance tax and tax now computed.

iii. Completion of the assessment by the Income Tax Officer.

The concepts of 'previous year' and 'assessment year' have also to be understood to follow the accounting treatment of income tax. Assessment year means the period of twelve months starting from April 1 of every year and ending on March 31 of the next year. For example, the assessment year 2004-05 commences on April 1, 2004 and ends on March 31, 2005.

The income of the previous year of a business is taxed during the following assessment year at the rates prescribed for such assessment year by the Finance Act. The previous year is defined as the financial year or the period of twelve months starting from April 1 of every year and ending on March 31 of the next year. For example, the relevant previous year for the Assessment Year 2004-05 is the financial year commencing on April 1, 2003 and ending on March 31, 2004. In other words, the taxes for the financial year 2003-04 will be assessed at the rates prescribed for the Assessment Year 2004-05. So, it is customary to identify any payment of advance tax with the assessment year to which it pertains.

When advance tax is paid, the journal entry to record this would be:

Advance Income Tax a/c Dr.

To Bank a/c

For example, if an advance tax of Rs.3,50,000 is paid by a company for the previous year 2003-04, the entry to record this would be

Advance Tax for Assessment

Year 2004-05 Account Dr. 3,50,000

To Bank Account 3,50,000

Though the above transaction has been journalized to explain the dual aspects, in reality the payment of advance tax would be recorded in the cash book and the debit aspect posted into the ledger from the cash book. Thus, while preparing the Trial Balance as on March 31, 2004, the Advance Tax for Assessment Year 2004-05 will be included in the Trial Balance at a debit balance of Rs.3,50,000.

Let us assume that in the example cited above, the company determines its tax liability as Rs.3,42,500 after drawing up the Profit and Loss Account for the year ended March 31, 2004. This liability must be provided for by passing the entry as

Profit and Loss Account	Dr.	3,42,500
To Provision for		
Income Tax Account		3,42,500
(Assessment Year 2000-01)		

While the tax liability will appear as an expense in the Profit and Loss Account, the Provision for Income Tax will be shown in the balance sheet as a current liability and the Advance Tax of Rs.3,50,000 paid will be shown as an advance on the asset side of the balance sheet. Another acceptable method of presentation is to set-off the advance and the provision relating to the same assessment year against each other and take only the net amount either to the liability or asset side of the balance sheet. In the example given above, since the advance exceeds the provision, the net amount would be presented as follows:

Balance sheet as on March 31, 2004

Assets	Rs.	Rs.
Loans and Advances		
Advance tax for Assessment Year 2004-05	3,50,000	
Less: Provision for tax for Assessment Year 2004-05	3,42,500	7,500

Till such time the assessment is completed, the balances in the advance and provision accounts will be carried forward. To continue with the above example, if the assessment is completed in December 2004 and the tax liability is arrived at Rs.3,60,000, by the Income Tax Officer the accounting treatment will be as follows:

i. The provision for tax is short of the actual liability by Rs.17,500. The company will have to provide for this extra liability. In the Profit and Loss Account for the year ended March 31, 2005 an increase in the liability will be provided for by making the following entry.

Profit and Loss Account	Dr.	17,500	
To Provision for Income Tax Account (Assessment Year 2004-05)			17,500

The above entry will be in addition to the entry required to be passed in respect of tax payable for the financial year 2004-05.

ii. Since the assessment has been completed, the advance tax account can be closed by transfer to the provision account. The journal entry for the transfer will be

Provision for Income tax a/c (Assessment Year 2004-05)	Dr.	3,50,000	
To Advance tax for assessment year 2004-05			3,50,000

iii. The balance of tax payable amounting to Rs.10,000 (is 3,60,000 – 3,50,000) must be paid shortly after the completion of assessment.

When the short-fall in tax is paid, the entry will be,

Provision for Income tax a/c (Assessment Year 2004-05)	Dr.	10,000	
To Bank a/c			10,000

With the recording of the above entries, the balance sheet as on March 31, 2005 will not list any items pertaining to tax payable for Assessment Year 2004-05. The ledger accounts are given as follows:

Advance tax for Assessment Year 2004-05 Account

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
2004		2005	
April-1		March-31	
To Balance b/d	3,50,000	By Provision for Income Tax Account	3,50,000

Provision for Income Tax Account (Assessment Year 2004-05)

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
2004 December		2005 April 1	
To Bank a/c	10,000	By Balance b/d	3,42,500
2005 March-31			
To Advance tax for Assessment year a/c	3,50,000	By Profit and Loss a/c	17,500
	3,60,000		3,60,000

Note: Adjustments relating to income tax of the previous year is normally done by debiting or crediting the profit and loss appropriation account so that current operating profits are not distorted. Provision for current year's tax is, however, debited 'above the line'.

Adjustments

Tax deducted at source: As per Sections 193 and 194 of the Income Tax Act, 1961, it is the duty of the person, who pays interest, salaries or dividends, to deduct the tax at the prescribed rate and deposit the same within a specified period of time with the Government.

The following accounting entries are made:

Salaries/Dividend/Interest a/c Dr.
To Bank a/c
To Tax deducted at source a/c
(being the salary/dividend/interest paid after deducting the tax at source)

Tax deducted at source a/c Dr.
To Bank a/c
(being the amount of tax deducted at source paid to the Government)

'Tax deducted at source', if any, balance will be shown on the credit side of the Trial Balance at the end of the year. In the balance sheet, it will be shown as a 'Current Liability'.

Statutory Requirements: As per Accounting Standard 22, accounting for taxes, tax expense for the period, should comprise of current tax and deferred tax, and should be included in the determination of the net profit or loss for the period. Deferred tax should be recognized for all the timing differences, subject to the consideration of prudence in respect of deferred tax assets.

Dividends

Dividends may be defined as the share of profits that is payable to each shareholder of the company. The Companies Act lays down that dividends can be paid out of profits only and prohibits the payment of any dividend out of capital. Also, dividends shall be paid in cash only. A company may pay dividends from any or all of the three following sources:

i. Profits of the current year

ii. Undistributed profits of previous years

iii. Money provided by the Central or any State Government for the payment of dividends in pursuance of a guarantee given by the government concerned.

The Directors generally recommend the percentage of dividend payable on the equity shares. The shareholders in the annual general meeting may pass a resolution adopting the recommendation or may lower the percentage recommended. The shareholders do not have the power to enhance the dividend recommended by the Directors. The percentage adopted must be applied only on the paid-up capital. Calls-in-arrears do not qualify for dividends. In other words, dividend should be calculated on

Issued share capital	x x x x
Less: Calls-in-arrears (if any)	x x x x
Paid-up capital	x x x x

on which dividend percentage is to be applied. For example, let us assume that the Directors of Sunshine Limited propose a dividend of 15% for the equity shareholders which is adopted by the shareholders. The called up equity capital of the company is Rs.50,00,000 and there are calls-in-arrears to the extent of Rs.40,000. The dividend payable in the example would be calculated as (15/100) x (50,00,000 – 40,000) = Rs.7,44,000. Of late, companies have started declaring dividends as a percentage of the Profit After Tax also.

The dividend recommended by the directors is termed as 'Proposed Dividend' till such time it is adopted by the shareholders in the annual general meeting. The entry to record proposed dividend is:

Profit and Loss a/c Dr.

To Proposed Dividend a/c

The proposed dividend will be classified as a provision and shown on the liability side of the balance sheet. The dividend finally decided by the shareholders in the annual general meeting as payable is termed as 'Declared Dividend'. Any dividend declared must be paid within forty-two days from the date of declaration. Hence, a declared dividend must be classified as a current liability in the balance sheet of the company.

Though dividends can be declared only by a resolution of the shareholders, if the articles of the company permit, the Directors can declare an interim dividend between two annual general meetings. When interim dividend is paid, the entry to record the payment will be,

Interim Dividend a/c Dr.

To Bank a/c

The interim dividend paid during a year will appear in the Trial Balance of the Company as on the last date of the accounting period and will be transferred to the Profit and Loss Account of the period as an appropriation of profits.

As per the Companies (transfer of profits to reserves rules 1975) Act, no dividend shall be declared or paid by a company for any financial year out of the profits of the company for that year arrived at after providing for depreciation in accordance with the provisions of the Section 205 (2), except after the transfer to the reserves of the company a percentage for its profits of that year as specified below:

i. Where the dividend proposed exceeds 10 percent but not 12.5 percent of the paid-up capital, the amount to be transferred to the reserves shall not be less than 2.5 percent of the current profits;
ii. Where the dividend proposed exceeds 12.5 percent but does not exceed 15 percent of the paid-up capital, the amount to be transferred to the reserves shall not be less than 5 percent of the current profits;
iii. Where the dividend proposed exceeds 15 percent but does not exceed 20 percent of the paid-up capital, the amount to be transferred to the reserves shall not be less than 7.5 percent of the current profits; and
iv. Where the dividend proposed exceeds 20 percent of the paid-up capital, the amount to be transferred to reserves shall not be less than 10 percent of the current profits.

Dividend is generally paid by posting the dividend warrants to the shareholders. The dividend warrants must then be presented to the company's bank which will make the payment. Sometimes, a portion of the dividend declared may remain as unpaid simply due to the fact that such dividend has not been claimed by certain shareholders. Any dividend declared by the company remaining unpaid within 30 days of declaration, shall be transferred by the company to a special account within seven days of the expiry of the aforesaid 30 days. If the dividend is not claimed for a period of seven years from the date of transfer to the special bank account, then the unclaimed amount must be transferred by the company to the fund established under Section 205C. After such a transfer, any shareholder entitled to claim such dividend may claim it from the Government.

Final dividend: After declaring interim dividend, the company may also declare another dividend which is termed as "final dividend". This dividend declared is over and above the interim dividend, unless it is specifically mentioned to be adjusted. It is shown on the debit side of the Profit and Loss Appropriation account.

Profit on Revaluation of Fixed Assets: When a company revalues its fixed assets and if there is a profit on revaluation, it should be transferred to Capital Reserve account. The entries are as follows:

i.	Asset a/c	Dr. (Revalued amount – Book Value)
	To Revaluation a/c	
ii.	Revaluation a/c	Dr.
	To Capital Reserve a/c	

Interest out of Capital

Though the Companies Act provides that dividends to shareholders are payable only out of profits, in certain circumstances with the previous sanction of the Central Government, interest may be paid to shareholders out of capital. The circumstances as specified by Section 208 of the Companies Act are as below:

i. where any shares in a company are issued for the purpose of raising money to defray the expenses of the construction of any work or building, or the provision of any plant, and
ii. such construction or provision of plant cannot be made profitable for a lengthy period.

In the above circumstances, if the company is authorized by the articles or by a special resolution, it may pay interest on so much of that share capital as is for the time being paid-up, for a specified period and charge such interest to capital as part of the cost of the construction of the work or building or the provision of the plant.

The payment of interest shall be made only for such period as may be determined by the Central Government. The period, in any case, cannot extend beyond the close of the half year next after the half year during which the work or building has been actually completed or the plant provided. The rate of interest cannot exceed four percent per annum or such other rate as the Central Government may notify (Notified rate = vide GSR 426 dated 8-9-95: Not to exceed 12 percent per annum).

Suspense a/c: Sometimes, suspense account is shown in the trial balance because some items which cannot be posted to the correct account for some reason or the other is shown as suspense account which is rectified or adjusted while preparing the final accounts.

i. Suspense account may have been credited with the sale proceeds of the asset account and no entry is made in the books for the sale of the asset. The entry to be made for adjustment is

Suspense a/c	Dr.	
To Asset a/c		

ii. Sometimes, the entry for forfeiture is passed, but money on reissue is credited to capital suspense account. The entry to be made for adjustment is:

Capital suspense a/c	Dr.	(Money Received)
Share forfeiture a/c	Dr.	(Discount on Reissue)
To Share capital a/c		

Managerial Remuneration

Calculation of Managerial Remuneration

Managerial remuneration payable to directors, managers, managing director is based on net profit which is calculated as follows:

The net profit for this purpose is calculated after making the following four adjustments to gross profit.

1. **Credit shall be given for the following sums:**

   Bounties and subsidies received from any Government or any public authority constituted or authorized in this behalf by any Government, unless and except in so far as the Central Government otherwise directs.

   Note: Bounties and subsidies received from any government or any public authority should be added with the gross profit.

2. **Credit shall not be given for the following sums:**

   a. Profits, by way of premium, on shares or debentures of the company, which are issued or sold by the company;

   b. Profits on sales by the company of forfeited shares;

   c. Profits of a capital nature including profits from the sale of the undertaking or any of the undertakings of the company or of any part thereof;

   d. Profits from the sale of any immovable property or fixed assets of a capital nature comprised in the undertaking or any of the undertakings of the company, unless the business of the company consists, whether wholly or partly, of buying and selling any such property or assets:

   Provided that where the amount for which any fixed asset is sold exceeds the written-down value thereof referred to in Section 350, credit shall be given for so much of the excess as is not higher than the difference between the original cost of that fixed asset and its written-down value.

   Note: No credit shall be given for any capital profit (sale proceeds less original cost) on sale of fixed assets. However, credit shall be given for revenue profit (difference between original cost and written-down value) on sale of fixed assets.

3. **The following sums shall be deducted:**
    a. All the usual working charges;
    b. Directors' remuneration;
    c. Bonus or commission paid or payable to any member of the company's staff, or to any engineer, technician or person employed or engaged by the company, whether on a whole-time or on a part-time basis;
    d. Any tax notified by the Central Government as being in the nature of a tax on excess or abnormal profits;
    e. Any tax on business profits imposed for special reasons or in special circumstances as being in the nature of a tax on excess or abnormal profits and notified by the Central Government in this behalf;
    f. Interest on debentures issued by the company;
    g. Interest on mortgages executed by the company and on loans and advances secured by a charge on its fixed or floating assets;
    h. Interest on unsecured loans and advances;
    i. Expenses on repairs, whether to immovable or to movable property, provided the repairs are not of a capital nature;
    j. Outgoings, inclusive of contributions made under Clause (e) of Subsection (1) of Section 293;
    k. Depreciation to the extent specified in Section 350;
    l. The excess of expenditure over income, which had arisen in computing the net profits in accordance with this Section in any year which begins at or after the commencement of this Act, in so far as such excess has not been deducted in any subsequent year preceding the year in respect of which the net profits have to be ascertained;
    m. Any compensation or damages to be paid in virtue of any legal liability, including a liability arising from a breach of contract;
    n. Any sum paid by way of insurance against the risk of meeting any liability such as is referred to in Clause (m); and
    o. Debts considered bad and written-off or adjusted during the year of account.
    p. Amount paid as cess u/s 441 A (inserted by Companies Act (2nd Amendment) 2002.)
4. **The following sums shall not be deducted:**
    a. The remuneration payable to the managing agent; (deleted since no office of managing agents exists today);
    b. Income tax and super-tax payable by the company under the Indian Income Tax Act, 1922 or any other tax on the income of the company not falling under Clauses (d) and (e) above;
    c. Any compensation, damages or payments made voluntarily, that is to say otherwise than in virtue of a liability such as is referred to in Clause (m) above; and
    d. Loss of a capital nature including loss on sale of the undertaking or any of the undertakings of the company or of any part thereof not including any excess referred to in the provision to Section 350 of the written-down value of any asset which is sold, discarded, demolished or destroyed, over its sale proceeds or its scrap value.

Illustration 7.2

Home Appliances Ltd. employs a managing director who is entitled to a salary of Rs.5,000 per month and, in addition, to a commission of 1% of the net profits before charging such salary and commission. The following Profit and Loss Account is presented by Home Appliances Ltd., for the year ended 31st March, 2004.

Particulars	Rs.	Particulars	Rs.
To Staff salaries & bonus	3,00,000	By Gross Profit b/d	10,00,000
To General expenses	1,50,000	By Profit on sale of plant Cost price Rs.2,50,000; W.D.V. Rs.1,80,000)	1,00,000
To Repairs to Buildings	30,000	By Subsidy from Central Government	4,00,000
To Directors' fees	10,000		
To R&D expenses (cost of an apparatus)	25,000		
To Ex-gratia payment to an employee	5,000		
To Depreciation	1,50,000		
To Bad debt	30,000		
To Compensation for breach of contract	20,000		
To Donations to Ramkrishna Mission	30,000		
To Managing director's salary	60,000		
To Interest on debentures	20,000		
To Debenture trustee remuneration	5,000		
To Income tax	3,32,500		
To Net Profit c/d	3,32,500		
	15,00,000		15,00,000

You are required to calculate the commission payable to managing director. You may assume the depreciation appearing in the Profit and Loss Account has been calculated in accordance with Section 350.

Solution

For calculating managing director's remuneration, first of all, the profits as per Section 349 have to be calculated in the following manner.

Calculation of Profits for the Purposes of Managerial Remuneration

	Notes	Rs.	Rs.
Gross Profit as per Profit & Loss a/c			10,00,000
Add: Subsidy from Central Government		4,00,000	
Add: Revenue profit on sale of plant	(1)	70,000	4,70,000
			14,70,000
Less: Sums to be deducted as per rules:			
Staff salaries & bonus		3,00,000	
General expenses		1,50,000	
Repairs to buildings		30,000	
Directors' fees		10,000	
Depreciation		1,50,000	
Bad debts		30,000	
Compensation for breach of contract		20,000	
Donation to R.K. Mission		30,000	
Interest on debentures		20,000	
Debenture trustee remuneration		5,000	7,45,000
Net Profits for Managing Director's commission			7,25,000
Commission payable to the Managing Director (@1% on Rs.7,25,000)			7,250

Note: Cost of research equipment, ex-gratia, etc., are not treated as allowable expenses for computing managerial remuneration.

Commission after Charging such Commission

As per the provision of the Companies Act, commission to managerial staff should be calculated before charging such commission. However, a company may enter into an agreement to pay commission at a percentage of profit *after charging such commission*. In this case, commission is calculated as follows:

$$\text{Commission} = \text{Profit before Commission} \times \frac{\text{Rate of Commission}}{100 + \text{Rate of Commission}}$$

Commission Payable to More than One Member of Managerial Staff

There may be an agreement that the whole-time directors will get commission at a fixed rate on net profits after the commission of the part-time directors. Again, the part-time directors will get commission at a fixed rate on net profit after the commission of the whole-time directors. In this situation, the commission of each group is calculated with the help of simultaneous equations. The following illustration further explains this.

Illustration 7.3

Pagadiwala Containers Limited, having three whole-time directors on its board, the others being part-time directors, earned profits during the year ended 31st March, 2004 to the tune of Rs.2,50,000 after taking into consideration the following:

i. Depreciation on fixed assets (Depreciation calculated in accordance with Section 350 is Rs.32,800) Rs.47,800;

ii. Provision for income tax Rs.1,22,500;

iii. Capital expenditure included in general expenses charged to Profit and Loss Account Rs.12,500.

Calculate the maximum remuneration payable to the whole-time directors @10% of net profits assuming that the remuneration payable to them is to be calculated on net profits remaining after payment of commission to part-time directors and the commission to part-time directors @1% of net profits is to be calculated on net profits remaining after payment of remuneration to the whole-time directors.

Solution

Calculation of Profit for Managerial Remuneration

	Rs.	Rs.
Profit as per Profit & Loss a/c		2,50,000
Add: Depreciation as per Book	47,800	
Add: Provision for Income Tax	1,22,500	
Add: Capital expenditure charged to Profit & Loss a/c	12,500	1,82,800
		4,32,800
Less: Depreciation as per Section 350		32,800
		4,00,000

Maximum remuneration payable to the whole-time directors = 10% of the net profits after charging commission payable to part-time directors. Again maximum commission payable to part-time directors = 1% of the net profits after charging remuneration payable to whole-time directors.

Let, maximum remuneration to whole-time directors = x and maximum commission to part-time directors = y

$x = 10\%$ of (Rs.4,00,000 – y) … (1)

$y = 1\%$ of (Rs.4,00,000 – x) … (2)

or $x =$ Rs.40,000 – $0.1y$ … (1)

$y =$ Rs.4,000 – $0.01x$ … (2)

or $x + 0.1y =$ Rs.40,000 … (1)

$+ 0.01x + y =$ Rs.4,000 … (2)

Multiplying equation (1) by 1 and equation (2) by 100, we get:

$$\begin{array}{ll} x + 0.1y & = \text{Rs. } 40{,}000 \\ x + 100y & = \text{Rs.}4{,}00{,}000 \text{ (substracting)} \\ \hline -99.9y & = -\,3{,}60{,}000 \end{array}$$

or y = Rs.3,604 (approximately). Therefore, x = 10% of (Rs.4,00,000 – Rs.3,604) = Rs.39,640 (approximately)

Managerial remuneration given in the adjustments for the preparation of final statements should be charged to Profit and Loss Account on the debit side and should be shown on the liabilities side under the head "Current Liabilities" in the Balance Sheet.

Illustration 7.4

The Trial Balance of TSO Ltd. as on 31-3-2004 is given below. Draw up the Profit and Loss Account for the year ended 31-3-2004 and Balance Sheet as at that date giving effect to the adjustments specified.

TSO Ltd.
Trial Balance as on 31-3-2004

(Rs. in crore)

Particulars		Dr.	Cr.
Share Capital			230.12
Reserves and Surplus:			
Share Premium	511.93		
Amalgamation Reserve	1.12		
Capital Reserve	0.19		
Contribution for capital expenditure	1.79		
Investment allowance (utilized) reserve	204.79		
Revenue reserve	392.54		
Debenture Redemption Reserve	33.00		
Surplus in P/L account	50.00		1,195.36
Loan Funds:			
Debentures	234.26		
Public Deposits (Unsecured)	62.79		
Secured loans	1,193.27		
Unsecured loans	560.98		2,051.30
Fixed Assets		1,605.39	
Capital Work-in-Progress		1,437.69	
Investments		248.77	
Opening Inventory		282.22	
Accounts Receivables		310.26	
Cash and Bank		78.60	
Other Current Assets		409.81	
Loans and Advances:			
Subsidiary Companies	26.44		
Others	415.17	441.61	
Current Liabilities:			908.35
Provisions			112.80
Sales			2,686.11
Dividend and interest income from investments			77.24
Interest on sundry advances, etc.			25.58
Other Income			106.35
Purchases		233.22	
Manufacturing and Selling Expenses		1,726.56	
Salaries, Wages and Other employee benefits		476.93	
Managerial remuneration		0.32	
Interest		141.66	
Auditor's remuneration		0.17	
		7,393.21	7,393.21

Adjustments

1. Provision for taxation to be created for the year at 23%.
2 Amount to be transferred to Debenture Redemption Reserve – Rs.70.00 crore.
3. Payments to employees relating to prior periods to be made – Rs.13.61 crore.
4. The Directors propose to declare a dividend of 35% on the equity shares.
5. Amount to be transferred to General Reserve – Rs.54.40 crore.
6. Closing Inventory of finished and semi-finished goods as on 31-3-2004 was Rs.408.85 crore.
7. Depreciation on fixed assets to be charged at Rs.164.89 crore.
8. Details of Investments are as follows:

   Investments in subsidiary companies:

   Quoted Rs.34.19 crore:

   Unquoted Rs.13.21 crore

   Investments in other companies : Quoted Rs.68.54

   : Unquoted Rs.132.83
9. Transfer Rs.4.40 crore from investment allowance reserve to the profit & loss account.

Abridged Profit and Loss Account of TSO Ltd. for the year ended 31st March, 2004

(Statement containing salient features of Profit & Loss Account as per Section 219(1) (b) (iv) of the Companies Act, 1956)

		Current Year	
		Rs. crore	Rs. crore
I.	Income:		
	(a) Sales/Services rendered		2,686.11
	(b) Dividend and interest income from investments		77.24
	(c) Interest on sundry advances, deposits, customers' balances, etc		25.58
	(d) Other income		106.35
	Total		2,895.28
II.	Expenditure:		
	(a) Accretion to stock of finished and semi-finished products:		
	Opening stock	282.22	
	Less: Closing stock	408.85	(126.63)
	(b) Purchases		233.22
	(c) Manufacturing and selling expenses		1726.56
	(d) Salaries, wages and other employees benefits		476.93
	(e) Managerial remuneration		0.32
	(f) Interest		141.66
	(g) Depreciation		164.89
	(h) Auditor's remuneration		0.17
			2,617.12
III.	Profit before tax (I – II)		278.16
IV.	Provision for taxation		64.00
V.	Profit after tax		214.16
VI.	Amount transferred to Debenture Redemption Reserve		70.00
	Add: Amount transferred from Investment Allowance (Utilized) Reserve		4.40
			148.56

		Current Year	
		Rs. crore	Rs. crore
VII.	Balance brought forward from last year	50.00	
	Less: Payments to employees for prior periods	13.61	
			36.39
			184.95
VIII.	Proposed Dividend on Equity Shares	80.55	
IX.	Transfer to General Reserve	54.40	
			134.95
X.	Balance carried to Balance Sheet		50.00

Balance Sheet of TSO Ltd. as at 31st March, 2004

(Containing Salient Features of Balance Sheet as per Section 219(1)(b)(iv) of the Companies Act, 1956)

	Current Financial Year	
	Rs. crore	Rs. crore
I. SOURCE OF FUNDS:		
1. Shareholder's Funds:		
a. Capital:		
Equity		230.12
b. Reserves and Surplus:		
i. Share Premium Account	511.93	
ii. Amalgamation Reserve	1.12	
iii. Capital Reserve	0.19	
iv. Contribution for Capital Expenditure	1.79	
v. Investment Allowance Reserve		
vi. Investment Allowance (Utilized) Reserve	200.39	
vii. Revenue Reserve	446.94	
viii. Revaluation Reserve		
ix. Debenture Redemption Reserve	103.00	
x. Surplus in Profit and Loss Account	50.00	1,315.36
2. Loan Funds:		
a. Debentures including Bonds (Secured)	234.26	
b. Public Deposits (Unsecured)	62.79	
c. Secured Loans (other than Debenture and Bonds)	1,193.27	
d. Unsecured Loans	560.98	
		2,051.30
Total of (1) and (2)		3,596.78
II. APPLICATION OF FUNDS:		
1. Fixed Assets:		
a. Net Block (original cost less depreciation)	1,440.50	
b. Capital work-in-progress	1,437.69	2,878.19
2. Investments:		
a. Government Securities		
b. Investment in subsidiary companies		
i. Quoted	34.19	
ii. Unquoted	13.21	
iii. Others		
c. Quoted	68.54	
d. Unquoted	132.83	
		248.77

	Current Financial Year	
	Rs. crore	Rs. crore
III. 1. Current Assets, Loans and Advances:		
a. Inventories	408.85	
b. Sundry Debtors	310.26	
c. Cash and Bank balances	78.60	
d. Other Current Assets	409.81	
e. Loans and Advances		
i. subsidiary companies	26.44	
ii. others	415.17	
	1,649.13	
Less:		
2. Current Liabilities and Provisions:		
a. Liabilities (see note 1)	921.96	
b. Provisions (see note 2)	257.35	
Net Current Assets (1) – (2)	1,179.31	469.82
IV. Miscellaneous expenditure to the extent not written-off or adjusted		–
V. Profit and Loss Account		
Total of (1) to (5)		3,596.78

Note 1: Current liabilities include Rs.908.35 crore + Payments to employees Rs.13.61 crore.

2: Provisions include opening balance = Rs.112.80 crore + Taxation provision Rs.64 crore + Dividend provision Rs.80.55 crore.

Illustration 7.5

The following balances relate to Himalaya Company Ltd. as on 31st March, 2004.

Debit	Rs.	Credit	Rs.
Motor Car (Less depreciation)	8,000	Share forfeiture a/c	500
Sundry Debtors	60,000	Share Capital	1,00,000
Furniture (Cost less depreciation)	4,000	Profit & Loss a/c (31.3.2003)	1,500
Plant (Cost less depreciation)	15,000	Gross Profit	54,150
Compensation to employees	2,000	Development rebate reserve	1,350
Closing Stock	35,000	Bank Overdraft-UCO	25,000
Rent and Taxes	8,000	Sundry creditors	11,000
Selling expenses	10,000	Liabilities for expenses	3,500
Office expenses	12,000		
Security deposit	4,000		
Advance income tax	9,000		
Cash in hand	2,500		
Cash at bank	27,500		
	1,97,000		1,97,000

The following additional information is available:

i. Share capital consists of 15,000 10% cumulative preference shares of Rs.100 each, out of which 500 shares are fully called up and paid-up. 15,000 equity shares of Rs.10 each, out of which 5,000 shares are fully called up and paid-up.

ii. Transfer Rs.900 to Development Rebate Reserve Account on 31st March, 2004.

iii. Bank overdraft is secured by the hypothecation of stock.

iv. The manager is entitled to 5% commission on the net profit of the company.

v. Addition made to start during the year ended 31st March, 2001 was Rs.8,000.

vi. Depreciation written-off up to 31st March, 2003 and rates against each are as under:

Plant Rs.2,000 (15%) Furniture Rs.1,000 (10%) Motor Car Rs.10,000 (20%)

vii. Provision for taxation to be made at Rs.9,600.

viii. The amount shown against shares forfeited account represents unadjusted profit on re-issue of forfeited shares made during the year.

ix. Sundry Debtors include outstanding Rs.1,000 for more than 6 months.

x. Office expenses include Rs.1,500 as audit fees and Rs.500 as audit expenses.

You are required to draw

a. The Profit and Loss Account for the year ended on 31st March, 2004 and

b. The balance sheet (in Schedule VI-Form 1 as on that date).

Solution

Himalaya Company Limited
Profit an Loss Account for the year ended 31st March, 2004

Dr. Cr.

Particulars	Rs.	Rs.	Particulars	Rs.	Rs.
To Rates & Taxes		8,000	By Gross Profit		54,150
To Selling expenses		10,000			
To Office expenses					
(12,000 – 2000)		10,000			
To Payment to auditors					
Audit fees	1,500				
Other matters	500	2,000			
To Depreciation (Note 1)					
Plant	2,250				
Furniture	400				
Motor Car	1,600	4,250			
To Compensation to Employees		2,000			
To Manager's Commission (Note 3)		895			
To Development Rebate Reserve		900			
To Provision for taxation		9,600			
To Net Profit c/d		6,505			
		54,150			54,150
To Balance c/d		8,005	By Balance b/d		1,500
			Net Profit b/d		6,505
		8,005			8,005

Balance Sheet of Himalaya Company Limited as on 31st March, 2004

Liabilities	Rs.	Rs.	Assets	Rs.	Rs.
Share Capital Authorized			**Fixed Assets**		
15,000 equity shares of Rs.10, each	1,50,000		Plant at cost	9,000	
15,000 10% Cum. Preference Shares of Rs.100 each	15,00,000		Additions during the year	8,000	
		16,50,000		17,000	
Issued, subscribed & Paid-up			Less: Accumulated depreciation	4,250	
5,000 Equity Shares of Rs.10 each	50,000				12,750
500 10% Cumulative Preference shares of Rs.100 each	50,000				
		1,00,000	Furniture (Cost)	5,000	
Reserves & Surplus			Less: Accumulated depreciation	1,400	
Capital Reserve (Note 4)	500				3,600
Development Rebate Reserve	2,250				
Profit & Loss A/c	8,005	10,755	Motor Car (Cost)	18,000	
Secured Loans:			Less: Accumulated depreciation	11,600	
					6,400
UCO Bank DD (Secured by hypothecation of stock)		25,000			
Unsecured Loans Current Liabilities & Provisions		NIL	Investments		NIL
A. Current Liabilities			**A. Current Assets Current Assets Loans& Advances**		35,000
Sundry creditors for expenses	3,500		**Stock in trade** (at cost)		
Sundry creditors for goods	11,000		Sundry Debtors (Unsecured, Considered good) outstanding for a period exceeding 6 months	1,000	
Manager's Commission	895		Others	59,000	
		15,395			60,000
Provisions for taxation		9,600	Cash in hand		2,500
			Cash at bank		27,500
			B. Loans & Advances		
			Security Deposit		4,000
			Advance Income Tax		9,000
			Miscellaneous Expenditure		Nil
		1,60,750			1,60,750

Working Notes:

				Rs.
1.	a.	Depreciation on Plant @15% on Rs.15,000	=	2,250
		Furniture @10% on Rs.4,000	=	400
		Motor Car @20% on Rs.8,000	=	1,600
	b.	Accumulated depreciation		
		Plant 2,000 + 2,250	=	4,250
		Furniture 1,000 + 400	=	1,400
		Motor Car 10,000 + 1,600	=	11,600

2. Calculation of original cost of plant

WDV of plant as per trial balance		15,000
Add:	Accumulated depreciation	2,000
	Original cost at the year end	17,000
Less:	Plant purchased during the year	8,000
	Original cost at the beginning of the year	9,000

3. Computation of Manager's Commission

	Profit as per Profit & Loss a/c	6,505
Add:	Manager's Commission	895
	Development Rebate Reserve	900
	Provision for taxation	9,600
		17,900
	Manager's Commission @5%	895

4. Profit on re-issue of forfeited shares is to be transferred to the Capital Reserve Account.
5. Compensation to employee is treated as on allowable expense for computing managerial remuneration.

Illustration 7.6

The authorized capital of X Ltd. is Rs.5,00,000 consisting of 2,000, 6%. preference shares of Rs.100 each and 20,000 equity shares of Rs.10 each. The following was the Trial Balance of X Ltd. as on 31.3.2004.

	Dr.	Cr.
Investments in shares (at Cost)	50,000	
Selling expenses	79,100	
Salaries & Wages	52,000	
Interim Pref. dividend for the half year ended 30.9.2003	6,000	
Preliminary expenses	1,000	
Interest on Bank overdraft	7,800	

	Dr.	Cr.
Sundry debtors & Creditors	50,100	87,850
Furniture at cost less dep. of Rs.15,000	35,000	
Equity share capital fully paid-up		2,00,000
Income tax paid in advance for 2002-03	10,000	
Purchases	4,90,500	
Stock on 1.4.2003	1,45,200	
Cash on hand	12,000	
Discount on issue of debentures	2,000	
Bills receivable	41,500	
Preference share capital		2,00,000
Interest on debentures up to 30.9.2003	3,750	
Freehold property at cost	3,50,000	
6% Mortg. deb. secured on freehold property		1,50,000
Dividends		4,250
Profit & Loss a/c (1.4.2003)		28,500
Bank overdraft secured by hypothecation of stocks and receivables		1,50,000
Audit fees	5,000	
Sales (Net)		6,70,350
Technical know how fees at cost paid during the year	1,50,000	
	14,90,950	14,90,950

You are required to prepare the Profit & Loss Account for the year ended 31.3.2004 and the balance sheet as on that date after taking into account the following:

a. Closing stock was valued at Rs.1,42,500.

b. Purchase include Rs.5,000 worth of goods and articles distributed among valued customers.

c. Salaries and wages include Rs.2,000 being wages incurred for installation of electrical fittings which were recorded under furniture.

d. Bills receivable include Rs.1,500 being dishonored bills 5% of which had been considered is recoverable.

e. Bills receivable of Rs.2,000 maturing after 31.3.2004 were discounted.

f. Depreciation on furniture to be charged at 10% on written down value.

g. Rs.1,000 of discount on issue of debentures to be written off.

h. Interest on debentures for the half year ending on 31.3.2004 was due on that date.

i. Provide Provision for taxation Rs.4,000

j. Technical know-how fees is to written off over a period of 10 years. Rs.500 of preliminary expenses to be written off.

k. Salaries and Wages include Rs.10,000 being the Directors remuneration.

l. Sundry debtors include Rs.6,000 debts due for more than 6 months.

Keeping in mind the requirements of Schedule VI Part I & Part II of the Companies Act, draw up the Profit and Loss Account and the balance sheet of X Ltd. as close there to as possible.

X Ltd.

Profit & Loss Account for the year ended 31st March, 2004

Dr. Cr.

Particulars		Rs.	Particulars	Rs.
To Opening Stock		1,45,200	By Sales (Net)	6,70,350
To Purchases	4,90,500		By Closing Stock	1,42,500
Less: Cost of goods/articles distributed free of cost	5,000			
		4,85,500		
To Gross Profit c/d		1,82,150		
		8,12,850		8,12,850
To Salaries and Wages	52,000		By Gross Profit b/d	1,82,150
Less: Directors remuneration	10,000		By Dividend	4,250
	42,000			
Less: Wages for installation	2,000	40,000		
To Directors remuneration		10,000		
To Selling expenses		79,100		
To Discount on issue of debentures		1,000		
To Preliminary expenses written off		500		
To Interest on Bank overdraft		7,800		
To Interest on debentures	3,750			
Add: Outstanding	3,750			
		7,500		
Add: Bad Debts		750		
Add: Audit Fees		5,000		
Add: Technical know-how (written off)		15,000		
Add: Advertisement (goods dist. to customers)		5,000		
Add: Depreciation		3,700		
Add: Net Profit c/d		11,050		
		1,86,400		1,86,400
To Provision for taxation		4,000	By Balance b/d	28,500
To Interim Dividend (Preference)		6,000	By Net Profit b/d	11,050
To Balance c/d		29,550		
		39,550		39,550

Balance Sheet of X Ltd. as at 31st March, 2004

Liabilities	Rs.	Rs.	Assets	Rs.	Rs.
Share Capital			Fixed Assets		
Authorized			Freehold property (Cost)		3,50,000
2000 6% Preference shares of Rs.100 each	2,00,000		Furniture (at cost)	52,000	
30,000 Equity shares of Rs.10 each	3,00,000	5,00,000	Less: Accumulated dep.	18,700	
					33,300

Liabilities	Rs.	Rs.	Assets	Rs.	Rs.
Issued & Subscribed			Technical Know-how	1,50,000	
2000 6% Preference shares of Rs.100 each	2,00,000		Less: Written off	15,000	
					1,35,000
20,000 Equity shares of Rs.10 each	2,00,000	4,00,000			
			Investments		
Reserves & Surplus			Investment in shares (at Cost)		50,000
Profit & Loss A/c		29,550			
Secured Loans			**Current Assets Loans & Advances**		
5% Mortgage debentures					
(Secured by freehold prop)	1,50,000		**A. Current Assets**		
Add: Outstanding interest	3,750		Stock-in-trade		1,42,500
		1,53,750	Debtors		
Bank overdraft (Secured by hypothecation of stock and receivables)		1,50,000	O/s for a period exceeding 6 months	6,000	
			Others	44,850	50,850
Unsecured Loans		Nil	Bills Receivable		40,000
Current Liabilities & Provisions			Cash in hand		12,000
A. Current Liabilities			**B. Loans & Advances**		
Sundry Creditors		87,850	Advance taxation		10,000
B. Provisions			Miscellaneous **Expenditures** (to the extent not written off)		
Provision for taxation		4,000	Preliminary expenses		500
			Discount on issue of debentures		1,000
		8,25,150			8,25,150

Notes:

1. Contingent liability for bill discounted Rs.2,000 which will mature after 31st March, 2004.
2. Fixed preference dividend of Rs.6,000 is not, provided in the Accounts.

Working Notes:

		Rs.
1.	Depreciation on Furniture:	
	Furniture at cost less depreciation	35,000
	Add: Installation charges	2,000
		37,000
	Depreciation @ 10%	3,700
	Gross value of furniture (Rs.35,000 + 15,000 + 2000)	52,000
	Accumulated depreciation (Rs.15,000+3,700)	18,700
2.	Sundry Debtors (Other Debts):	
	Sundry Debtors	50,100
	Less: Debts due for more than 6 months	6,000
		44,100
	Add: Bills dishonored	1,500
		45,600
	Less: Bad Debts (50% of 1500)	750
		44,850

3. Bills Receivable = Rs.41,500 – Rs.1,500 = Rs.40,000

4. It is assumed that actual liability for tax will be around Rs.4,000 and company has provided to that extent only. However, advance tax paid for the year 2002-2003 is Rs.10,000. Advance tax will be shown under Loans & Advances and Provision for taxation will be shown under provisions till assessment is complete.

Illustration 7.7

You are given the following Trial Balance of A Ltd. as on 31st March, 2004.

Debits	Rs.	Credits		Rs.
Plant and Machinery	1,00,000	Equity Share Capital (Shares of Rs.10 each)		3,00,000
Land & Building	1,00,000	Profit & Loss Appropriation A/c		3,900
Furniture	8,000	Gross Profit		1,45,000
Sundry Debtors	90,000	Sundry Creditors		26,000
Salaries	25,000	Income Tax (AY 2002-03)		
Investments (10,000 Eq. sh. of Rs.10 each in B Ltd. Rs.5 paid-up)	50,000	Provision	11,800	
Closing Stock	1,37,970	Payment	11,500	300
Repairs & Maintenance	2,380	Provision for doubtful debts		
Interest on debentures	3,000	Opening Balance	2,100	
Vehicles	15,000	Less: Bad Debts written off	1,700	
Sales tax	780		400	

Debits	Rs.	Credits		Rs.
Conveyance	2,360	Add: Poor for doubtful debts for year	1,100	1,500
Insurance	1,750	General Reserve		13,420
Discount	880	Shares Suspense A/c		2,000
Security deposit	9,000	12% Debentures		50,000
Income tax for current year	26,000	Sale of Machinery A/c		4,000
Gratuity	3,500	Unclaimed dividend		1,500
Cash	4,500	6% Preference share Capital (Shares of Rs.100 each)		50,000
Interim dividend	9,000			
Bank balance	7,500			
Calls-in-arrears (500 shares @ Rs.2)	1,000			
	5,97,620			5,97,620

You are further informed that:

1. After giving due notice, shares on which the calls were in arrears have been forfeited and reissued and the proceeds were credited to share suspense account.
2. A machine costing Rs.10,000 on which depreciation of Rs.5,000 was written off up to last year was sold on 25th March, 2004 at Rs.4,000; the proceeds have been credited to Sale of Machinery a/c.
3. Original Cost of the assets:

   Land Rs.20,000 Buildings Rs.1,20,000

   Plant & Machinery Rs.1,20,000, Furniture Rs.10,000 and Vehicles Rs.20,000.
4. Depreciation was to be provided on written down value basis at the following rates:

   Building 5%; Machinery 15%; Vehicles 20%; and Furniture 10%.
5. Provision for doubtful debts created during the year at Rs.1,100 as shown in the trial balance was debited during the year to profit and loss appropriation a/c.
6. Income-tax assessment for assessment year 2002-03 was completed resulting in a gross demand of Rs.12,000 and was accepted by the company.
7. Provision for taxation for the current is to be made at Rs.29,000.
8. The directors propose to transfer Rs.10,000 to General Reserve and to declare a final dividend of 10% on equity share capital.
9. Debentures were issued in 2000 on a floating charge of all assets.

From the above, prepare Profit and Loss Account and balance sheet of A Ltd. for the year ended 31st March, 2004.

Solution

A Ltd.
Profit & Loss Account for the year ended 31st March, 2004

Dr. Cr.

Particulars		Rs.	Particulars	Rs.
To Salaries		25,000	By Gross Profit	1,45,000
To Repairs & Maintenances		2,380		
To Interest on Debentures	3,000			
Add: outstanding	3,000			
		6,000		
To Sales tax		780		
To Conveyance		2,360		
To Insurance		1,750		
To Discount		880		
To Gratuity		3,500		
To Provision for doubtful debts		1,100		
To Provision for taxation		29,000		
To Loss on sale of machinery		250		
To Depreciation		22,800		
To Net Profit c/d		49,200		
		1,45,000		1,45,000
To Interim dividend		9,000	By Balance b/d*	5,000
To Provision for taxation 2002-03		200	By Net Profit c/d	49,200
To General Reserve Transfer		10,000		
To Proposed Dividend				
Preference Shares		3,000		
Equity Shares		30,000		
To Balance c/d		2,000		
		54,200		54,200

* Rectify the wrong debit for provision for doubtful debts of Rs.100.

Balance Sheet of A Ltd. as at 31st March, 2004

Liabilities	Rs.	Assets		Rs.
Share Capital		Fixed Assets		
Authorized Issued & Subscribed & Paid-up		Land		20,000
500 6% Pref. shares of Rs.100 each	50,000	Building (at cost)	1,20,000	
30,000 Eq. shares of Rs.10 each	3,00,000	Less: Accumulated depreciation	44,000	76,000
	3,50,000			

Liabilities		Rs.	Assets		Rs.
			Plant and Machinery	1,20,000	
Reserves & Surplus			Less: Accumulated depreciation	29,250	80,750
Capital Reserve		1,000	Furniture	10,000	
General Reserve	13,420		Less: Accumulated depreciation	2,800	7,200
Add: Transfer	10,000	23,420	Vehicles	20,000	
Profit & Loss Account		2,000	Less: Accumulated depreciation	8,000	12,000
Secured Loans			Investments		
12% Debentures	50,000		10,000 Eq. shares of Rs.10 each		
Add: Interest accrued and due	3,000	53,000	in S Ltd. Rs.5 paid-up		50,000
(Secured against floating change of all assets)			Current Assets Loans & Advances		
Unsecured Loans		Nil	A. Current Assets		
Current Liabilities & Provisions			Stock-in-trade		1,37,970
A. Current Liabilities			Debtors	90,000	
Unclaimed dividend	1,500		Less: Provision for doubtuful	1,500	
Creditors	26,000		Debts		88,500
Income tax payable	500	28,000	Bank Balance		7,500
B. Provisions			Cash		4,500
Provision for donation	29,000		B. Loans & Advances		
Proposed dividend	33,000	62,000	Security deposit	9,000	
			Advance income tax	26,000	
					35,000
			Miscellaneous Expenditure		Nil
		5,19,420			5,19,420

Working Notes:

		Rs.
1.	Loss on sale of machinery	10,000
	Original cost of machine sold	5,000
	Accumulated depreciation up to 31.3.2003	5,000
	W.D.V. 1.4.2003	
	Less: Depreciation for 2003-04 $\left[500 \text{ x } \frac{15}{100}\right]$	
		4,250
	Less: Sale Value	4,000
	Loss on Sale	250

		Rs.
2.	Calculation of depreciation	
a.	Building	
	W.D.V. (1,00,000 – 20,000)	80,000
	Depreciation @ 5% on Rs.80,000	4,000
		76,000
b.	Plant & Machinery	
	WDV on 1.4.2003	1,00,000
	Less: WDV of machinery sold	5,000
		95,000
	Depreciation @ 15% on 95,000	14,250
		80,750
c.	Vehicles	
	WDV on 1.4.2003	15,000
	Depreciation @ 20% on 15,000	3,000
		12,000
d.	Furniture	
	W.D.V. on 1.4.2003	8,000
	Depreciation @ 10% on Rs.8,000	800
		7,200

Total Depreciation = 4,000 + Rs.14,250 + 3,000 + 800 + 750 (sold machine) = Rs.22,800

3.	Balance of Profit & Loss appropriation as per trial balance	3,900
	Add: Provision for doubtful debts wrongly charged	1,100
		5,000
	Provision for Taxation	
4.	Gross demand for assessment year 2003-04	12,000
	Less: Provision made during 2003-04	11,800
	Balance debited to Profit & Loss appropriation a/c	200

5. At the time of providing dividend for equity share, provision must be made for preference dividend payable also because preference shares carry a preferential right for dividends.

6. Profit on reissue of shares will be transferred to Capital Reserve Account. The balance of Share Suspense Account will be transferred to Share Capital Account. The balance of calls in arrears account will be transferred to forfeiture share account.

Share Capital Account

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
To Forfeiture Shares	5,000	By Balance b/d	3,00,000
To Balance c/d	3,00,000	By Share suspense A/c	2,000
		By Forfeiture shares (Discount on re-issue)	3,000
	3,05,000		3,05,000

Share Suspense Account

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
To Share Capital	2,000	By Balance b/d	2,000
	2,000		2,000

Forfeiture Share Account

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
To Calls-in-arrears	1,000	By Share Capital (500 x 10)	5,000
To Share Capital (Discount)	3,000		
To Capital Reserve (Profit)	1,000		
	5,000		5,000

Calls in Arrears Account

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
To Balance b/d	1,000	By Forfeited shares	1,000
	1,000		1,000

Appendix I

Schedule VI

(See Section 211)

PART I - FORM OF BALANCE SHEET

The balance sheet of a company shall be either in horizontal form or vertical form:

A. Horizontal Form

Balance Sheet of ......

(Here enter the name of the Company)

As of ......

(Here enter the date as at which the balance sheet is made out)

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
* Terms of redemption or conversion (if any), of any redeemable preference capital to be stated, together with earliest date of redemption or conversion	* SHARE CAPITAL Authorized ..... shares of ..... Rs. each		* FIXED ASSETS Distinguishing as far as possible between expenditure upon (a) goodwill, (b) land, (c) buildings, (d) lease hold, (e) railway sidings, (f) plant and machinery, (g) furniture and fittings, (h) development of property, (i) patents, trade marks and designs, (j) livestock, (k) vehicles, etc.		* Under each head the original cost, and the additions thereto and deductions therefrom during the year, and the total depreciation written off or provided up to the end of the year to be stated.

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
Particulars of any option on unissued share capital to be specified	Issued (distinguishing between the various classes of capital and stating the particulars specified below, in respect of each class)				
	.....shares of Rs. .....each				Where the original cost aforesaid and additions and deductions thereto, relates to any fixed asset which has been acquired from a country outside India, and in consequence of a change in the rate of exchange at any time after the acquisition of such asset, there has been as increase or reduction in the liability of the company, as expressed in Indian currency, for making payment towards the whole or a part of the cost of the asset or for repayment of the whole or a part of moneys borrowed by the company from any person, directly or indirectly in any foreign currency specifically for the purpose of acquiring the asset

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
					(being in either case the liability existing immediately before the date on which the change in the rate of exchange takes effect), the amount by which the liability if so increased or reduced during the year, shall be added to, or, as the case may be deducted from the cost, and the amount arrived at after such addition or deduction shall be taken to be the cost of the fixed assets.
Particulars of the different classes of preference shares to be given	Subscribed (distinguishing between the various classes of Capital and stating the particulars specified below ..... shares of Rs..... each Rs..... called-up.				Explanation 1: This paragraph shall apply in relation to all balance sheets that may be made out as at the 6th day of June, 1966, or any day thereafter any where at the date of issue of the notification of the Government of India, in the Ministry of Industrial Development and Company Affairs (Department of Company affairs), GSR No.129, dated the 3rd day of January, 1968, any balance sheet, in relation to which this paragraph applies, has already been made out and laid before the company in Annual General Meeting, the

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
					adjustment referred to in this paragraph may be made in the first balance sheet made out after the issue of the said notification.
	Of the above shares.. shares are allotted as fully paid-up pursuant to a contract without payments being received in cash.				Explanation 2: In this paragraph, unless the context otherwise requires, the expressions "rate of exchange", "foreign currency" and "Indian currency" shall have the meanings respectively assigned to them under sub-section (1) of section 43-A of the Income Tax Act, 1961 (43 of 1961) and Explanation 2 and Explanation 3 of the said sub-section shall as far as may be, apply in relation to the said paragraph as they apply to the said sub-section (1).
					In every case where the original cost cannot be ascertained, without unreasonable expenses or delay, the valuation shown by the books shall be given. For the purposes of this paragraph, such valuation shall be the net amount at which an asset stood in the company's books at the

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
					commencement of this Act after deduction of the amounts previously provided or written off for depreciation or diminution in value, and where any such asset is sold, the amount of sale proceeds shall be shown as deduction.
	Of the above shares… shares are allotted as fully paid-up by way of bonus shares.				
Specify the source from which bonus shares are issued, example, capitalization of Profits or Reserves or from Share Premium Account.	Less: Calls unpaid				Where sums have been written-of on a reduction of capital or a revaluation of assets, every balance sheet, (after the first balance sheet) subsequent to the reduction or revaluation shall show the reduced figures and with the date of the reduction in place of the original cost.
	(i) By managing agent or secretaries and treasures and where the				Each balance sheet for the first five years subsequent to the date of the reduction, shall show also the amount of the reduction made.

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
	managing agent or secretaries and treasurers are a firm, by the partners thereof and where the managing agent or secretaries and treasurers are a firm by the partners thereof and where the managing agent of secretaries and treasures of a private company by the directors or members of that company.				
					Similarly, where sums have been added by writing up the assets, every balance sheet subsequent to such writing up shall show the increased figures with the date of the increase in place of the original cost. Each balance sheet for the first five years

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
					subsequent to the date of writing up shall also show the amount of increase made.
Any capital profit on reissue of forfeited shares should be transferred to Capital Reserve.	(ii) By directors (iii) By others Add: Forfeited shares (amount originally paid-up)				Explanation: Nothing contained in the preceding two paragraphs shall apply to any adjustment made in accordance with the second paragraph.
* Additions and deductions since last balance sheet to be shown under each of the specified heads.	* RESERVES AND SURPLUS				
	(1) Capital Reserves (2) Capital Redemption Reserve (3) Share Premium Account (cc) (4) Other reserves specifying the		INVESTMENTS		* Aggregate amount of company's quoted investments and also the market value thereof shall be shown.

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
	nature of each reserves and the amount in respect thereof				
	Less: Debit balance in profit and loss account (if any) (h) (5) Surplus i.e., balance in profit and loss account after providing for proposed allocation, namely Dividend, Bonus or Reserves. (6) Proposed additions to Reserves (7) Sinking Funds		Showing nature of investments and mode of valuation, for example,r cost or market value and distinguishing between		Aggregate amount of company's unquoted investment shall also be shown.
The word "fund" in relation to any "Reserve" should be used only where such Reserve is specifically represented by earmarked investments.			(1) Investments in Government or Trust Securities. (2) Investments in shares, debentures or bonds showing separately shares fully paid-up and		

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
			partly paid up and also distinguishing the different classes of shares and showing also in similar details investments in shares, debentures or bonds of subsidiary companies. (3) Immovable properties.		
Loans from Directors (the Managing Agents, Secretaries and Treasurers) Manager should be shown separately.					
Interest accrued and due on Secured Loans should be included under the appropriate sub-heads under the head SECURED LOANS					
The nature of the security to be specified in each case.	SECURED LOANS (1) Debentures (2) Loans and Advances from		(4) Investments in the capital of partnership firms.		

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
	Banks (3) Loans and Advances from Subsidiaries (4) Other Loans and Advances				
			CURRENT ASSETS, LOANS AND ADVANCES		
			(A) CURRENT ASSETS (1) Interest accrued on Investments. (2) Stores and Spare Parts (3) Loose Tools (4) Stock-in-Trade (5) Works-in-Progress (6) Sundry Debtors		
					Mode of valuation of stock shall be stated and the amount in respect of raw material shall also be stated separately where practicable mode of valuation of works-in-progress shall be stated.
Where loans have been guaranteed by (managing agents, secretaries and			(a) Debts outstanding for a period exceeding six months (b) Other debts, Less: provision		

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
treasurers, managers and/or directors, a mention thereof shall also be made and also the aggregate amount of such loans under such head.					
			(7a) Cash balance on hand (7b) Bank balances (a) with scheduled banks; and (b) with others		
Terms of redemption or conversion (if any) of debentures issued to be stated together with earliest date of redemption or conversion.					In regard to sundry debtors particulars to be given separately of (a) debts considered good and in respect of which the company is fully secured and (b) debts considered good for which the company holds no security other than debtors' personal security.
					Debts due by directors or other officers of the company or any of them either severally or jointly with any other person or debts due by firms or private companies respectively in which any director or a member to be separately stated.

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
					Debts due from other companies under the same management within the meaning of sub-section (1-B) of section 370, to be disclosed with the names of the Companies.
					The maximum amount due by directors or other officers of the company at any time during the year to be shown by way of a note.
					The provision to be shown under this head should not exceed the amount of debts stated to be considered doubtful or bad and any surplus of such a provision, if already created, should be shown at every closing under "Reserves and Surplus" (in the Liabilities side) under a separate sub-head "Reserve for doubtful or Bad Debts".
					In regard to bank balances, particulars to be given separately of
					(b) the balances lying with Scheduled Banks on current accounts, call accounts and deposit accounts; the names of bankers other than

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
					Scheduled Banks and the balances lying with each such banker on current accounts, call accounts and deposit accounts and the maximum amount outstanding at any time during the year from each such bankers; and (c) the nature of interest, if any, of any director or his relative or the managing agent/secretaries and treasurers of any associate of the latter in each of the bankers (other than Scheduled Banks) referred to in (b) above.
Loans from Directors, the Managing Agents, Secretaries and Treasurers, Manager, should be shown separately.	UNSECURED LOANS: (1) Fixed Deposits. (2) Loans and Advances from subsidiaries (3) Short-term Loans and Advances: (a) From banks (b) From others (4) Other Loans and Advances: (a) From Banks				

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
	(b) From others				
Interest accrued and due on Unsecured Loans should be included under the appropriate sub heads "UNSECURED LOANS".					
Where loans have been guaranteed by managing agents, secretaries and treasurers, managers, and/or directors, a mention thereof shall also be made and also the aggregate amount of such loans under each head.	CURRENT LIABILITIES AND PROVISIONS		(B) LOANS AND ADVANCES		The above instructions regarding "Sundry Debtors" apply to "Loans and Advances" also.
* See note (d) at foot of Form	(1) Acceptances (2) Sundry Creditors (3) Subsidiary Companies (4) Advance payments and unexpired discounts for the portions for		(B) (a) Advances and Loans to subsidiaries (b) Advances and loans to partnership firms in which the company or any of its subsidiaries is a partner.		

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
	which value has still to be given example, in the case of the following classes of company:				
	Newspaper, Fire Insurance, Theatres, Clubs, Banking, Streamship Companies, etc				
	(5) Unclaimed Dividends (6) Other Liabilities (if any) (7) Interest accrued but not due on loans				
	B. PROVISIONS				
	(8) Provision for Taxation (9) Proposed Dividends				

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
	(10) For Contingencies (11) For Provident Fund Scheme				
	(12) For insurance, pension and similar staff benefit schemes. (13) Other provisions		(9) Bills of Exchange (10) Advances recoverable in cash or in kind or for value to be received, example, Rates, Taxes, Insurance, etc. (11) Balances on current account with Managing Agents or Secretaries and Treasures (12) Balances with Customs, Port Trust, etc. (where payable on demand)		
The period for which the dividends are in arrear or if there is more than one class of shares, the dividends on each such class are in arrear shall be stated.	A foot note to the balance sheet may be added to show separately:				

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
	(1) Claims against the company not acknowledged as debts (2) Uncalled liability on shares partly paid		MISCELLANEOUS EXPENDITURE (to the extent not written-off or adjusted)		
	(3) Arrears of fixed cumulative dividends. (4) Estimated amount of contracts remaining to be executed on capital account and not provided for. (5) Other money for which the company is contingently liable.				

	LIABILITIES			ASSETS	
Instructions in Accordance with which Liabilities should be made out	Figures for the Previous Year	Figures for the Current Year	Figures for the Previous Year	Figures for the Current Year	Instructions in accordance with which Assets should be made out
	Rs.	Rs.	Rs.	Rs.	
	(b)	(b)	(b)	(b)	
			(1) Preliminary expenses (2) Expenses including commission or brokerage on underwriting or subscription of shares or debentures		
			(3) Discount allowed on the issue of shares or debentures.		
			(4) Interest paid out of capital during construction (also stating the rate of interest)		
			(5) Development expenditure not adjusted. (6) Other items (specifying nature)		
			PROFIT AND LOSS ACCOUNT		Show here the debit balance of profit and loss account carried forward after deduction of the uncommitted reserves, if any.

Notes:

General instructions for preparation of balance sheet.

a. The information required to be given under any of the terms or sub-items in this Form, if it cannot be conveniently included in the balance sheet itself, shall be furnished in a separate Schedule or Schedules to be annexed to and to form part of the balance sheet. This is recommended when items are numerous.

b. Naye paise can also be given in addition to Rupees, if desired.

c. In the case of subsidiary companies the number of shares held by the holding company as well as by the ultimate holding company and its subsidiaries must be separately stated.

   The auditor do not required to certify the correctness of such shareholdings as certified by the management.

   27(cc) [The item "Share Premium Account" shall include details of its utilization in the manner provided in Section 78 in the year of utilization.]

d. Short-term loans will included those which are due for not more than one year as at the date of the balance sheet.

e. Depreciation written off or provided shall be allocated under the different asset heads and deducted in arriving at the value of Fixed Assets.

f. Dividends declared by subsidiary companies after the date of the balance sheet should not be included unless they are in respect of period which closed on or before the date of the balance sheet.

g. Any reference to benefits expected from contracts to the extent not executed shall not be made in balance sheet but shall be made in the Board's report.

h. The debit balance in the Profit and Loss Account shall be shown as a deduction from the uncommitted reserves, if any.

i. As regards Loans and Advances, amount due by the managing agents or secretaries and treasurers, either severally or jointly with any other persons, to be separately stated, the amount due from other companies under the same management within the meaning of Sub-Section (1-B) of Section 370 should also be given with the names of the companies the maximum amount due from every one of these at any time during the year must be shown.

j. Particulars of any redeemed debentures which the company has power to issue should be given.

k. Where any of the company's debentures are held by a nominee or a trustee for the company, the nominal amount of the debentures and the amount at which they are stated in the books of the company shall be stated.

l. A statement of investments (whether shown under 'Investment' or under 'Current Assets', a stock-in-trade) separately classifying trade investments and other investment should be annexed to the balance sheet, showing the names of the bodies corporate (indicating separately the names of the bodies corporate under the same management) in whose shares or debentures, investment has been made (including all investments, whether existing or not, made subsequent to the date as at which the previous balance sheet was made out) and the nature and extent of the investment so made in each such body corporate; provided that in the case of an investment company, that is to say, a company whose principal business is the acquisition of shares, stock debentures or other securities, it shall be sufficient if the statement shows only the investments existing on the date as at which the balance sheet has been made out. In regard to the investments in the capital of partnership firms, the names of the firms, (with the names of all their partners, total capital and the shares of each partner) shall be given in the statement.

m. If, in the opinion of the Board, any of the current assets, loans and advances have not a value on realization in ordinary course of business at least equal to the amount at which they are stated, the fact that the Board is of that opinion shall be stated.

n. Except in the case of the first balance sheet laid before the company after the commencement of the Act, the corresponding amounts for the immediately preceding financial year for all items shown in the balance sheet shall be also given the balance sheet. The requirement in this behalf shall, in the case of companies preparing quarterly or half-yearly accounts, etc., relate to the balance sheet for corresponding date in the previous year.

o. The amounts to be shown under Sundry Debtors shall include the amounts due in respect of goods sold or services rendered or in respect of other contractual obligations but shall not include the amounts which are in the nature of loans or advances.

p. Current account with Directors, Managing Agents, Secretaries Treasurers and Manager, whether they are in credit or debit, shall be shown separately.

B. Vertical Form of Balance Sheet

Name of the Company Balance Sheet as at -----

		Schedule No.	Figures as at the end of Current Financial Year	Figures as at end of Previous Financial Year
1	2	3	4	5
I.	**Sources of Funds**			
	1. Shareholders funds			
	a. Capital			
	b. Reserves and surplus			
	2. Loan funds			
	a. Secured loans			
	b. Unsecured loans			
	TOTAL			
II.	**Applications of Funds**			
	1. Fixed assets:			
	a. Gross block			
	b. Less: Depreciation			
	c. Net block			
	d. Capital work-in-progress			
	2. Investments			
	3. Current assets, loans and advances:			
	a. Inventories			
	b. Sundry debtors			
	c. Cash and bank balances			
	d. Other current assets			
	e. Loans and advances			
	Less:			
	Current liabilities and provisions:			
	a. Liabilities			
	b. Provisions			
	4. a. Miscellaneous expenditure to the extent not written-off or adjusted			
	b. Profit and loss account			
	TOTAL			

Notes:

1. Details under each of the above items shall be given in separate Schedule. The Schedules shall incorporate all the information required to be given under A – Horizontal Form read with notes containing general instructions for preparation of balance sheet.
2. The Schedules, referred to above, accounting policies and explanatory notes that may be attached shall form an integral part of the balance sheet.
3. The figures in the balance sheet may be rounded off to the nearest '000' or '00' as may be convenient or may be expressed in terms of decimals of thousands.
4. A foot note to the balance sheet may be added to show separately contingent liabilities.

Part II

Requirements as to Profit and Loss Account

1. The provisions of this Part shall apply to the income and expenditure account referred to in sub-section (2) Section 210 of the Act, in like manner as they apply to a profit and loss account, but subject to the modification of references as specified in that sub-section.
2. The profit and loss account
   a. shall be so made out as clearly to disclose the result of the working of the company during the period covered by the account; and
   b. shall disclose every material feature, including credits or receipts and debits or expenses in respect of non-recurring transactions or transactions of an exceptional nature.
3. The profit and loss account shall set out the various items relating to the income and expenditure of the company arranged under the most convenient heads; and in particular, shall disclose the following information in respect of the period covered by the account.

   i. a. The turnover, that is, the aggregate amount for which sales are effected by the company, give the amount of sales in respect of each class of goods dealt with by the company, and indicating the quantities of such sales for each class separately.

   b. Commission paid to sole selling agents within the meaning of Section 294 of the Act.

   c. Commission paid to other selling agents.

   Brokerage and discount on sales, other than the usual trade discount.

   ii. a. In the case of manufacturing companies –

   The value of the raw materials consumed, giving item-wise break up and indicating the quantities thereof. In this break up, as far as possible, all important basic raw materials shall be shown as separate items. The intermediates or components procured from other manufacturers may, if their list is too large to be included in the break up, be grouped under suitable headings without mentioning the quantities, provided all those items which in value individually account for 10 percent or more of the total value of the raw material consumed shall be shown as separate and distinct items with quantities thereof in the break up.

   The opening and closing stock of goods produced, giving break up in respect of each class of goods and indicating the quantities thereof.

   b. In the case of trading companies, the purchases made and the opening and closing stocks, giving break up in respect of each class of goods traded in by the company and indicating the quantities thereof.

   c. In the case of companies rendering or supplying services, the gross income derived from services rendered or supplied.

   d. In the case of a company which falls under more than one of the categories mentioned in (a), (b) and (c) above, it shall be sufficient with the requirements herein if the total amounts are shown in respect of the opening and closing stocks, purchases, sales and consumption of raw material with value and quantitative break up and the gross income from service rendered is shown.

   e. In the case of other companies, the gross income derived under different heads.

Note 1: The quantities of raw materials purchases, stocks and the turnover shall be expressed in quantitative denominations in which these are normally purchased or sold in the market.

Note 2: For the purpose of items (ii) (a), (ii) (b) and (ii) (d), the items for which the company is holding separate industrial licenses, shall be treated as separate classes of goods, but where a company has more than one industrial licence for production of the same item at different places or for expansion of the licensed capacity, the item covered by all such licences shall be treated as one class. In the case of trading companies, the imported items shall be classified in accordance with the classification adopted by the Chief Controller of Imports and Exports in granting the import licences.

Note 3: In giving the break up of purchase, stocks and turnover, items like spare parts and accessories, the list of which is too large to be included in the break up, may be grouped under suitable headings without quantities, provided all those items, which in value individually account for 10 percent or more of the total value of the purchases, stocks or turnover, as the case may be, are shown as separate and distinct items with quantities thereof in the break up.

iii. In the case of all concerns having works-in-progress the amounts for which such works have been completed at the commencement and at the end of the accounting period.

iv. The amount provided for depreciation, renewals or diminution in value of fixed assets.

   If such provision is not made by means of a depreciation charge, the method adopted for making such provision.

   If no provision is made for depreciation, the fact that no provision has been made shall be stated and the quantum of arrears of depreciation computed in accordance with Section 205 (2) of the Act shall be disclosed by way of a note.

v. The amount of interest on the company's debentures and other fixed loans, that is to say loans for fixed periods stating separately the amount of interest if any, paid or payable to the managing direct, and the manager, if any.

vi. The amount of charge for Indian income tax and other Indian taxation on profits, including, where practible, with Indian income tax any taxation imposed elsewhere to the extent of the relief, if any, from Indian income tax and distinguishing where practicable, between income tax and other taxation.

vii. The amounts reserved for

   a. repayment of share capital; and

   b. repayment of loans.

viii. a. The aggregate, if material, of any amounts set aside or proposed to be set aside to reserves, but not including provisons made to meet any specific liability, contingency or commitment known to exist at the date as at which the balance sheet is made up.

   b. The aggregate, if material, of any amounts withdrawn from such reserves.

ix. a. The aggregate, if material, of the amounts set aside to provisions made for meeting specified liabilities, contingencies or commitments.

   b. The aggregate, if material, of the amounts withdrawn from such provisions, as no longer required.

x. Expenditure incurred on each of the following items, separately for each item:

   a. Consumption of stores and spare parts.

   b. Power and fuel.

c. Rent.

d. Repairs to buildings.

e. Repairs to machinery.

f. i. Salaries, wages and bonus.

ii. Contribution to provident and other funds.

iii. Workmen and staff welfare expenses to the extent not adjusted from any previous provision or reserve.

Note 1: Information in respect of this item should also be given in the balance sheet under the relevant provisions or reserve account.

Note 2: In respect of sub-items (1) and (2), the Profit and Loss Account shall also contain, by way of a note, break up of the expenditure incurred on employees who (i) if employed throughout the financial year and were in receipt of remuneration for that year which in the aggregate was not less than Rs.72,000 or (ii) if employed for part of the financial year and were in receipt of remuneration for any part of that year at a rate which in the aggregate was not less than Rs.6,000 per month. The said note shall also indicate the number of employees falling in each of the above two categories. Remuneration for this purpose has the same meaning as in the explanation to Section 198 and shall further include honoraria. The monetary value of the perquisites shall be calculated in accordance with the provisions of the Income Tax Act, 1961 (XLII of 1961) and the rules made there under, (substituted by GSR 494 (E), dated 30th October, 1973).

g. Insurance.

h. Rates and taxes, excluding taxes on income.

i. **Miscellaneous Expenses:** Provided that any item under which expenses exceed one percent of the total revenue of the company or Rs.5,000 whichever is higher shall be shown as a separate and distinct item against an appropriate account head in the Profit and Loss Account and shall not be combined with any other item to be shown under 'Miscellaneous expenses'.

xi. a. The amount of income from investments, distinguishing between trade investments and other investments.

b. Other income by way of interest, specifying the nature of the income.

c. The amount of income tax deducted if the gross income is stated under sub-paragraph (a) and (b) above.

xii. Profits or losses on investments showing distinctly the extent of the profits or losses earned or incurred on account of membership of a partnership firm to the extent not adjusted from any previous provision or reserve.

Note:

a. Information in respect of this item should also be given in the balance sheet under the relevant provision or reserve account.

b. Profits or losses in respect of transactions of a kind, not usually undertaken by the company or undertaken in circumstances of an exceptional or non-recurring nature, if material in amount.

c. Miscellaneous income.

xiii. a. Dividends from subsidiary companies.

b. Provisions for losses of subsidiary companies.

xiv. The aggregate amount of the dividends paid, and proposed, and stating whether such amounts are subject to deduction of income tax or not.

xv. Amount, if material by which any items shown in the profit and loss account are affected by any change in the basis of accounting.

4. The profit and loss account shall also contain or give by way of a note detailed information showing separately, the following payments provided or made during the financial year to the directors (including managing directors or manager, if any, by the company, the subsidiaries of the company and any other person):

   i. managerial remuneration under section 198 of the Act paid or payable during the financial year to the directors (including managing directors), or manager, if any:

      (ii), (iii) and (v) – (Omitted).

   iv. Section 198(4), proviso, as substituted by the Amendment of 1988. The substituted provision is as follows: Notwithstanding anything contained in Sub-Section (1) to (3) but subject to the provisions of Section 269, read with Schedule XIII, if, in any financial year, a company has no profits or its profits are inadequate, the company shall not pay to its directors, including any managing or whole time director or manager, by way of remuneration any sum [exclusive of any fees payable to directors under Sub-Section (2) of Section 309], except with the previous approval of the Central Government.

   vi. Other allowances and commission including guarantee commission (details to be given).

   vii. any other perquisites or benefits in cash or in kind (stating approximate money value where practicable).

   viii. pensions, etc.,

      a. pensions
      b. gratuities
      c. payments from provident funds, in excess of own subscription and interest thereon
      d. compensation for loss of office
      e. consideration in connection with retirement from office.

4. A. The profit and loss account shall contain or give by way of a note a statement showing the computation of net profit in accordance with Section 349 of the Act with relevant details of the calculation of the commissions payable by way of percentage of such profits to the directors (including managing director) or manager (if any).

4. B. The profit and loss account shall further contain or give by way of note detailed information in regard to amounts paid to the auditor, whether as fees, expenses or otherwise for services rendered.

   a. as auditor
   b. as adviser, or in any other capacity, in respect of;
      i. taxation matters;
      ii. company law matters;
      iii. management services; and
   c. in any other manner.

4. C. In the case of manufacturing companies, the profit and loss account shall also contain, by way of a note in respect of each class of goods manufactured, detailed quantitative information in regard to the following namely:

   a. The licensed capacity (where license is in force);
   b. The installed capacity; and
   c. The actual production.

Note 1: The licensed capacity and installed capacity of the company as on the last date of the year to which the profit and loss accounts relates, shall be mentioned against (a) and (b) above respectively.

Note 2: Against item (c), the actual production in respect of the finished products meant for sale shall be mentioned. Incase where semi-processed products are also sold by the company, separate details thereof shall be given.

Note 3: For the purpose of this paragraph, the items for which the company is holding separate industrial licenses shall be treated as separate classes of goods but where a company has more than one industrial license for production of the same item at different places or for expansion of the licensed capacity, the item covered by all such licenses shall be treated as one class.

4. D. The profit and loss account shall also contain by way of a note the following information, namely:

   a. Value of imports calculated on C.I.F. basis by the company during the financial year in respect of :
      i. raw materials;
      ii. components and spare parts;
      iii. capital goods.

   b. Expenditure in foreign currency during the financial year on account of royalty, know-how, professional, consultation fees, interest, and other matters.

   c. Value of all imported raw materials, spare parts and components consumed during the financial year and the value of all indigenous raw materials, spare parts and components similarly consumed and the percentage of each to the total consumption.

   d. The amount remitted during the year in foreign currencies on account of dividends, with a specific mention of the number of non-resident shareholders, the number of shares held by them on which the dividends related.

   e. Earnings in foreign exchange classified under the following heads, namely:
      i. export of goods calculated on F.O.B. basis;
      ii. royalty, know-how, professional and consultation fees;
      iii. interest and dividend;
      iv. other income, indicating the nature thereof.

5. The Central Government may direct that a company shall not be obliged to show the amount set aside to provisions other than those relating to depreciation, renewal or diminution in value of assets, if the Central Government is satisfied that the information should not be disclosed in the public interest and would prejudice the company, but subject to the condition that in any heading stating an amount arrived at after taking into account the amount set aside as such, the provision shall be so framed or marked as to indicate that fact.

6. 1. Except in the case of the first profit and loss account laid before the company after the commencement of the Act, the corresponding amounts for the immediately preceding financial year for all items shown in the profit and loss account shall also be given in the profit and loss account.

   2. The requirement in sub-clause (1) shall, in the case of companies preparing quarterly or half-yearly accounts, relate to the profit and loss account for the period which entered on the corresponding date of the previous year.

Part III
Interpretation

7. For the purposes of Parts I and II of this Schedule, unless the context otherwise requires,

    1. a. the expression "provision" shall, subject to sub-clause (2) of this clause, mean any amount written off or retained by way of providing for depreciation, renewals or diminution in value of assets, or retained by way of providing for any known liability of which the amount cannot be determined with substantial accuracy;

        b. the expression "reserve" shall not, subject as aforesaid, include any amount written off or retained by way of providing for depreciation, renewals or diminution in value of assets or retained by way of providing for any known liability;

        c. the expression "capital reserve" shall not include any amount regarded as free for distribution through the profit and loss account; and the expression "revenue reserve" shall mean any reserve other than a capital reserve; and in this sub-clause the expression "liability" shall include all liabilities in respect of expenditure contracted for and all disputed or contingent liabilities.

    2. Where

        a. any amount written off or retained by way of providing for depreciation, renewals or diminution in value of assets, not being an amount written off in relation to fixed assets before the commencement of this Act; or

        b. any amount retained by way of providing for any known liability; is in excess of the amount which in the opinion of the directors is reasonably necessary for the purpose, the excess shall be treated for the purposes of this Schedule as a reserve and not as a provision.

8. For the purposes aforesaid, the expression "quoted investment" means an investment as respect which there has been granted a quotation or permission to deal on a recognized stock exchange, and the expression "unquoted investment" shall be constructed accordingly.

SUMMARY

- The Companies Act prescribes a few provisions to prepare and present the financial statements of the joint stock companies. It also lays down provisions regarding the books to be maintained by the company, requirements regarding annual accounts and the form and content of balance sheet and profit and loss account.
- The appropriations made from the profits in respect of dividends and transfer to reserves etc., are shown in the profit and loss appropriation account.
- On completion of this chapter, we are conversant with the legal requirements provided in the Companies Act, 1956 when accounting for companies, special issues such as dividends, managerial remuneration, income taxes in the financial statements of a limited company etc.

Chapter VIII

Statutory Audit and Annual Reports

After reading this chapter, you will be conversant with:

- Persons Responsible for Keeping Proper Books of Accounts
- Preparation and Presentation of Final Statements
- Approval of the Accounts
- Circulation of Annual Accounts
- Audit
- Appointment of Auditors
- Remuneration of Auditors
- Rights and Duties of Auditors
- Special Audit
- Qualifications in Auditor's Reports

Every company has to maintain proper books of accounts as per Section 209 of the Companies Act, 1956. Books of accounts also include the cost records [Section 209(1) (d)] and stock records [Section 541(2)]. The Section specifies that the books of accounts should be maintained in respect of:

i. All sums of money received and expended by the company and the matters in respect of which receipts and expenditures take place;

ii. All sales and purchases of goods by the company;

iii. The assets and liabilities of the company; and

iv. In the case of a company pertaining to any class of companies engaged in production, processing, manufacturing or mining activities, such particulars relating to utilization of material or labor or to other items of costs as may be prescribed, if such class of companies is required by the Central Government to include such particulars in the books of accounts.

The books of accounts of every company relating to the period of not less than eight years immediately preceding the current year shall be preserved in good order along with the relevant vouchers. The books of accounts and related vouchers should be preserved in good order from the first accounting year if the company has not been in existence for eight years.

All the books of accounts have to be kept at the registered office unless the Board of Directors have decided to keep the accounts at some other place, provided the company within seven days of the decision, files with the Registrar, a notice in writing giving the full address of that other place. Section 514(2) provides that proper books of accounts constitute such books of accounts as are necessary to exhibit and explain the transactions and financial position of the business of the company, including books containing sufficiently detailed entries of daily cash receipts and payments. Where the company has a branch office, whether in or outside India, the company shall be deemed to have complied with the provisions of Section 209(1), if proper books of accounts relating to the transactions effected at the branch office are kept at that office and proper summarized returns are made up to date in a period of three months.

Subsection (3) of Section 209 provides that proper books of accounts shall not be deemed to have been kept by a company or its branch, with respect to the matters specified:

i. if such books are not kept in such manner as are necessary to give a true and fair view of the state of affairs of the company or its branch office, as the case may be, and to explain its transactions; and

ii. if such books are not kept on accrual basis and according to the double entry system of accounting.

Section 209(4) mentions about "other books and papers" to be maintained. These include accounts deeds, vouchers, writings and documents.

These books of accounts shall be kept open to any director for inspection during business hours. A director should exercise his right of inspection of books of accounts personally. In case of *N V Vakharia vs. Supreme General Film Exchange Co. Ltd. (1948)*, it was held that a director is entitled to make inspection of accounts personally or through an agent provided that there is no reasonable objection to the person chosen and the agent undertakes not to utilize the information obtained by him for any purpose other than the purpose of his principal. Here, the inspection of books of accounts by the agent was allowed as the director was unable to do so, due to his physical inability.

In *M L Thukral vs. Krone Communications Limited (1996),* where the directors wanted to inspect the books of accounts accompanied by a chartered accountant, the Company Law Board permitted them to do so under the condition that the Chartered Accountant should reveal information obtained through inspection only to the directors and not to the others.

The right to inspect the books of accounts is a statutory right of the directors and any director who is refused or not allowed to do so may enforce his right through the court. This right of inspection is, however, not absolute and a director may be denied permission to inspect the accounts where such inspection is likely to be prejudicial to the interests of the company.

The right to inspect books of account is not available to members of the company. However, under Table A, Article 95(2), a member may be given such a right by operation of law or with the permission of the Board or by an ordinary resolution of the members. However, this right should be exercised by the member personally and not through a proxy.

As per Section 209A(1), the books of accounts and other books and papers shall be kept open to inspection during business hours by:

i. the Registrar; or

ii. such officer of the Government as may be authorized by the Central Government in this behalf.

iii. such officers of the Securities and Exchange Board of India (SEBI) as may be authorized by it.

Note: Such inspection(s) may be made without providing prior notice to the company or any officer thereof.

The inspection and administration by the Securities and Exchange Board of India shall be made in respect of matters relating to issue and transfer of securities and non-payment of dividend:

a. in case of listed public companies;

b. in case of those public companies, which intend to get their securities listed on any recognized stock exchange in India;

   and in any other case, and other than (a) and (b), the matters shall be administered by the Central Government.

PERSONS RESPONSIBLE FOR KEEPING PROPER BOOKS OF ACCOUNTS

The Managing Director or Manager is held responsible for the failure to take all reasonable steps to keep proper books of accounts. If the company does not have a managing director or a manager, every director of the company is held responsible for the failure to keep proper books of accounts. In addition to the persons mentioned above, every officer and other employee and agent in default, as defined in Section 240(6) of the Act excluding bankers, auditors and legal advisers of the company will be held responsible.

Each person charged with the responsibility of maintaining proper books of accounts and found guilty is punishable with imprisonment for a term not exceeding six months or with fine not exceeding Rs.10,000 or with both in respect of each default committed.

The persons stated above may be absolved of the responsibility of maintaining the books if they can prove that a competent and reliable person was entrusted with the duty of seeing that the requirements as to maintenance of proper books of accounts were complied with and that such a person was in a position to discharge that duty.

PREPARATION AND PRESENTATION OF FINAL STATEMENTS

Section 211(1) lays down that a balance sheet of a company should conform to three basic requirements.

a. It must present a true and fair view of the state of affairs of the company.

b. It must be in the form set out in Part I of Schedule VI or as near thereto as circumstances admit or in such other form as approved by the Central Government either generally or in any particular case.

c. While preparing the balance sheet, due regard should be given to the general instructions under the heading 'Notes' at the end of that part.

Section 211 further lays down that in addition to the balance sheet, the profit and loss account of the company should reveal a true and fair view of the profit or loss of the company for a financial year and should comply with the requirements of Part II of Schedule VI so far as applicable.

The concept of 'true and fair view' means that the annual accounts should not only be arithmetically accurate, but should present an overall fair view of the affairs of the company and not be misleading in any way.

The Central Government may, by notification in the Official Gazette, exempt a company from complying with the requirements of Schedule VI if it is in the interest of the public. [Section 211(3)]

The Central Government may, on an application made by the company, by order, permit modification of any of the requirements relating to matters to be stated in the company's balance sheet or profit and loss account for the purpose of adapting them to the circumstances of the company. [Section 211(4)]

The balance sheet and the profit and loss account of a company shall not be treated as not disclosing a true and fair view of the state of affairs of the company, merely by reason of the fact that they do not disclose:

a. in the case of an insurance company, any matters which are not required to be disclosed by the Insurance Act, 1938;

b. in the case of a banking company, any matters which are not required to be disclosed by the Banking Companies Act, 1949;

c. in the case of a company engaged in the generation or supply of electricity, any matters which are not required to be disclosed by [both the Indian Electricity Act, 1910 and the Electricity (Supply)Act, 1948];

d. in the case of a company governed by any other special Act for the time being in force, any matters which are not required to be disclosed by that special Act; or

e. in the case of any company, any matters which are not required to be disclosed by virtue of the provisions contained in Schedule VI or by virtue of a notification issued under Subsection (3) or an order issued under Subsection (4).

Where any person who is responsible for maintaining proper books of accounts as specified under Section 209(6), fails to take all reasonable steps to secure the compliance by the company with respect to the accounts to be laid before the company in the general meeting, then such a person will be punishable with imprisonment for a term which may extend to six months or with fine which may extend to ten thousand rupees or with both. However, such a person will be absolved if it is proved that a competent and reliable person was charged with the duty of complying with the provisions of this section and was in a position to discharge that duty. Further, a person will not be sentenced to imprisonment for any offence not committed willfully. [Section 211(7)]

Any person [not one mentioned under Section 209(6)] who is charged with the duty of complying with the provisions of Section 211, but fails to do so will be punishable with imprisonment for a term which may extend to six months or with fine which may extend to ten thousand rupees or with both. [Section 211(8)]

The provisions of Section 211 are not applicable to any insurance or banking company or any company engaged in the generation or supply of electricity or to any other class of company for which a form of balance sheet has been specified in or under the Act governing such class of company.

Section 212 requires that where the company has one or more subsidiary companies, then at the end of the financial year of the company, the following documents in respect of each of the subsidiary shall be attached to the balance sheet of the company:

a. a copy of the balance sheet of the subsidiary;

b. a copy of its profit and loss account;

c. a copy of the report of its Board of Directors;

d. a copy of the report of its auditors;

e. a statement of the holding company's interest in the subsidiary as specified in Subsection (3);

f. the statement referred to in Section 212(5), if any;

g. the report referred to in Section 212(6), if any.

If the financial year(s) of a subsidiary referred above do not coincide with the financial year(s) of the holding company, a statement indicating following matters and information shall be attached to the balance sheet of the holding company:

a. Details of any changes in the holding company's interest in the subsidiary occurred between the end of the financial years of the holding company and subsidiary;

b. Details of any material changes occurred in the subsidiary between the end of the financial years of the holding company and subsidiary such as changes in the subsidiary's fixed assets, investments, loans and borrowings, etc.

Further, according to Section 212(6) of the Companies Act, 1956, the Board of Directors shall attach a report in writing to the balance sheet the matters that are required to be specified as per clause (4) dealing with treatment of profits/losses of subsidiary in the books of Holding Company, if they are unable to obtain information on the same.

APPROVAL OF THE ACCOUNTS

The annual financial statements should first be approved by the Board of Directors. After approval, the statements should be signed on behalf of the board and then forwarded to the auditors for their report.

According to Section 215(1)(ii), the annual financial statements of a company should be signed on behalf of the board by the manager or secretary of the company if any, and by not less than two directors of the company one of whom shall be a managing director where there is one.

Where only one of the directors is in India, the annual financial statements can be signed by him, and a statement explaining the reasons for non-compliance of Subsection (1) should be attached to the statements. [Section 215(2)]

The above discussed provisions of Section 215(1)(ii) and 215(2) are applicable to all companies (both public and private) except a banking company.

In case of a banking company, the annual financial statements should be signed on behalf of the Board of Directors by the persons specified in Clause (a) or Clause (b) as the case may be, of Subsection (2) of Section 29 of the Banking Companies Act, 1949.

Section 216 provides that the profit and loss account of the company should be annexed to the balance sheet and the auditor's report (including the auditor's separate, special or supplementary report, if any) should be attached to the balance sheet.

Boards' Report

Section 217(1) lays down that a report giving the following information should be 'attached' to every balance sheet laid before a company in the general meeting:

a. The state of the company's affairs;

b. The amount, if any, which it proposes to carry to any reserves in such balance sheet;

c. The amount, if any, which is recommended to be paid by way of dividend;

d. Material changes and commitments, if any, affecting the financial position of the company which have occurred between the end of the financial year of the company to which the balance sheet relates and the date of the report. These changes would include events such as disposal of a substantial part of the undertaking, the profit or loss whether of a capital or revenue nature, changes in the capital structure, alteration in the wage structure arising out of trade union negotiations, purchases, construction, sale or any catastrophe befalling the fixed assets, incurring or reduction of long-term indebtedness, awards in litigations, entering into or cancellation of contracts and refund of taxes or completion of assessments;

e. The conservation of energy, technology absorption, foreign exchange earnings and outgo, in such manner as may be prescribed.

The Boards' report shall, so far as is material for the appreciation of the state of the company's affairs by it's members and which will not in the Board's opinion be harmful to the business of the company or of any of its subsidiaries, deal with any changes which have occurred during the financial years:

i. in the nature of the company's business;

ii. in the company's subsidiaries or in nature of the business carried on by them; and

iii. generally in the classes of business in which the company has an interest.

In the amendment introduced in the Companies (Amendment) Act (1974), Subsection 2A was inserted which states that the Boards' report shall also include a statement showing the name of every employee of the company who:

i. if employed throughout the financial year, was in receipt of remuneration for that year which, in aggregate, was not less than such sum as may be prescribed (Rs.24,00,000 per annum w.e.f.17.4.2002); or

ii. if employed for a part of the financial year, was in receipt of remuneration for any part of that year, at a rate which, in the aggregate, was not less than such amount per month as may be prescribed (Rs.2,00,000 p.m. w.e.f.17.4.2002); or

iii. if employed throughout the financial year or part thereof, was in receipt of remuneration in that year which, in the aggregate or as the case may be, at a rate which, in the aggregate, is in excess of that drawn by the managing director or whole time director or manager and holds by himself or along with his spouse and dependent children, not less than two percent of the equity shares of the company.

The above statement should state whether the employee mentioned above is a relative of any director or manager of the company and if so, the name of such director, and other such particulars as may be prescribed.

The Board's report shall also include a Directors' responsibility statement, stating that –

a. In the preparation of the annual accounts, the applicable accounting standards had been followed along with proper explanation relating to material changes.

b. The directors had selected such accounting policies and applied them consistently and made judgments and estimates that are reasonable and prudent so as to give a true and fair view of the state of affairs of the company at the end of the financial year and of the profit/loss of the company for that period;

c. The directors had taken proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of this Act for safeguarding the assets of the company and for preventing and detecting fraud and other irregularities;

d. The directors had prepared the annual accounts on a going concern basis.

Further, the Board's report (as per Section 217(2B)) shall also state the reasons for the failure, if any, to complete the buy-back within the time specified in Sub-section(4) of Section 77A.

The Boards' report has to specify the amount spent on consumption of electricity, coal and furnace oil and others, either from internal generation or otherwise, in respect of different products and items including any variation thereof, with reference to any of the twenty-one industries listed in the Schedule to the Companies (Disclosure of Particulars in the Report of the Board of Directors) Rules, 1988. The corresponding particulars for the previous financial year have to be disclosed. The board is also bound to give the fullest information and explanations in its report on every reservation, qualification or adverse remark contained in the Auditor's Report.

Boards' report and any addendum thereto has to be signed by the Chairman of the Board, if he is authorized in that behalf by the Board and where he is not authorized, the report shall be signed by such number of directors as are required to sign the balance sheet and the profit and loss account of the company by virtue of Subsections (1) and (2) of Section 215.

Where a copy of the balance sheet or profit and loss account is issued, circulated or published without being authenticated as required by Section 215 or where a copy of the balance sheet is issued, circulated or published without annexing or attaching (as the case may be) a copy of (a) profit and loss account, (b) any accounts, reports or statements which, by virtue of Section 212 are required to be attached to the balance sheet (c) the auditors report (d) the Board's report referred to in Section 217, the company, and every officer of the company who is in default, shall be punishable with a fine which may extend to five thousand rupees. (Section 218)

[The Directors Report of Infosys Technologies Ltd. for the year ended March 31, 2004 is given as an Annexure at the end of the chapter.]

CIRCULATION OF ANNUAL ACCOUNTS (SECTION 219)

A company whose shares are not listed on the stock exchange, should send a copy of the balance sheet, profit and loss account, auditor's report, directors' report and other documents required to be annexed or attached to the balance sheet at least 21 days before the date of the annual general meeting to every member of the company, every trustee for the holders of any debentures issued by the company, whether such member or trustee is or is not entitled to have notices of general meetings of the company sent to him and to all persons other than such members or trustees, being persons so entitled.

Companies whose shares are listed on the stock exchange have the option of either sending the above documents in full or a statement containing the salient features of such documents to every member or trustee for the holders of any debenture issued by the company not less than twenty one days before the date of the annual general meeting. Where the company opts for the second option, it will have to make available for inspection, a copy of the documents in full during the working hours for a period of twenty one days before the date of the meeting.

In the above two cases, if the documents are sent less than twenty one days before the annual general meeting, it will be deemed as duly sent if all the members entitled to vote at the meeting so agree.

The abridged financial statements need not be separately audited. The auditor's report and the comments if any, of the Comptroller and Auditor General under Section 619(4) for appropriate classes of companies should be sent along with the abridged statements. These documents should be authenticated and approved as in the case of full set of annual financial statements under Section 215.

It should be noted that Clause 32 of the Listing Agreement applicable to listed company requires the company to also give a Cash Flow Statement in the prescribed format along with the balance sheet and profit and loss account. Also arising out of the listing requirements of various recognized stock exchanges, the listed companies are required to publish in the newspapers the quarterly unaudited accounts of the company as a measure of investors' protection.

A copy of the last balance sheet of the company and every document required to be annexed or attached to the balance sheet will have to be furnished free of cost to any member or holder of debentures of the company. Even a person who has paid some money by way of deposit to the company is entitled to receive the above said documents free of cost. However, such a person has no right to demand a second copy of the documents.

Section 219 lays down instances where it is not necessary for a company to send a copy of the annual accounts.

a. A company not having a share capital need not send copies of the annual financial statements to a member or holder of debentures of the company who is not entitled to receive notices of general meeting of the company.

b. Copies of annual financial statements need not be sent to any member or holder of debentures of the company who is not entitled to receive notices of general meetings of the company and whose address the company is not aware of.

c. In case of joint shareholders, a copy of the documents may be sent to only one of the joint holders whose name appears first in the register of members.

Any person found not complying with the provisions of Section 219 will be punishable with fine which may extend up to five thousand rupees. The same penal consequences shall follow where any copy of a balance sheet is issued, circulated or published without there being annexed or attached thereto, as the case may be, a copy each of (i) the profit and loss account (ii) any accounts, reports or statements which, by virtue of Section 212, are required to be attached to the balance sheet (iii) the auditors reports and (iv) the Boards' reports referred to in Section 217.

Any member or debenture holder of a company, and any person from whom the company has taken a deposit shall be entitled to a free copy of balance sheet of the company and of every document required to be annexed or attached thereto, including the profit and loss account and auditors' report. Any default in this matter will make the company and every officer of the company who is in default punishable with a fine of five thousand rupees.

Adoption of Accounts at the Annual General Body Meeting

The balance sheet and the profit and loss account are required to be placed only at an Annual General Meeting (AGM). If it is not possible to approve the accounts in the AGM, the company may adjourn the said annual general meeting to a subsequent date when the annual accounts are expected to be ready for consideration and adoption. In such a case, a statement of the fact and of reasons thereof shall be annexed to the balance sheet and a copy thereof is required to be filed with the Registrar.

However, the AGM should be held within the time frame laid down in Section 166. No company can reopen accounts after their adoption in the AGM, except in the situation where a revision after adoption by AGM arises out of a technical requirement of taxation laws. Any such revision may be approved in the next AGM.

Filing of Annual Accounts with Registrar

Section 220 specifies that within thirty days after the balance sheet and the profit and loss account have been laid before a company at an Annual general meeting, three copies of the balance sheet and the profit and loss account should be filed with the Registrar. These copies have to be attested by the managing director, manager or secretary of the company, or if none of these, by a director of the company, together with three copies of all the documents which are required by this Act to be annexed or attached to such balance sheet or profit and loss account.

If the annual general meeting of the company for any year has not been held, a statement of that fact with reasons there of is to be filed with the Registrar as an annexure along with the Balance Sheet within thirty days from the latest date on or before which the said meeting should have been held.

In the case of a private company, copies of the balance sheet and the profit and loss account should be filed with the Registrar separately. According to the department's circular, a private company is not required to attach to its profit and loss account, a separate auditor's report signed by the auditors. However, if the company has on its own, reproduced the auditor's report in full on the balance sheet and on the profit and loss account, the company may be asked to follow either of the below mentioned alternatives:

a. Attach to the profit and loss account, an authenticated copy [as per Section 220(1)(a)] of the auditor's report in full as attached to the balance sheet.

b. Attach to the balance sheet, relevant extracts of the auditor's report to the balance sheet alone, and attach a copy of the full report to the profit and loss account. In both the cases, the report should be duly authenticated as specified under Section 220(1)(a).

c. Where the balance sheet has been (a) laid before the annual general meeting but is not adopted or (b) where the annual general meeting is adjourned without adopting the balance sheet or (c) where the annual general meeting is not held during the year, then a statement of that fact along with reasons should be annexed to the balance sheet and to the copies required to be filed with the Registrar. [Section 220(2)]

   The time within which the said documents including the statement are to be filed are within 30 days in case of (a) and (b) and in case of (c), within 30 days from the latest day on which the Annual General Meeting should have been held.

Section 220 (a) (ii) of the Act provides that no person other than member of a company concerned shall be entitled to inspect, or obtain copies of the profit and loss account of:

a. a private company which is not a subsidiary of a public company, or

b. a private company of which the entire paid-up capital is held by one or more bodies corporate incorporated outside India, or

c. a company which became a public company by virtue of Section 43A, if the Central Government directs that it is not in the public interest that any person other than a member of the company shall be entitled to inspect, or obtain copies of the profit and loss account of the company.

The boards' report, the auditors' report or any other document is required to be attached and not 'annexed' to the balance sheet. This assumes significance by virtue of Section 227(2) which requires the auditor to make a report on the accounts examined by him and every balance sheet and profit and loss account and on every other document declared by the Act as forming a part of or annexed to the balance sheet of the company. That is, the Boards' report or the documents of subsidiary company which are attached to the balance sheet are not open to audit by the auditor.

AUDIT

Qualifications of an Auditor

Section 226 of the Companies Act, 1956 specifies that a person shall not be qualified as an auditor of the company unless he/she is a chartered accountant holding a certificate of practice within the meaning of the Chartered Accountants Act, 1949. Also, any firm in which all the partners practicing in India are qualified for appointment as auditors may be appointed as auditors of a company.

Disqualifications of an Auditor

From the above paragraph, it is clear that an auditor would be disqualified if he ceases to be the member of the Institute of the Chartered Accountants of India as per the rules and regulations of the Chartered Accountants Act, 1949. The following entities or persons have been declared disqualified to be appointed as an auditor of a company:

a. a body corporate;

b. an officer or employee of the company;

c. a person who is a partner or who is in the employment of an officer or employee of the company;

d. a person who is indebted to the company for an amount exceeding Rs.1,000 or who has given any guarantee or provided any security in connection with the indebtedness of any third person;

e. a person holding any security of that company after one year from the date of commencement of the companies (Amendment Act, 2000).

   In this context, a 'security' means an instrument that carries voting rights.

   However, any shares held by such person as nominee or trustee for any third person and in which the holder has no beneficial interest shall be excluded in computing the percentage of shares held by him for the purpose of this clause.

f. a person who, by virtue of the above listed provisions is disqualified for appointment as an auditor of any other body corporate which is that company's subsidiary or holding company or a subsidiary of that company's holding company would be so disqualified if the body corporate were a company.

APPOINTMENT OF AUDITORS

The first auditor/s of a company should be appointed by the Board of Directors within one month of the date of registration of the company by passing a resolution to that effect. Such an auditor shall hold office till the conclusion of the first annual general meeting.

However, the company has the power to remove any such auditor and appoint any other person/s nominated by any member of the company by giving not less than 14 days notice before the date of the meeting. Such an appointment can be made at a general meeting.

Where the Board fails to exercise its powers to appoint the first auditors, the company in the general meeting may appoint the first auditor/s.

Subsequent Auditors

Subsection (1) of Section 224 lays down that every company shall at each general meeting appoint an auditor/s to hold office from the conclusion of that meeting until the conclusion of the next annual general meeting. The company should give intimation of the appointment to the auditor within seven days of the appointment.

Every auditor so appointed at an annual general meeting should, within thirty days of the receipt of the intimation from the company, inform the Registrar in writing about his acceptance or refusal of the appointment. The notice to the Registrar should be given in Form 23B.

Except auditors appointed under Subsection (1), those appointed under other Subsections of Section 224, are under no obligation to inform the Registrar about their appointment.

The Board of Directors is authorized to fill any casual vacancy excepting a vacancy arising out of resignation which is to be filled only by the company in the general meeting.

Other Appointments

Section 224A inserted by the Companies (Amendment) Act, 1974 provides that in the case of a company in which twenty-five percent or more of the subscribed share capital is held, whether singly or in any combination, by:

i. a public financial institution or a Government company or Central Government or any State Government, or

ii. any financial or other institution established by any provincial or State Act in which a State Government holds not less than fifty-one percent of the subscribed capital, or

iii. a nationalized bank or an insurance company carrying on general insurance business;

the appointment of an auditor or auditors shall be made by a special resolution only. If the company fails to pass a special resolution, it shall be deemed that no auditor or auditors had been appointed by the company at its general meeting and the Central Government will be empowered to make the appointment.

Thus, it is implied that a company in which 25% of the subscribed capital is held, singly or jointly by any of the institutions specified in Section 224A, cannot appoint or reappoint auditors without the approval of such institutions.

The term 'nationalized bank' includes all those banks which have been nationalized under the Banking Companies (Acquisition and Transfer of Undertakings) Act 1970/1980. It does not include the State Bank of India and its subsidiaries. Regarding a clarification as to whether or not only the shares which are beneficially held by the bank need to be taken for the purpose of Section 224A, it has been held by the Department of Company Affairs, that irrespective of circumstances in which a nationalized bank is holding shares, if the name of the bank is entered in the register of members as the holder of those shares, such holding will be considered for the purpose of Section 224A. This includes even those shares which the bank has acquired/got transferred in its name to enforce the security against loans advanced by it.

The shareholding referred to in Section 224A is the subscribed capital and not the equity capital alone. This indicates that even where public financial institutions hold preference share capital in the company and where their stake is 25% or more, the provisions of Section 224A will apply.

The time for determining the 25% holding of subscribed capital is the date of notice of the annual general meeting. If the percentage of holding gets reduced any time after the date of notice but before the date on which the meeting is actually held, then the requirements under this Section need not be followed.

However, if during the period after the issue of the notice but before the meeting is held, the percentage of holding touches 25%, then the proper course would be to adjourn the meeting, issue a notice under this section and appoint the auditors by passing a special resolution.

Appointment by the Central Government

In case no auditor(s) are appointed or reappointed under Sections 224 or 224A, at the annual general meeting, the Central Government may appoint a person to fill the vacancy. [Section 224(3)]. It is the duty of the company to inform the Central Government about the fact that no auditor(s) has/have been appointed, within seven days of the meeting [Section 224(4)]. The auditor(s) so appointed will hold office till the conclusion of the next annual general meeting. The Central Government has the power to fix the remuneration of auditors appointed by it.

Where the appointment of an auditor at the annual general meeting is void from the beginning, it can be implied that no appointment has been made. Such a situation will give the Central Government the power to exercise its authority to appoint the auditor.

Similarly, the Central Government can exercise such power in case the appointed auditor has refused to accept the appointment. The appointment of an auditor can be considered complete only if the person so appointed accepts the appointment. It may also be noted that the Board of Directors cannot be authorized by the shareholder to appoint a new auditor, in case the auditor appointed at the annual general meeting has rejected to act as one.

Failure to give notice to the Central Government under Section 224(3) will make the company and every officer in default liable to a fine extending to Rupees five thousand.

Reappointment of an Auditor

As per Section 224(2), an auditor may be reappointed at the annual general meeting, except in four cases namely:

a. Where he is not qualified for reappointment.

b. Where he has notified in writing his unwillingness to be reappointed.

c. Where a resolution is passed at that meeting appointing somebody instead of him or expressly providing that he shall not be reappointed.

d. Where notice has been given intending to appoint some other person as an auditor, but where such a resolution cannot be passed because of the death, incapacity or disqualification of that person.

Barring the aforementioned situations, an auditor may be reappointed at the annual general meeting. However, there is no provision for automatic reappointment of the auditor. The term ‘reappointment’ implies some action on the part of the company so as to reappoint the auditor. Hence, the passing of a resolution at the annual general meeting is essential for the reappointment of the retiring auditor.

Ceiling on Audit

Subsections (1B) and (1C) to Section 224 have been added by the Companies (Amendment) Act, 1974. These Subsections propose to ‘break the evil’ of continued association of Chartered Accountants practicing as auditors, singly or in firms, with groups of companies so that they may not have any temptation to shield the shortcomings of the management from the shareholders.

However, the provisions of Subsection (1B) shall not apply, on and after the commencement of the Companies (Amendment) Act, 2000 to a private company.

As per these Subsections, an individual cannot be the auditor of more than twenty companies at a time. Further, out of these companies, not more than ten should be companies having a paid-up share capital of Rs.25 lakh or more. In case the auditor is a partnership firm, the ceiling is twenty companies per partner of the firm. And where any partner is also a partner in any other firm or firms of auditors, the overall ceiling in relation to such partner will be twenty.

Earlier, before the commencement of the Companies (Amendment) Act, 2000, the specified number as above include both private and public companies. However, now the private companies have been omitted from the specified number. Consequently, an auditor or firm of auditors can be auditors for 20 public companies and also any number of private companies as they may like.

Any person who is in full-time employment elsewhere is disallowed to be an auditor of the company. If a partner in an audit firm is employed, even in such circumstances, such a partner shall be excluded from counting the number of audits per partner.

Removal of Auditors

The first auditor usually holds office till the conclusion of the first annual general meeting. However, the company is empowered to remove him any time before the expiry of his term by passing a resolution at a general meeting. The vacancy thus created, may be filled by appointing a person of whose nomination a special notice has been given to the company not less than 14 days before the date of the meeting.

Any auditor appointed under Section 224 (other than the first auditors) may be removed from office before the expiry of his term only by the company at a general meeting and with the prior approval of the Central Government.

Where an auditor is to be appointed, a special notice of the said resolution is required to be given. On receipt of the notice, the company is required to send a copy of the notice to the retiring auditor preferably by registered post acknowledgment due. The special notice is to be given to the company at least 14 days before the meeting is to be held. Therefore, a special notice received after the adjournment of the meeting cannot be taken note of or acted upon. Where notice is given of such a resolution and the retiring auditor makes with respect thereto representations in writing to the company (not exceeding reasonable length) and requests their notification to the members of the company, the company must, unless the representations received are too late to do so:

i. in any notice of the resolution given to the members of the company, state the fact of representations having been made; and

ii. send a copy of the representations to every member of the company to whom notice of the meeting is sent.

Where the representations are received too late by the company, they shall be read out at the meeting.

Thus, the rights of the retiring auditor may be enumerated as under:

a. He has a right to receive notice of the resolution.

b. He has a right to make a written representation to the company and request the company to circulate the representation among the members.

c. He also has the right to get his representation read out at the meeting in case of failure to send it to the members.

d. He has a right to be heard at the meeting.

Where the retiring auditor misuses/abuses the right to circulate his written representation among members by including matters which are irrelevant or defamatory, the Company Law Board may, on an application made by the company or any other aggrieved person, order that the representation need not be circulated or read out at the meeting. For this, the petition should be filed before the Company Law Board in Form No.1 of Annexure II to the Company Law Board

Regulations, 1991, with a fee of Rs.50. The Company Law Board may require the auditor to reimburse the cost of making the application to the company either in full/part.

Tenure of Appointment

An auditor appointed at the annual general meeting will hold office from the conclusion of that meeting to the conclusion of the next annual general meeting. Unlike directors, who cease to hold office if the annual general meeting is not held in accordance with Section 166, an auditor appointed under Section 224 will not vacate his office if the annual general meeting is not held on time. He will continue to hold office until the next annual general meeting is actually held and concluded and he cannot be deemed to have vacated his office on the last date on which the meeting ought to have been held. Similarly, where a meeting is held but is adjourned to a later date, he will hold office till the conclusion of the adjourned meeting. Where a new auditor is appointed at the original meeting and the meeting is adjourned, the new auditor can assume office only from the conclusion of the adjourned meeting.

REMUNERATION OF AUDITORS

Section 224(8) provides that the remuneration may be fixed by the board or by the Central Government in case the Central Government has appointed the auditor as the case may be. In all other cases, including an auditor appointed under Section 619 by the Comptroller and Auditor-General of India, the remuneration shall be fixed by the company in general meeting or in such a manner as the company in general meeting may determine.

An auditor of the company is allowed to obtain remuneration for rendering services apart from auditing such as, advising in taxation matters, writing up the accounts, etc. Such a remuneration does not ordinarily require the sanction of the general meeting. A disclosure of all amounts paid to the auditor in whatever capacity is required to be made in the Profit and Loss Account under Part II of Schedule VI as classified below:

a. As auditor,

b. As adviser in any other capacity with respect to any of the taxation matters, company law matters and management services,

c. Other amounts paid in any other manner.

RIGHTS AND DUTIES OF AUDITORS

Rights of Company Auditor

Section 227 of the Act confers the following rights to an auditor of the company:

a. **Right to call for information and explanations:** The auditor can call for any explanations or information which he considers necessary. It is obligatory on the part of the officers of the company to furnish the relevant information to the auditor. The power is not discharged by winding up.

   The right to call for information extends to all officers including the managing director.

   In Bhawnagar Vegetable Products Limited., in re, (1977), the company had gone into liquidation, and the Court called upon the directors to appear before the auditors (in this case appointed by the court, as the auditors appointed in the general meeting were not inclined to audit tax accounts) to give explanations to the questions posed by them.

b. **Right to have access to books of accounts:** The auditor has a right to access at all times the books of accounts and vouchers of the company, whether kept at the head office of the company or elsewhere.

The auditor's right to access the books of the company would include inspection of the minutes books of general meetings and the board meetings. It has been held in Newton vs. Birmingham Small Arms Co. Limited (1906) that any provision in the company's articles precluding its auditors from obtaining or availing themselves of the information to which they are entitled by statute would be void. Hence, the auditors should have free access to the information necessary for their report.

The auditor may visit all the branches of the company and have access to the books, accounts and vouchers maintained at the branch office. The only limitation would be in the case of foreign branches of a banking company, where it is sufficient if copies of, and extracts from, the books and accounts of such branches are transmitted to the principal office of the company for the purpose of the auditors scrutiny.

In Cuff vs. London and County Land and Building Company Limited (1912), it was held that the right of access to books can be enforced by mandatory injunction but not where litigation is pending between the company and the auditor. Where the auditors are denied access to the books because of their negligence, the court refused to give an order for access to be given, but directed the members to convene a meeting for that purpose.

c. **Right to notices of and to attend meetings:** The auditor has the right to receive all such notices and other communications relating to any general meeting as are sent to the members of the company. The auditor has the right to attend any general meeting and be heard, at any general meeting which he attends, on any part of the business which concerns him as an auditor. The auditor may make any statement or explanation with regard to the accounts as he may desire.

d. **Inspection of articles other than accounts books:** Auditor has a right to inspect any other books that are necessary for his inquiry and the same needs to be given to him by the officer concerned.

e. **Right to remuneration:** The auditor has a right to receive remuneration for auditing the accounts as per Section 224(8).

Duties of an Auditor

Subsections (1A) and (4A) of Section 227 of the Act gives the duties of an auditor. The auditor should adhere to the list of duties laid down in these Subsections. The scope of auditor's statutory duties cannot be limited in any way either by the articles or by the directors or members but a company may extend them by passing a resolution at the general meeting or making a provision in the articles. It is to be noted that these Subsections are merely a directive to the auditors. They are:

a. **Scrutinize Loans and Advances:** The auditor of the company should scrutinize the loans and advances of the company and see whether or not the loans and advances made by the company, on the basis of security, have been properly secured and whether the terms on which they have been made are not prejudicial to the interests of the company. He may also check to see whether or not the loans and advances made by the company have been shown as deposits.

b. **Scrutinize Entries:** The auditor of the company has to check to see whether or not these transactions of the company which are represented merely by book entries are not prejudicial to the interests of the company.

Also, the auditor should check whether it is stated in the books and papers of the company that any shares have been allotted for cash, whether cash has actually been received in respect of such allotment, and if no cash has actually been so received, whether the position as stated in the books of accounts and in balance sheets is correct, regular and not misleading.

c. **Scrutinize Investments:** The auditor of the company has to check to see whether the company is not an investment company under Section 372 or a banking company, whether, so much of the assets of the company, as consist shares, debentures and other securities have been sold at a price less than that at which they were purchased by the company.

d. **Scrutinize Expenses:** The auditors should check whether personal expenses have been charged to revenue accounts of the Company.

Subsections (2) and (3) of Section 227 provide that it is the duty of the auditor to report to the members of the company on the accounts examined by him and on every balance sheet and profit and loss account and every other document declared by the Act to be a part of, or annexed to, the balance sheet and the profit and loss account, laid before the company in general meeting during the tenure of his office; also.

The auditor should report whether in his opinion and to the best of his knowledge, information and explanations given to him, the said accounts give the information required by the Companies Act, 1956, in the manner so required and that the balance sheet gives a true and fair view of the company's view of the profit or loss for the financial year.

According to Section 227(3), the auditor's report should also state:

a. whether, he has obtained all the information and explanation which to the best of his knowledge and belief were necessary for the purposes of his audit;

b. whether, in his opinion, proper books of account as required by law have been kept by the company so far as appears from his examination of those books, and proper returns adequate for the purposes of his audit have been received from branches not visited by him;

    i. whether, the report on the accounts of any branch office audited under Section 228 by a person other than the company's auditor has been forwarded to him as required by Clause (c) of Subsection (3) of that Section and how he has dealt with the same in preparing the auditor's report;

c. whether the company's balance sheet and profit and loss account dealt with by the report are in agreement with the books of account and returns.

d. whether, in his opinion, the profit and loss account and balance sheet comply with the accounting standards referred to in Subsection (3C) of Section 211.

e. in thick type or in italics, the observations or comments of the auditors which have any adverse effect on the functioning of the company;

f. whether any director is disqualified from being appointed as director under Clause (g) of Subsection (1) of Section 274.

According to Sub-section (4) of this Section, where any of the matters referred to in Clauses (i) and (ii) of Subsection (2) or in Clauses (a), (b), (bb), (c) and (d) of Subsection (3) is answered negative or with a qualification, the auditor's report shall state the reason(s) for the answer.

As per Section 227(4A), the responsibilities of an auditor include the duty to make a statement in terms of the provisions of MAOCARO, 1988[1]. It is also his duty to comply with the Accounting Standards issued by ICAI.

As per the Manufacturing and other companies (Auditor's Report) order '88[1] an auditor is required to comment on various matters.

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1 Vide a Notification No GSR 480(E) of June 12, 2003, the Department of Company Affairs (DCA) has replaced MAOCARO wit the Companies (Auditor's Report) order, 2003 – CARO.

Box 1: Report of the Auditors to the Members of Infosys Technologies Limited

We have audited the attached Balance Sheet of Infosys Technologies Limited (the Company) as at March 31, 2004, the Profit and Loss Account and Cash Flow Statement of the Company for the year ended on that date, annexed thereto. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in India. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

As required by the Companies (Auditor's Report) Order, 2003, issued by the Central Government of India in terms of sub-section (4A) of Section 227 of the Companies Act, 1956, we enclose in the Annexure a statement on the matters specified in paragraphs 4 and 5 of the said Order.

Further to our comments in the Annexure referred to above, we report that:

a. We have obtained all the information and explanations which, to the best of our knowledge and belief, were necessary for the purposes of our audit;

b. In our opinion, proper books of account as required by law have been kept by the Company so far as appears from our examination of those books;

c. The Balance Sheet, the Profit and Loss Account and the Cash Flow Statement dealt with by this report are in agreement with the books of account;

d. In our opinion, the Balance Sheet, the Profit and Loss Account and the Cash Flow Statement dealt with by this report comply with the Accounting Standards referred to in sub-section (3C) of Section 211 of the Companies Act, 1956;

e. On the basis of written representations received from the directors, as on March 31, 2004, and taken on record by the Board of Directors, we report that none of the directors is disqualified as on March 31, 2004 from being appointed as a director in terms of Section 274(1)(g) of the Companies Act, 1956;

f. In our opinion and to the best of our information and according to the explanations given to us, the said accounts give the information required by the Companies Act, 1956, in the manner so required to give a true and fair view in conformity with the accounting principles generally accepted in India:

   i. In the case of the Balance Sheet, of the state of affairs of the Company as at March 31, 2004;

   ii. In the case of the Profit and Loss Account, of the profit of the Company for the year ended on that date; and

   iii. In the case of the Cash Flow Statement, of the cash flows of the Company for the year ended on that date.

For **Bharat S. Raut & Co.**
Charted Accountants

Bangalore **S.Balasubrahmanyam**
April 13, 2004 Partner, Membership No.53315

Source: Annual Report of Infosys Technologies Limited.

Box 2: Annexure to the Auditors' Report

The Annexure referred to in the auditor's report to the members of Infosys Technologies Limited (the Company) for the year ended March 31, 2004. We report that:

1. The Company has maintained proper records showing full particulars, including quantitative details and situation of fixed assets.

   The Company has a phased program of physical verification of its fixed assets which, in our opinion, is reasonable having regard to the size of the Company and the nature of its assets. In accordance with such program, the management has physically verified fixed assets during the year and no material discrepancies were noticed on such verification.

2. The Company's nature of operations does not require it to hold inventories. Accordingly, clause 4(ii) of the Companies (Auditor's Report) Order, 2003 ('the Order') is not applicable.

3. The company has neither granted not taken any loans, secured or unsecured to or from companies, firm or other parties covered in the register maintained under Section 301 of the Companies Act, 1956.

4. In our opinion, and according to the information and explanations given to us, there are adequate internal control procedures commensurate with the size of the Company and the nature of its business for purchase of fixed assets. The activities of the Company do not involve purchase of inventory and the sale of goods. We have not noted any continuing failure to correct major weakness in the internal controls during the course of the audit.

5. In our opinion, and according to the information and explanations given to us, the transactions that need to be entered in the register in pursuance of Section 301 of the Act have been entered, and the transactions have been made at prices which are reasonable with regard to the prevailing market prices at the relevant time.

6. The Company has not accepted any deposits from the public and consequently, the directives issued by the Reserve Bank of India, the provisions of Sections 58A and 58AA of the Companies Act, 1956 and the rules framed there under are not applicable.

7. In our opinion, the Company has an internal audit system commensurate with its size and the nature of its business.

8. According to the information and explanations given to us, the Central Government has not prescribed the maintenance of cost records under clause (d) of sub-section (1) of Section 209 of the Companies Act, 1956 in respect of services carried out by the Company.

9. According to the information and explanations given to us, and on the basis of our examination of the books of account, the Company has been regular in depositing with appropriate authorities undisputed statutory dues including provident fund, income tax, sales tax, customs duty, investor education and protection fund, wealth tax and any other material statutory dues applicable to it.

   According to the information and explanations given to us, no undisputed dues payable in respect of income tax, sales tax, wealth tax, customs duty and cess were outstanding at 31, March 2004 for a period of more than six months from the date they became payable.

   According to the information and explanations given to us, there are no dues in respect of sales tax, income tax, customs duty, wealth tax, excise duty, and cess that have not been deposited with the appropriate authorities on account of any dispute.

10. The Company does not have any accumulated losses at the end of the financial year nor has issued any debentures. Accordingly, clause 4(xi) of the order is not applicable.
11. The Company has neither taken any loans from a financial institution and a bank nor issued any debentures. Accordingly, clause 4(xi) of the order is not applicable.
12. The Company has not granted loans and advances on the basis of security by way of pledge of shares, debentures and other securities. Accordingly, clause 4(xii) of the order is not applicable.
13. The company is not a chit fund, nidhi, mutual benefit fund or a society. Accordingly, clause 4(xiii) of the order is not applicable.
14. According to the information and explanations given to us, the Company is not dealing or trading in shares, securities, debentures and other investments. Accordingly, clause 4(xiv) of the order is not applicable.
15. According to the information and explanations given to us, the Company has not given any guarantee for loans taken by others from banks or financial institutions. Accordingly, clause 4(xv) of the order is not applicable.
16. The Company has not obtained any term loans. Accordingly, clause 4(xvi) of the order is not applicable.
17. According to the information and explanations given to us, the Company has not raised any funds on short-terms basis. All assets have been funded by shareholders' funds.
18. The Company has not made any preferential allotment of shares to parties and companies covered in the register maintained under Section 301 of the Act. Accordingly, clause 4(xviii) of the order is not applicable.
19. The Company has not issued any debentures. Accordingly, clause 4(xix) of the order is not applicable.
20. The Company has not raised money by public issues during the year. Accordingly, clause 4(xx) of the order is not applicable.
21. According to the information and explanations given to us, no fraud on or by the Company has been noticed or reported during the year.

For **Bharat S. Raut & Co.**

Charted Accountants

Bangalore **S.Balasubrahmanyam**

April 13, 2004 Partner, Membership No.53315

Source: Annual Report of Infosys Technologies Limited.

Auditor's Liability for Negligence

An auditor has to render his services with care, skill and diligence and according to generally accepted standards of performance. He may be held liable for any careless or reckless act done by him.

An auditor will usually be liable to make good the loss resulting on account of his negligence in detecting errors, because of which in addition to the company, third parties also may have suffered damage because of their reliance on the audited statements.

In Re, London and General Bank No.2 (1895) the auditors stated in their official report that the value of the assets of the company depended upon their realization. They, however, submitted a different confidential report to the directors. The directors relying on the official report, paid dividend which resulted in depletion of the company's capital. The auditors were held liable to make good the company's loss.

Similarly, in *Leeds Estate Building and Investment Co. vs. Shepherd (1887),* where the auditors did not check the relevant provisions in the articles regarding dividend, directors' remuneration etc., and where the remuneration was paid in contravention of the conditions laid down in the articles, the auditors were held liable for the company's loss.

The points regarding an auditor's responsibility may be summed up as under:

a. It is not obligatory for an auditor to check whether the company owns or possesses the stock-in-trade stated in its accounting or stock records, nor is he required to value the stock-in-trade, work-in-progress or finished products. However, he is required to obtain a certificate as to the amount and value of stock-in-trade, work-in-progress or finished products from the officers or employees of the company charged with checking it, and if this certificate agrees with the company's accounting and stock records, the auditor need not investigate the matter further, unless the information in his possession should arouse his suspicions.

b. An auditor should make sure that the company has possession of the certificates for all investments, shown by the accounting records. However, where the certificates have been deposited with a bank or the company's stock broker, the auditor may accept a written confirmation by that person that he still holds them.

c. An auditor is required to check the invoices received by the company to make sure that there are no trade debts owed by the company for which provision has not been made in the accounting records. The auditor should also enquire from persons dealing with the company on regular basis, if there are any outstanding debts of the company.

d. In *Henry Squire Cash Chemist Limited vs. Ball, Baker and Co., (1911),* it was held that an auditor will not be liable in case he fails to detect any irregularity which could only be traced from unusual or informal records kept by the company which are not produced to him.

e. It is the responsibility of an auditor to report to the members, only about the accuracy of the accounts maintained by the company. He will not be liable if he fails to report that even though the directors have managed the affairs of the company lawfully, they have done so in an incompetent manner.

Auditing of Branches

The term 'branch office' is defined by Section 2(9). As per this Section, any factory located in any town or village, other than the place where the head office is situated will be a 'branch office'.

Thus, a branch office may be defined as:

a. any establishment described as a branch by the company

b. any establishment carrying on either the same or substantially the same activity as that carried on by the head office of the company or

c. any establishment engaged in any production, processing or manufacturing but does not include any establishment specified in any order made by the Central Government under Section 8.

The Central Government may, however, declare any establishment falling under (a) or (b) above as not a branch office in relation to the company owning it.

Every company (whether public limited or private limited) having a branch office should get the accounts of its branch audited by either the company's auditor (appointed under Section 224) or by a person qualified to act as the company's auditor (appointed under Section 226) or where the company has a branch office in a country outside India, by a person who is qualified to act as an auditor in accordance with the laws of that country.

Subsection 2 of Section 228 lays down that the statutory auditor of a company can visit the branch office if he feels it is necessary for the proper discharge of his duties as an auditor. Similarly, he has the right to access at all times the books, accounts and vouchers of the company maintained at the branch office. These rights are exercisable even where the accounts of the branch office are being audited by a person other than the company's statutory auditor. Where the auditor of the company is the same person as that of the branch office, the place of conducting the branch audit is left to his discretion.

Only the company at the general meeting can take a decision whether the accounts of the branch should be audited by the company's auditor or by a person other than the company's auditor. However, the general meeting may authorize the Board to make the necessary appointment in consultation with the company's auditor.

Subsection 3(b) of Section 228 provides the branch auditor with the same powers and duties as the company's auditor in respect of audit of the accounts.

Subsection 3(c) further lays down that the report made by the branch auditor after examining the accounts of the branch office should be forwarded to the company's auditor who shall, in preparing the auditor's report, deal with the same in such manner as he considers necessary.

Subsection 3(d) makes provision to the effect that the branch auditor shall receive remuneration and shall hold office subject to the terms and conditions as may be fixed either by the company in general meeting or by the Board of Directors, if so authorized by the company in general meeting.

However, the Central Government may, in certain cases, exempt any branch office from the provisions of Section 228 by framing necessary rules. Cases include:

a. where the company has made the necessary arrangement for scrutinizing the accounts of the branch office by a qualified person, even though such person may be an officer or employee of the company;

b. where a branch auditor for the audit of accounts of the branch accounts is not likely to be available at a reasonable cost;

c. where the nature and quantum of activity carried on at the branch office during a period of 3 years immediately preceding the date on which the branch office is exempted from the provisions of this Section;

d. where the Central Government opines the justification of the grant of exemption to the branch office from the provisions of this Section.

SPECIAL AUDIT (SECTION 233-A)

If, in the opinion of the Central Government:

a. the affairs of any company are not being managed in accordance with sound business principles or prudent commercial practices;

b. or that the company is being managed in a manner likely to cause serious injury or damage to the interest of the trade, industry or business to which it pertains;

c. the financial position of any company is such as to endanger its solvency;

then, it may order for a special audit of the company's accounts for a specified period.

Central Government may appoint a Chartered Accountant or the company's auditor who shall be referred to as 'Special Auditor'. The Special Auditor shall have the same powers and duties in relation to the special audit and shall have to submit a report to the Central Government. The report shall, in addition to all the matters specified in Section 227 as an ordinary audit report, also include a statement on any other matter which may be referred to him by the Central Government within such time as directed.

On receipt of the report, the Central Government shall take such action as it deems fit. Where the Central Government does not act within 4 months from the date of receipt of the report it shall send to the company either a copy or relevant extracts from the report with its comments thereon and require the company either to circulate that copy or those extracts to the members or to have such copy or those extracts read before the company at its next general meeting.

The expenses incurred by the Audit will be determined by the Central Government and paid by the company.

QUALIFICATIONS IN AUDITORS' REPORTS

The auditors are required to give a report as to whether or not the accounts of the company present a true and fair view. According to the Manufacturing and Other Companies (Auditor's Report) Order, 1988 he is also required to comment on various other matters.

When an auditor gives an opinion subject to certain reservations, he is said to have given a qualified opinion. In a qualified opinion, the auditor states that the financial statements reflect a true and fair view subject to certain reservations. A qualification should always be preceded by the words 'subject to'.

For instance, consider the Annual Accounts of Hindustan Gas and Industries Ltd. for the year 1992-93. In Schedule 12 – Notes to Accounts under Note 4, it is stated that trade and other creditors include Rs.12,816,511 towards provisions made on account of demands raised by Central Excise and other government authorities, being disputed by the company, the final adjustments whereof would be carried out after the disposal of the relevant cases.

Note 8 states that unlike previous year, the stock of exportable goods have been valued after considering export incentives receivable thereon, resulting in an increase in profit for the year by Rs.1,140,217.

Obviously, the auditors of the company S R Batliboi & Co. were not satisfied with it. Hence, in their report they have qualified the statement by saying, 'In our opinion and to the best of our information and according to the explanations given to us, the said statements of account subject to the following notes in Schedule 12' to the accounts

i. Note No.4 regarding certain disputed liabilities provided for in the books, the final adjustments whereof would be carried out after the disposal of relevant cases.

ii. Note No.8 regarding change in the method of valuation of stock of exportable goods resulting into an increase in profit for the year by Rs.1,140,217.

Read together with other 'Notes' appearing thereon give the information required by the Companies Act, 1956 in the manner so required and give a true and fair view of the state of affairs of the company as at 31st March '93 and the profit of the company for the year ended on that date.

The following are a few more examples of qualified Audit Reports

I. This is an extract of Auditor's Report of Jayshree Tea & Industries Ltd. for the year ended 31st March '93.

"We report that

1. In our opinion and to the best of our information and according to the explanations given to us, the annual accounts subject to

i. Note H in Schedule 13 regarding non-provision of liability for leave accruing and actuarially valued amounting to Rs.35.52

lakh and its consequent effect of Rs.3.41 lakh on profits, for the year and read with other notes thereon, give the information required by the Companies Act, 1956 (as amended) in the manner so required and give a true and fair view".

2. ***This is an extract of Auditor's Report of Escorts Tractors Limited for the year ended 31st March, 1991.***

   "1(d) the company has not kept separate records of opening and closing stocks and purchase of components used for manufacture and those sold as spare parts. The components sold as spare parts have been included under raw materials and components consumed. (Refer to Sub-note (ii) of Note 13):

   e. ***"Subject to the foregoing, in our opinion and to the best of our information and according to the explanations given to us, the accounts give the information required by the Companies Act, 1956 in the manner so required and give a true and fair view."***

3. ***The following is an extract from the Audit Report of Great Eastern Shipping Company Limited.***

   i. ***Trade bills aggregating to Rs.1.45 crore, co-accepted by the erstwhile United Industrial Bank Limited, now merged with Allahabad Bank, have been repudiated by the said bank as described in Note 6. In view of the matter being subjudiced, we are unable to express an opinion on the same.***

Subject to para (i) above, in our opinion and to the best of our information and according to the explanations given to us, the said accounts give the information required by the Companies Act, 1956, in the manner so required and give a true and fair view.

SUMMARY

- Every company is required to maintain its books of accounts which are the basis of the preparation of financial statements. These Annual Financial Statements are approved and reported upon by the Board of Directors before they are circulated to the members of the company.
- On completion of this chapter, we are now familiar with the board's report, the audit function, the qualification, disqualifications, rights and duties of auditors.
- Our understanding of the above has been further strengthened with the consideration of the Board of Directors report and Auditors report of a real life company. However, for proper analysis required for decision-making the knowledge of limitations of balance sheet is required.

Chapter IX

Cash Flow Statements

After reading this chapter, you will be conversant with:

- Understand the Meaning of Cash Flows, Operational, Financial and Investing Activities' Cash Flows
- Understand the Differences in Funds Flow and Cash Flow Statements
- Preparation of Cash Flow Statements as per Accounting Standard-3 – Cash Flow Statements, Issued by the Institute of Chartered Accountants of India – Direct and Indirect Methods
- Various International Standards on Cash Flows, IAS-7, FAS-95, 102, 104, 115, 117, 133, 135 and US GAAP.
- Appreciate the Objectives of the Preparation of Cash Flow Statements

CASH FLOW STATEMENTS

Cash Flow Statement provides information regarding the cash inflows and outflows of an organization during a particular period. It provides a valuable analytical tool along with the financial statements. The economic decisions that have to be taken by users of financial statements include, to a large extent, an estimation of the cash and cash equivalents that the organization may generate and the timing and certainty of such a generation. This is regardless of the enterprise's activities and irrespective of whether cash can be viewed as the product of the enterprise, as may be the case with a financial enterprise. In many senses it is a narrower definition of the term "Funds", in a broader sense it means the net working capital of the company, and in its narrow sense the word conveys the meaning of *cash and its equivalents,* to the exclusion of all other current items.

Profit and liquidity for a normal firm preparing its accounts on the accrual basis does not mean the same thing. A firm may be highly profitable but may find itself with hardly any cash or working capital to continue the operating cycle, alternatively a heavily loss making firm may find itself flush with funds. Only in case of a firm that prepares its accounts on the cash basis will find its profits and cash flow to be the same. Hence is the reason for preparing the cash flow statement to understand the actual requirements of cash and cash equivalents.

The basic objective of a cash flow statement is to provide relevant information of cash inflows and outflows of an enterprise during the accounting period. The cash flow statements help investors, creditors and analysts to:

i. Assess the company's ability to generate cash flows from operations in the future.

ii. Assess the company's ability to meet its obligations, any requirement of external financing and to pay the shareholder's dividends.

iii. Analyze the reasons for the difference between the net profit and cash flows.

iv. Analyze the effects on the organization's financial position of its cash and non-cash investing and financing activities.

Most developed countries, as early as in 1988 (USA), stated their preference to cash flow reporting rather than funds flow reporting. The difference basically lies in the fact that while funds flow refers to the entire working capital, cash flow only takes cash and cash equivalents into consideration. Thus, whereas funds flow is based on accrual basis and funds from operation is nothing but net profit plus all non-cash expenses and amortizations, cash flow is based purely based upon the movements of cash and its equivalents. This makes cash flow reporting much more attractive.

In the USA, FAS No.95, "Statement of Cash Flows" was issued in November 1987, and made effective from the fiscal July 1988. This statement superseded APB opinion number 19, "Reporting Changes in the Financial Position". It was subsequently modified by FAS No.102 and FAS No.104. Thus, from 1988, cash flow statements have replaced funds flow statements in the USA. In the UK, Financial Reporting Standard No.1 (FRS 1), "Cash Flow Statements", was issued jointly by the Accounting Standards Board and The Institute of Chartered Accountants in Ireland in 1991. The Standard required the inclusion of the Cash Flow Statement as part of the full set of financial statements instead of the funds flow statement. FRS 1 has now been revised, effective from 23rd March, 1997. International Accounting Standards Committee also has revised its IAS-7 in 1992 to make "Cash Flow Statements" an integral part of the financial statements. New Zealand Society of Accountants in 1987 and South African Institute of Chartered Accountants in 1988 have also passed similar statements.

The Institute of Chartered Accountants of India revised its AS-3 and replaced 'Changes in Financial Position' with "Cash Flow Statements" from the year ending 31st March, 1997. The Securities Exchange Board of India (SEBI) had issued directives to all recognized stock exchanges asking them to include a requirement of providing for cash flows information as part of listing agreements. Accordingly, all listed companies whose accounts are approved after 31st March, 1996 are required to include a cash flow statement in their annual reports. The SEBI has now recommended the listed companies to follow the guidelines laid down by AS-3 in their preparation of the Cash Flow Statement.

Cash and Cash Equivalents

Cash and Cash equipments are defined as follows in AS-3:

- Cash comprises cash on hand and demand deposits with banks.
- Cash equivalents are short-term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value.
- Cash equivalents are held for the purpose of meeting short-term cash commitments rather than for investment or other purposes. For an investment to qualify as a cash equivalent, it must be readily convertible to a known amount of cash and be subject to an insignificant risk of changes in value. Therefore, an investment normally qualifies as a cash equivalent only when it has a short maturity of, say, three months or less from the date of acquisition. Investments in shares are excluded from cash equivalents unless they are, in substance, cash equivalents; for example, preference shares of a company acquired shortly before their specified redemption date (provided there is only an insignificant risk of failure of the company to repay the amount at maturity).

Types of Cash Flows

Cash Flow Statement explains the flow of cash under three different heads. These are:

i. Cash Flow from Operating Activities

ii. Cash Flow from Investing Activities

iii. Cash Flow from Financing Activities.

Operating Activities may be described as the principal revenue producing activities of the enterprise and other activities that are not investing or financing [as per AS-3 and IAS-7].

These activities are what may be described as the cash that is generated or used in the core business of the entity.

In the table given below is the comparison of the operating activities as listed by Para 12 of AS-3 and Para 14 of IAS-7. It is to be noted that the International Accounting Standards do not have any legal validity in India and its influence can at best be considered salutary. Thus for all purposes AS-3 will guide us in the preparation of cash flow statements. However, it is essential to compare the Indian Accounting Standard with the one followed by major countries.

Description of Operating Cash Flows as per AS-3, Para 12	Description of Operating Cash Flows as per IAS-7, Para 14
• Cash receipts from sale of goods and rendering services.	Same as AS-3
• Cash receipts from royalty, fees, commissions and other revenue.	Same as AS-3
• Cash payments to and on behalf of employees.	Same as AS-3

Description of Operating Cash Flows as per AS-3, Para 12	Description of Operating Cash Flows as per IAS-7, Para 14
• Cash payments to suppliers for goods and services.	Same as AS-3
• Cash receipts and payments by an insurance company for premiums and claims, annuities and other benefits.	Same as AS-3
• Cash payments and refunds from income taxes, unless specifically identified as flows from investing or financing activities.	Same as AS-3
• Cash flows from dealing in securities when the enterprise holds security for such a purpose.	Same as AS-3
• Cash advances and loans by a financial institution.	Same as AS-3
• Cash receipts and payments relating to futures, forwards, options or swaps contracts when these contracts are held for trading or dealings.	Cash receipts and payments relating to contracts held for trading or dealings.

It is to be noted, how closely the AS-3 follows the International Accounting Standard in this issue. However, As-3 differs in the case of contracts. IAS-7 holds all contracts whether options, swaps, etc. or sale licenses or import-export quota to be operating in nature. The key factor is that they must be held for trading purposes.

Generally, there are two ways in which Cash Flow from Operating Activities can be calculated,

Direct Method, whereby major classes of gross cash receipts and gross cash payments are disclosed. The direct method provides information which may be useful in estimating future cash flows and which is not available under the indirect method and is, therefore, considered more appropriate than the indirect method. Under the direct method, information about major classes of gross cash receipts and gross cash payments may be obtained either:

a. From the accounting records of the enterprise; or

b. By adjusting sales, cost of sales (interest and similar income and interest expense and similar charges for a financial enterprise) and other items in the statement of profit and loss for:

   i. Changes during the period in inventories and operating receivables and payables;

   ii. Other non-cash items; and

   iii. Other items for which the cash effects are investing or financing cash flows.

Indirect Method, whereby net profit or loss is adjusted for the effects of transactions of a non-cash nature, any deferrals or accruals of past or future operating cash receipts or payments, and items of income or expense associated with investing or financing cash flows. The net cash flow from operating activities is determined by adjusting net profit or loss for the effects of:

a. Changes during the period in inventories and operating receivables and payables;

b. Non-cash items such as depreciation, provisions, deferred taxes, and unrealized foreign exchange gains and losses; and

c. All other items for which the cash effects are investing or financing cash flows.

Alternatively, the net cash flow from operating activities may be presented under the indirect method by showing the operating revenues and expenses excluding non-cash items disclosed in the statement of profit and loss and the changes during the period in inventories and operating receivables and payables.

Under the indirect method, net profit is adjusted for the following:

i. *Non-cash items:* Including, depreciation, loss/profit on sale of assets, goodwill written off, etc.

Net Profit for the Year

Add: Non-cash expenses

Depreciation

Goodwill written off

Loss on sale of assets

Provision for taxation

Shares discount written off

Less:Non-cash incomes

Profit on sale of assets, etc.

Net Profit after adjustment of Non-cash items

ii. **Current assets and current liabilities related to operating activities:** This includes, debtors, bills receivable, stock, creditors, bills payable, prepaid expenses, outstanding expenses.

Net Profit (after adjustment of Non-cash items)

Add: Decrease in Current Assets (Other than cash and cash equivalents)

Increase in Current Liabilities

Less:Increase in Current Assets (Other than cash and cash equivalents)

Decrease in Current Liabilities

The following illustration will explain the concept clearly (also see Appendix I to the Accounting Standard 3, reproduced at the end of the chapter.)

Illustration 9.1

From the following Profit and Loss Account and additional information provided kindly determine the cash flow from operating activities using the Direct Method as well as the Indirect Method.

Profit and Loss Account for the year ended 31st March, 2003

Particulars	Amount Rs.	Particulars	Amount Rs.
To Purchases	1,00,000	By Sales	1,60,000
To Gross Profit	60,000		
	1,60,000		1,60,000
To Salaries	6,000	By Gross Profit	60,000
To Depreciation	12,000	By Profit on Sale of Land	2,000
To Repairs and Maintenance	6,000		
To Insurance Premium	4,000		
To Net Profit	34,000		
	62,000		62,000

Other Information:

	2002	2003
Debtors	10,000	16,000
Bills Receivable	10,000	6,000
Creditors	16,000	15,000
Outstanding Expenses	2,500	1,500

Solution

Direct Method

Calculation of Cash from Operating Activities.

	Rs.	Rs.	Rs.
Sales			1,60,000
Add: Opening – Debtors	10,000		
Bills Receivable	10,000	20,000	
Less: Closing Assets – Debtors	16,000		
Bills Receivable	6,000	22,000	(2,000)
Collection from Debtors			1,58,000
Purchases		1,00,000	
Less: Closing Liabilities – Creditors	15,000		
Outstanding Expenses	1,500	16,500	
Add: Opening Liabilities – Creditors	16,000		
Outstanding Expenses	2,500	18,500	
Payment to Creditors			1,02,000
Surplus			56,000
Increase/Decrease in inventory			Nil
			56,000
Less: Cash Expenses			
Salaries		6,000	
Repairs and Maintenance		6,000	
Insurance Premium		4,000	16,000
Cash Flow from Operating Activities			40,000

Indirect Method

Calculation of cash from operating activities		
Net Profit for the year		34,000
Add: Non-cash Expenses Depreciation		12,000
Less: Non Cash Income		46,000
Profit on Sale of Land		2,000
Net Profit before Working Capital Changes		44,000
Add: Decrease in Current Assets: Bills Receivable	4,000	
Increase in Current Liabilities: NIL		
		4,000
		48,000

Less: Increase in Current Assets: Debtors	6,000	
Decrease in Current Liabilities:		
Sundry Creditors	1,000	
Outstanding Expenses	1,000	8,000
Cash Flow from Operating Activities		40,000

Investing Activities are the acquisition and disposal of long-term assets and other investments not included in cash equivalents [as per AS-3 and IAS-7]. The following are some of the elements of investing activities as described by Para 15 of AS-3 and Para 16 of IAS-7.

Description of Investing Cash Flows as per AS-3, Para 15	Description of Investing Cash Flows as per IAS-7, Para 16
1. Cash payments for acquisitions of fixed assets including intangibles.	Cash payments to acquire property, plant and equipment, intangibles and other long-term assets including payments for development costs that are capitalized and self-constructed property, plant and equipment.
2. Cash receipts from disposal of fixed assets.	Cash receipts from sale of property, plant and equipment, intangibles and other long-term assets.
3. Cash payments to acquire shares, warrants or debt instruments of other enterprises or interest in joint ventures (excluding those held for trading or dealing purposes or which are cash equivalents).	Cash payments for acquisition of equity and debt instruments of other enterprises and interests in joint ventures. This does not include an item covered in cash equivalents.
4. Cash receipts from disposal of shares, warrants and debt instruments of other enterprises and interest in joint ventures (excluding those held for trading or dealing purposes or which are cash equivalents).	Cash receipts from sale of equity and debt instruments of other enterprises and interests in joint ventures. This does not include an item covered in cash equivalents.
5. Cash advances and loans made to third parties (excluding loans, etc. made by financial institutions in ordinary course of business which is operating cash flow).	Cash advances and loans made to other parties (excluding loans, etc. made by financial institutions in ordinary course of business which is operating cash flow).
6. Cash receipts from repayments of advances and loans made to third parties (excluding loans, etc. made by financial institutions in ordinary course of business which is operating cash flow).	Cash receipts from advances and loans made to other parties (excluding loans, etc. made by financial institutions in ordinary course of business which is operating cash flow).
7. Cash payments for futures, swaps, forward and option contracts (excluding, contracts held for dealing or trading purposes which are classified as financing activities).	Same as AS-3.
8. Cash receipts for futures, swaps, forward and option contracts (excluding, contracts held for dealing or trading purposes which are classified as financing activities).	Same as AS-3.

Notes:

i. In item (1) AS-3 does not talk about capitalized expenditure like expenses during construction period and portion of operating expenses that is allocated to self-constructed assets.

ii. In items (3) and (4), IAS-7 is much less specific than AS-3.

Financing Activities are activities that result in changes in the size and composition of the owner's capital (including preference share capital) and the borrowings of the enterprise [AS-3]. IAS-7, however states that *financing* activities are activities that result in the changes in the size and composition of the equity capital and borrowings of the enterprise [emphasis added]. AS-3 specifically includes preferred capital. The following are some of the elements of investing activities as described by Para 17 of AS-3 and Para 17 of IAS-7.

Description of Investing Cash Flows as per AS-3, Para 17	Description of Investing Cash Flows as per IAS-7, Para 17
1. Cash proceeds from issuing shares or other similar instruments.	Cash proceeds from shares or other equity instruments.
2. –	Cash payments to owners to acquire or redeem the enterprise's shares.
3. Cash proceeds from issuing debentures, loans, notes, bonds, mortgages, and other short-term and long-term borrowings.	Same as AS-3.
4. Cash repayments of amounts borrowed.	Same as AS-3.
5. –	Cash payments by a lease for the reduction of the outstanding liability relating to a finance lease.

FUNDS FLOW AND CASH FLOW STATEMENTS

Funds Flow at the outset it is a broader concept encompassing a variety of current items, however cash flow on the other hand is a basic cash concept whereby only the cash and cash equivalent flows are traced. The detailed differences between the two are given below:

Cash Flow Statement	Funds Flow Statement
• This deal with cash, bank balances payable on demand and other such cash equivalents.	It deals with the entire working capital, current assets and current liabilities.
• It is generally a measure for short-term to medium-term planning, as cash availability is most relevant in the immediate future.	It is a more long-term planning tool.
• There is a direct relationship between current liabilities and cash. For example, if there is an increase in current liabilities, there will be an increase in cash.	There is an inverse relationship between working capital and current liabilities. An increase in current liabilities would imply a decrease in working capital, and hence funds.
• Similarly there is an inverse relation between current assets and cash.	There is a direct relation between current assets and changes in working capital.
• To calculate the cash from operation, funds from operations are adjusted for changes in operating current assets and current liabilities.	No such adjustment to funds from operation is required to be done.
• It analyzes the structure of current assets and liabilities to arrive at the sources and uses of cash.	No such analysis of the structure of working capital is done.

Illustration 9.2

You have been newly appointed as the Assistant Finance Manager of Stellone Shaw & Co. As a first assignment, you are required to develop a Statement of Cash Flow (Using Direct Method) for the year ended March 31, 2003. All the workings should form a part of your solution. The comparative balance sheet as on March 31, 2002 and March 31, 2003 and the Income Statement for the Financial year 2002-03 are given below:

Stellone Shaw & Co.
Income Statement for the year ended March 31,2003

Particulars	Amount in Rs.	Amount in Rs.
Sales		12,14,035
Gain on sale of available for sale securities		12,000
Equity in earnings of 30% owned company		29,400
Gain on sale of land		53,500
		13,08,935
Cost of sales	6,92,035	
General and administrative expenses	1,10,050	
Depreciation	6,250	
Interest expense	5,750	
Income taxes	1,74,760	
Net income		(9,88,845)
		3,20,090

	March 31, 2003 (Amount in Rs.)	March 31, 2002 (Amount in Rs.)
Assets		
Land	93,500	2,00,000
Buildings	3,95,500	3,95,500
Equipment	4,07,500	–
Less: Accumulated depreciation	(81,250)	(75,000)
Investments in 30% owned company	3,35,500	3,06,100
Available-for-sale securities	36,500	82,500
Accounts receivable	2,51,600	1,26,600
Less: Allowance for uncollectible accounts	(5,000)	(5,000)
Inventory	2,42,950	1,55,450
Cash	2,47,000	1,26,500
	19,23,800	13,12,650
Liabilities		
Stock holders equity		
Preferred stock	–	1,50,000
Common stock	5,50,000	4,00,000
Retained earnings	6,95,590	4,15,500
Bonds payable	5,75,000	2,50,000
Less: Unamortized discount	(10,750)	(11,500)

	March 31, 2003 (Amount in Rs.)	March 31, 2002 (Amount in Rs.)
Accounts payable	86,650	1,06,100
Income tax payable	23,080	–
Deferred tax liability	4,230	2,550
Total liabilities and stockholder's equity	19,23,800	13,12,650

Additional Information:

i. On April 16, 2002, the company sold available for sale securities for cash. The cost of the securities sold was Rs.46,000.

ii. The company's preferred stock is convertible into common stock at a rate of one share of preferred for two shares of common. The preferred stock have a par value of Rs.2 and Rs.1 respectively.

iii. On October 18, 2002, land was sold for cash of Rs.1,60,000.

iv. The company purchased in December 2002, equipment for cash.

v. In February 2003, the company issued bonds payable at par for cash.

vi. In March 2003, the company declared and paid dividends amounting to Rs.8,000.

vii. No dividends were received during 2002-03 from the 30% owned investee.

viii. The company's policy is to consider all highly liquid debt instruments purchased with a maturity of three months or less to be cash equivalents.

Solution

Stellone Shaw & Co.
Statement of Cash Flows (Direct Method) for the year ended March 31, 2003

Particulars	Amount in Rs.	Amount in Rs.
Cash Flow from Operating Activities		
Cash received from customers	10,89,035	
Cash paid for inventory	(7,98,985)	
Cash paid for general and administrative expenses	(1,10,050)	
Interest paid	(5,000)	
Income taxes paid	(1,50,000)	
Net Cash from Operating Activities		25,000
Cash Flow from Investing Activities		
Proceeds from sale of land	1,60,000	
Proceeds from sale of available for sale securities	58,000	
Purchase of equipment for cash	(4,07,500)	
Net Cash Flows from Investing Activities		(1,89,500)
Cash Flows from Financing Activities		

Particulars	Amount in Rs.	Amount in Rs.
Dividends paid	(40,000)	
Proceeds from issuance of bonds payable	3,25,000	
Net Cash Flows from Financing Activities		2,85,000
Net increase in cash		1,20,500
Cash at the beginning of the year		1,26,500
Cash at the end of the year		2,47,000

Working notes:

a.

	March 31, 2003 (Amount in Rs.)	March 31, 2002 (Amount in Rs)	Change
Assets			
Land	93,500	2,00,000	(1,06,500)
Buildings	3,95,500	3,95,500	–
Equipment	4,07,500	–	4,07,500
Less: Accumulated depreciation	(81,250)	(75,000)	(6250)
Investments in 30% owned company	3,35,500	3,06,100	29,400
Available-for-sale securities	36,500	82,500	(46,000)
Accounts receivable	2,51,600	1,26,600	1,25,000
Less: Allowance for uncollectible accounts	(5,000)	(5,000)	
Inventory	2,42,950	1,55,450	87,500
Cash	2,47,000	1,26,500	1,20,500
	19,23,800	13,12,650	6,11,150
Liabilities			
Stock holders equity			
Preferred stock	–	1,50,000	(1,50,000)
Common stock	5,50,000	4,00,000	1,50,000
Retained earnings	6,95,590	4,15,500	2,80,090
Bonds payable	5,75,000	2,50,000	3,25,000
Less: Unamortized discount	(10,750)	(11,500)	750
Accounts payable	86,650	1,06,100	(19,450)
Income tax payable	23,080	–	23,080
Deferred tax liability	4,230	2,550	1,680
Total liabilities and Stockholder's equity	19,23,800	13,12,650	6,11,150

b. Cash received from customers

	Rs.
Sales	12,14,035
Less: Increase in Accounts receivable	1,25,000
Cash received from customers	10,89,035

c. Cash paid for inventory

	Rs.
Cost of sales	6,92,035
Add: Increase in inventory	87,500
Inventory purchases	7,79,535
Add: Decrease in accounts payable	19,450
Cash paid for inventory	7,98,985

d. From the comparative balance sheet, it can be seen that the bond discount amortization amount is included in the interest expense. This resulted in the increase in the income expense, but since this does not involve any outflow of cash, this amount must be adjusted to arrive at the amount of the cash payment for interest.

	Rs.
Interest expense	5,750
Less: Bond discount amortization	(750)
Interest paid	5,000

e. Income tax paid

	Rs.
Income tax expense	1,74,760
Less: Increase in income taxes payable	(23,080)
Increase in deferred tax liability	(1,680)
Income taxes paid	1,50,000

Illustration 9.3

You are the Senior Accounts Officer of Little Flower Ltd. The Comparative Balance sheet as on March 31, 2002 and March 31, 2003 and the Income Statement for the Financial year 2002-03 are given below:

Little Flower Ltd. Comparative Balance Sheets
December 31, 2003 and 2002

Particulars	2003	2002
	Rs.	Rs.
Assets		
Cash	2,30,000	75,000
Accounts receivable	2,35,000	2,75,000
Long-term investments	5,75,000	6,35,000
Inventory	7,20,000	5,50,000
Prepaid insurance	5,000	25,000
Land	45,00,000	45,00,000
Plant and equipment	35,75,000	25,25,000
Less: Accumulated depreciation	(5,15,000)	(3,40,000)
	93,25,000	82,45,000
Liabilities		
Accounts payable	2,50,000	2,15,000
Accrued liabilities	60,000	45,000
Income tax payable	15,000	25,000
Bonds payable	14,75,000	12,25,000
Shareholders' Equity		
Common stock	43,25,000	35,75,000
Retained earnings	32,00,000	31,60,000
	93,25,000	82,45,000

Income Statement for the Financial year 2002-03

Particulars	Rs.	Rs.
Sales		34,90,000
Cost of goods sold		(26,00,000)
Gross margin		8,90,000
Operating expenses		7,35,000
		1,55,000
Other income (Expenses)		
Interest paid	(1,15,000)	
Interest income received	30,000	
Gain on sale of investments	60,000	
Loss on sale of plant	(15,000)	
		(40,000)
		1,15,000
Income tax		35,000
		80,000

Additional Information:

i. During the period 2002-03, Little Ltd. purchased investments amounting to Rs.3,90,000.

ii. The book value of the investments sold was Rs.4,50,000.

iii. During the period plant amounting to Rs.6,00,000 were purchased.

iv. A machinery costing Rs.50,000 with accumulated depreciation of Rs.10,000 was sold for Rs.25,000.

v. On March 31, 2003 Little Ltd. issued bonds of Rs.5,00,000 at face value in exchange for a plant.

vi. The company repaid Rs.2,50,000 bonds at face value on maturity.

vii. The company issued 75,000 common stock of Rs.10 each.

viii. Cash dividends paid during 2002-03 amount to Rs.40,000.

You are required to Prepare a Statement of Cash Flow (using indirect method) for the period ended March 31, 2003.

Little Flower Ltd. Statement of Cash Flows
for year ended December 31, 2003

	Rs.	Rs.
Cash flows from operating activities		
Net profit before taxation	1,15,000	
Adjustments for depreciation	1,85,000	
Gain on sale of investments	(60,000)	
Loss on sale of machinery	15,000	
Interest expense	1,15,000	
Interest income	(30,000)	
Operating profit before working capital changes	3,40,000	
Decrease in accounts receivable	40,000	
Increase in inventory	(1,70,000)	
Decrease in prepaid expenses	20,000	
Increase in accounts payable	35,000	
Increase in accrued liabilities	15,000	
Cash generated from operations	2,80,000	
Income taxes paid	(45,000)	
Net cash flows from operating activities		2,35,000

Cash flows from investing activities		
Purchase of plant	(6,00,000)	
Purchase of short-term investment	(3,90,000)	
Sale of plant	25,000	
Sale of investments	5,10,000	
Interest received	30,000	
Net cash flows from investing activities		(4,25,000)
Cash flows from financing activities		
Proceeds from issue of common stock	7,50,000	
Interest paid	(1,15,000)	
Repayment of bonds	(2,50,000)	
Payment of cash dividends	(40,000)	
Net cash flows from financing activities		3,45,000
Net increase in cash		1,58,000
Cash balance as on December 31, 2002		75,000
Cash balance, December 31, 2003		2,30,000

Illustration 9.4

The comparative balance sheet of Bellerina Ltd. for the period ended March 31, 2002 and March 31, 2003 is as follows:

Particulars	March 31, 2003	March 31, 2002
Assets		
Cash in hand	9,42,000	6,14,000
Marketable equity shares	2,80,000	4,50,000
Accounts receivable	11,00,000	10,30,000
Inventories	16,20,000	17,80,000
Investment in Rhea Ltd.	8,40,000	7,80,000
Property, plant and equipment	22,90,000	21,40,000
Accumulated depreciation	(6,90,000)	(5,60,000)
Patents	2,18,000	2,36,000
Total Assets	66,00,000	64,70,000
Liabilities and Stock holder's equity		
Accounts payable	16,90,000	19,20,000
Long-term notes payable	12,00,000	18,00,000
Deferred tax liability	3,80,000	3,80,000
Common stock Rs.10 par value	17,00,000	13,00,000
Additional paid in capital	4,60,000	3,40,000
Retained earnings	11,70,000	7,30,000
Total of Liabilities and Stockholder's Equity	66,00,000	64,70,000

Additional Information:

i. Bellerina Ltd. is planning to expand its operations geographical. For this purpose it issued 40,000 shares of Common stock for cash at Rs.13 per share during the financial year 2002-03.

ii. In January 2003, Bellerina Ltd. sold an equipment for Rs.36,000 cash. The records showed that the cost of the equipment was Rs.90,000 and its carrying value in books at the time of sale was Rs.56,000.

iii. The equity shareholding in Rhea Ltd. were accounted for by Bellerina Ltd. by Equity method. Bellerina Ltd. held 20% interest in Rhea Ltd. The reported net profit of Rhea Ltd. for the period was reported at Rs.3,00,000. The change in the investment balance is due to accounting for its share in the net profit.

iv. During the financial year 2002-03, Bellerina purchased equipment for Rs.2,40,000 cash.

v. On October 2002, Bellerina Ltd. sold one of its marketable equity shares for Rs.2,38,000 cash. There was no other transaction involving marketable securities.

vi. The net income of Bellerina Ltd. for 2002-03 was Rs.6,10,000.

vii. Bellerina paid a cash dividend of Rs.1,70,000 on January 31, 2003.

You are required to prepare a Statement of Cash Flows for Bellerina Ltd. for the Financial Year 2002-03 using the Indirect method. All working should form part of your solution.

Solution

Bellerina Ltd. Statement of Cash Flows for year ended March 31, 2003

Cash flows from operating activities		
Net income	6,10,000	
Adjustments		
Depreciation	1,64,000	
Amorization of patents	18,000	
Loss on sale of equipment	20,000	
Equity in income of Rhea Ltd.	(60,000)	
Gain on sale of marketable securities	(68,000)	
Operating profit before working capital changes	6,84,000	
Decrease in inventories	1,60,000	
Decrease in accounts payable and accrued liabilities	(2,30,000)	
Increase in accounts receivable	(70,000)	
Net cash flows from operating activities		5,44,000
Cash flows from investing activities		
Sale of marketable equity shares	2,38,000	
Sale of equipment	36,000	
Purchase of equipment	(2,40,000)	
Net cash flows from investing activities		34,000
Cash flows from financing activities		
Issuance of common stock	5,20,000	
Cash dividends paid	(1,70,000)	
Payment on long-term notes payable	(6,00,000)	
Net cash flows from financing activities		(2,50,000)
Net increase in cash		3,28,000
Cash balance as on March 31, 2002		6,14,000
Cash balance, March 31, 2003		9,42,000

Working notes:

Marketable Equity Shares

Particulars	Amount Rs.	Particulars	Amount Rs.
To Open balance b/f	4,50,000	By Cash (sale)	2,38,000
To P&L a/c (gain)	68,000	By Closing balance c/d	2,80,000
	5,18,000		5,18,000

Investment in Rhea Ltd.

Particulars	Amount Rs.	Particulars	Amount Rs.
To Open balance b/f	7,80,000		
To P&L a/c (share in profit)	60,000	By Closing balance c/d	8,40,000
	8,40,000		8,40,000

Patents

Particulars	Amount Rs.	Particulars	Amount Rs.
To Open balance b/f	2,36,000	By P & L a/c	18,000
		By Closing balance c/d	2,18,000
	2,36,000		2,36,000

Property, Plant and Equipment

Particulars	Amount Rs.	Particulars	Amount Rs.
To Open balance b/f	21,40,000	By Cash (sale)	36,000
To Cash (purchase)	2,40,000	By Accumulated depreciation a/c	34,000
		By P&L a/c (loss)	20,000
		By Closing balance c/d	22,90,000
	23,80,000		23,80,000

Accumulated Depreciation A/c

Particulars	Amount Rs.	Particulars	Amount Rs.
To Plant, property and equipment	34,000	By Opening balance b/f	5,60,000
To Closing balance c/d	6,90,000	By P&L a/c	1,64,000
	7,24,000		7,24,000

Common Stock

Particulars	Amount Rs.	Particulars	Amount Rs.
		By Opening balance b/f	13,00,000
To Closing balance c/d	17,00,000	By Cash (issue)	4,00,000
	17,00,000		17,00,000

Additional Paid in Capital

Particulars	Amount Rs.	Particulars	Amount Rs.
		By Opening balance b/f	3,40,000
To Closing balance c/d	4,60,000	By Cash (issue)	1,20,000
	4,60,000		4,60,000

Long-term Notes Payable

Particulars	Amount Rs.	Particulars	Amount Rs.
		By Opening balance b/f	18,00,000
To Cash (payment)	6,00,000		
To Closing balance c/d	12,00,000		
	18,00,000		18,00,000

Statements of Accounting Standards (AS–3) Revised

CASH FLOW STATEMENTS

(In this Accounting Standard, the standard portions have been set in **bold italic** type. These should be read in the context of the background material which has been set in normal type, and in the context of the 'Preface to the Statements of Accounting Standards'.)

The following is the text of the revised Accounting Standard (AS) 3, 'Cash Flow Statements', issued by the Council of the Institute of Chartered Accountants of India. This Standard supersedes Accounting Standard (AS) 3, 'Changes in Financial Position', issued in June, 1981.

In the initial years, this accounting standard will be recommendatory in character. During this period, this standard is recommended for use by companies listed on a recognised stock exchange and other commercial, industrial and business enterprises in the public and private sectors.

Objective

Information about the cash flows of an enterprise is useful in providing users of financial statements with a basis to assess the ability of the enterprise to generate cash and cash equivalents and the needs of the enterprise to utilise those cash flows. The economic decisions that are taken by users require an evaluation of the ability of an enterprise to generate cash and cash equivalents and the timing and certainty of their generation.

The Statement deals with the provision of information about the historical changes in cash and cash equivalents of an enterprise by means of a cash flow statement which classifies cash flows during the period from operating, investing and financing activities.

Scope

1. ***An enterprise should prepare a cash flow statement and should present it for each period for which financial statements are presented.***
2. Users of an enterprise's financial statements are interested in how the enterprise generates and uses cash and cash equivalents. This is the case regardless of the nature of the enterprise's activities and irrespective of whether cash can be viewed as the product of the enterprise, as may be the case with a financial enterprise. Enterprises need cash for essentially the same reasons, however different their principal revenue-producing activities might be. They need cash to conduct their operations, to pay their obligations, and to provide returns to their investors.

Benefits of Cash Flow Information

3. A cash flow statement, when used in conjunction with the other financial statements, provides information that enables users to evaluate the changes in net assets of an enterprise, its financial structure (including its liquidity and solvency) and its ability to affect the amounts and timing of cash flows in order to adapt to changing circumstances and opportunities. Cash flow information is useful in assessing the ability of the enterprise to generate cash and cash equivalents and enables users to develop models to assess and compare the present value of the future cash flows of different enterprises. It also enhances the comparability of the reporting of operating performance by different enterprises because it eliminates the effects of using different accounting treatments for the same transactions and events.

4. Historical cash flow information is often used as an indicator of the amount, timing and certainty of future cash flows. It is also useful in checking the accuracy of past assessments of future cash flows and in examining the relationship between profitability and net cash flow and the impact of changing prices.

Definitions

5. ***The following terms are used in this Statement with the meanings specified:***

***Cash** comprises cash on hand and demand deposits with banks.*

***Cash equivalents** are short-term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value.*

***Cash flows** are inflows and outflows of cash and cash equivalents.*

***Operating activities** are the principal revenue-producing activities of the enterprise and other activities that are not investing or financing activities.*

***Investing activities** are the acquisition and disposal of long-term assets and other investments not included in cash equivalents.*

***Financing activities** are activities that result in changes in the size and composition of the owners' capital (including preference share capital in the case of a company) and borrowings of the enterprise.*

Cash and Cash Equivalents

6. Cash equivalents are held for the purpose of meeting short-term cash commitments rather than for investment or other purposes. For an investment to qualify as a cash equivalent, it must be readily convertible to a known amount of cash and be subject to an insignificant risk of changes in value. Therefore, an investment normally qualifies as a cash equivalent only when it has a short maturity of, say, three months or less from the date of acquisition. Investments in shares are excluded from cash equivalents unless they are, in substance, cash equivalents; for example, preference shares of a company acquired shortly before their specified redemption date (provided there is only an insignificant risk of failure of the company to repay the amount at maturity).

7. Cash flows exclude movements between items that constitute cash or cash equivalents because these components are part of the cash management of an enterprise rather than part of its operating, investing and financing activities. Cash management includes the investment of excess cash in cash equivalents.

Presentation of a Cash Flow Statement

8. ***The cash flow statement should report cash flows during the period classified by operating, investing and financing activities.***

9. An enterprise presents its cash flows from operating, investing and financing activities in a manner which is most appropriate to its business. Classification

by activity provides information that allows users to assess the impact of those activities on the financial position of the enterprise and the amount of its cash and cash equivalents. This information may also be used to evaluate the relationships among those activities.

10. A single transaction may include cash flows that are classified differently. For example, when the instalment paid in respect of a fixed asset acquired on deferred payment basis includes both interest and loan, the interest element is classified under financing activities and the loan element is classified under investing activities.

Operating Activities

11. The amount of cash flows arising from operating activities is a key indicator of the extent to which the operations of the enterprise have generated sufficient cash flows to maintain the operating capability of the enterprise, pay dividends, repay loans and make new investments without recourse to external sources of financing. Information about the specific components of historical operating cash flows is useful, in conjunction with other information, in forecasting future operating cash flows.

12. Cash flows from operating activities are primarily derived from the principal revenue-producing activities of the enterprise. Therefore, they generally result from the transactions and other events that enter into the determination of net profit or loss. Examples of cash flows from operating activities are:

    a. cash receipts from the sale of goods and the rendering of services;
    b. cash receipts from royalties, fees, commissions and other revenue;
    c. cash payments to suppliers for goods and services;
    d. cash payments to and on behalf of employees;
    e. cash receipts and cash payments of an insurance enterprise for premiums and claims, annuities and other policy benefits;
    f. cash payments or refunds of income taxes unless they can be specifically identified with financing and investing activities; and
    g. cash receipts and payments relating to futures contracts, forward contracts, option contracts and swap contracts when the contracts are held for dealing or trading purposes.

13. Some transactions, such as the sale of an item of plant, may give rise to a gain or loss which is included in the determination of net profit or loss. However, the cash flows relating to such transactions are cash flows from investing activities.

14. An enterprise may hold securities and loans for dealing or trading purposes, in which case they are similar to inventory acquired specifically for resale. Therefore, cash flows arising from the purchase and sale of dealing or trading securities are classified as operating activities. Similarly, cash advances and loans made by financial enterprises are usually classified as operating activities since they relate to the main revenue-producing activity of that enterprise.

Investing Activities

15. The separate disclosure of cash flows arising from investing activities is important because the cash flows represent the extent to which expenditures have been made for resources intended to generate future income and cash flows. Examples of cash flows arising from investing activities are:

    a. cash payments to acquire fixed assets (including intangibles). These payments include those relating to capitalised research and development costs and self-constructed fixed assets;

b. cash receipts from disposal of fixed assets (including intangibles);

c. cash payments to acquire shares, warrants or debt instruments of other enterprises and interests in joint ventures (other than payments for those instruments considered to be cash equivalents and those held for dealing or trading purposes);

d. cash receipts from disposal of shares, warrants or debt instruments of other enterprises and interests in joint ventures (other than receipts from those instruments considered to be cash equivalents and those held for dealing or trading purposes);

e. cash advances and loans made to third parties (other than advances and loans made by a financial enterprise);

f. cash receipts from the repayment of advances and loans made to third parties (other than advances and loans of a financial enterprise);

g. cash payments for futures contracts, forward contracts, option contracts and swap contracts except when the contracts are held for dealing or trading purposes, or the payments are classified as financing activities; and

h. cash receipts from futures contracts, forward contracts, option contracts and swap contracts except when the contracts are held for dealing or trading purposes, or the receipts are classified as financing activities.

16. When a contract is accounted for as a hedge of an identifiable position, the cash flows of the contract are classified in the same manner as the cash flows of the position being hedged.

Financing Activities

17. The separate disclosure of cash flows arising from financing activities is important because it is useful in predicting claims on future cash flows by providers of funds (both capital and borrowings) to the enterprise. Examples of cash flows arising from financing activities are:

a. cash proceeds from issuing shares or other similar instruments;

b. cash proceeds from issuing debentures, loans, notes, bonds, and other short or long-term borrowings; and

c. cash repayments of amounts borrowed.

Reporting Cash Flows from Operating Activities

18. An enterprise should report cash flows from operating activities using either:

a. the direct method, whereby major classes of gross cash receipts and gross cash payments are disclosed; or

b. the indirect method, whereby net profit or loss is adjusted for the effects of transactions of a non-cash nature, any deferrals or accruals of past or future operating cash receipts or payments, and items of income or expense associated with investing or financing cash flows.

19. The direct method provides information which may be useful in estimating future cash flows and which is not available under the indirect method and is, therefore, considered more appropriate than the indirect method. Under the direct method, information about major classes of gross cash receipts and gross cash payments may be obtained either:

a. from the accounting records of the enterprise; or

b. by adjusting sales, cost of sales (interest and similar income and interest expense and similar charges for a financial enterprise) and other items in the statement of profit and loss for:

i. changes during the period in inventories and operating receivables and payables;

ii. other non-cash items; and

iii. other items for which the cash effects are investing or financing cash flows.

20. Under the indirect method, the net cash flow from operating activities is determined by adjusting net profit or loss for the effects of:

a. changes during the period in inventories and operating receivables and payables;

b. non-cash items such as depreciation, provisions, deferred taxes, and unrealised foreign exchange gains and losses; and

c. all other items for which the cash effects are investing or financing cash flows.

Alternatively, the net cash flow from operating activities may be presented under the indirect method by showing the operating revenues and expenses excluding non-cash items disclosed in the statement of profit and loss and the changes during the period in inventories and operating receivables and payables.

Reporting Cash Flows from Investing and Financing Activities

21. An enterprise should report separately major classes of gross cash receipts and gross cash payments arising from investing and financing activities, except to the extent that cash flows described in paragraphs 22 and 24 are reported on a net basis.

Reporting Cash Flows on a Net Basis

22. Cash flows arising from the following operating, investing or financing activities may be reported on a net basis:

a. cash receipts and payments on behalf of customers when the cash flows reflect the activities of the customer rather than those of the enterprise; and

b. cash receipts and payments for items in which the turnover is quick, the amounts are large, and the maturities are short.

23. Examples of cash receipts and payments referred to in paragraph 22(a) are:

a. the acceptance and repayment of demand deposits by a bank;

b. funds held for customers by an investment enterprise; and

c. rents collected on behalf of, and paid over to, the owners of properties.

Examples of cash receipts and payments referred to in paragraph 22(b) are advances made for, and the repayments of:

a. principal amounts relating to credit card customers;

b. the purchase and sale of investments; and

c. other short-term borrowings, for example, those which have a maturity period of three months or less.

24. Cash flows arising from each of the following activities of a financial enterprise may be reported on a net basis:

a. cash receipts and payments for the acceptance and repayment of deposits with a fixed maturity date;

b. the placement of deposits with and withdrawal of deposits from other financial enterprises; and

c. cash advances and loans made to customers and the repayment of those advances and loans.

Foreign Currency Cash Flows

25. ***Cash flows arising from transactions in a foreign currency should be recorded in an enterprise's reporting currency by applying to the foreign currency amount the exchange rate between the reporting currency and the foreign currency at the date of the cash flow. A rate that approximates the actual rate may be used if the result is substantially the same as would arise if the rates at the dates of the cash flows were used. The effect of changes in exchange rates on cash and cash equivalents held in a foreign currency should be reported as a separate part of the reconciliation of the changes in cash and cash equivalents during the period.***

26. Cash flows denominated in foreign currency are reported in a manner consistent with Accounting Standard (AS) 11, Accounting for the Effects of Changes in Foreign Exchange Rates. This permits the use of an exchange rate that approximates the actual rate. For example, a weighted average exchange rate for a period may be used for recording foreign currency transactions.

27. Unrealised gains and losses arising from changes in foreign exchange rates are not cash flows. However, the effect of exchange rate changes on cash and cash equivalents held or due in a foreign currency is reported in the cash flow statement in order to reconcile cash and cash equivalents at the beginning and the end of the period. This amount is presented separately from cash flows from operating, investing and financing activities and includes the differences, if any, had those cash flows been reported at the end-of-period exchange rates.

Extraordinary Items

28. ***The cash flows associated with extraordinary items should be classified as arising from operating, investing or financing activities as appropriate and separately disclosed.***

29. The cash flows associated with extraordinary items are disclosed separately as arising from operating, investing or financing activities in the cash flow statement, to enable users to understand their nature and effect on the present and future cash flows of the enterprise. These disclosures are in addition to the separate disclosures of the nature and amount of extraordinary items required by Accounting Standard (AS) 5, Net Profit or Loss for the Period, Prior Period Items and Changes in Accounting Policies.

Interest and Dividends

30. ***Cash flows from interest and dividends received and paid should each be disclosed separately. Cash flows arising from interest paid and interest and dividends received in the case of a financial enterprise should be classified as cash flows arising from operating activities. In the case of other enterprises, cash flows arising from interest paid should be classified as cash flows from financing activities while interest and dividends received should be classified as cash flows from investing activities. Dividends paid should be classified as cash flows from financing activities.***

31. The total amount of interest paid during the period is disclosed in the cash flow statement whether it has been recognised as an expense in the statement of profit and loss or capitalised in accordance with Accounting Standard (AS) 10, Accounting for Fixed Assets.

32. Interest paid and interest and dividends received are usually classified as operating cash flows for a financial enterprise. However, there is no consensus on the classification of these cash flows for other enterprises. Some argue that interest paid and interest and dividends received may be classified as operating cash flows because they enter into the determination of net profit or loss. However, it is more appropriate that interest paid and interest and dividends received are classified as financing cash flows and investing cash flows respectively, because they are cost of obtaining financial resources or returns on investments.

33. Some argue that dividends paid may be classified as a component of cash flows from operating activities in order to assist users to determine the ability of an enterprise to pay dividends out of operating cash flows. However, it is considered more appropriate that dividends paid should be classified as cash flows from financing activities because they are cost of obtaining financial resources.

Taxes on Income

34. Cash flows arising from taxes on income should be separately disclosed and should be classified as cash flows from operating activities unless they can be specifically identified with financing and investing activities.

35. Taxes on income arise on transactions that give rise to cash flows that are classified as operating, investing or financing activities in a cash flow statement. While tax expense may be readily identifiable with investing or financing activities, the related tax cash flows are often impracticable to identify and may arise in a different period from the cash flows of the underlying transactions. Therefore, taxes paid are usually classified as cash flows from operating activities. However, when it is practicable to identify the tax cash flow with an individual transaction that gives rise to cash flows that are classified as investing or financing activities, the tax cash flow is classified as an investing or financing activity as appropriate. When tax cash flow are allocated over more than one class of activity, the total amount of taxes paid is disclosed.

Investments in Subsidiaries, Associates and Joint Ventures

36. When accounting for an investment in an associate or a subsidiary or a joint venture, an investor restricts its reporting in the cash flow statement to the cash flows between itself and the investee/joint venture, for example, cash flows relating to dividends and advances.

Acquisitions and Disposals of Subsidiaries and Other Business Units

37. The aggregate cash flows arising from acquisitions and from disposals of subsidiaries or other business units should be presented separately and classified as investing activities.

38. An enterprise should disclose, in aggregate, in respect of both acquisition and disposal of subsidiaries or other business units during the period each of the following:

a. the total purchase or disposal consideration; and

b. the portion of the purchase or disposal consideration discharged by means of cash and cash equivalents.

39. The separate presentation of the cash flow effects of acquisitions and disposals of subsidiaries and other business units as single line items helps to distinguish those cash flows from other cash flows. The cash flow effects of disposals are not deducted from those of acquisitions.

Non-cash Transactions

40. Investing and financing transactions that do not require the use of cash or cash equivalents should be excluded from a cash flow statement. Such transactions should be disclosed elsewhere in the financial statements in a way that provides all the relevant information about these investing and financing activities.

41. Many investing and financing activities do not have a direct impact on current cash flows although they do affect the capital and asset structure of an enterprise. The exclusion of non-cash transactions from the cash flow statement is consistent with the objective of a cash flow statement as these

items do not involve cash flows in the current period. Examples of non-cash transactions are:

a. the acquisition of assets by assuming directly related liabilities;

b. the acquisition of an enterprise by means of issue of shares; and

c. the conversion of debt to equity.

Components of Cash and Cash Equivalents

42. An enterprise should disclose the components of cash and cash equivalents and should present a reconciliation of the amounts in its cash flow statement with the equivalent items reported in the balance sheet.

43. In view of the variety of cash management practices, an enterprise discloses the policy which it adopts in determining the composition of cash and cash equivalents.

44. The effect of any change in the policy for determining components of cash and cash equivalents is reported in accordance with Accounting Standard (AS) 5, Net Profit or Loss for the Period, Prior Period Items and Changes in Accounting Policies.

Other Disclosures

45. An enterprise should disclose, together with a commentary by management, the amount of significant cash and cash equivalent balances held by the enterprise that are not available for use by it.

46. There are various circumstances in which cash and cash equivalent balances held by an enterprise are not available for use by it. Examples include cash and cash equivalent balances held by a branch of the enterprise that operates in a country where exchange controls or other legal restrictions apply as a result of which the balances are not available for use by the enterprise.

47. Additional information may be relevant to users in understanding the financial position and liquidity of an enterprise. Disclosure of this information, together with a commentary by management, is encouraged and may include:

a. the amount of undrawn borrowing facilities that may be available for future operating activities and to settle capital commitments, indicating any restrictions on the use of these facilities; and

b. the aggregate amount of cash flows that represent increases in operating capacity separately from those cash flows that are required to maintain operating capacity.

48. The separate disclosure of cash flows that represent increases in operating capacity and cash flows that are required to maintain operating capacity is useful in enabling the user to determine whether the enterprise is investing adequately in the maintenance of its operating capacity. An enterprise that does not invest adequately in the maintenance of its operating capacity may be prejudicing future profitability for the sake of current liquidity and distributions to owners.

Appendix I

Cash Flow Statement for an Enterprise other than a Financial Enterprise

The appendix is illustrative only and does not form part of the accounting standard. The purpose of this appendix is to illustrate the application of the accounting standard.

1. The example shows only current period amounts.
2. Information from the statement of profit and loss and balance sheet is provided to show how the statements of cash flows under the direct method and the indirect method have been derived. Neither the statement of profit and loss nor the balance sheet is presented in conformity with the disclosure and presentation requirements of applicable laws and accounting standards. The working notes given towards the end of this appendix are intended to assist in understanding the manner in which the various figures appearing in the cash flow statement have been derived. These working notes do not form part of the cash flow statement and, accordingly, need not be published.
3. The following additional information is also relevant for the preparation of the statement of cash flows (figures are in Rs.'000).
   a. An amount of Rs.250 was raised from the issue of share capital and a further Rs.250 was raised from long-term borrowings.
   b. Interest expense was Rs.400 of which Rs.170 was paid during the period. Rs.100 relating to interest expense of the prior period was also paid during the period.
   c. Dividends paid were Rs.1,200.
   d. Tax deducted at source on dividends received (included in the tax expense of Rs.300 for the year) amounted to Rs.40.
   e. During the period, the enterprise acquired fixed assets for Rs.350. The payment was made in cash.
   f. Plant with original cost of Rs.80 and accumulated depreciation of Rs.60 was sold for Rs.20.
   g. Foreign exchange loss of Rs.40 represents the reduction in the carrying amount of a short-term investment in foreign-currency designated bonds arising out of a change in exchange rate between the date of acquisition of the investment and the balance sheet date.
   h. Sundry debtors and sundry creditors include amounts relating to credit sales and credit purchases only.

Balance Sheet as on 31.12.1996

(Rs. in '000)

		1996		1995
Assets				
Cash on hand and balances with banks		200		25
Short-term investments		670		135
Sundry debtors		1,700		1,200
Interest receivable		100		–
Inventories		900		1,950
Long-term investments		2,500		2,500

		1996		1995
Fixed assets at cost	2,180		1,910	
Accumulated depreciation	(1,450)		(1,060)	
Fixed assets (net)		730		850
Total assets		6,800		6,660
Liabilities				
Sundry creditors		150		1,890
Interest payable		230		100
Income taxes payable		400		1,000
Long-term debt		1,110		1,040
Total liabilities		1,890		4,030
Shareholders' Funds				
Share capital		1,500		1,250
Reserves		3,410		1,380
Total shareholders' funds		4,910		2,630
Total liabilities and shareholders' funds		6,800		6,660

Statement of Profit and Loss for the period ended 31.12.1996

Particulars	(Rs. '000)
Sales	30,650
Cost of sales	(26,000)
Gross profit	4,650
Depreciation	(450)
Administrative and selling expenses	(910)
Interest expense	(400)
Interest income	300
Dividend income	200
Foreign exchange loss	(40)
Net profit before taxation and extraordinary item	3,350
Extraordinary item – Insurance proceeds from earthquake disaster settlement	180
Net profit after extraordinary item	3,530
Income tax	(300)
Net profit	3,230

Direct Method Cash Flow Statement [Paragraph 18(a)]

(Rs. in '000)

		1996
Cash flows from operating activities		
Cash receipts from customers	30,150	
Cash paid to suppliers and employees	(27,600)	
Cash generated from operations	2,550	
Income taxes paid	(860)	
Cash flow before extraordinary item	1,690	
Proceeds from earthquake disaster settlement	180	
Net cash from operating activities		1,870
Cash flows from investing activities		
Purchase of fixed assets	(350)	
Proceeds from sale of equipment	20	
Interest received	200	
Dividends received	160	
Net cash from investing activities		30
Cash flows from financing activities		
Proceeds from issuance of share capital	250	
Proceeds from long-term borrowings	250	
Repayment of long-term borrowings	(180)	
Interest paid	(270)	
Dividends paid	(1,200)	
Net cash used in financing activities		(1,150)
Net increase in cash and cash equivalents		750
Cash and cash equivalents at beginning of period (see Note 1)		160
Cash and cash equivalents at end of period (see Note 1)		910

Indirect Method Cash Flow Statement [Paragraph 18(b)]

(Rs. in '000)

		1996
Cash flows from operating activities		
Net profit before taxation, and extraordinary item	3,350	
Adjustments for:		
Depreciation	450	
Foreign exchange loss	40	
Interest income	(300)	
Dividend income	(200)	
Interest expense	400	
Operating profit before working capital changes	3,740	
Increase in sundry debtors	(500)	
Decrease in inventories	1,050	
Decrease in sundry creditors	(1,740)	
Cash generated from operations	2,550	
Income taxes paid	(860)	
Cash flow before extraordinary item	1,690	
Proceeds from earthquake disaster settlement	180	
Net cash from operating activities		1,870
Cash flows from investing activities		
Purchase of fixed assets	(350)	
Proceeds from sale of equipment	20	
Interest received	200	
Dividends received	160	
Net cash from investing activities		30
Cash flows from financing activities		
Proceeds from issuance of share capital	250	
Proceeds from long-term borrowings	250	
Repayment of long-term borrowings	(180)	
Interest paid	(270)	
Dividends paid	(1,200)	
Net cash used in financing activities		(1,150)
Net increase in cash and cash equivalents		750
Cash and cash equivalents at beginning of period (see Note 1)		160
Cash and cash equivalents at end of period (see Note 1)		910

Notes to the cash flow statement (direct method and indirect method)

1. **Cash and Cash Equivalents**

   Cash and cash equivalents consist of cash on hand and balances with banks, and investments in money-market instruments. Cash and cash equivalents included in the cash flow statement comprise the following balance sheet amounts.

	1996	1995
Cash on hand and balances with banks	200	25
Short-term investments	670	135
Cash and cash equivalents	870	160
Effect of exchange rate changes	40	–
Cash and cash equivalents as restated	910	160

   Cash and cash equivalents at the end of the period include deposits with banks of 100 held by a branch which are not freely remissible to the company because of currency exchange restrictions.

   The company has undrawn borrowing facilities of 2,000 of which 700 may be used only for future expansion.

2. Total tax paid during the year (including tax deducted at source on dividends received) amounted to 900.

Alternative Presentation (Indirect Method)

As an alternative, in an indirect method cash flow statement, operating profit before working capital changes is sometimes presented as follows:

	Rs.	Rs.
Revenues excluding investment income	30,650	
Operating expense excluding depreciation	(26,910)	
Operating profit before working capital changes		3,740

Working Notes

The working notes given below do not form part of the cash flow statement and, accordingly, need not be published. The purpose of these working notes is merely to assist in understanding the manner in which various figures in the cash flow statement have been derived. (Figures are in Rs. '000.)

1. **Cash receipts from customers**

	Rs.
Sales	30,650
Add: Sundry debtors at the beginning of the year	1,200
	31,850
Less: Sundry debtors at the end of the year	1,700
	30,150

2. **Cash paid to suppliers and employees**

	Rs.	Rs.
Cost of sales		26,000
Administrative and selling expenses		910
		26,910
Add: Sundry creditors at the beginning of the year	1,890	
Inventories at the end of the year	900	2,790
		29,700
Less: Sundry creditors at the end of the year	150	
Inventories at the beginning of the year	1,950	2,100
		27,600

3. **Income taxes paid (including tax deducted at source from dividends received)**

	Rs.
Income tax expense for the year (including tax deducted at source from dividends received)	300
Add: Income tax liability at the beginning of the year	1,000
	1,300
Less: Income tax liability at the end of the year	400
	900

Out of Rs.900, tax deducted at source on dividends received (amounting to Rs.40) is included in cash flows from investing activities and the balance of Rs.860 is included in cash flows from operating activities (see paragraph 34).

4. **Repayment of long-term borrowings**

	Rs.
Long-term debt at the beginning of the year	1,040
Add: Long-term borrowings made during the year	250
	1,290
Less: Long-term borrowings at the end of the year	1,110
	180

5. **Interest paid**

	Rs.
Interest expense for the year	400
Add: Interest payable at the beginning of the year	100
	500
Less: Interest payable at the end of the year	230
	270

Appendix II

Cash Flow Statement for a Financial Enterprise

The appendix is illustrative only and does not form part of the accounting standard. The purpose of this appendix is to illustrate the application of the accounting standard.

1. The example shows only current period amounts.
2. The example is presented using the direct method.

(Rs. in '000)

		1996
Cash flows from operating activities		
Interest and commission receipts	28,447	
Interest payments	(23,463)	
Recoveries on loans previously written off	237	
Cash payments to employees and suppliers	(997)	
Operating profit before changes in operating assets	4,224	
Assets		
(Increase) decrease in operating assets:		
Short-term funds	(650)	
Deposits held for regulatory or monetary control purposes	234	
Funds advanced to customers	(288)	
Net increase in credit card receivables	(360)	
Other short-term securities	(120)	
Increase (decrease) in operating liabilities:		
Deposits from customers	600	
Certificates of deposit	(200)	
Net cash from operating activities before income tax	3,440	
Income taxes paid	(100)	
Net cash from operating activities		3,340
Cash flows from investing activities		
Dividends received	250	
Interest received	300	
Proceeds from sales of permanent investments	1,200	
Purchase of permanent investments	(600)	
Purchase of fixed assets	(500)	
Net cash from investing activities		650

(Rs. in ’000)

		1996
Cash flows from financing activities		
Issue of shares	1,800	
Repayment of long-term borrowings	(200)	
Net decrease in other borrowings	(1,000)	
Dividends paid	(400)	
Net cash from financing activities		200
Net increase in cash and cash equivalents		4,190
Cash and cash equivalents at beginning of period		4,650
Cash and cash equivalents at end of period		8,840

SUMMARY

- AS-3 issued by ICAI pertains to Cash Flow Statement. The Standard explains the flow of cash under three different heads. They are – Cash Flow from Operating Activities, Cash Flow from Investing Activities, and Cash Flow from Financing Activities.
- The section dealing with Cash Flow from Operating Activities can be prepared either by using the Direct method whereby major classes of gross cash receipts and gross cash payments are disclosed or by the Indirect method whereby net profit or loss is adjusted to arrive at the Cash Flow from Operating Activities.

Chapter X

Limitations of Financial Statements

After reading this chapter, you will be conversant with:

- Limitations of Balance Sheet
- Limitations of Profit and Loss Account
- Critical Evaluation of Profitability of Companies
- Case Studies
- Ethical Conduct in Accounting Profession

Financial statements are prepared for the purpose of presenting a periodical review or report on the management's progress. They deal with:

i. The status of the investments in the business,

ii. The results achieved during the period under review.

The data exhibited in these financial statements are the result of the combined effect of (a) recorded facts (b) accounting conventions and (c) personal judgment used in the application of accounting conventions. The nature of figures which are reported and the way in which they are reported tend to give the impression to the reader that financial statements are precise, exact and final. However, financial statements have the following limitations.

LIMITATIONS OF BALANCE SHEET

The following limitations in respect of the position statement i.e., the balance sheet are worth noting:

i. Though the balance sheet is claimed to be the statement of all assets and liabilities, still it does not contain certain assets and liabilities.

   Example: The Efficient Management force is a Human Asset available to the organization and so far no efforts are made to show the human assets under the asset side of the Balance Sheet. Similarly, dissatisfied labor force is a liability to the organization.

ii. An investor who wishes to analyze the balance sheet is more concerned with the present and future whereas the balance sheet pertains to a point of time relating to past and therefore may not be quite helpful.

iii. Personal judgment plays a great part in determining the figures for the balance sheet. Example: Provision for depreciation, stock valuation, provision for bad debts are more based on the personal judgment and are therefore not free from the bias.

iv. Even the audited balance sheets also cannot give a complete seal of accuracy. Deliberate manipulations in the profits, current assets and closing stocks make the balance sheets unreliable.

v. The factors which have vital bearing on the earnings of the organization such as changes in the managerial personnel, cessation of agreements, loss of markets are not disclosed by the balance sheet.

vi. Financial statements are based on accounting policies which vary from enterprise to enterprise both within the country and among the countries. The users of financial statements cannot understand them clearly and have comparisons unless the significant accounting policies which have been adopted in preparing the financial statements are disclosed very clearly.

vii. Balance sheet is prepared on a particular date and hence there is every possibility of 'Window dressing'.

LIMITATIONS OF PROFIT AND LOSS ACCOUNT

The following limitations of profit and loss account are worth noting:

i. Profit and loss account is prepared for a certain period and hence it is an interim statement. The true profit or loss can be ascertained only after the concern has run its entire life.

ii. The profit as disclosed by the profit and loss account is not absolute but relative as the P&L account is based upon various accounting conventions and concepts and depends upon correct recognition of revenue and calculation of expired costs.

   Example: The deviation in arriving at correct provision required for doubtful debts may disturb the profits.

iii. The profit and loss account does not disclose the effect of non-financial items like efficiency of the management, loyalty of the workforce, quality of the product, etc.

iv. Net profits are ascertained on the basis of historical costs. Unless accounting adjustments are made for the inflationary trends, the profit disclosed by the profit and loss account may not be the correct one.

CRITICAL EVALUATION OF PROFITABILITY OF COMPANIES

In this chapter, the general guidelines to be followed while critically evaluating the profitability of companies from the published annual reports are discussed with the help of some case studies.

A financial analyst usually focuses his analysis on the profitability of a company. In the case of investments in the debentures of a company, the study of profits enables the analyst to form an opinion about the ability of the company to service such debentures. In the case of investments in the shares of a company, the analyst knows that the intrinsic value of such shares depends upon the present value of the dividend stream that he would receive during his holding period of such shares combined with the present value of the market price of the shares as on the date of sale. However, in an efficient market, the market price of the shares would be equal to the present value of future dividends that would be received on such shares. Hence, the analyst in order to ascertain the intrinsic value of shares must forecast the dividends, and for a proper forecast of the dividends he must arrive at a judicious estimate of the profits that can be earned by a company. Using the profitability analysis as a starting point, the financial analyst would then do a detailed analysis of the other financial aspects such as return on capital employed, composition of assets, sources of borrowing, efficiency in the use of assets, control exercised by the company over costs etc.

The discussion in this chapter focuses on how a rational user of the financial statements (such as the financial analyst, the shareholder, debentureholder, etc.) would like to draw more information on:

i. The sustained level of profits that can be earned by the company, and

ii. The increase or decrease in profits from the normal operations during the current year as compared to the previous year and the reasons for such increase or decrease.

For drawing the information as mentioned above, the profits as stated in the published accounts may have to be reworked in order to take into account the following:

a. Any unusual or abnormal losses or incomes that have been considered while arriving at the profits.

b. Any liabilities which have not been provided for, but in respect of which, on a conservative basis, there is a fair chance for the company to incur a loss.

c. Any changes in accounting policies during the current year, the effect of which would have to be set-off to make a realistic comparison between the profits of the two years.

d. Any other adjustment which must be eliminated to compare the profits of the two years on a proper basis.

Unless a careful study of the published financial statements is done to elicit information with regard to items (a) to (d) mentioned above, a detailed profitability analysis cannot be done. The user in addition to studying the figures listed in the income statement, must develop sufficient proficiency in reading the Schedules, Directors' Report, Auditors' Report and the Notes on Accounts and interpret the effect of statements or disclosures made in these in order to assess for himself the quality of information made available to him.

As a serious user of financial statements would have noticed, any attempt made to compare the profitabilities of various industries or various companies within the same industry will be frustrated due to the multiplicity of accounting practices that may be used while preparing the income statements. Even an attempt to compare the profits of the same company across a number of years may bewilder the user when such a company frequently changes its accounting practices. The frequent changes in statutes such as the Companies Act and Income Tax Act, also tend to vitiate the comparison of the profits of the same company. Though the books of accounts have to be maintained in accordance with the Generally Accepted Accounting Principles, these principles only lay down a logical framework for the compilation of the accounts. They do not specify just one single method of recording to be adopted in respect of each and every transaction that may occur in the conduct of the business.

The absence of hard and fast rules in accounting is due to the fact that accounting is situation-specific. The type of accounting policy that must be adopted to record a transaction not only depends on the transaction itself but also on the context in which such transaction appears. Further, the profit and loss account as per the Companies Act is not required to show the 'correct profits' but only present a 'true and fair view of the profits of the business'. The Act does not define what constitutes a 'true and fair view of the profits' as it is a concept which defies a general definition; only by studying the circumstances and the context in which the profit and loss account has been prepared can an opinion be expressed as to whether the account shows a 'true and fair view of the profits'. Add to this the fact that the profit and loss account measures the income of an 'accounting period', which by itself is an artificial cut-off point in the flow of transactions. By specifying an accounting period, the accountant with the help of a series of estimates tries to present a measure of income earned during that period while the actual profits earned by the business can be reliably measured only when it is wound up or closed. Therefore, instead of preparing yearly income accounts, if one income statement could be prepared covering the period starting from the commencement of business and ending as on the date of closure, it will reveal the correct profits of the business. In practice such a preparation of one income statement is impossible to implement as taxes have to be paid, dividends have to be declared and bonus paid to employees. So, the accountant has to apportion the total income over the various accounting periods. Such apportionment calls for a number of estimates and accounting policies to be used.

Until the first two decades of the twentieth century, it was the balance sheet which was considered to be the most important financial statement and the income statement was merely looked upon as an annexure to it. This emphasis on the balance sheet was due to the fact that the users of the financial statements in those periods were mainly bankers and creditors who were very anxious about the value of the assets offered to them as security being higher than the loans extended by them. With the imposition of taxes on income, the focus rapidly began to shift to the income statement and to what constitutes the income of a business. With this shift came a flood of accounting policies, which could be used or misused to arrive at the income of a year. The need to declare regular dividends, the sensitivity of market prices of shares to the income earned and dividends declared during an accounting period have at present times started exerting a lot of pressure on the management to 'window-dress' the income statements so that they show the company only in a favorable light.

The multiplicity of accounting policies available greatly help the management in window-dressing the income statement. Let us consider an illustration to highlight this point. The following table shows the income statements of Smart Limited for the years 2001, 2002 and 2003.

Income Statement of Smart Limited

Rs. in lakh

	2001	2002	2003	Total
Sales Income (A)	270	330	380	980
Inventory, opening	50	70	70	50
Add: Purchases	120	110	160	390
	170	180	230	440
Less: Inventory, closing	70	70	50	50
Cost of goods sold	100	110	180	390
Depreciation of equipment	40	40	40	120
Other expenses	60	80	100	240
(B)	200	230	320	750
Profit before taxes (A) – (B)	70	100	60	230

The income statements given above could cause many a sleepless night for the Directors as it reveals the performance of the company in the worst possible light. While the sales have steadily increased over the years, the profits have peaked in 2002 and have then fallen to an all-time low in 2003 in spite of the increase in sales during the year. From a close study of the items, the directors may conclude that the cost of goods sold is causing the distortion in the figure. Now, the directors may decide to change their accounting policy in respect of valuation of stocks as at the end of 2002 with the result that such a stock would be valued under the revised policy at Rs.50 lakh instead of Rs.70 lakh as at present. Let us also assume that the directors do not wish to alter the valuation of inventory at the end of 2003. In addition, the directors may also decide to change the method of depreciation from the straight line method to the sum-of-the-digits method. If depreciation were calculated on the sum-of-the-digits method, the total depreciation of Rs.120 lakh would be apportioned to the three years as follows:

Sum of the digits = 3 + 2 + 1 = 6

2001 – 3/6 x 120 = Rs.60 lakh

2002 – 2/6 x 120 = Rs.40 lakh

2003 – 1/6 x 120 = Rs.20 lakh

As a result of the above changes in accounting policies, the profits of the company for the three years would change as follows:

Rs. in lakh

	2001	2002	2003	Total
Profit as per previous table	70	100	60	230
Decrease in the value of inventory as at the end of 2002	–	(–) 20	+ 20	–
Effect on profit of change in depreciation	(–) 20	–	+ 20	–
Revised profits	50	80	100	230

It is seen that due to the two changes in the accounting policies, the directors have achieved what they wanted to achieve, namely, a picture of steadily rising profits. It must be noted that though the total of the profits earned for the three years still stand at Rs.230 lakh, a different apportionment of the profits to the three years has been arrived at by changing two accounting policies.

In practice, a company will not have the flexibility to study the income statements for a few years and then smooth out the profits with a retrospective change in accounting polices. The directors can only compare the current year's profits with that of the previous year and then decide to change the accounting policies with respect to the current year. Though, according to the accounting standards, a change in accounting policies should be effected only when such a change would result in a better presentation so as to give a true and fair view of the business, in practice a number of arguments may be trotted out by the management to convince the auditors that the change is warranted and is in the best interest of the company while in truth the change is only being carried out to window-dress the statements.

A major effort is being made by the accounting bodies all over the world to standardize the accounting policies by prescribing certain accounting standards. Accounting standards are imposed to restrict the choices available to the preparer of the financial statements and thereby secure uniformity in compilation and presentation of such statements. However, the accounting standards do not serve the purpose when they recommend different methods of accounting treatment of a transaction. For example, in respect of valuation of inventories a number of methods are recommended. Also, in the case of the charge of depreciation more than one method is recommended. The financial statements prepared on the basis of differing accounting policies for various years only conceal much more than what they reveal.

Let us recapitulate the areas of accounting in which a multiplicity of accounting policies are encountered. They are:

i. Methods for determining the amount of depreciation and methods used for amortization of expenditure.

ii. Treatment of expenditure during construction.

iii. Conversion or translation of foreign currency items.

iv. Valuation of inventories.

v. Treatment of goodwill.

vi. Valuation of investments.

vii. Recognition of profit on long-term contracts.

viii. Valuation of fixed assets.

ix. Treatment of contingent liabilities etc.

In all the above areas, effecting changes in accounting policies with an intention to deflate or inflate profits is possible. A more elaborate explanation of the effects of some of the changes in accounting policies is given below:

a. In the case of depreciation, comparing the straight line and written down value methods of charging depreciation, we find that in the initial years of the use of the asset the W.D.V method charges off a higher depreciation than the straight line method. Hence, a change in such initial years from the W.D.V method to the straight line method will boost the profits of the year in which the change is made. In the final years of the usage of the assets, a change from the straight line method to the W.D.V method would boost profits.

b. In the case of valuation of inventories, in periods of swiftly rising prices and when inventories are being built-up by the business a change from LIFO to FIFO would immediately cause the profits to increase. If a concern, after using the LIFO method for a few years, decides to eat into the LIFO inventories (that is, adopts a policy of consumption from stock by temporarily halting purchases), though the LIFO method may still be used for costing the issues, the reported income of the business will be boosted. This is because of the fact that the LIFO inventories will consist some layers of stock that have been valued at acquisition costs as ruling in the past, and by eating into the inventory, the business starts charging off the costs which are lower than the current replacement costs.

c. If a business starts deferring expenses or capitalizing expenses which were previously written-off in the year in which they were incurred, then the profits will boost because of such changes.

Illustrations

i. Hindustan Aluminium Corporation Limited in compiling the financial statements for the 15-month period ended 31st March 1989, deferred the technical know-how fees of Rs.263.68 lakh incurred during the period and amortized only Rs.44.44 lakh in the income statement of that period. Previously, the company had written-off all technical know-how fees in the year in which it was incurred. The income statement of the company for the year ended 31.12.87 shows a write-off of Rs.134.34 lakh in respect of technical know-how fees. The company has also classified the unamortized balance of technical know-how fees amounting to Rs.219.24 lakh as 'Prepaid Expenses' in the balance sheet as on 31.3.89.

ii. Reliance Industries Limited while preparing the annual report for the 9-month period has capitalized the difference on account of fluctuation in the rates of exchange on repayment of foreign loans and deferred payment liabilities. In the prior years, the company was charging off such differences to the Profit and Loss Account in the year of repayment. According to the notes to accounts, due to this change in accounting treatment, the net profits for the 9-month period ended 31.3.89 have been boosted up by Rs.4.11 crore.

d. Sometimes companies may write back certain provisions created for an ascertained liability. If such write backs are done without a proper basis and if the liabilities for which such provisions were created in the earlier periods still exist, then such write backs will only artificially boost up the profits.

In addition to looking for changes in accounting policies, the financial analyst or any other user must also look for:

i. *Deliberate Postponement of Expenses* – Sudden decrease in Repairs and Maintenance expenses or R&D expenses which have led to increased profits during the year, and

ii. *Recognition of Unrealized Revenues* – This is quite difficult to detect and a reader of the financial statements may come to know of it only if the auditor's report contains a qualification with respect to such unrealized revenues.

CASE STUDIES

Three case studies based on the published annual reports of three different companies are discussed below. Please note that the focus is on comparing the profits of the current year with that of the previous year and making any necessary adjustments in order to form an idea of the actual profits that have been earned by the company from normal operations. Since a single annual report may not carry all the information required by the user, a number of estimates may have to be made on some rational basis. Hence, there is no one correct answer in respect of the analysis.

CASE STUDY 1

Abridged Profit and Loss Account of TISCO for the year ended 31st March, 1993

Other Relevant Details

Extract from the Auditor's Report

i. Reference is invited to Note 22 forming part of the notes to the Balance Sheet and Profit and Loss Account and relating to the net excess on cancelation of forward foreign exchange contracts treated as an extraordinary item in the Profit and Loss Account.

During the year, the introduction of Liberalized Exchange Rate Management System (LERMS) which, *inter alia,* permitted cancelation of forward foreign exchange contracts, the Company canceled some contracts which had been entered into in earlier years to cover repayment of loans utilized for acquisition of fixed assets. The net excess on such cancelation of Rs.14 crore, after adjusting rollover charges debited to Fixed Assets in earlier years, has been treated as an extraordinary item in the Profit and Loss Account.

ii. The aggregate provision for depreciation is in excess by Rs.14.33 crore for the reasons explained in Note 8 of the Notes to the Accounts. In the absence of such excess provision, the Reserves would have been higher by Rs.14.33 crore.

During 1992-93 depreciation has been calculated on an actual shift basis in respect of each Mill/Shop/Unit as against the practice in the earlier years of calculating depreciation on three shift basis considering the plant as a single unit. The change in the method has resulted in a lower charge of depreciation. The profit before taxes for the year after consequential adjustments in the value of stocks is therefore higher by Rs.2.33 crore than it would have been had the previous basis been followed.

iii. Excess provision and adjustments relating to previous years include (i) Freight Equalization Fund dues from Joint Plant Committee being Rs.4.31 crore, (ii) write back of old unclaimed credit balances being Rs.2.72 crore and (iii) withdrawal of provisions for taxes and duties on the issues having been decided in the Company's favor being Rs.2.90 crore.

iv. The Company has made substantial exports using duty paid/indigenous materials in anticipation of receipt of duty-free material subsequently imported under the Advance License Scheme. The excess cost of duty paid/indigenous material over the cost of the duty-free material has been carried forward to the extent such duty-free material is lying in stock or on order pending receipt as on 31.3.1993 and will be charged to revenue when such duty-free material is consumed. As a result of this change in the method of accounting, the profit of the Company is higher by Rs.8.77 crore than what it would have been had the previous basis been followed.

v. Washery tailings and other arisings at the Company's collieries which were hitherto accounted at the time of sale, have been included in the stocks of coal at the collieries. As a result of this change in the method of accounting, the profit of the Company is higher by Rs.8.27 crore.

vi. There has been a change in the basis of accounting for expenses on issue of Rights Shares and Secured Premium Notes (SPN) amounting to Rs.6.74 crore. These expenses in the past were being debited to Profit and Loss Account. During the year such expenses aggregating to Rs.6.74 crore has been considered Miscellaneous Expenditure which is being amortized over 10 years in respect of Rights Issue of shares and over the period of the loan in respect of SPN.

vii. Other expenses are as follows:

(Rs. in crore)

	1992-93	1991-92
Other expenses include –		
1. Provision for proportionate premium on redemption of Non-Convertible Debentures	1.55	0.82
2. Expenses of Rights Shares/SPN Issue, Convertible Debenture Issue, sub-division of Shares and Debentures conversion	0.64	0.20

SOLUTION TO CASE STUDY 1

TISCO Ltd.

Reworked Profit and Loss Account for the year ended 31st March, 1993

Rupees in Crore

		1992-93	1991-92
Profit before tax		127.12	278.16
Less :	Net gain on cancelation of foreign exchange forward contracts	14.00	
		113.12	278.16
Less :	Increase in Profits due to change in Accounting Policy		
	i. For Cost of duty free/indigenous material	8.77	
	ii. For Washery tailings and other arisings at the Company's Collieries	8.27	
	iii. For depreciation	–	2.33
	iv. For expenses on issue of Rights Shares and Secured Premium Notes	6.10*	–
Add :	Other expenses not being operational expenses	89.98	275.83
	Provision for proportionate premium on redemption of NCDs	1.55	0.20 0.82
		91.53	276.85
* Expenses on issue of Rights Shares and SPNs to be debited to P & L a/c		6.74	
Actually debited ((vi) & (vii) point)		0.64	
		6.10	

Conclusion: Tisco's Profit before Tax as it appears on the reported Profit and Loss Account shows a decline of 54% during 1992-93 as compared to 1991-92 which may be calculated as follows:

$$\text{Decline in Profits} = \frac{278.16-127.12}{278.16} \times 100 = 54\%$$

$$\text{Decline in Profits as per reworked Profits} = \frac{276.85-91.53}{276.85} \times 100 = 66.9\%$$

Thus, we see that the operating Profits have been boosted up by about 12% due to use of alternative accounting policies and inclusion of non-operating income.

Note: Although there appears to be a substantial increase in 'other income' during the current year as compared to the previous year, no adjustments have been made as the details of such 'other income' are not available.

CASE STUDY 2

The Profit and Loss Account of Grasim Industries Ltd. for the year ending March 31st 1992 is as follows: Other relevant details have been extracted from the Schedules, Notes to Accounts and Auditor's Report. With the help of this additional information, rework the profits (if necessary) for the year ending March, 1991 and March, 1992. You may make any necessary assumption.

Grasim Industries Limited
Profit and Loss Account for the year ended 31-3-1992

		Current Year		Previous Year
				Rupees in Crore
Income				
Sales (including Excise Duty)		1,471.02		1,229.00
Interest and Dividend Income		33.33		50.70
Other Income		9.40		18.39
Increase in Stocks		7.95		25.30
		1,521.70		1,323.39
Expenditure				
Raw materials consumed		514.52		468.73
Manufacturing expenses		311.14		232.99
Purchases of finished goods		7.30		9.75
Payments to and Provisions for Employees		95.51		83.10
Selling, Distribution, Administration and other Expenses		84.64		66.36
Excise Duty		242.92		200.23
Interest		57.42		78.69
Depreciation	58.89		41.79	
Less: Transfer from capital reserve	4.39	54.50	4.53	37.26
Provision for Tax		47.75		45.75
		1,415.71		1,222.86
Profit after Tax		106.00		100.53

Other Relevant Details

i. Share capital in the current year is Rs.60.50 crore. Share capital in the previous year was Rs.61.98 crore. The reduction in share capital is due to redemption of 148275 preference shares of series ‘A’ of face value of Rs.100 each.

ii. In order to finance the new cement project and for augmenting the long-term resources for working capital requirements, the company issued during the year, 1,55,000 Secured Redeemable NCDs of Rs.100 each worth Rs.153 crore and Rs.15 lakh Secured Redeemable NCDs of Rs.100 worth Rs.15 crore.

iii. Details of Interest and Dividend Income.

(Rs. in crore)

		Current Year	Previous Year
A.	Interest		
	Government and other securities	–	0.05
	Other Investments	5.53	8.95
	Bank and other accounts	20.04	21.62
B.	Dividend		
	Trade Investments	4.02	1.25
	From subsidiary	0.04	0.11
	Other Investments	3.70	18.72
		33.33	50.70

iv. The raw material consumed for the previous year includes Rs.0.08 crore being loss on account of decay in the stock of pulp wood at Mavoor unit.

v. Debentures Issue expenses written-off during the year Rs.0.64 (Previous year Rs.6.58 crore)

vi. Contingent Liabilities not provided for.

(Rs. in crore)

	Current Year	Previous Year
a. Claims against the company not acknowledged as debts (Net of tax Rs.5.17 crore. Previous Year Rs.369 crore).	10.86	6.83
b. Guarantees.	1.90	1.90
c. Mineral area development M.P Cess (Net of tax 2.09 crore).	4.34	–
d. Estimated liability in respect of land at Kumarapatnam & Mavoor based on the enhancement in compensation.	3.01	2.91
e. Estimated amount of capital contracts remaining to be executed.	148.71	281.15
f. Total accrued liability for Gratuity as per accrual valuation up to 31.3.92 not provided as the same is accounted for on cash basis (Previous Year Rs.20.71 crore).	28.55	23.88
g. The revaluation of Land and Building, and Plant and Machinery of some of the units were made on 1-4-80, 1-4-82 and 1-4-85, which had resulted in aggregate increase in their book value by Rs.100.49 crore (Gross) and Rs.71.69 crore (Net).		
h. Depreciation for the year 1991-1992 provided in the accounts on revalued cost is higher than that computed on original cost. An amount of Rs.4.39 crore (Previous Year Rs.4.53 crore) being withdrawn from the Capital Reserves and credited to profit and loss account.		

SOLUTION TO CASE STUDY 2

Grasim Industries Limited

Reworked Profit and Loss Accounts for the years ended 31-3-1992 and 31-3-1991

(Rs. in crore)

	Year ended 31.3.92	Year ended 31.3.91
Profit before tax	153.75	146.28
Add : Loss on account of decay of stock	–	0.08
Debentures issue expenses written-off	0.64	6.58
	154.39	152.94
Less : Excess receipts on interest and dividends	–	18.51
Estimated liability in respect of land at Kumarapatnam and Mavoor	–	3.01
Liability in respect of Mineral area development M.P. cess	4.34	–
Accrued liability for Gratuity	4.67	3.17
	145.38	128.25

Working Notes

1. When profits are reworked for the sake of comparison, profits before tax and depreciation would be more meaningful.

		Rupees in Crore
	31.3.92	31.3.91
Balance after tax	106.00	100.53
Add: Depreciation	54.50	37.26
Add: Provision for Tax	47.75	45.75
	208.25	183.54
Estimated Normal Interest and Dividend Income		
A. Interest		
Government and other securities	–	0.05
Other investments	5.53	5.53
Bank and other accounts	20.04	21.62
B. Dividends		
Trade investments	4.02	1.25
Subsidiaries	0.04	0.04
Other investments	3.70	3.70
	33.33	32.19

2. The previous year's income on other investments is much higher indicating that investments that have been held for purposes other than trade have apparently been reduced. Hence, the excess income on these accounts in the previous years has been scaled down. Though additional funds have been received during the year, the increase in capital expenditure and reduction in share capital probably necessitated in the sale of investments.
3. The unusual consumption of raw material due to decay, should be excluded from the previous year's figures.
4. Debenture issue expenses written-off during the year have been added back since the debenture issues are disproportionate during the two years.
5. The items under vi(a), vi(b) are not deducted, these being in the nature of contingent liabilities only.
6. The estimated liability due to enhancement in compensation has been deducted from the profits to take into account the maximum possible loss that would accrue if the case is decided against the company in future. Though the liability is estimated as Rs.2.91 crore up to '91 and Rs.3.01 crore up to '92, the amount from only '91 is deducted, since this represents a more recent estimate and if it is deducted from the previous year's profit and loss account, it need not be deducted from the current year's profit and loss account.
7. The liability in respect of Mineral Area Development Cess has been adjusted to take into account the maximum possible loss to the company if the suit is decided against the company.
8. As per the Companies Act (Amendment), 1988, Companies should maintain their accounts only on accrual basis. Therefore, Grasim Industries would have to account for gratuity liability on an accrual basis. Hence, the increase in liability for the particular years have been deducted.
9. The details given under vi(g) do not affect the comparison since they pertain to revaluation done in years 1980, 1982 and 1985.
10. Since we have reworked the profits before depreciation and tax, the details given in vih do not affect the comparison.

Conclusion: At a first glance, the profit and loss account, as published seems to indicate the following growth rates:

i. Growth in sales during the year: $\frac{1,471-1,229}{1,229}$ = 19.69%

ii. Growth in profit after tax $\frac{106-100.53}{100.53} \text{x} 100 = 5.44\%$

However, if profits before tax are compared, the growth is

$= \frac{153.75-146.28}{146.28} = 5.1\%$

After making the necessary adjustments and reworking the profits, we find that the growth in profits attributable to normal operations is

$= \frac{145.38-127.71}{145.38} = 12.1\%$

Extract from Schedule II under 'Other Income'

i. The following receipts have been included under 'Other income'.

(Rs. in thousand)

	1992-93	1991-92
Surplus on sale of Assets	8,039	5,048
Profit on sale of Investments	46,154	–
Sundry Credit Balance Appropriated	1,615	569
Provision for doubtful debts and advances written back	1,768	1,395
Provisions for interest on Vehicle booking advance no longer required, written back	135,298	55,370

ii. **Other Expenses:** The other expenses include the following:

(Rs. in thousand)

	1992-93	1991-92
Premium on Redemption of Debentures	815	1,622
Bonus Issue expenses	–	2,185
Loss on assets sold, demolished, discarded and scrapped	913	816
Loss on Investments sold	–	15,344

Reworked Profit of Bajaj Auto Ltd. for the year ended 31.3.93

(Rs. in thousand)

	1992-93	1991-92
Profit Before Tax	9,80,536	8,37,412
Less: Non-operation income included under 'Other Income'		
Surplus on sale of Assets	8,039	5,048
Profit on sale of Investments	46,154	–
Sundry Credit Balances Appropriated	1,615	569
Provisions for doubtful debts written back	1,768	1,395
Provision for interest on vehicle booking advance written back	1,35,298	55,370
	7,87,662	7,75,030
Add: Non-operating expenses included under other expenses		
Premium on Redemption of Debentures	815	1,622
Bonus issue expenses	–	2,185
Loss on assets sold, demolished, discarded etc.	913	816
Loss on Sale of Investments	–	15,344
	7,89,390	7,94,997

Conclusion: While the profit before tax *prima facie* shows an increase in profit of 17.09%, the removal of the effect of non-operating income and expenditure as above reveals a marginal decline in profits.

ETHICAL CONDUCT IN ACCOUNTING PROFESSION

A profession can gain public trust and confidence only if specific norms of behavior of the members of the profession are laid down and observed strictly. The need for certain norms of behavior, responsibility and attitude from a professional accountant need not be overemphasized. In the words of Carey and Doherty 'Professional ethics may be regarded as a mixture of moral and practical concepts, with a sprinkling of exhortation to ideal conduct designed to evoke right action on the part of the members of the profession concerned'. Hence, the Professional Ethics of an accountant would specify 'his behavior towards his fellows in the profession and other professions and towards members of the public'.

International Federation of Accountants (IFAC) recognizes that "Persons who pursue a vocation in which they offer their knowledge and skills in the service of the affairs of others have responsibilities and obligations to those who rely on their work. An essential prerequisite for any group of such persons is the acceptance and observance of professional ethical standards regulating their relationship with clients, employees, fellow members of the group and the public generally".

Following are the fundamental principles by which an accountant should be governed in the conduct of his professional relationship with others.

i. **Integrity:** An accountant should be straightforward, honest, and sincere in his approach to his professional work.

ii. **Objectivity:** An accountant should be fair and should not allow prejudice or bias to override his objectivity. When reporting on financial statements which come under his review, he should maintain an impartial attitude.

iii. **Independence:** When in public practice, an accountant should be and also appear to be free of any interest which might be regarded, whatever its actual effect, as being incompatible with integrity and objectivity.

iv. **Confidentiality:** An accountant should respect the confidentiality of information acquired in the course of his work and should not disclose any such information to a third party without specific authority or unless there is a legal or professional duty to disclose.

v. **Technical Standards:** An accountant should carry out his professional work in accordance with the technical and professional standards relevant to that work.

vi. **Professional Competence:** An accountant is duty bound to maintain his level of competence throughout his professional career. He should undertake only that work which he or his firm can expect to complete with professional competence.

Ethical Behavior

An accountant should always conduct himself in a manner consistent with the good reputation of the profession and refrain from any conduct which might bring discredit to the profession. The Chartered Accountant Act and Cost and Works Accountants Act of India recognized the need of well defined code of conduct and inserted the provisions defining the misconduct, the circumstances in which a professional accountant would be deemed to be guilty of professional misconduct, etc.

Section 22 of the Chartered Accountants Act defines the expression 'misconduct' as deemed to be including any act or omission specified in any of the schedules to the Act. The First and Second Schedules to the Act contain a list of circumstances in which a Chartered Accountant can be guilty of professional misconduct.

First Schedule

There are three parts to the First Schedule to the Chartered Accountants Act. The first and second part of the First Schedule deal with the professional misconduct in relation to chartered accountants in practice and those in service respectively. The third part of the First Schedule applies to all the chartered accountants in general.

PART I OF THE FIRST SCHEDULE

This part contains 13 clauses which specify certain circumstances in which a chartered accountant in practice is deemed to be guilty of professional misconduct. They are:

i. If he allows any person to practice in his name as a chartered accountant unless such person is also a chartered accountant in practice and is in partnership with or employed by himself.

ii. If he pays or allows or agrees to pay or allow, directly or indirectly, any share, commission or brokerage in the fees or profits of his professional business to any person other than a member of the Institute or a partner or a retired partner or the legal representative of the deceased partner.

iii. If he accepts or agrees to accept any part of the profits of the professional work of a lawyer, auctioneer, broker or other agent who is not a member of the Institute.

iv. If he enters into partnership with any person other than a chartered accountant in practice or a person resident outside India who but for his residence abroad would be entitled to be registered as a member under Clause (v) of sub-section 1 of Section 4 of the Act or whose qualifications are recognized by the Central Government or the Council for the purpose of permitting such partnerships, provided that chartered accountant shares in the fees or profits of the business of the partnership both within and outside India.

v. If he secures, either through the services of a person not qualified to be his partner or by means which are not open to a chartered accountant, any professional business.

vi. If he solicits clients or professional work either directly or indirectly, by circular, advertisement, personal communication or interview or by any other means.

vii. If he advertises his professional attainments or services, or uses any designation or expressions other than chartered accountant on professional documents, visiting cards, letter heads or signboards, unless it be a degree of a University established by law in India or recognized by the Central Government or a title indicating membership of the Institute of Chartered Accountants or of any other institution that has been recognized by the council.

viii. If he accepts a position as auditor previously held by another chartered accountant or a Restricted State Auditor without first communicating with him in writing.

ix. If he accepts an appointment as auditor of a company without ascertaining from it whether the requirements of Section 226 of the Companies Act, 1956 in respect of such appointment have been duly complied with or not.

x. If he charges or offers to charge, accepts or offers to accept in respect of any professional employment, fees which are based on a percentage of profits or which are contingent upon the findings or results of such employment, except in cases which are permitted under any regulations made under the Act.

xi. If he engages in any business or occupation other than the profession of chartered accountants unless permitted by the council so to engage; provided that nothing contained herein shall disentitle a chartered accountant from being a director of a company unless he or any of his partners is interested in such company as an auditor.

xii. If he accepts a position as an auditor previously held by some other chartered accountant or a restricted state auditor in such conditions as to constitute undercutting.

xiii. If he allows a person not being a member of the Institute or a member not being his partner to sign on his behalf or on behalf of his firm any balance sheet, profit and loss account, report or financial statements.

PART II OF THE FIRST SCHEDULE

This part specified the following three circumstances in which a chartered accountant in employment would be guilty of professional misconduct.

i. If he pays or allows or agrees to pay directly or indirectly to any person any share in the emoluments of employment undertaken by him.

ii. If he accepts or agrees to accept any part of fees, profits or gains from a lawyer, a chartered accountant or broker engaged by such company, firm or person or agent or customer of such company, firm or person by way of commission or gratification.

iii. If he discloses confidential information acquired in the course of his employment except as and when required by law or except as permitted by the employer.

iv. If he expresses his opinion on financial statements of any business or any enterprise in which he, his firm or a partner in his firm has a substantial interest unless he also discloses the interest in his report.

v. If he fails to disclose a material fact known to him which is not disclosed in a financial statement but disclosure of which is necessary to make the financial statement not misleading.

vi. If he fails to report a material misstatement known to him to appear in a financial statement with which he is concerned in a professional capacity.

vii. If he is grossly negligent in the conduct of his professional duties.

viii. If he fails to obtain sufficient information to warrant the expression of an opinion or his exceptions are sufficiently material to negate the expression of an opinion.

ix. If he fails to invite attention to any material departure from the generally accepted procedure of audit applicable to the circumstances.

x. If he fails to keep moneys of his client in a separate banking account or to use such moneys for the purposes for which they are intended.

PART III OF FIRST SCHEDULE

This part declares any chartered accountant i.e., whether in practice or not, guilty of professional misconduct if he:

i. includes in any statement, return or form to be submitted to the council any particulars knowing them to be false;

ii. not being a Fellow styles himself as a Fellow; or

iii. does not supply the information called for or does not comply with the requirements asked for by the council or any of its committees.

Where a chartered accountant is found to be guilty of a misconduct listed in any of three parts of First Schedule mentioned above the council of the Institute of Chartered Accountants of India has the power to reprimand the guilty chartered accountant or remove his name from the Register of Members for a period not exceeding five years. However, the aggrieved chartered accountant can prefer an appeal to the High Court. High Court can also, on its own motion or otherwise, revise the order of the council. In case the council feels that the name of the member should be removed from the register of members for a period exceeding five years, it has to refer the case to the High Court with its recommendations.

Second Schedule

Second Schedule contains two parts.

PART I OF THE SECOND SCHEDULE

Part I lists ten circumstances in which a chartered accountant in practice would be guilty of professional misconduct. They are:

i. If he discloses information acquired in the course of his professional engagement to any person other than his client, without the consent of his client or otherwise than as required by any law for the time being in force.

ii. If he certifies or submits in his name or in the name of his firm, a report of an examination of financial statements unless the examination of such statements and the related records has been made by him or by a partner or an employee of his firm or by another chartered accountant in practice.

iii. If he permits his name or the name of his firm to be used in connection with an estimate of earnings contingent upon future transactions in a manner which may lead to the belief that he vouches for the accuracy of the forecast.

PART II OF THE SECOND SCHEDULE

This part specified two rules of misconduct which are applicable to all chartered accountants whether in practice or not. They are:

i. A chartered accountant would be deemed to be guilty of professional misconduct, if he contravenes any of the provisions of the Chartered Accountants Act or the regulations made thereunder.

ii. A chartered accountant would be deemed to be guilty of professional misconduct, if he is guilty of such other act or omission as may be specified by the council in this behalf, by notification in the Gazette of India.

If a Chartered Accountant is found guilty of any misconduct listed in the Second Schedule, the Council of the ICAI is required to forward the case to the competent High Court with its recommendations.

Professional Ethics of Cost Accountants

Sections 21, 22 and 33 of the Cost and Works Accountants Act define misconduct and lay down the procedures of inquiries and appeals in cases relating to misconduct by the cost accountants. These provisions are similar to the provisions of Sections 21, 22 and 22A of the Chartered Accountants Act.

The First and Second Schedules to the Cost and Works Accountants Act are framed on the pattern of the corresponding schedules in the Chartered Accountants Act.

The first schedule to the Cost and Works Accountants Act is divided into three parts – the first being applicable to the cost accountants in practice. The first seven clauses of the Part I are identical to the corresponding clauses of Part I of the Schedule to the Chartered Accountants Act, except for the substitution of the words 'cost accountant' and the 'Institute of Cost and Works Accountants of India' for the words 'Chartered Accountant' and the 'Institute of Chartered Accountants of India' respectively. The other clauses of the part are:

Clause 8: A cost accountant in practice shall be deemed to be guilty of professional misconduct if he accepts a position as a cost accountant previously held by another cost accountant in practice without first communicating with him in writing.

Clause 9: Clause 9 of the First Schedule to the Chartered Accountants Act regarding ascertainment of compliance with the provisions of Section 226 of the Companies Act in the case of appointment as an auditor of a company does not appear in the first schedule to the Cost and Works Accountants Act.

Clause 10: This clause prohibits a cost accountant in practice from engaging in any business or occupation other than the profession of cost accountancy unless permitted by the Council so to engage.

Clauses 11 and 12: The clauses prevent undercutting of fees in accepting a position as a cost accountant and signing of cost or pricing or other related statements on behalf of a cost accountant in practice by a person other than his partner.

The provisions of Part II and III of the First Schedule to the Cost and Works Accountants Act are identical to the corresponding provisions contained in Part II and III of the First Schedule to the Chartered Accountants Act.

The provisions in the two parts of the Second Schedule to the Cost and Works Accountants Act are also similar to those in the Second Schedule to the Chartered Accountants Act.

SUMMARY

- The nature of the figures reported in the Financial statements tend to give an impression to the reader that the financial statements are precise, exact and final.
- On completion of this chapter we have gained knowledge of the limitations of profit and loss account, limitations of the balance sheet and how the statements can be manipulated.
- Since auditors play an important role in ensuring the accuracy of the financial statements, we have also learnt the ethical conduct laid down for the auditors.

Chapter XI

Introduction to Cost Accounting and Cost Concepts

After reading this chapter, you will be conversant with:

- Interface of Financial Accounting with Cost Accounting
- Types of Costs
- Cost Units
- Cost Centers
- Characteristics of Cost Information
- Costs on Financial Statements
- Cost Behaviour and Cost Estimation
- Preparation of Cost Sheet

INTERFACE OF FINANCIAL ACCOUNTING WITH COST ACCOUNTING

CIMA, London, defines Cost Accounting as "the process of accounting for cost form the point at which expenditure is incurred or committed to the establishment of its ultimate relationship with cost centers and cost units. In its widest usage it embraces the preparation of statistical data, the application of cost control methods and the ascertainment of the profitability of activities carried out or planned".

Cost Accounting thus lays emphasis on cost ascertainment, cost control and ascertainment of profitability of concerns.

The following are the main differences between financial accounting and cost accounting.

i. Financial accounting provides information about the overall performance of the business to the owners of the business and outsiders whereas cost accounting provides information to the management for proper planning, operation and control.

ii. Financial accounts are kept to fulfill the requirement of law where as cost accounts are voluntarily kept to meet the requirements of the management.

iii. Classification of costs under financial accounting is subjective as they are done based on the nature of expenses whereas classification of costs under cost accounting is objective as they are done on the basis for which the costs are incurred.

iv. Financial accounts are prepared on a periodic basis, say, one year whereas cost accounts are prepared on a need basis.

v. Financial statements give an idea about the overall performance of the enterprise whereas cost statements provide idea about each and every product, job or service.

vi. Financial statements report the total costs whereas cost accounts report the cost per unit.

vii. Financial accounts relate to the commercial transactions whereas cost accounts relate to the transactions with in the enterprise like manufacture of the product, provision of service etc.

viii. Financial accounting deals only with monetary transactions whereas cost accounting also deals with non-monetary information.

ix. The accounting data is meant to report the profits or losses of the enterprises whereas cost accounting provides data for fixation of selling prices.

x. Financial accounting is based purely on facts and figures whereas cost accounting is also based on estimates.

xi. Stocks are valued at cost or market value, which ever is less, under financial accounting whereas stocks are always valued at cost under cost accounting.

TYPES OF COSTS

Cost classification is the process of grouping costs according to their common characteristics. A suitable classification of costs is very helpful in identifying a given cost with cost centers or cost units. Costs may be classified according to their nature, i.e., material, labor and expenses and a number of other characteristics. Depending upon the purpose to be achieved and requirements of a particular concern the same cost figures may be classified into different categories. The classification of costs can be done in the following ways:

1. By Nature of Element
2. By Functions
3. By Traceability

4. By Variability
5. By Controllability
6. By Normality
7. By Capital or Revenue
8. By Time
9. By Association with Product
10. According to Planning and Control
11. For Managerial Decisions
12. Others.

Each classification will be discussed in detail in the following paragraphs.

By Nature of Element

The costs are divided into three categories i.e. Materials, Labor and Overheads. Further sub-classification of each element is possible; for example, material can be classified into raw material components, spare parts, consumable stores, packing material, etc.

Materials: Materials are the principal substances that go into the production process and are transformed into finished goods. Materials are further classified as direct materials and indirect materials. Direct materials are that materials that can be directly identified with and easily traced to finished goods. In manufacturing organizations, the cost of direct materials constitutes a major proportion of the finished product cost. All the other materials that go into the production of the finished goods are called indirect material costs. Indirect materials generally form a part of the manufacturing overheads. For example. a furniture manufacturer, teak wood is a direct material as it can be traced easily to the furniture made, and the nails, adhesives and other sundry materials can be treated as indirect materials.

Labor: Labor refers to the human effort to produce goods and services. It is a factor of production; the talents, training, and skills of people which contribute to the production of goods and services. It involves the physical and mental effort. It can be further classified into direct and indirect labor. Direct labor is the effort of employees who transforms direct materials into a finished product and it is physically traceable to the finished good or service. In some industries labor cost forms a significant portion of total costs. The labor which cannot be traced to a product is considered to be the indirect labor. The indirect labor forms part of factory overhead. In the above example, the cost of the workers who directly expend their energy on making the furniture with the help of tools and machines is considered to be the direct labor. The salary paid to a supervisor, who oversees the activities of a team of workers is considered as indirect labor.

Overheads: Those elements of costs necessary in the production of an article or the performance of a service which are of such a nature that the amount applicable to the product or service cannot be determined accurately or readily. Usually they relate to those objects of expenditures which do not become an integral part of the finished product or service – such as rent, heat, light, supplies, management, supervision, etc. In other words, overheads consist of indirect materials, indirect labor and other indirect expenses. The overheads can be classified into factory overheads, office and administration overheads and selling and distribution overheads. Continuing with the above example, cost of factory lighting, rent of the factory, rent of administrative building, salary of administrative staff and managers, depreciation of machinery etc. constitute overheads.

By Functions

It leads to grouping of costs according to the broad divisions of functions of a business undertaking or basic managerial activities, i.e. production, administration, selling and distribution. According to this classification costs are divided as follows:

MANUFACTURING AND PRODUCTION COSTS

This category includes the total of costs incurred in manufacture, construction and fabrication of units of production. The manufacturing and production costs comprise of direct materials, direct labor and factory overheads.

ADMINISTATIVE COSTS

This category includes costs incurred on account of planning, directing, controlling and operating a company. For example, salaries paid to managers and other administrative staff.

SELLING AND DISTRIBUTION COSTS

Selling costs and distribution costs are most often confused to be one and the same. However, there is a distinction between the two. Selling costs are defined as "the cost of seeking to create and stimulate demand and of securing orders". Example of selling costs are advertisement, salesman salaries, etc. Whereas, distribution costs are defined as "the cost of sequence of operations which begin with making the packed product available for dispatch and ends with making the reconditioned, returned empty packages, if any available for re-use. For example, insurance on goods in transit, warehousing etc. are distribution costs.

By Traceability

According to this classification, total cost is divided into direct costs and indirect costs. Direct costs are those costs which are incurred for and may be conveniently identified with or easily traced to a particular cost center or cost unit. The common examples of direct costs are materials used and labor employed in manufacturing an article or in a particular process of production. Indirect costs are those costs which are incurred for the benefit of a number of cost centers or cost units and cannot be conveniently identified with a particular cost center or cost unit. Examples of indirect costs include rent of building, management salaries, machinery depreciation, etc. The nature of the business and the cost unit chosen will determine the costs as direct and indirect. For example, the hire charges of a mobile crane used onsite by a contractor would be regarded as a direct cost since it is identifiable with the project/site on which it is employed, but if the crane is used as a part of the services of a factory, the hire charges would be regarded as indirect cost because it will probably benefit more than one cost center or department. The distinction between direct and indirect cost is essential because the direct costs of a product or activity can be accurately identified with the cost object while the indirect costs have to be apportioned on the basis of certain assumptions about their incidence.

By Variability

The basis for this classification is the behavior of costs in relation to changes in the level of activity or volume of production. On this basis, costs are classified into three groups viz. fixed, variable and semi-variable.

FIXED COSTS

Fixed costs are those which remain fixed in total with increase or decrease in the volume of output or activity for a given period of time or for a given range of output. Fixed costs per unit vary inversely with the volume of production, i.e. fixed cost per unit decreases as production increases and increases as production decreases. Examples of fixed costs are rent, insurance of factory building, factory manager's salary, etc. These costs are constant in total amount but fluctuate per unit as production level changes. These costs are also termed as capacity costs.

VARIABLE COSTS

Variable costs are those which vary in total directly in proportion to the volume of output. These costs per unit remain relatively constant with changes in volume of production or activity. Thus, variable costs fluctuate in total amount but tend to remain constant per unit as production level changes. Examples: direct material costs, direct labor costs, power, repairs, etc.

SEMI-VARIABLE COSTS

Semi-variable costs are those which are partly fixed and partly variable. For example, telephone expenses include a fixed portion of monthly charge plus variable charge according to the number of calls made; thus total telephone expenses are semi-variable. Other examples of such costs are depreciation, repairs and maintenance of building and plant, etc. These are also called semi-fixed costs or mixed costs.

By Controllability

On this basis costs are classified into two categories:

CONTROLLABLE COSTS

If the costs are influenced by the action of a specified member of an undertaking, that is to say, costs which are at least partly within the control of management they are called controllable costs. An organization is divided into a number of responsibility centers and controllable costs incurred in a particular cost center can be influenced by the action of the manager responsible for the center. Generally speaking, all direct costs including direct material, direct labor and some of the overhead expenses are controllable by lower level of management.

UNCONTROLLABLE COSTS

If the costs cannot be influenced by the action of a specified member of an undertaking, that is to say, which are not within the control of management they are called uncontrollable costs. Most of the fixed costs are uncontrollable. For example, rent of the building is not controllable and so is managerial salaries. Overhead cost, which is incurred by one service section or department and is apportioned to another which receives the service is also not controllable by the latter.

Controllability of costs depends on the level of management (top, middle or lower) and the period of time (long-term or short-term).

By Normality

On this basis, is the costs are classified into two categories.

NORMAL COST

It is the cost which is normally incurred at a given level of output in the conditions in which that level of output is normally attained. It forms a part of production cost.

ABNORMAL COST

It is the cost which is not normally incurred at a given level of output in the conditions in which that level of output is normally attained. It is not considered as a part of production cost, hence it is charged to Costing Profit and Loss Account.

By Capital and Revenue or Financial Accounting Classification

If the cost is incurred in purchasing assets either to earn income or increasing the earning capacity of the business it is called capital cost, for example, the cost of a rolling machine in case of steel plant. Though the cost is incurred at one point of time the benefits accruing from it are spread over a number of accounting years.

Revenue expenditure is any expenditure done in order to maintain the earning capacity of the concern such as cost of maintaining an asset or running a business. Example, cost of materials used in production, labor charges paid to convert the material into production, salaries, depreciation, repairs and maintenance charges, selling and distribution charges, etc. While calculating cost, revenue items are considered whereas capital items are completely ignored.

By Time

Costs can be classified as (i) Historical costs and (ii) Predetermined costs.

HISTORICAL COSTS

The costs which are ascertained after being incurred are called historical costs. Such costs are available only when the production of a particular thing has already been done. Such costs are only of historical value and not at all helpful for cost control purposes.

Predetermined Costs

Such costs are estimated costs, i.e. computed in advance of production taking into consideration the previous periods' costs and the factors affecting such costs. If they are determined on scientific basis they become standard cost. Such costs when compared with actual costs will give the variances and reasons of variance and will help the management to fix the responsibility and to take remedial action to avoid its recurrence in future.

Historical costs and predetermined costs are not mutually exclusive. Even in a system when historical costs are used, predetermined costs have a very important role to play because a figure of historical cost by itself has no meaning unless it is related to some other standard figure to give meaningful information to the management.

By Association with Product

Costs on this basis are classified as Product Costs and Period Costs. This distinction is required for the purpose of profit determination. This is because product costs are carried forward to the next accounting period in the form of unsold finished stock. Whereas period costs are written off in the accounting period in which it is incurred.

PRODUCT COST

Product costs are associated with unit of output. Product costs are the costs 'absorbed by' or 'attached to' the units produced. These costs go into the determination of inventory valuation (finished goods and partly completed goods) hence are called Inventoriable costs. This consists of direct materials, direct labor and factory overheads (partly or fully). The extent of inclusion of factory costs depends on the type of costing system in force – absorption or direct costing. If absorption costing method is adopted, both the fixed and variable factory overheads are included as part of product costs. If direct costing method is adopted only variable factory overheads are included as part of inventoriable cost.

PERIOD COSTS

Period costs are costs associated with period for which they are incurred, rather than the unit of output or manufacturing activity. These costs are not treated as part of inventory and hence they are treated as expenses of the period for which they are incurred. Administrative, Selling and Distribution costs are treated as period costs and are deducted as an expense for the determination of income and are not regarded as a part of inventory.

According to Planning and Control

Cost accounting furnishes information to the management which is helpful in discharging the two important functions of management i.e. planning and control. For the purpose of planning and control, costs are classified as budgeted costs and standard costs.

BUDGETED COSTS

Budgeted costs represent an estimate of expenditure for different phases or segments of business operations, such as manufacturing, administration, sales, research and development, for a period of time in future which subsequently becomes the written expression of managerial targets to be achieved. Various budgets are prepared for different phases/segments of business, such as sales budget, raw material cost budget, labor cost budget, cost of production budget, manufacturing overhead budget, office and administration overhead budget. Continuous comparison of actual performance (i.e., actual cost) with that of the budgeted cost is made so as to report the variations from the budgeted cost to the management for corrective action.

STANDARD COSTS

The Institute of Cost and Management Accountants, London defines standard cost as "the predetermined cost based on a technical estimate for materials, labor and overhead for a selected period of time and for a prescribed set of working conditions". Thus, standard cost is a determination, in advance of production, of what should be its cost under a set of conditions.

Budgeted costs and standard costs are similar to each other to the extent that both of them represent estimates of cost for a period of time in future. In spite of this, they differ in the following respects:

- Standard costs are scientifically predetermined costs of every aspect of business activity whereas budgeted costs are mere estimates made on the basis of past actual financial accounting data adjusted to future trends. Thus, budgeted costs are projection of financial accounts whereas standard costs are projection of cost accounts.
- The primary emphasis of budgeted costs is on the planning function of management whereas the main thrust of standard costs is on control.
- Budgeted costs are extensive whereas standard costs are intensive in their application. Budgeted costs represent a macro approach of business operations because they are estimated in respect of the operations of a department. Contrary to this, standard costs are concerned with each and every aspect of business operation carried in a department, budgeted costs are calculated for different functions of the business, i.e. production, sales, purchases, etc. whereas standard costs are compiled for various elements of costs, i.e. materials, labor and overhead.

For Managerial Decisions

On this basis, costs may be classified into the following categories:

MARGINAL COST

Marginal cost is the additional cost to be incurred if an additional unit is produced. In other words, marginal cost is the total of variable costs, i.e. prime cost plus variable overheads. It is based on the distinction between fixed and variable costs.

OUT OF POCKET COSTS

This is that portion of the cost which involves payment, i.e. gives rise to cash expenditure as opposed to such costs as depreciation, which do not involve any cash expenditure. Such costs are relevant for price fixation during recession or when make or buy decision is to be made.

DIFFERENTIAL COSTS

If there is a change in costs due to change in the level of activity or pattern or method of production they are known as differential costs. If the change increases the cost, it will be called incremental cost and if the change results in the decrease in cost it is known as decremental cost.

SUNK COSTS

Sunk cost is another name for historical cost. It is a cost that has already been incurred and is irrelevant to the decision making process. A good example is depreciation on a fixed asset. Depreciation on a given asset is a sunk cost because the cost (of purchasing the asset) has already been incurred (when it was purchased) and it cannot be affected by any future action, though we allocate the depreciation cost to future periods the original cost of the asset is unavoidable. What is relevant in this context is the salvage value of the asset not the depreciation. Thus, sunk costs are not relevant for decision making and are not affected by increase or decrease in volume.

IMPUTED (OR NOTIONAL) COSTS

These costs appear in cost accounts only. For example notional rent charged on business premises owned by the proprietor, interest on capital for which no interest has been paid. When alternative capital investment projects are being evaluated it is necessary to consider the imputed interest on capital before a decision is arrived as to which is the most profitable project.

OPPORTUNITY COST

It is the maximum possible alternative earnings that will be foregone if the productive capacity or services are put to some alternative use. For example, if an owned building is proposed to be used for a project, the likely rent of the building is the opportunity cost which should be taken into consideration while evaluating the profitability of the project. Since opportunity costs are not actually costs incurred but only are benefits foregone, they are not as a matter of fact recorded in the accounting books. However, they are relevant costs for decision making purposes and are considered while evaluating different alternatives.

REPLACEMENT COST

It is the cost at which there could be purchase of an asset or material identical to that which is being replaced or revalued. It is the cost of replacement at current market price.

AVOIDABLE AND UNAVOIDABLE COST

Avoidable costs are those which can be eliminated if a particular product or department with which they are directly related to, is discontinued. For example, salary of the clerks employed in a particular department can be eliminated, if the department is discontinued. Unavoidable cost is that cost which will not be eliminated with the discontinuation of a product or department. For example, salary of factory manager or factory rent cannot be eliminated even if a product is eliminated.

Other Types of Costs

FUTURE COSTS

Are those costs that are expected to be incurred at a later date.

PROGRAMMED COST

Certain decisions reflect the policies of the top management which results in periodic appropriations and these costs are referred to as programmed cost. For example, the expenditure incurred by the company under the Jawahar Rojgar Yojana program initiated by the prime minister is a programmed cost which reflects the policy of the top management.

JOINT COST

Joint cost is the cost of manufacturing joint products up to or prior to the split-off point. Cost incurred after the split-off point is called separable cost. Joint cost is common to the processing of joint products and by-products till the point of separation and cannot be traced to a particular product before the point of split-off.

CONVERSION COST

Conversion cost is the cost incurred in converting the raw material into finished product. It can be calculated by deducting the cost of direct materials from the production cost.

DISCRETIONARY COSTS

Discretionary costs are those costs which do not have obvious relationship to levels of capacity or output activity and are determined as part of the periodic planning process. In each planning period the management decides on how much to spend on certain discretionary items such as advertising, research and development, employee training. These costs are amenable for alteration by the management.

COMMITTED COST

Committed cost is a fixed cost which results from the decisions of the management in the prior period and is not subject to the management control in the present on a short run basis. They arise from the possession of production facilities, equipment, an organization setup, etc.

Some examples of committed costs are: plant and equipment depreciation, taxes, insurance premium and rent charges.

COST UNITS

Managers are often interested in knowing the cost of something. The ‘something’ for which the cost has to be ascertained is known as cost objective or cost object or cost unit. Examples of cost units include products, activities, departments, number of patients treated, sales regions, etc.

For example, if a factory produces motor cars then the cost unit would be a motor car because the costs are all incurred in producing motor cars.

Let us take up a more complex situation. Consider a bus operator providing bus services to the public between most of the major cities of the country. Suppose the bus operator wants to fix a cost unit, what is it?

Note that here there is no production, what is provided is a service.

Each trip between two cities may be taken as a cost unit. Alternatively cost per kilometer of travel may be taken as a cost unit. However, neither of the above cost units relates to the passenger who buys the service.

If the operator wants to fix a price to be charged to each passenger, the above cost units would have to be adjusted further.

Assume that a bus covers a distance of 700 km per day carrying 30 passengers on an average, the output is 700 x 30 = 21,000 passenger kilometers per day. On an average the passenger kilometers covered by each bus per week is 1,00,000. The total cost of operation per bus per week is Rs.80,000, the cost per passenger kilometer is = Rs.0.80.

$$\text{Cost per passenger kilometer} = \frac{80{,}000}{1{,}00{,}000} = \text{Re.}0.80$$

The implication is that the bus operator must charge, on an average, over Rs.0.80 per kilometer to each passenger in order to make a profit.

COST CENTERS

The smallest segment of activity or area of responsibility for which costs are accumulated. In the manufacture and sale of a product or in the rendering of a service, several activities may have to be performed. These activities are usually carried out by different departments or sections of the company. For example, in a pharmaceutical company, the raw materials may be purchased by a purchase department, stocked up in a store, processed in one or more processing departments, packed in a packing department and sold by a sales and distribution department. Hence cost statistics are conveniently accumulated for each department. In Cost Accounting each department would be called a Cost Center. Typically cost centers are departments, but in some instances, a department may contain several cost centers. For example, a machining department may be under one foreman but it may contain various groups of machines, such as lathes, milling machines, etc.

As each department is managed by a departmental manager, the cost of a department would be a measure of how the department's manager is performing. In fact, by reporting departmental costs to the concerned managers, they will better understand the cost consequences of their actions so that departmental performance becomes more cost effective.

Box 2.1: Kyocera Cost Centers

Kyocera is a Japanese company that makes packages which hold the silicon chips in electronic computers. The packages or containers are made from alumina powder.

The powder is first made into sheets and wiring patterns are then screen printed on the sheets. The sheets are next converted into interconnected stacks and the stacks are baked in ovens. The final step is quality control.

Based on the above description can you decide on the main cost centers of Kyocera's factory?

The following cost centers are clearly suggested by the above description.

- Sheet Making Department
- Screen Printing Department
- Stack Making Department
- Baking Department
- Quality Control Department.

CHARACTERISTICS OF COST INFORMATION

Cost accounting provides information that helps planning, control and decision making.

Planning is future oriented. Hence cost information generated from historical records has to be attuned to future changes in the organization and its environment.

Analysis and comparison of the actual and expected results indicate whether there is any need for control. Hence costs have to be broken down into various elements and each element of cost has to be compared with a "norm" or "standard".

Decision-making is a future oriented activity because the impact of current decisions are experienced in terms of future costs and benefits. Decision-making considers only relevant costs. A cost that is the same regardless of the alternative chosen is not a relevant cost. But a cost that changes depending upon the alternative chosen is a relevant cost.

Cost data is gathered from the information about the operations to determine the costs which are related to each cost center. The financial accounting system provides the data on expenses, and these are now treated as costs.

General or common costs like depreciation on factory building, have to be distributed among the various cost centers on an equitable basis.

The costs accumulated in each cost center are then "loaded" or distributed over the cost units produced by them.

Cost Tracing

Tracing of costs is an attempt to assign costs on the basis of their cause. The costs which can be traced directly to a specific cost objective is direct cost with respect to that cost objective and the costs which cannot be traced directly to a specific cost objective is indirect cost with respect to that cost objective. Tracing of costs is essential for two primary reasons: the cost control and product costing.

Cost Allocation

Many costs are incurred in an organization as a result of activities performed in several responsibility centers or subunits of the organization. A collection of costs to be assigned to different subunits is called a cost pool. The responsibility centers, products or services to which costs are to be assigned are called cost objects. The process of assigning the costs in the cost pool to the cost objects is called cost allocation or cost distribution.

Cost Driver

A cost driver is an output measure that causes costs. For this reason it is necessary for an organization or its subunit to find out its activities and determine measures of output for each of the activities identified. Once an output measure for each of the activities is determined it is possible to relate each output measure to the resources that are necessary to produce it.

Examples of output measures include number of letters dispatched by a dispatch clerk, passenger kilometers operated by a transport company, tonnes of coal produced by a coal mining company, meals served by a hotelier.

COSTS ON FINANCIAL STATEMENTS

Generally Accepted Accounting Principles (GAAP) determines how costs are to be classified for financial reporting. These financial statements are for users outside the organization and the rules underlying the classification of costs for reporting in financial statements are not likely to be the rules that should be used for internal decision-making. The main problem in financial reporting is determining the time when costs become expensed in the income statement. The calculation of the cost of a product for planning and cost control purposes may be different from the calculation of the cost of a product for financial reporting purposes.

Product costs are identified with goods manufactured or purchased for resale. Product costs on financial statements include all manufacturing costs, i.e. direct material, direct labor and overheads. Period costs are identified with a time period rather than a product – selling, administrative and interest costs are treated as period costs for presenting in financial statements.

COST BEHAVIOR AND COST ESTIMATION

Understanding an organization's cost behavior enables managers to anticipate changes in cost when the organization's level of activity changes. Cost predictions, which are based on cost behavior patterns, facilitate planning, control, and decision making throughout the organization. These cost predictions are valid for a range of activity known as relevant range. Relevant range is the range of activity for which the fixed costs remain the same.

A variety of cost behavior patterns exist, ranging from simple variable and fixed costs to more complicated semi-variable and curvilinear costs. Several cost-estimation methods are used to determine which cost behavior pattern is appropriate for a particular cost.

As in selecting any managerial-accounting technique, the choice of a cost-estimation method involves a trade-off of costs and benefits. More accurate estimation methods provide the benefits of better information, but they are often more costly to apply.

ELEMENTS OF COST

Materials: Materials are the principal substances that go into the production process and are transformed into finished goods. They are further classified as direct materials and indirect materials. Direct materials can be easily and directly identified or traced to the production of finished goods. Direct materials can be easily and directly identified or traced to the production of finished goods. The cost of direct materials generally comprises the major cost of the finished product. All the other materials that to into the production of the finished goods are called indirect material costs. They generally form a part of the manufacturing overheads. For example, for a furniture manufacturer, while teak wood is a direct material, items like nails, glue etc., are indirect material.

Classification of Materials: In a typical manufacturing company, materials can be classified into the following groups:

- Raw material or basic materials used for production such as cotton, timber and iron.
- Work – in progress and semi-finished goods.
- Consumable stores – those that do not become part of the product but used during production.
- Tools such as jigs, fixtures, clamps etc.
- Components, which are incorporated in the end product.
- Office material such as stationer used in the office.

Labor: Labor is the human, physical and mental effort that goes into the production of a product. It is further classified as direct and indirect labor. Direct labor is directly involved in the production of the product. Direct labor is directly involved in the production of the product. Direct labor cost comprises the major labor cost. The residual labor which cannot be categorized as direct labor, is indirect labor. For example, in a furniture are direct labor where as the supervisor who oversees the work of a group of workers is considered as indirect labor.

Over Heads: All other costs that are incurred by the company other than direct materials and direct labor are called overheads. In other words, overheads consist of indirect materials, indirect labor and indirect expends. The over heads are further sub-divided into factory overheads. Overheads are dealt with in detail in the chapter 3 of this text book.

STATEMENT OF COST OR COST SHEET

The total cost is made up of cost of production and cost of distribution. The total cost is also known as selling cost which consist of:

a. Prime cost
b. Factory Cost or Work Cost
c. Administration Cost or Office Overheads,
d. Selling and Distribution Cost.

a. **Prime Cost:** The sum total of direct material, direct labor and overheads are called as prime cost. In this we adjust the opening and closing stock of raw materials. We get the prime cost as

   Opening stock of raw material

Add: Purchase of material

Add: Direct Expenses

Less: Closing stock of raw material

Material consumed

Add: Direct Wages

Prime Cost

b. Factory Cost or Works Cost: The sum total of prime cost plus the total factory overheads or works overheads is factory cost or works cost. Works overheads includes all the expenses incurred in production of goods such as factory rent, factory insurance, depreciation on plant and machinery, coal, gas, water, electricity, steam, work manager's remuneration, consumable stores, cotton wastes, etc. In this the opening & Closing work in progress is adjusted. The factory cost is obtained in the following way:

Prime Cost

Add: Factory Overheads

Less: Closing stock of work-in-progress

Less: Sale of scrap

Factory Cost

c. Administration Overheads: Administration cost is obtained by adding the office or administration overheads to works cost. It is also known as office cost or total cost. Office overheads includes all expenses incurred in carrying on the administration work of the concern such as salaries of office staff, depreciation of office buildings, rent and rates, taxes and insurance, audit fees, legal expenses, director's fees and remuneration, printing and stationery, postage, telephone repairs to office furniture, subscriptions to newspaper and trade association etc. The administration overheads when added to wok cost, we get the cost of production. The cost of goods manufactured is arrived after adjusting the opening & Closing stock of finished goods.

Factory overheads

Add: Office overhead

Cost of Production

Add: Opening stock of finished goods

Less: Closing stock of finished goods

Cost of Goods manufactured

d. Selling Cost: The selling cost or cost of sales is obtained by adding the selling and distribution overheads to cost of goods manufactured or cost of production. The selling and distribution overheads includes advertisement, selling expenses, salesmen's salaries and commission, traveling expenses, bad debts, discounts, packing expenses, distribution expenses, carriage outwards, after sales services, samples, transporting charges, etc.

Cost of Goods Manufactured

Add: Selling and Distribution Expenses

Cost of Sales

The difference between the sales and cost of sales is net profit earned for that product.

PROFORMA OF COST SHEET

Cost sheet is a statement designed to show the output of a particular accounting period along with break up of costs. According to ICMA, London, the cost sheet is 'a statement which provides for the assembly of the detailed cost of a cost center or a cost unit'. It is often considered good to prepare cost sheet with cost data of previous periods. This facilitates comparison and promotes cost control. Cost sheet is prepared on periodical basis and the specimen is as follows:

Cost Sheet of …….. for the year ended 31st March, 20….

Particulars		Rs.	Per Unit
Opening Stock of Raw Material	xxxx		
Add: Purchase of Raw Material	xxx		
	Xxxx		
Less: Closing Stock of Raw Material	xxx		
	________		
Raw Material Consumed		xxx	xxx
Add: Direct Labor		xxx	xxx
Direct Expenses		xxx	xxx
Prime Cost		xxxx	xxx
Add: Factory of Works Over heads		xxx	xxx
Add: Opening Stock of Work-in-Progress		xxx	xxx
Less Closing Stock of Work-in-progress		xxx	xxx
Less: Sale of Scrap		xx	xx
Factory or Works Cost		xxxx	xxx
Add: Office and Administration Over heads		xxx	xxx
Cost of Production		xxxx	xxx
Add: Opening Stock of Finished Goods		xxx	xxx
Less: Closing stock of Finished Goods		xxx	xxx
Cost of Goods Sold		xxxx	xxxx
Add: Selling and Distribution Overheads		xxx	xxx
Cost of Sales		xxxx	xxx
Profit		xxx	xxx
Sales		xxxxx	xxxx

TENDERS OR QUOTATIONS

Submission of Tender or Quotation means quoting prices for the supply of the commodities or for the service to be rendered by the produced in response to the advertisement. It should be prepared carefully, after incorporating the information relating to prime cost, overheads (Works, administration and selling) and the profits of the previous years. Possible adjustments in prices of material, wages and other cost should be considered before preparing the tender.

Illustration 11.1

Prepare a Cost sheet from the following particulars showing the prime cost, works cost, cost of production, net profit for the period. And also calculate the percentage of factory overheads to wages, percentage of administration and selling overheads to works cost.

	Rs.
Stock of material on 1 st June	15000
Stock of material on 30 th June	18,300
Stock of finished goods on 1 st June	10,800
Stock of finished goods on 30 th June	6,200
Work-in-progress on 1 st June	5,600
Work-in-progress on 30 th June	7,000
Purchase of material	13,200
Direct Wages	10,500
Indirect Wages	550
Factory Rent	3,000
Depreciation on machines	700
Sundry factory expenses	2,000
Freight on purchases	3,00
Office rent, rates	18,00
Sundry Sales expenses	2,500
Sales	42,200

Solution

Particulars			Rs.
Opening stock of Raw Material		15,000	
Add: Purchases		13,200	
Freight on Purchases		3,00	
		28,500	
Less: Closing stock of Raw Material		18,300	
Material Consumed			10,200
Add: Direct Wages			10,500
Prime Cost			20,700
Add: Factory or Works Overheads			
– Indirect wages	550		
– Factory rent	3,000		
– Depreciation	700		
– Sundry factory expenses	2,000		6,250
Add: Opening stock, of Work-in-Progress			26,950
			5,600
			32,550
Less: Closing stock of Work-in-Progress			7,000
Factory Cost			25,550
Add: Office and Administration Overheads–			1,800

Particulars			Rs.
Office rent, rates			
Cost of Production			27,350
Add: Opening stock of finished goods			10,800
			38,150
Less: Closing Stock of finished goods			6,200
Cost of goods sold			31,950
Add: Selling and Distribution Overheads			
– Sundry sales expenses			2,500
Cost of sales			34,450
Add: Profits			7,750
Sales			42,200

Percentage of Factory Overheads to Wages

$$= \frac{\text{Factory Overheads}}{\text{Direct Wages}} \text{x}100 = \frac{\text{Rs.}6{,}250}{\text{Rs.}10{,}500} \text{x}100 = 59.5\%$$

Percentage of Office and Administration Overheads to Works Cost

$$= \frac{\text{Office and Administration Cost}}{\text{Works Cost}} \text{x}100 = \frac{\text{Rs.}1{,}800}{\text{Rs.}22{,}550} \text{x}100 = 7.04\%$$

Percentage of Selling and Distribution Overheads to Works Cost

$$= \frac{\text{Selling and Distribution Cost}}{\text{Works Cost}} \text{x}100 = \frac{\text{Rs.}2{,}500}{\text{Rs.}25{,}550} \text{x}100 = 9.78\%$$

Illustration 11.2

The following data relate to the manufacture of a product Alpha.

Raw material consumed	Rs.25,000
Direct wages	Rs.15,000
Machine hours worked	950
Machine hour rate	Rs.2.50
Administration overheads	15% on work cost
Selling overheads	46 paise per unit
Units produced	25,000
Units sold	22,500@Rs.2.50

Prepare a cost sheet showing the cost per unit and profit for the period.

Solution

Cost Sheet

Particulars	Total Cost Rs.	Cost per Unit Rs.
Material Consumed	25,000	1.00
Add: Direct wages	15,000	0.60
Prime Cost	40,000	1.60
Add: Works overheads [950 hoursxRs.2.50]	2,375	0.095
Works Cost	42,375	1.695
Add: Administration overheads [15% of works cost]	6,356	0.254
Cost of Production	48,731	1.949
Less: Closing stock of finished goods [2,500x1.949]	4,872	
Cost of Goods Sold	43,859	1.949
Add: Selling Overheads [22,500 x Rs. 0.46]	10,350	0.414
Cost of Sales	54,209	2.363
Profit	2,041	0.137
Sales [22,500 x Rs.2.50]	56,250	2.50

Illustration 11.3

The following particulars are extracted from the books of a Company relating to a commodity Beta for the half year ending 30th June, 2006.

	Rs.
Purchase of raw material	1,30,000
Direct wages	1,00,000
Rent, rates, insurance and work on cost	45,000
Carriage inwards	1,500
Stock on 1st January, 2003	
Raw materials	20,000
Work-in-progress	4,500
Finished goods (1,600 tonnes)	17,600
Stock on 30th June, 2003	
Raw material	25,000
Work-in-progress	16,000
Finished goods 93,200 tons)	37,600
Factory supervision	10,000
Sales – finished goods	3,00,000

Advertising discount allowed and selling cost at Re.0.50 per ton sold 26,600 tons of commodity were produced during the period. You are required to ascertain:

1. Prime cost
2. Factory cost
3. Cost of goods sold
4. Profit
5. No. of tons sold.

Solution

Cost Sheet

Particulars		Rs.	Unit
Opening Stock of Material	20,000		
Add: Purchases	1,30,000		
Carriage Inwards	1,500		
Less: Closing Stock of Material	1,51,500		
Material Consumed	25,000	1,26,500	
Add: Direct wages		1,00,000	
Prime Cost		2,26,500	
Add: Factory overheads:			
– Rent, rates, insurance and work on cost	45,000		
– Cost of factory supervision	10,000	55,000	
Add: Opening sock of Work-in-progress		4,500	
		2,86,000	
Less: Closing stock of work-in-Progress		16,000	
Factory cost		2,70,000	
Add: Administration Overheads		___	
Cost of Production		2,70,000	26,600
Add: Opening stock of Finished goods		17,600	1,600
		2,87,600	28,200
Less: Closing stock of finished goods		37,600	3,200
Cost of Goods Sold		2,50,000	25,000
Add: Selling & Distribution overheads			
[25,000 tons x Re0.50]		12,500	
Cost of sales		2,62,500	
Profit		37.500	
Sales		3,00,000	

Illustration 11.4

The following information has been taken from a factory

Materials	Rs. 75,000
Labor	60,000
Factory overheads	45,000
Administration overheads	30,000

You are required to quote the selling price of a machine. Material Rs.6,300 wages Rs.4,500 so as to yield a profit of 25% on selling price.

Solution

Statement of Cost

Particulars	Rs.
Material	75,000
Add: Labor	60,000
Prime Cost	1,35,000
Add: Factory Overheads	45,000
Factory Cost	1,80,000
Add: Administrative Overheads	30,000
Cost of Production	2,10,000

Percentage of factory overheads to wages= $= \frac{45,000}{60,000} \text{x}\, 100 = 75\%$

Percentage of administration cost to work cost $= \frac{\text{Rs.}30,000}{\text{Rs.}1,80,000} \text{x}100 = 16.67\%$

Estimate or Quotation for a Machine

Particulars	Rs.
Material	6,300
Labor	4,500
Prime cost	10,800
Factory Overheads [75% of wages]	3,375
Work cost	14,175
Add: Administration Overheads [16.67% of work cost]	2,363
Cost of Production	16,538
Profit [16,538 x 25/75]	5,512
Sales	22,050

Techniques of Costing

In addition to the different methods of costing, the following techniques are used to ascertain costs:

1. ***Historical Costing:*** By this approach actual costs are ascertained after they have been incurred. This is a conventional method of cost ascertainment.
2. ***Absorption Costing:*** This approach considers all indirect manufacturing costs (also called factory overhead), fixed and variable, as inventoriable or product cost, and treats them as expense only when the products are sold.
3. ***Marginal Costing:*** Marginal costing differentiates between fixed and variable costs. Under marginal costing, fixed costs are not treated as part of the product cost but are treated as 'period costs'. Marginal cost of a product is its variable cost. And the fixed costs of the period are written-off in full against the revenue of that period. This technique assists and guides management in taking various policy decisions under different conditions of business, such as, pricing decisions in times of competition, recession, make or buy decisions, suspension or continuance of product/product department, selecting profitable product-mix, etc.

4. ***Direct Costing:*** The ascertainment of direct costs in respect of department, process or product. This is marginal costs plus fixed cost which is directly chargeable to the department, process or product. Under absorption costing, all fixed costs – allocable or unallocable (which are apportioned) are charged to department, product, etc. which more often than not complicate decision making and therefore, direct costing is an improvement overabsorption costing in decision making.

5. ***Standard Costing:*** The ascertainment and use of standard costs and measurement and analysis of variances. Standard cost is a scientifically pre-determined cost which is fixed in advance of production for each element of costs viz. material, labor and overheads and actual costs are compared against the standard costs to measure the variances and for exercising control.

6. ***Uniform Costing:*** The use of the same costing principles, methods and/or practices by several undertakings with a view to achieving uniformity in approach and system.

SUMMARY

- The classification of costs is vital to enable us to trace them to cost centres and cost units. This chapter various types of costs based on nature of cost, function, direct/indirect, variability, controllability, normality, capital/revenue, time, planning and control, managerial decisions etc. and the concept of cost centre and cost unit, we are now ready to dwell into the methodology of identifying the costs with cost centres and cost units, to arrive at the true cost of the product or service rendered.

Chapter XII

Cost-Volume-Profit Analysis

After reading this chapter, you will be conversant with:

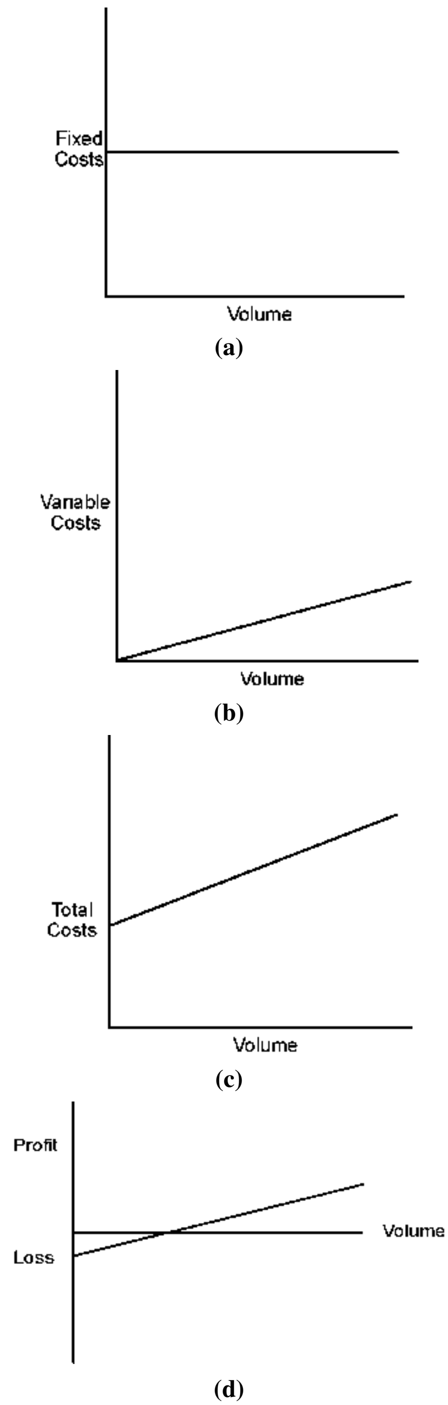
- Cost-Volume-Profit Relationship
- Cost Behavior Pattern
- Concept of Marginal Costing
- Distinction between Marginal and Absorption Costing
- Value of Marginal Costing to Management
- The Break-even Point
- Contribution Margin Concept
- Applying Cost-Volume-Profit Analysis
- Limitations of Cost-Volume-Profit Relationship
- Segregation of Semi-variable Costs.

SECTION 1

THE RELATIONSHIP OF COSTS AND PROFITS WITH VOLUME

In Management Accounting it is very important to find out how costs and profits vary in relation to changes in volume, i.e., quantity of the product manufactured and sold. Under certain assumptions discussed later, the relationships are usually found to be linear. This means that if we draw a graph with volume on the X-axis and costs or profits on the Y-axis, the graph will be a straight line.

Figure 5.1



All the above linear relationships hold good under three assumptions, namely

1. Every cost can be classified as fixed cost or a variable cost. Fixed costs remain the same even if the volume (i.e., quantity of product manufactured and sold) changes. A cost like factory rent would be an example of a fixed cost.

   On the other hand variable costs vary in proportion to changes in activity. An example of a variable cost is raw material. If volume of production increases by say 10% then we can expect raw material costs also to increase by 10%.

2. The selling price of the product remains the same even if volume varies.

3. There is only one product. If there is more than one product the product mix is assumed to be constant.

Use of the Cost-Volume-Profit Relationship

The utility of the Cost-Volume-Profit Relationship lies in the fact that it enables the prediction of costs and profits for different volumes of activity. The volume of sales is not wholly within the control of a firm. Customers may buy more or less of the firm's product. Hence it is not possible to predict exactly the volume of sales that will be achieved.

At the same time it is necessary to estimate the costs and profits for the forthcoming period. The Management would be interested in knowing whether the profits would be higher so that the shareholders confidence in the management is justified. Investors would be interested in the expected profits of the company, so that they can estimate the intrinsic value of the Company's share.

Box 5.1: The Old and the Dutiful

Ye Olde Cycle Co., manufactures bicycles. Unlike other cycle companies it has not diversified into the manufacture of motorized two wheelers. Further it is using outdated methods of production to produce a single model of bicycles. The production manuals which lay down the various shopfloor procedures, were prepared in 1970 and have been updated only marginally. The employees still dutifully follow the old time honored procedures without much attempt to improve them in the light of their experiences.

As a result of the above factors the profits of Ye Olde Co. have dropped sharply.

For the next year the following information is available:

Variable cost of manufacturing and selling a bicycle	Rs.500
Net Selling Price of a bicycle	Rs.700
Fixed Cost for the year	Rs.2 crore

Is it possible to form any estimate of Ye Olde's Profits for the next year?

In the above box we are not given any idea of the manufacturing capacity of Ye Old Co., or the expected sales volume. In such a case we can tabulate the profits at various levels of volume in the region of Break Even Sales.

$$\text{Break Even Sales Quantity} = \frac{2{,}00{,}00{,}000}{700 - 500} = 1 \text{ Lakh Units.}$$

The profit at volume Q of sales quantity is given by

= (Selling Price per unit – Variable Cost per unit) Quantity – Fixed Cost

= (700 – 500) Q – 2,00,00,000

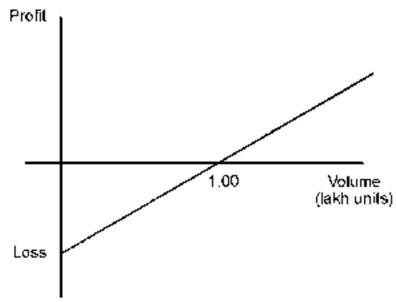
= (200Q – 2,00,00,000)

Hence we can have the following table of profits for various sales volumes.

Sales Volume (in lakh units)	0.60	0.80	1.00	1.20	1.40
Profit (Rs.lakh)	–80	–40	0	40	80

Hence, we see that at a sales volume of 1 lakh units there is break even i.e., no profit no loss. For every 20,000 units increase in volume profit increases by Rs.40 lakh. Similarly for every 20,000 units decrease in sales volume, profits decrease by Rs.40 lakh. The table can theoretically be extended from 0 Volume indefinitely shown below in the figure.

Figure 5.2



COST BEHAVIOR PATTERN

Management of a Company might wish to know the probable effect on profit of promotional efforts designed to increase the volume of sales. Obviously, such information cannot be obtained unless management can predict reasonably which costs will respond to volume changes and in what manner they would be expected to respond. Knowledge of the behavioral patterns of cost will allow managers to make better short run pricing decisions because of their increased understanding of the relationship between prices and costs.

The term cost behavior refers to the way costs change with respect to a change in the activity level. Many management decisions are affected by cost behavior patterns. Numerous business decisions require managerial accounting information on costs by behavior patterns.

Classifying costs according to their behavior, such as fixed, variable and semi-variable, refers to the way costs change with respect to changes in the volume of activity. Some costs remain constant, some change proportionately and others change in different patterns.

Given below are the cost sheets of the Aarkay Industries Limited for 2002 and 2003.

Cost Statement

	2002	2003
Production (units)	10,000	11,000
	Rs.	Rs.
Direct Material (@ Rs.2 per unit)	20,000	22,000
Direct Labor (@ Rs.1.5 per unit)	15,000	16,500
Prime Cost	35,000	38,500
Add: Manufacturing Overhead	8,000	8,000
Factory Cost	43,000	46,500
Add: Administrative Overhead	5,000	5,000
Cost of Production	48,000	51,500
Add: Selling Overhead	2,000	2,200
Cost of Sales	50,000	53,700
Profit	5,000	6,800
Sales (@ Rs.5.5 per unit)	55,000	60,500

In the above statements some costs such as direct material cost, direct labor cost and selling costs change as the volume of production changes. But the other costs such as manufacturing and administrative expenses do not change with the change in production.

An analytical study of the behavior of these costs in relation to changes in volume of output reveals that there are some items of cost which tend to vary directly with the volume of output whereas, there are others which remain unaffected by variations in the volume of output. The former class of costs represent the variable costs and the latter fixed costs. Besides, there are certain items of costs which are partly fixed and partly variable and are known as semi-variable costs.

Marginal Costing

Many factors cause changes in costs and hence in profits. Costs change because of inflationary trends in the economy, changes in the labor market, technological advances, or changes in size or quality of production facilities. Each of these represents a unique, sporadic change. Regular, recurring events also cause costs to change. One of the most significant causes of variations is a change in the volume of activity.

Marginal Cost Defined

The essence of Marginal Costing or Variable Costing technique lies in considering fixed costs on the whole as separate, quite distinct from variable costs which only are relevant to decision making. Variable costs only are matched with revenues under different conditions of production and sales to compute what is known as 'contribution' towards recovery of fixed costs and yielding of profits.

Marginal Costing, according to the economic connotation of the term, is described in simple words as the cost of producing an additional unit of output and it does not arise if the additional unit is not produced. According to the Terminology of Cost Accountancy of the Institute of Cost and Management Accountants, London, Marginal Cost represents "the amount at any given volume of output by which aggregate costs are changed if the volume of output is increased or decreased by one unit." It relates to the change in output in the particular circumstances under consideration. In the words of Blocker and Weltmore, "Marginal Cost is the increase or decrease in total cost which results from producing or selling additional or fewer units of a product or from a change in the method of production or distribution such as the use of improved machinery addition or exclusion of a product or territory or selection of an additional sales channel."

Analyzing the definitions given above, we find that with the increase of one unit of output the total cost is increased and this increase in total cost is known as Marginal Cost.

Illustration 12.1

If variable costs per unit are Rs.9 and fixed costs are Rs.2,50,000 per annum, an output of 40,000 units per annum results in the following expenditure:

(In Rupees)

Variable cost of 40,000 units @ Rs.9/unit	3,60,000
Fixed Cost	2,50,000
Total Cost Total Cost for output of 40,000 units	6,10,000
Variable costs of 40,001 units @ Rs.9/unit	3,60,009
Fixed Cost	2,50,000
Total Cost Total Cost for output of 40,001 units	6,10,009
Less: Total Cost for output of 40,000 units	6,10,000
Marginal cost	9

CONCEPT OF MARGINAL COSTING

The Institute of Cost and Management Accountants, London, has defined Marginal Costing as "the ascertainment of marginal costs, by differentiating between fixed costs and variable costs, and of the effect on profit of changes in volume or type of output." In this technique of costing only variable costs are charged to operations, processes or products, leaving all fixed costs to be written off against profits in the period in which they arise.

Thus, in this context, marginal costing is not a system of costing in the sense in which other systems of costing, like process or job costing are, but it has been designed simply as an approach to the presentation of accounting information meaningful to management from the viewpoint of adjudging the profitability of an enterprise by carefully studying the impact of the entire range of costs according to their respective nature.

Basic Characteristics of Marginal Costing

The concept of marginal costing is based on the important distinction between product costs and period costs, the former being related to the volume of output and the latter to the period of time rather than the volume of production.

Marginal Costing regards only variable (marginal) costs as the product costs. Variability with volume is the criterion for the classification of costs into product and period categories. Fixed costs are treated as period costs.

Prices are determined on the basis of marginal cost by adding 'contribution' which is the excess of sales or selling price over marginal cost of sales. It is a technique of analysis and presentation of costs which help management in taking many managerial decisions and is not an independent system of costing such as process costing or job costing.

Mathematical Aids to Marginal Costing

Management accountants gather information to be used in the internal decision-making situations of planning and control. A decision involves selecting one of several alternatives. Decision-making involves three basic steps: problem definition, alternative evaluation and alternative selection. Again, definition of problems involves identifying the objective i.e., the goal that we are seeking to accomplish which is to earn maximum profits in most business situations, the alternatives i.e., the various means by which we can attempt to achieve the objective, the problem factors i.e., the Variable conditions within and outside the firm that influence the outcome of a particular alternative and the criterion i.e., the measure of the success to be obtained from an alternative.

After defining these factors, and identifying the available alternatives, we begin to narrow down the variety of possible actions by evaluating their effects on reaching our objective. A well- constructed criterion allows us to select the alternative that will most closely produce the desired result.

Let us examine a simple situation where our 'objective' is to maximize profits from a process to manufacture one product. Our 'alternatives' are the various levels of production at which we can operate. Our 'problem factors' are the demand for our product and the cost of running the factory. Our 'criterion', of course, is the difference between revenues and expenses.

In the mathematical notation, our goal is to achieve,

$$\text{Max } P = R(Q) - V(Q) - C$$

Where

Q	=	The decision variable representing the production level
$R(Q)$	=	The revenue resulting from production level Q
$V(Q)$	=	The variable cost resulting from production level Q
C	=	The fixed cost incurred
P	=	The profit, which we are trying to maximize.

The equation is a model of the relationship, and we are seeking to achieve the greatest benefit from it. We evaluate each possible production level (alternative) in terms of its effect on profits (criterion). We will select the alternative that promises the greatest profit (objective).

Another mathematical model that can be used is linear programming model. Like most economic models, linear programming (LP) deals with the allocation of scarce resources and the activities competing for them. The purpose of the model is to specify the allocation scheme that contributes the most to the firm's profits.

MODEL STRUCTURE

The first part of an LP Model is called the criterion function, which is a mathematical expression describing the objective whose value is to be minimized (such as costs) or maximized (such as revenues or profits). The criterion function of our examples contain only a few variables whereas real world applications may require hundreds or even thousands. The second section of the model is many times larger than the first, and consists of a series of mathematical relationships called constraints. These relationships describe the use of scarce resources and other problem factors that affect our decision situation. Let us look at an example:

$$\text{Max } R = 4X_D + 2X_B + 6X_F - C$$

$$\text{Subject: } 2X_D + X_B + X_F \leq 15000$$

$$3X_D + 2X_B + X_F \leq 12000$$

$$X_D, X_B, X_F \geq 0$$

The variables symbolized by the X_i (X_D, X_B, X_F) are the number of units of Products D, B, F which are to be produced. The first constraint relates to the limited availability of the raw material Gamma which is mainly used to produce the products D, B, and F. The second constraint is about the availability of labor hours which is limited to 12000 hrs for all the three products put together. The last constraint confines our solution to the real world – we must produce either none or some of a product. It is, of course, physically impossible to produce a negative quantity, and our last constraint makes it mathematically impossible to do so.

In the criterion function, we are seeking to maximize the benefit achieved from the production process. The co-efficients of the X_i (4, 2 and 6) represent the excess of the selling prices of the three products over their variable cost and C represents the fixed cost incurred on the whole. For example, if we sell 3000 units of D, 4000 units of B and 5000 units of F and the fixed cost is Rs.20,000 our total net revenue (R) will be Rs.30,000 (3,000 x 4 + 4,000 x 2 + 5,000 x 6 – 20,000). Our objective is to find that combination of outputs which will produce the greatest net revenue.

Of course, the greatest net revenue would come if we could produce and sell an infinite quantity of any or all three of our products. Naturally, we cannot operate at these levels because we are limited by the physical capacity of the factory, the demand for the product, and the supply of inputs. The constraints are mathematical interpretations of these limitations. Suppose the first constraint describes the amount of input material available for our products. Product D requires 2 units of material for each unit made and B and F require one each. Altogether we must not consume more than 15,000 units of input. The second constraint may express limit on our production arising from the factory capacity available to us. It should be obvious that the usefulness of the LP model depends on the care, skill and completeness with which these constraining factors are identified and expressed.

This model can be solved using Simplex Algorithm as given in the annexure. Though it does not form a part of the examination curriculum, it has been provided as an additional information.

The optimal solution to this particular problem is to produce 12000 units of Product F, and none of either D or B. This perhaps unexpected solution will produce a profit of Rs.52,000 (12,000 x 6 – 20,000). The reader should try out various other combinations that will meet the constraints in order to prove that there is no other solution that will produce a greater profit. Notice that there are many feasible solutions, but only one is optimal.

APPLICABILITY AND WEAKNESSES

LP models have been used extensivsely in a variety of situations, many of which require the use of hundreds of decision variables and literally thousands of constraints. However, we can identify six characteristics that should be met before applying this approach.

- We must be able to define a single objective.
- The objective and problem factors must be quantifiable.
- The problem must allow several (at least) alternative courses of action.
- The objective function and constraints must be linear.
- The values of the independent variables must be able to take on fractional values.
- We should be able to produce values for all the model co-efficients.

In practicality, there are very few actual situations that meet all these characteristics. It is possible to make assumptions that will allow us to apply the LP model, but we must interpret the results accordingly. Above all, we may pay particular attention to the non-quantifiable factors that may affect our decision environment. The accuracy of the output figures substantially depends on the accuracy of the input co-efficients. If too many estimates must be made, the applicability of the approach is greatly diminished. Despite these weaknesses, the LP model serves as one of the very best techniques for dealing with programming problems, especially on the large scale.

Working of Marginal Costing

According to traditional costing system, fixed costs of production are assigned to products to be subsequently released by way of expenses as part of cost of goods sold or are carried forward as part of the cost of inventory depending upon whether a period's production was sold or not during the same period. Such an approach to the treatment of fixed costs has brought into vogue various methods of allocation of overheads to different departments on an equitable basis and their proper apportionments to units produced.

Marginal costing removes all the difficulties involved in the allocation, apportionment and recovery of fixed costs. It is able to accomplish this by excluding fixed costs from product costs and by writing them off entirely against operations of the period.

Consequently, when the volume of output differs from the volume of sales, the net income reported under marginal costing will differ from that reported under absorption costing.

DISTINCTION BETWEEN MARGINAL COSTING AND ABSORPTION COSTING

Under marginal costing, the distinction between direct/variable cost and period cost determines when costs are matched with revenues. Direct or variable costs are assigned to products and matched with revenues when revenues from the related products are recognized while period costs are matched with revenues of the period in which the costs were incurred.

But this is in contrast to what is known as "absorption costing" in which fixed manufacturing costs are also treated as part of production cost and inventory values arrived at accordingly. Adoption of this system not only influences inventory value, but also reflects on the profit figure.

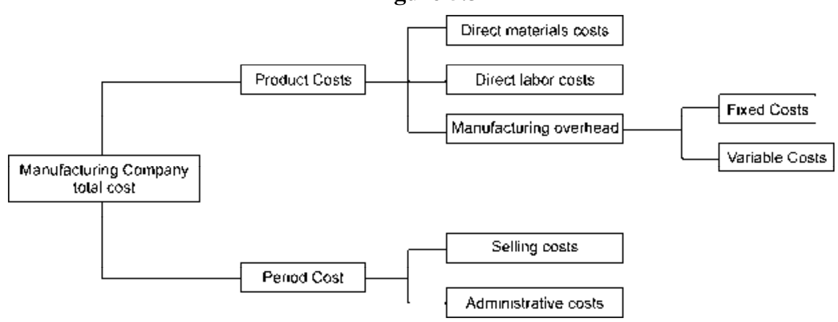
Also in absorption costing, arbitrary apportionment of fixed costs, over the products, results in under or over absorption of such costs. Since marginal costing excludes fixed costs the question of under or overabsorption of fixed costs does not arise.

Moreover, in absorption costing, managerial decision-making is based upon "profit" which is the excess of sales value over total cost while in marginal costing, the managerial decisions are guided by 'contribution' which is the excess of sales value over variable cost.

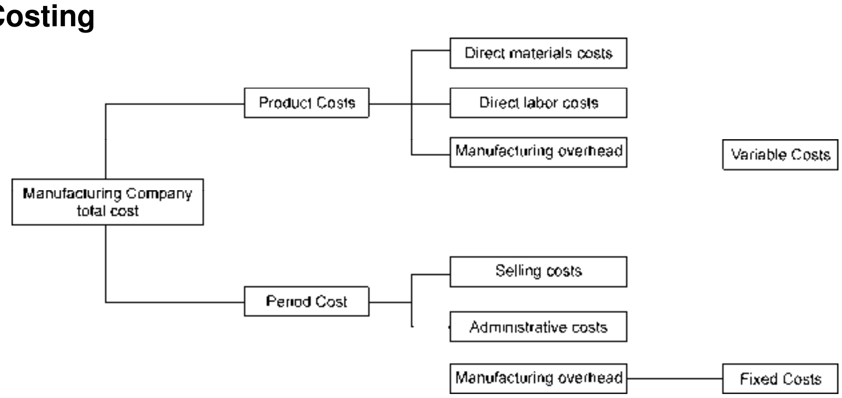
The diagram shows you the classification of Fixed Manufacturing Overhead with Marginal Costing and Absorption Costing.

Absorption Costing

Figure 5.3



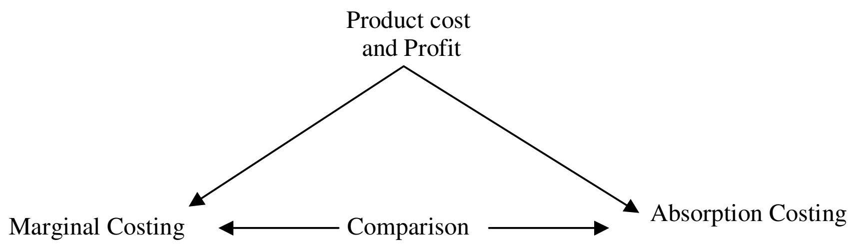
Marginal Costing



INCOME DETERMINATION UNDER ABSORPTION AND MARGINAL COSTING

Under absorption costing, both fixed manufacturing overheads, and variable manufacturing overheads are treated as product costs while marginal costing excludes fixed manufacturing overheads from product costs and includes only manufacturing variable overheads. The figure given below shows the method of income determination under absorption and marginal costing:

Figure 5.4



	Rs.	Rs.		Rs.	Rs.
Sales revenue		X	Sales revenue		X
Less: Marginal cost:			Less: All manufacturing costs		
Direct material cost	X		Direct material cost	X	
Direct Labor cost	X		Direct labor cost	X	
Variable Overhead	X	X	Mfg. Overhead (Fixed & Variable)	X	X
Contribution Margin		X	Gross Margin		X
Less: Fixed Overhead		X	Less: Non-manufacturing Overhead (Fixed & Variable)		X
Operating Income		X	Operating Income		X

When product analysis is involved, the two forms of presentation are as follows:

Absorption Cost Presentation

	Income Statement Period ended		
	Product Alpha Rs.	Product Beta Rs.	Total Rs.
Sales	—	—	—
Less: Total Cost of Sales	—	—	—
Operating Income	—	—	—

Marginal Cost Presentation

	Income Statement Period ended		
	Product Alpha Rs.	Product Beta Rs.	Total Rs.
Sales	–	–	–
Less: Marginal cost of sales	–	–	–
Contribution	–	–	–
Less: Fixed Costs:			
Factory overhead	–	–	–
Selling and distribution overhead	–	–	–
Administration overhead	–	–	–
Operating Income	–	–	–

In marginal costing presentation, product analysis normally ends at the contribution figure.

In absorption costing, a predetermined rate is generally used for the absorption of factory overhead to products and it is unlikely that the absorbed cost will equal the actual cost in a period. The difference, known as under or overabsorbed cost is incorporated in the profit statement presentation before final profit is calculated:

	Rs.	
Factory Cost of Sales	–	(includes factory overhead absorbed)
Add/deduct under or overabsorbed factory overhead	–	(example underabsorption means the product has not absorbed the full factory cost, therefore, this underabsorption is added)
Actual factory cost of sales	–	

Illustration 12.2

Comparative Income Statement under Marginal Costing and Absorption Costing.

DBF Ltd., furnishes the following details for the year ended 31st March, 2003 for preparing the Income Statement of the year:

Sales	2500 units	@ Rs.25 per unit
Fixed manufacturing cost	Rs.10,800	
Variable manufacturing cost	2700 units	@ Rs.14 per unit
Inventory at the end	200 units	
Fixed selling and administrative expenses	Rs.1,500	
Variable selling and administrative expenses	Rs.900	

DBF Ltd.
Income Statement
(for the year ended 31st March, 2003)

i. **Under Absorption Costing**

		Rs.	Rs.
Sales	2500 units @ Rs.25 each		62,500
Less:	Cost of Sales		
	Variable manufacturing costs		
	2700 units @ Rs.14 each	37,800	
	Fixed manufacturing costs	10,800	
		48,600	
Less:	Inventory at close		
	200 units @ Rs.18 * each	3,600	45,000
	Gross Margin or Profit		17,500
Less:	Total selling and administrative expenses		2,400
Operating Income			15,100

$$* \text{ Variable cost per unit} = \frac{48{,}600}{2{,}700} = 18$$

ii. **Under Marginal Costing**

		Rs.	Rs.
Sales	2500 units of Rs.25 each		62,500
Less:	Variable Cost of Sales:		
	Variable manufacturing costs		
	2700 units @ Rs.14 each	37,800	
Less:	Inventory at the end		
	200 units @ Rs.14 each	2,800	35,000
Contribution Margin			27,500
Less:	Variable Selling and Administrative Expenses	900	
	Fixed Manufacturing costs	10,800	
	Fixed Selling expenses	1,500	13,200
Operating Income			14,300

Note: The difference of Rs.800 in the net income calculated under the two methods is due to the difference between the cost of closing inventory which, under absorption costing, is Rs.3,600 and, under marginal costing, is

Rs.2,800. This is the result of holding back Rs.800 from out of total fixed manufacturing cost of Rs.10,800 as cost of inventory under the method of absorption whereas Rs.800 is realized immediately as a period cost under marginal costing.

By comparing the above statements, it can be found out that the information furnished by the absorption costing statement cannot be as useful as the one given by marginal costing because the conventional costing statement rarely classifies costs into fixed and variable components. Thus, managers who are accustomed to look at operations from a break-even analysis and flexible budget viewpoint, find that the conventional income statement fails to dovetail with cost-volume-profit relationship. To illustrate, if management wishes to consider the effects of increasing the volume of production, it cannot calculate the effect on profit from absorption costing statement but it can do so with marginal costing statement. Therefore, it is more efficient to present important cost-volume-profit relationship as integral part of major financial and operating statements.

Differences in Volumes of Sales and Production

The above illustration shows how income is determined in absorption costing and marginal costing. Here the major cost elements are seen to be the same under both methods of costing. Since fixed factory overhead incurred is identified with production under absorption costing, it follows that there will be no difference in net income reported under the two methods when the sales volume and the production volume in a period are equal.

Hence there are basically only two sets of conditions which cause a difference in the reported net income for the same period under the two costing methods:

- Production exceeds sales volume.
- Sales exceed production volume.

When production exceeds sales

In illustration 12.3, production volume exceeds sales volume. More units were produced than were sold and inventory increased. This caused a portion of fixed manufacturing overhead to remain in finished goods inventory, which is reported in the balance sheet using absorption costing. It has also caused the net income based on absorption costing to be greater than net income based on marginal costing, because less than a full year's fixed manufacturing overhead reached the income statement this year. In other situations marginal costing net income will be greater than absorption costing net income.

Illustration 12.3

Consider the data presented below for the Gamma Manufacturing Company. All the calculations of cost per unit except for fixed overhead have been made.

	Rs.
Direct materials cost per unit	6.00
Direct labor cost per unit	10.00
Variable manufacturing overhead cost per unit	2.00
Total fixed manufacturing overhead per year	67,500
No. of units produced per year	10,000

The per unit product cost under Absorption Costing[1]

	Rs.
Direct Materials Cost	6.00
Direct Labor Cost	10.00
Variable Manufacturing Cost	2.00
Fixed Manufacturing Cost Rs.67,500/10,000	6.75
Total	24.75

The per unit product cost under Marginal Costing

	Rs.
Direct Materials	6.00
Direct Labor	10.00
Variable manufacturing overhead	2.00
Total Product Cost per unit	18.00

Now, assume the following additional figures relating to 2001.

Beginning finished goods in units	0
Units produced	10,000
Units sold	7,500
Ending finished goods in units	2,500
Sales price per unit	Rs.45.00
Variable selling expenses	Rs.1.50 per unit sold
Fixed selling expenses	Rs.60,000

CALCULATING NET INCOME: MARGINAL COSTING AND ABSORPTION COSTING

Gamma Manufacturing Company

Comparison of Marginal Costing and Absorption Costing for the year 2003

Absorption Costing Income Statement

	Rs.	Rs.
Sales revenue (7500 units @ Rs.45.00)		3,37,500
Cost of goods sold:		
Beginning finished goods	0	
Cost of goods produced (10,000 units @ Rs.24.75)	2,47,500	
Cost of goods available for sale	2,47,500	
Ending finished goods (2500 units @ Rs.24.75)	61,875	1,85,625
Gross Margin		1,51,875
Selling expense:		
Fixed	60,000	
Variable (7,500 x 1.5)	11,250	71,250
Operating Income		80,625

Marginal Costing Income Statement

	Rs.	Rs.
Sales revenue		3,37,500
Less: Variable Costs		
Variable cost of goods sold		
Beginning finished goods	0	
Cost of goods produced (10,000 units @ Rs.18)	1,80,000	
Cost of goods available for sale	1,80,000	
Ending finished goods (2500 units @ Rs.18)	45,000	
Variable cost of goods sold	1,35,000	

1. With marginal costing, total cost per unit is lower because the fixed manufacturing overhead is not included. The Rs.67,500 of fixed manufacturing cost is treated as a period cost.

Variable selling expenses (7500 units @ Rs.1.50)	11,250	1,46,250
Contribution Margin		1,91,250
Less: Fixed Costs		
Manufacturing Overhead	67,500	
Selling expense	60,000	1,27,500
Net Income		63,750

Note: The difference in the cost of the ending finished goods is the fixed cost per unit of (Rs.24.75 – Rs.18) = Rs.6.75 x 2,500 = Rs.16,875

To summarize, when production exceeds sales volume, the net income reported under absorption costing will exceed that reported under variable costing. The difference will be the amount of fixed overhead cost attributable to the unsold production of the period which is deferred in the ending inventory.

Production Volume equals or is less than Sales Volume.

Now, we have to understand the difference in net income under absorption costing and under marginal costing when production volume is the same as sales volume and when production volume is less than sales volume. To illustrate the net income effects we will continue the Gamma Manufacturing Company example. Let us assume the same basic data given previously for 2001 and extend it into 2002 and 2003 with different production volumes and sales volume. The basic data is summarized below:

Gamma Manufacturing Company Basic Data 2001,2002 & 2003
Revenue and Cost Data for 2001, 2002 & 2003

	Rs.
Sales price per unit	45.00
Variable manufacturing cost	18.00
Fixed manufacturing cost	67,500
Variable selling expenses per unit sold	1.50
Fixed selling expense	60,000

Production Volume and Sales Volume in Units

	2001	2002	2003
Beginning finished goods	0	2,500	2,500
Units produced	10,000	10,000	7,500
Units available for sales	10,000	12,500	10,000
Ending finished goods	2,500	2,500	0
Units Sold	7,500	10,000	10,000

Product Cost per Unit

	2001 Rs.	2002 Rs.	2003 Rs.
Direct Costing: Variable manufacturing cost	18	18	18
Absorption Costing:			
Variable manufacturing cost	18	18	18
Fixed manufacturing cost (Rs.67,500 fixed cost divided by the units produced)	6.75	6.75	9
	24.75	24.75	27

Gamma Manufacturing Company

Net Income Differences: Absorption Costing and Marginal Costing for the Years 2001, 2002 & 2003 (In Rupees)

Absorption Costing	2001	2002	2003	Total
Production Volume (units)	10,000	10,000	7,500	27,500
Sales Volume (units)	7,500	10,000	10,000	27,500
Absorption Costing	Rs.	Rs.	Rs.	Rs.
Sales Revenue	3,37,500	4,50,000	4,50,000	12,37,500
Cost of goods sold				
Beginning finished goods	0	61,875	61,875	1.23,750
Cost of goods produced	2,47,500	2,47,500	2,02,500	6,97,500
Cost of goods available for sale	2,47,500	3,09,375	2,64,375	8,21,250
Ending finished goods	61,875	61,875	0	1.23,750
Cost of goods sold	1,85,625	2,47,500	2,64,375	6,97,500
Gross margin	1,51,875	2,02,500	1,85,625	5,40,000
Selling expenses				
Fixed	60,000	60,000	60,000	1,80,000
Variable	11,250	15,000	15,000	41,250
Net Income	80,625	1,27,500	1,10,625	3,18,750

Marginal Costing	2001	2002	2003	Total
Sales Revenue	3,37,500	4,50,000	4,50,000	12,37,500
Less: Variable Costs				
Variable cost of goods sold Beginning finished goods	0	45,000	45,000	90,000
Cost of goods produced	1,80,000	1,80,000	1,35,000	4,95,000
Cost of goods available for sale	1,80,000	2,25,000	1,80,000	5,85,000
Ending finished goods	45,000	45,000	0	90,000
Variable cost of goods sold	1,35,000	1,80,000	1,80,000	4,95,000
Variable selling expenses	11,250	15,000	15,000	41,250
	1,46,250	1,95,000	1,95,000	5,36,250
Contribution margin	1,91,250	2,55,000	2,55,000	7,01,250
Less: Fixed costs:				
Manufacturing overhead	67,500	67,500	67,500	2,02,500
Selling expenses	60,000	60,000	60,000	1,80,000
Operating Income	63,750	1,27,500	1,27,500	3,18,750

From the income statement given above, it is found that in 2001 production exceeded sales; the net income was Rs.80,625 using absorption costing; it was only Rs.63,750 using marginal costing.

The calculations for 2000 show that when production volume and sales volume are equal – a company sells exactly the quantity it produces – the two product costing procedures produce the same net income (assuming efficiency is the same in the previous and current years); in this case, Rs.1,27,500. The reason for this is that there is no change in the amount of fixed manufacturing costs included in the finished goods inventory under absorption costing.

The computations for 2003 show that sales volume exceeded production volume and the net income calculated using marginal costing, Rs.1,27,500, exceeded absorption costing net income Rs.1,10,625, by Rs.16,875. The absorption costing net income is lower because with absorption costing, when inventory levels are decreased, the fixed manufacturing overhead in the beginning finished goods, Rs.16,875, is transferred from the balance sheet to the cost of goods sold account in the 2003 income statement.

Therefore, in 2003 with absorption costing we have Rs.16,875 of fixed manufacturing costs incurred in a prior year in the beginning finished goods inventory account reaching the income statement as cost of goods sold. In addition, all the fixed manufacturing costs from the year 2003, Rs.67,500, reach the income statement as part of the cost of goods manufactured and sold in 2001. On the other hand, marginal costing reports fixed manufacturing overhead expense for the year 2003 of Rs.67,500. This results in marginal costing net income being Rs.16,875 greater than net income.

The difference between net income based on absorption costing and the net income based on marginal costing depends on whether there have been changes in the fixed manufacturing overhead cost in the inventory account during the accounting period. This can be calculated as the difference between the fixed manufacturing overhead cost assigned to the beginning inventory and the fixed manufacturing overhead cost assigned to the ending inventory.

For the Gamma Manufacturing Company

	2001	2002	2003
Production (units)	10,000	10,000	7,500
Sales (Units)	7,500	10,000	10,000
	Rs.	Rs.	Rs.
Marginal Costing Net Income	63,750	1,27,500	1,27,500
Absorption Costing Net Income	80,625	1,27,500	1,10,625
Difference in Net Income	–16,875	0	16,875
Fixed manufacturing cost in beginning finished goods inventory	0	16,875	16,875
Fixed manufacturing cost in ending finished goods inventory	16,875	16,875	0
Change in fixed manufacturing overhead cost content of finished goods inventory	–16,875	0	16,875

Comparison of the effects of Absorption Costing and Marginal Costing on Statements of Income

- We can generalize from the Gamma illustration that:
- When production volume exceeds sales volume – absorption costing net income will exceed marginal costing net income.
- When production volume is equal to sales volume – absorption costing net income will be equal to marginal costing net income.
- When production volume is less than sales volume – absorption costing net income will be less than marginal costing net income.
- When sales volume remains constant but production volume fluctuates marginal costing yields a constant net income figure because net income figure is not affected by inventory changes. Under the same circumstances, absorption costing yields an erratic net income figure that will be directly affected by the direction and amount of inventory changes.
- If production volume remains constant, changes in net income are directly proportional to changes in sales volume in either marginal or absorption

costing. The net income will move in the same direction, but it will move by a greater amount under marginal costing than under absorption costing.

- The differences between periodic net income figures computed by marginal costing and absorption costing methods tend to be smaller for long periods than for short periods because variations between production and sales volume tend to approach equality over a long period. Consequently, in the long run, the two methods should give substantially the same result because sales cannot continuously exceed production nor can production continuously exceed sales.

These generalizations describe the comparative effects of absorption and marginal costing on net income when various relationships exist between sales and production volumes. The differences in the net income amounts reported by income statements that reflect these different costing concepts were shown above. These differences may be reconciled easily for this reason: all factors other than production and sales volume were held constant i.e., the income statements under both concepts were prepared on the assumptions that selling prices remained constant, that no changes occurred in either the actual fixed costs of manufacturing or the selling and administrative expenses, and that no changes developed in either the actual variable unit cost of manufacturing or the selling and administrative expenses.

Also, by comparing the differences in the net operating incomes with the differences in the fixed manufacturing overhead cost content of finished goods inventory, it can be seen that the two represent identical amounts. So, the difference in the net operating income determined by absorption costing and marginal costing can be reconciled to the difference in the change of the ending inventories determined by each concept.

Influence of Production Volume on Net Income

To illustrate how production volume can influence net income calculated with absorption costing, let us examine the years 2002 and 2003.

With the same sales volume, net income calculated under marginal costing is the same Rs.1,27,500 in 2002 and 2003 even though production volume in 2002 exceeds production volume in 2003.

However, with the same sales volume in 2002 and 2003, net income calculated under absorption costing in 2002, is Rs.1,27,500, which is greater than net income of Rs.1,10,625 in 2003. This decrease in the net income in 2003 as compared to 2002 is caused by the fact production volume in 2002 (1000 units) exceed production volume in 2003 (7500 units). This resulted in fixed manufacturing overhead costs incurred in a prior year and assigned to the finished goods inventory, to be matched with revenues in 2003. Therefore under absorption costing the year 2003 is charged with all fixed manufacturing overhead costs incurred in 2003 and some of the fixed manufacturing overhead costs from a prior year.

VALUE OF MARGINAL COSTING TO MANAGEMENT

Marginal costing is a valuable technique to the management for the following reasons:

i. It integrates with other aspects of management accounting example cost-volume-profit analysis, flexible budgeting and standard costing.

ii. Period reports are more easily understood. Management can more readily understand the assignment of costs to products if these are limited to marginal cost because such costs are readily identifiable with the cost unit.

iii. It emphasizes the significance of key factors affecting the performance of the business in the profits-planning and decision-making areas. Contribution to these factors is an important statistic for management.

iv. The impact of fixed costs on profits is emphasized because the total amount of such cost for the period appears in the income statement.

v. Marginal income figures facilitate relative appraisal of products, territories, classes of customers and other segments of the business without having the results obscured by allocation of joint fixed costs.

vi. The profit for a period is not affected by changes in absorption of fixed expenses resulting from building or reducing inventory. Other things remaining equal (selling prices, costs, sales mix, etc.) profit moves in the same direction as sales when marginal costing is in use.

vii. There is a close relationship between variable costs and the controllable costs classification. This relationship assists the control function.

viii. It assists in the provision of relevant costs for decision-making. Without marginal cost data, the information for management may be misleading. This is the case, for example, in decision concerned with:

a. The acceptance of special orders.

b. The possible elimination of a product.

c. The possible outside purchase of components as compared with their internal manufacture.

d. It assists short-term decision-making, particularly those decisions concerned with product short-term pricing.

Thus, managers would recognize the value of marginal cost for profit-planning, control and decision-making, but point to the fact that for decision-making purposes fixed costs may be incremental relative to a decision situation as well as marginal cost.

THE BREAK-EVEN POINT

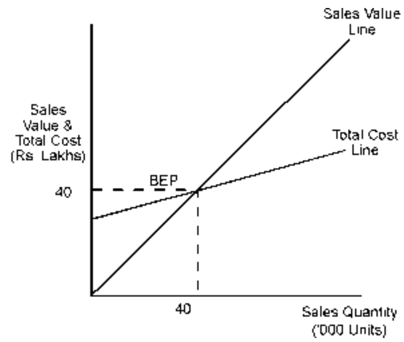
Monotonous Co., manufactures and sells a single variety of single product. For 2000-01, the Management Accountant has estimated the following profit levels depending upon the different quantities of the product manufactured and sold:

Sales Quantity (000 units)	Sales Value Rs. Lakhs [Selling Price = Rs.10]	Total Costs Rs.lakhs	Profit/(Loss) Rs.lakhs
20	2.0	3.6	(1.6)
25	2.5	3.7	(1.2)
30	3.0	3.8	(0.8)
35	3.5	3.9	(0.4)
40	4.0	4.0	—
45	4.5	4.1	0.4
50	5.0	4.2	0.8

It can be seen from the above that when 20,000 units are sold, there is a loss of Rs.1.6 lakh. However, as more and more units are sold the loss goes on decreasing. When sales are 40,000 units there is no loss. When sales increase beyond 40,000 units the firm earns a profit.

The above situation can be represented on a graph as follows:

Figure 5.5



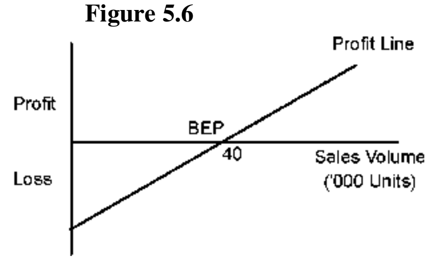
The graph shows that when sales quantity is 40,000 units the Sales Value Line and the Total Cost Line intersect at the point BEP. This point is called the Break Even Point. On the X-axis the BEP indicates that when sales quantity is 40,000 units, Total Cost equals Sales Value. On the Y-axis BEP indicated that Total Cost equals Sales Value when each of these amounts is Rs.4 lakhs.

The Break-Even Point is a kind of borderline. If sales are less than Break-even sales, the company incurs a loss. If sales are more than Break-Even Sales the company earns a profit.

Break-Even Point on P/V Graph

We can plot profit against sales quantity on a Profit-Volume Graph using the figures given earlier. We get the following P/V graph.

Figure 5.6



Here the Break-Even Point BEP is the point at which the Profit Line intersects the X-axis.

As seen earlier it is the point at which sales quantity is 40,000 units.

Break-Even Point Formula

We can arrive at the break even point using a mathematical model as shown below:

Let s = Selling price per unit of the product.

v = Variable cost per unit of the product manufactured and sold.

Q = Quantity (units) of the product manufactured and sold.

F = Total fixed cost for the period under consideration.

P = Profit for the period under consideration.

Then we have

Sales Revenue – Total Cost = Profit

So, $sQ - [vQ + F] = P$

So, $(s - v)\,Q - F = P$

We can use this equation to find the quantity Q_B of units to be manufactured and sold in order to Break even.

Note that at the break even point P = 0

So the above equation becomes

$$(s - v)\, Q_B - F = 0$$

$$\text{or} \quad Q_B = \frac{F}{s - v}$$

$$\text{Since } s - v = \text{Unit contribution}$$

we have the formula

$$\text{Break Even Quantity} = \frac{\text{Total Fixed Cost}}{\text{Unit Contribution}}$$

We may be interested in the Break Even Sales value instead of the Break Even Sales quantity.

$$\text{Break Even Sales Value} = \text{Break even Sales Quantity x Selling price per unit.}$$

$$= \frac{\text{Total Fixed Cost}}{\text{Unit Contribution}} \text{ x Unit Selling Price}$$

The above can be written as:

$$\text{Break-even Sales value} = \frac{\text{Total Fixed Cost}}{\left[\dfrac{\text{Unit Contribution}}{\text{Unit Selling Price}}\right]}$$

$\dfrac{\text{Total Fixed Cost}}{\text{Unit Selling Price}}$ is the C/S ratio

(also called the P/V ratio) or contribution margin

$$\text{Break-even Sales Value} = \frac{\text{Total Fixed Cost}}{\text{C/S Ratio}}$$

Illustration 12.4

Sales Quantity (in '000 units)	Sales Value	Fixed Cost	Variable Cost	Profit
	[Selling Price =Rs.10] Rs. lakhs	Rs. lakhs	[Rs.2/unit] Rs. lakhs	Rs. lakhs
20	2.0	3.2	0.4	(1.60)
25	2.5	3.2	0.5	(1.20)
30	3.0	3.2	0.6	(0.80)
35	3.5	3.2	0.7	(0.40)
40	4.0	3.2	0.8	–
45	4.5	3.2	0.9	0.40
50	5.0	3.2	1.0	0.80

$$\text{Break-even Quantity} = \frac{\text{Total Fixed Cost}}{\text{Unit Contribution}}$$

$$= \frac{3,20,000}{\text{Selling Price} - \text{Variable Cost per unit}}$$

$$= \frac{3,20,000}{10-2}$$

$$= 40,000 \text{ units}$$

This can be verified by noting that the Profit is Zero for a sales quantity of 40,000 units in the table above.

$$\text{Break-even Sales Value} = \frac{\text{Total Fixed Cost}}{\text{C/S Ratio}}$$

$$= \frac{3,20,000}{\left[\dfrac{\text{Unit Contribution}}{\text{Unit Selling Price}}\right]} = \frac{3,20,000}{\left[\dfrac{10-2}{10}\right]}$$

$$= \frac{3,20,000}{0.8}$$

$$= \text{Rs. } 4,00,000$$

This can be verified by noting that when sales are Rs.4,00,000 in the above table, Profit is zero.

Important Note

It may be noted that the C/S ratio = $\dfrac{\text{Change in Profit}}{\text{Corresponding Change in Sales}}$

In the above table we see that when profits increase from Rs.0.4 lakh to Rs.0.8 lakh, corresponding sales increase from Rs.4.5 lakh to Rs.5 lakh.

So C/S Ratio = $\dfrac{0.8-0.4}{5-4.5} = \dfrac{.4}{.5} = 0.8$

Hence in using the formula for finding out Break Even Sales it is not necessary to know either the unit contribution or the unit selling price. We can find the C/S ratio by the formula

$$\text{C/S Ratio} = \frac{\text{Change in Profit}}{\text{Corresponding change in Sales Values}}$$

CONTRIBUTION MARGIN CONCEPT

Contribution margin is a concept that is developed for internal reporting to management. The same basic cost and revenue data that are reported externally are used in preparing contribution reports. Contribution margin is defined as revenue less variable costs. Fixed costs are then subtracted from the contribution margin to equal the net income. The amount by which the selling price per unit exceeds the variable cost per unit is the contribution margin per unit.

$$\text{Contribution margin ratio} = \frac{\text{Sales} - \text{Variable cost}}{\text{Sales}}$$

Advantages of a Contribution Margin Approach

To illustrate the potential advantage of rearranging cost data into their behavioral patterns, we will present two contrasting income statements. The first one contains a format that is used for external reporting. The second one resembles the format used for internal reporting and uses fixed and variable cost relationships.

Income Statement No.1

	Rs.
Sales (2000 units @ Rs.100 per unit)	2,00,000
Cost of Goods Sold	1,30,000
Gross Margin	70,000
Operating Expenses	30,000
Net Income	40,000

The income statement data shown in the first statement offers enough accounting detail to satisfy the company's annual stockholder reporting needs. However, the statement reveals nothing about what net income might have been at alternative volumes. More important than this factor is the failure of the above format to serve as a management planning device or as a significant aid in other management decisions. If the figures in Income Statement No.1 represented budgeted amounts for a month, quarter, or year, they would reveal nothing about possible alternative profit levels resulting from alternative management decisions, particularly those decisions relating to volume.

This deficiency occurs because both the cost of goods sold and the operating expenses contain fixed and variable costs. The functional arrangement of these accounts for 'external' reporting purposes is not satisfactory for some of management's internal decision-making needs. To remedy this reporting format problem, we can 'rearrange' the costs to show the fixed and variable portions of the cost of goods sold and the operating expenses at the same time. Income Statement No.2 has this fixed and variable cost format.

Income Statement No.2

		Rs.
Sales (2000 units @ Rs.100 per unit)		2,00,000
Less: Variable Cost of Goods Sold	1,00,000	
Variable Operating Expenses	10,000	1,10,000
Contribution Margin (2000 units @ Rs.45 per unit)		90,000
Less: Fixed Cost of Goods Sold	30,000	
Fixed Operating Expenses	20,000	50,000
Net Income		40,000

The Relevant Range

The behavioral patterns of fixed and variable costs already described are valid only for a limited period of time and over a limited range of company activity that together constitute the 'relevant range'. Generally, the time frame lasts no more than one full year and is often referred to as the short run. When a company operates in the 'relevant range' total fixed and per unit variable costs are expected to remain the same for a short run period of time. Given these assumptions management can project changes in net income by projecting changes in the contribution margin as a result of alternative courses of action.

For instance, the company could go for an advertisement campaign that costs Rs.5,000 and increases the volume of sales by 200 units to have the following effect on income.

	Rs.
Increased Contribution Margin (200 units @ Rs.45 a unit)	9,000
Less: Cost of Advertisement	5,000
Incremental Profit	4,000

The cost of the advertisement campaign is an extra, or incremental fixed cost. The original fixed cost of Rs.50,000 remains unchanged. If volume had increased without the added fixed cost, the net income increase would be Rs.9,000. The point is that the arrangement of costs into a fixed and variable format provides management with the tools to make this analysis.

Uses of Break-Even Analysis

1. **Prediction**

   Break-even Analysis is useful in predicting what sales volume has to be achieved in order to start earning a profit.

   For example, in the above case sales should be at least 40,000 units or Rs.4 lakh before the firm starts earning a profit.

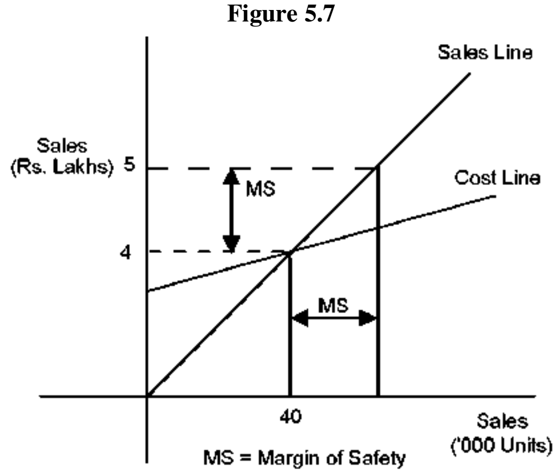
2. **Margin of Safety**

   Break even analysis can also be used to answer the question "How low can the sales fall before the firm will begin to incur losses?"

   In the example, above break even sales are Rs.4 lakh. Actual sales are expected to be Rs.5 lakh. Then if actual sales are lower by more than 10,000 units, Rs.1 lakh or 20%, the firm will incur losses.

   10,000 units or Rs.1 lakh or 20% is called the Margin of Safety. It is the difference between actual sales and break even sales.

Figure 5.7



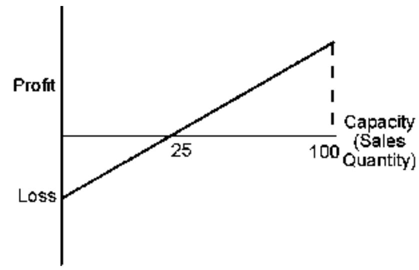
3. **Scale of Operations**

   An important decision is to decide the scale of operations of a firm. In practical terms this would mean deciding upon the capacity of the firm to produce and sell its products.

   Consider the 3 cases illustrated below.

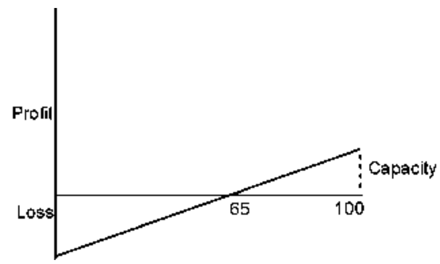
CASE I

Figure 5.8



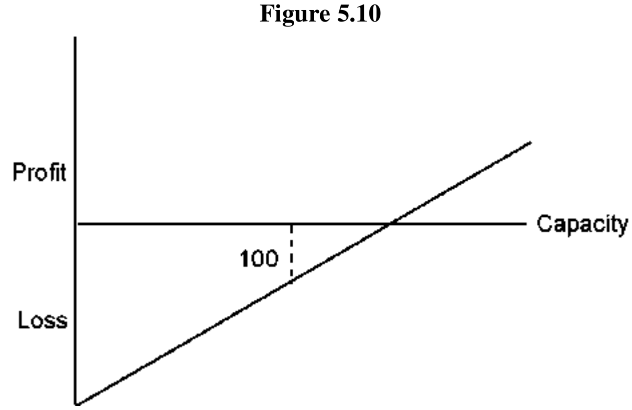
CASE II

Figure 5.9



CASE III

Figure 5.10



In all the cases the firm has a capacity of 100. This means that the company does not have the necessary infrastructure to produce more than 100 units in a year [capacity is usually specified as maximum possible production per year].

In Case I, once the sales quantity crosses 25 units or 25% of capacity the firm begins to earn a profit.

This is a relatively safe situation because the firm can start earning a profit at a relatively low level of activity.

In Case II the firm begins to earn a profit once the sales quantity crosses 65 units or 65% of capacity. This is a riskier situation than Case I because the firm has to achieve a much higher level of activity before it can start earning profits.

Case III is a disaster because the firm cannot earn a profit even when sales quantity equals the capacity of 100 which is the maximum possible production.

4. **Changes in Underlying Factors**

   Break-even Analysis can also be used to study the effect of changes in Underlying Factors on the Break-even Point and Margin of Safety.

APPLYING COST VOLUME PROFIT ANALYSIS

Cost Volume Profit CVP analysis is applied in the following situations:

- Planning and forecasting of profit at various levels of activity.
- Useful in developing flexible budgets for cost control purposes.
- Helps the management in decision-making in the following typical areas:
- Identification of the minimum volume of activity that the enterprise must achieve to avoid incurring loss.
  - Identification of the minimum volume of activity that the enterprise must achieve to attain its profit objective.
  - Provision of an estimate of the probable profit or loss at different levels of activity within the range reasonably expected.
  - The provision of data on relevant costs for special decisions relating to pricing, keeping or dropping product lines, accepting or rejecting particular orders, make or buy decision, sales mix planning, altering plant layout, channels of distribution specification, promotional activities, etc.
- Guide in fixation of selling price where the volume has a close relationship with the price level.
- Evaluates the impact of cost factors on profit.

CVP analysis in multi-product situations

Where a company manufacturing more than one product of varying profitability, a change in the profitability of one product will lead to change in the profitability of group as a whole. The profit-volume chart may be used to illustrate the effects of changes in product mix by drawing a product profit path as shown in the figure given below or separate profit lines are drawn for each of the assumed profit mixes as shown in the figure for each individual product.

Figure 5.11: Multi-Product Profit Path Chart

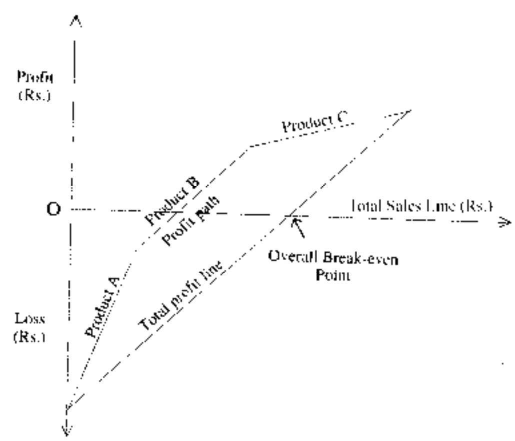


Illustration 12.5

ABC Ltd. sells three products D, E and F. The following information is provided.

		D	E	F
Variable cost per unit	(Rs.)	4	7	3
Selling price per unit	(Rs.)	6	8	7
Sales volume	(Units)	6,000	6,000	7,600

Fixed costs are Rs.20,000

Construct a multi-product P.V. chart

(Rs.)

	D	E	F	Total
Contribution	12,000	6,000	30,400	48,400
Less: Fixed costs				20,000
Profit				28,400

	D	E	F	Total
Sales revenue (Rs.)	36,000	48,000	53,200	1,37,200
P/V Ratio	33.3%	12.5%	57.1%	

The multi-product P.V. chart is shown in the figure above.

The break-even point in sales value $= \dfrac{\text{Fixed costs}}{\text{P/V ratio}}$

$= \text{Rs.}20{,}000 \text{ x } \dfrac{1,37,200}{48,400}$

$=$ Rs.56,694

Assumptions of Cost-Volume-Profit Analysis

- This analysis presumes that costs can be reliably divided into fixed and variable category. This is very difficult in practice.
- This analysis presumes an ability to predict cost at different activity volumes. In practice, a lot of experience may be required to reliably develop this ability.
- A series of break-even charts may be necessary where alternative pricing policies are under consideration. Therefore, differential price policy makes break-even analysis a difficult exercise.
- It assumes that variable cost fluctuates with volume proportionally, while in practical life the situation may be different.
- This analysis presumes that efficiency and productivity remain unchanged. In other words, this analysis presents a static picture of a dynamic situation.
- The break-even analysis either covers a single product or presumes that product mix will not change. A change in mix may significantly change the results.
- This analysis disregards that selling prices are not constant at all levels of sales. A high level of sales may only be obtained by offering substantial discounts, depending on the competition in the market.
- This analysis presumes that volume is the only relevant factor affecting cost. In real life situations, other factors also affect cost and sales profoundly. Break-even analysis becomes over-simplified presentation of facts, when other factors are unjustifiably ignored. Technological methods, efficiency and cost control continuously influence different variables and any analysis which completely disregards these over changing factors will be only of limited practical value.
- This analysis presumes that fixed cost remains constant over a given volume range. It is true that fixed costs are fixed only in respect of a given capacity, but each fixed cost has its own capacity. This factor is completely disregarded in the break-even analysis. While factory rent may not increase, supervision may increase with each additional shift.
- This analysis presumes that influence of managerial policies, technological methods and efficiency of men, material and machine will remain constant and cost control will be neither strengthened nor weakened.

- This analysis presumes that production and sales will be synchronized at all points of time or, in other words, changes in beginning and ending inventory levels will remain insignificant in amount.
- The analysis also presumes that prices of input factors will remain constant.

  Cost-volume-profit analysis is based on the above-mentioned limitations. Attempts to draw inferences disregarding these limitations will lead to formation of wrong conclusions. The application of cost-volume-profit relationship is restricted by the assumptions on which it is based. Therefore, cost-volume-profit analysis cannot be used indiscriminately.

LIMITATIONS OF COST-VOLUME-PROFIT RELATIONSHIP

The cost-volume-profit relationship depends on the profit equation

$$P = (S - V)\,Q - F$$

where P = Profit

S = Unit Selling Price

V = Unit Variable Costs

F = Total Fixed Cost

Q = Sales Volume

This equation gives the basic Cost-Volume-Profit Model.

As long as S, V and F are constant the cost volume profit relationship will be linear.

In real life the following factors effect the linear Cost-Volume-Profit Relationship.

- Variable cost per unit (V) may not be constant. For example, raw material cost is variable. However, as volumes of production increase, raw material may be purchased in bulk so that quantity discounts are available. Hence, raw material cost may be say Rs.50 per unit of production up to say 20,000 units and Rs.40 per unit thereafter. So the linear relationship is affected at 20,000 units.
- Fixed costs may stabilize at higher levels as volume increases. For example, depreciation on plant is a fixed cost. But as production increases, the plant may be operated for an extra shift so that it may be necessary to provide extra shift allowance of depreciation.
- Selling prices may be lower at high volumes because of sales discounts allowed.
- Changes in efficiency will affect the cost-volume-profit relationship. An increase in efficiency may increase volume with less than the expected increase in cost.
- More than one product may be produced. In this case volume may have to be redefined in terms of rupees as each product may be measured in different units.

Illustration 12.6

Biprod Ltd. manufactured Gidgets and Gadgets and provides the following data:

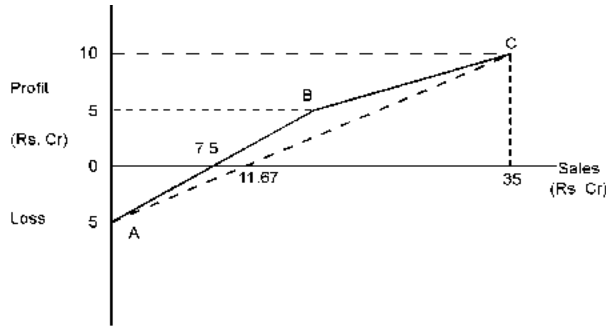
Product	Volume	Sales (Rs.Cr.)	Variable Cost (Rs.Cr.)	Contribution (Rs.Cr.)
Gidgets	15,000 tons	15	5	10
Gadgets	10,000 Kilo Liters	20	15	5

Fixed Cost = Rs.5 crore

Above we have a P/V graph. If only Gidgets are produced first, the profits to sales relationship is given by AB and break-even is Rs.7.5 crore

[$\dfrac{\text{Fixed Cost}}{\text{C/S Ratio}} = \dfrac{\text{Rs.5 crore}}{\left(\dfrac{10\text{ crore}}{15\text{ crore}}\right)}$ = Rs.7.5 crore] = Once sales of Gidgets

Figure 5.12



Touches Rs.15 crore, Gadgets are manufactured. The profit to sales relationship is now along BC. On the other hand if both products are produced and sold in the ratio 15 tons to 10 kilo liters, the profit to sales relationship is given by AC. In this case breakeven sales are Rs.11.67[2] crore.

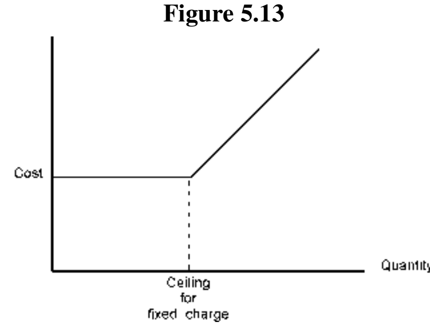
SEGREGATION OF SEMI-VARIABLE COSTS OR MIXED COSTS

$$\text{Break-even Point} = \frac{\text{Fixed cost}}{\text{Unit contribution}}$$

In order to use the above formula it is essential that all costs be broken up into their fixed and variable components. In the case of costs like raw materials, it is possible to conclude that they are wholly variable costs. On the other hand costs like depreciation would be wholly fixed costs. However. there are costs where the behavior is not easy to know. In fact in such cases the costs may have both fixed and variable components. For example, repair charges .

A supplier may offer raw material packing at a nominal cost of say Rs.10,000 up to a maximum ceiling of 50,000 units. For additional quantities of raw material the packing charge may be Rs.5 per unit. Another example is of a transporter who may offer to transport a lorry load of goods at a lump sum cost of say Rs.5,000. However additional quantities will be accepted at a charge of Rs.5 per kg. In such cases the graph of the cost would be as follows:

Figure 5.13

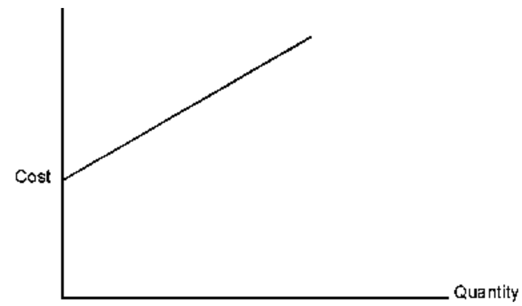


In some cases the ceiling may be at zero quantity. For example, the transporter may charge a fixed amount of Rs.1,000 per month regardless of the quantity transported. Over and above this there may be a charge of Rs.5 for each kg. transported. Here the cost graph would be as follows:

---

2. $\dfrac{5 \text{ crores}}{\frac{10}{5} \times \frac{3}{7} + \frac{5}{20} \times \frac{4}{7}}$ as the product mix is in the ratio of 15 tones to 10 liters i.e., sales value is in the ratio of 3:4.

Figure 5.14



In all such cases it is necessary to breakup the cost into fixed and variable components for breakeven analysis.

Since semi-variable costs contain both fixed and variable components, it is essential to segregate semi-variable costs for accuracy of marginal costs.

Following are few methods of segregation of semi-variable costs.

Level of activity method

Range Method

Scatter Diagram Method

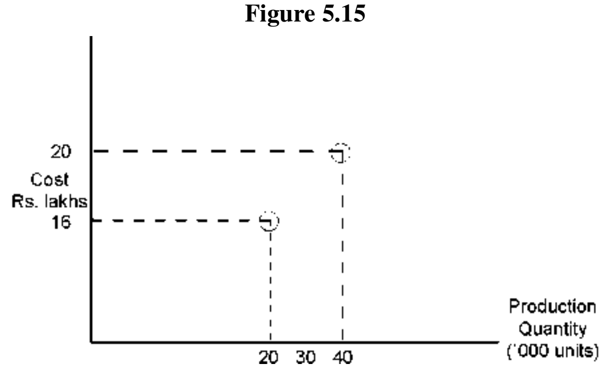
Method of Least Squares

LEVEL OF ACTIVITY (OR TWO POINT) METHOD

This method involves the comparison of output at two different levels with corresponding level of semi-variable expenses. The ratio of the change in semi-variable expenses to the change in output reflects the variable component of the costs. More specifically it reflects the variable component per unit of output. Since the fixed component remains constant, the change in expenses due to a change in level of output is caused due to variable component only. Consider the following example:

Example: From the graph given below, find the cost when production is 30,000 units.

Figure 5.15



By the two point method variable cost per thousand units

$$= \frac{(\text{cost at high level activity}) - (\text{cost at low level activity})}{\text{high level activity} - \text{low level activity}}$$

$$= \frac{20-16}{40-20} = \frac{4}{20} = \text{Rs.0.2 lakhs per thousand units}$$

So fixed cost	=	Total cost at high level activity – [variable cost per thousand units x production (000 units)]
	=	20 – 0.2 x 40
	=	20 – 8
	=	Rs.12 lakh

Hence the cost is given by the equation:

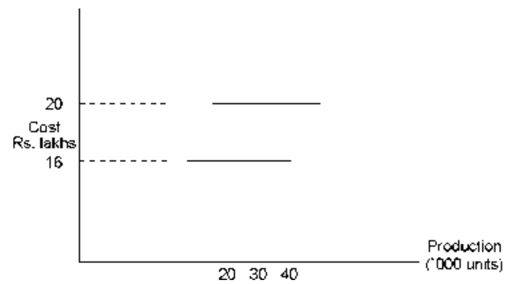
Total Cost (Rs. lakh) = 12 + [0.2 x Production ('000 units)].

= 12 + (0.2 x 30)

= 12 + 6 = Rs.18 lakh

Sometimes, the above estimate may not necessarily be true. For example, the cost may be a step cost that increases in a single jump when production touches 40,000 units as shown below.

Figure 5.16



In such a case the cost would be Rs.16 lakh for a production of 30,000 units.

The two point method uses the minimum data and gives quick results. However the results may be incorrect as shown above.

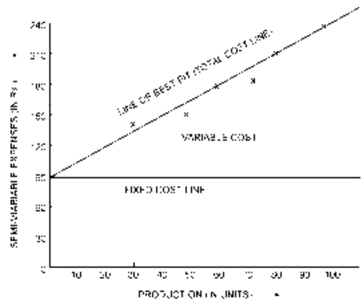
RANGE METHOD

This method is similar to Level of Activity Method, except that instead of considering any two levels of activity , this method compares costs at highest and lowest point of activity. This method is also known as High & Low Points method.

SCATTER DIAGRAM METHOD

A graphical technique to analyze the relationship between two variables. Two sets of data are plotted on a graph, with the Y-axis being used for the dependent variable (semi-variable costs) and the X-axis is used for the independent variable (activity). The graph will show possible relationships. This method requires plotting on a graph paper the given data and drawing a line of best fit. This method involves the following steps

- Representing the volume of production on the horizontal axis (X-axis) and costs on the vertical axis (Y-axis) of the graph paper.
- The costs corresponding to each volume of production given in the data are plotted on the graph.
- After plotting all the costs corresponding to production volume, a straight line of best fit is drawn through the plotted points. This line is extended to meet the Vertical axis.
- This line represents the total cost line and the point where the line intersects the vertical axis will be the amount of fixed component of overheads.
- A line drawn parallel to the horizontal axis from the intersection point on the vertical axis reflects fixed costs and is called fixed cost line.
- The variable costs at any level can be known by noting the difference between the fixed cost and the total cost line.



METHOD OF LEAST SQUARES

A criterion used to find the line of best fit, namely that the sum of the squares of the differences between “values on the line” and actual values should be as small as possible. It is a method of fitting a curve to data points so as to minimize the sum of the squares of the distances of the points from the curve. The linear equation used for this purpose is

$$Y = mx + c$$

Where,

Y = Total Semi-variable costs

m = Variable cost per unit

x = output

c = Fixed cost (in semi-variable cost)

The equation can take the following forms in each period.

$$y1 = mx1 + c$$

$$y2 = mx2 + c$$

$$y3 = mx3 + c$$

$$\sum y = m\sum x + Nc$$ (By adding the various equations above)

Now, multiply the equation with x in each period, we get

$$x1\ y1 = mx1^2 + c$$

$$x2\ y2 = mx2^2 + c$$

$$x3\ y3 = mx3^2 + c$$

$$\sum 75xy = m\sum x^2 + c\sum x$$ (By adding the various equations above)

With the help of the above two equations, the value of m and c can be found and the pattern of cost line can be ascertained.

SUMMARY

- In the cost volume profit analysis is based on the assumption that the relationship between costs and volume of sales is linear. Fixed cost remains fixed irrespective of the volume and variable cost depend directly on the volume, which forms a straight line equation. However, in the above analysis there are few underlying assumptions such as costs are classified into fixed and variable costs, selling price remains constant and only one product is manufactured. Having understood the relationship between Cost-Volume – Profit we were able to appreciate the concept of marginal cost, marginal costing and absorption costing. We have learnt how the Break-even point (an activity level that yields zero profit), can be arrived at using computational and graphical methods. Having learnt the difference between marginal costing and absorption costing and the income determination under both the methods, we shall learn in detail how managers use marginal costing technique in decision-making process.

Annexure

GRAPHICAL METHOD

Of the several linear programming methods, the graphical method is the simple and the most easily understood method. Graphical method can be applied in case we have only two variables. The graphical method is illustrated with the following example.

Elma Jewelers is in the business of manufacturing rings and bracelets of silver, gold and copper. Each ring takes 2 ounces of silver and 2 ounces of gold. Each bracelet takes one ounce of gold, three ounces of silver and one ounce of copper. It so happens that they have only 40 ounces of copper, 180 ounces of silver and 140 ounces of gold. Thus, if they make x_1 rings and x_2 bracelets, any production schedule must satisfy the three inequalities.

$x_2 \leq 40$	—	Copper Constraint
$2x_1 + 3x_2 \leq 180$	—	Silver Constraint
$2x_1 + x_2 \leq 140$	—	Gold Constraint

Each ring brings Rs.600 profit and each bracelet Rs.400 profit. Thus the problem is to maximize the objective function, giving the combined profit.

$$Z = 600x_1 + 400x_2$$

This is a linear programming problem, and it can be solved by a graphic procedure. As a first step, convert the silver constraint into an equation.

$$2x_1 + 3x_2 = 180$$

How can we represent graphically, combinations of rings and bracelets which exactly meet this constraint?

If we make no bracelets, $x_2 = 0$, and so the number of rings can be computed by solving the silver constraint for x_1.

$$2x_1 = 180 - 3x_2$$

$$\text{or} \quad x_1 = \frac{180 - 3x_2}{2} = \frac{180 - 0}{2} = 90$$

So, one point is (90,0)

Now, if we make no rings, $x_1 = 0$, and we solve the silver constraint for x_2

$$3x_2 = 180 - 2x_1 = 180 - 0 = 180$$

$$\text{or} \quad x_2 = \frac{180}{3} = 60$$

This gives another point (0,60). The straight line joining these points gives the combination of rings and bracelets which exactly meet the silver constraint. Combinations to the left of the line meet the silver constraint with a surplus of silver.

Similarly other constraint equations are also drawn in the graph. The region common to all the regions identified gives the set of points for which the values of the coordinates and satisfy the constraints. The region identified is OABCD and this is called the feasible region. It may be noted that all values of x_1 and x_2 which satisfy the constraints lie within the region OABCD and all the points in the region OABCD will have the coordinates and which will satisfy the constraints. Hence, an optimal solution to the problem which is to maximize the profit should have coordinates x_1 and x_2 which will be on the boundary of region OABCD. The optimal solution, if it exists, should occur at one of the corner points. These corner points are also called extreme points or vertices. Thus, to find the optimal solution to a linear programming problem, we need to search only the extreme points.

It can be shown that there will be only a finite number of extreme points in any given problem.

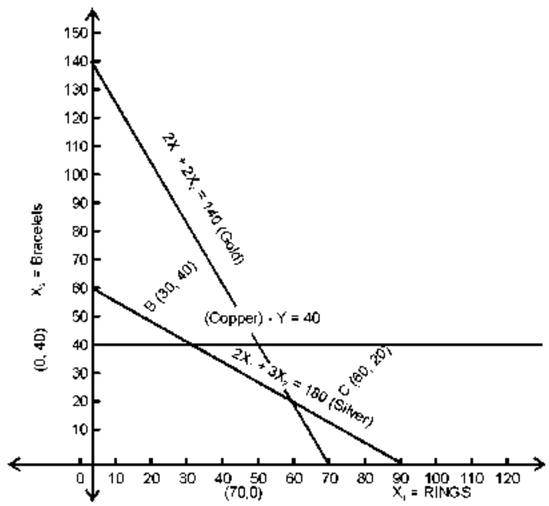
Let us find the value of the objective function Z = 600 + x_1 + 400 x_2 at the corner points of the feasible region OABCD.

At 0(0,0) Z	=	600 (0) + 400 (0)	=	0
A (0,40) Z	=	600 (0) + 400 (40)	=	16000
B (30,40) Z	=	600 (30) + 400 (40)	=	34000
C (60,20) Z	=	600 (60) + 400 (20)	=	44000
D (70,0) Z	=	600 (70) + 400 (0)	=	42000

The objective function is maximum at $x_1 = 60$ and $x_2 = 20$ indicating that 60 rings and 20 bracelets should be produced and this will yield a profit of

60 x 600 + 20 x 400 = Rs.44,000

If the objective function is parallel to an edge of the feasible region, then we get a number of product mixes, each of which will give the same maximum profit. This is a case of multiple optimal solutions.



The optimal solution obtained through the graphical method above, can also be got using 'Simplex method'. The mathematical technique of the simplex algorithm is presented below via another illustration.

SIMPLEX METHOD

In large size linear programming problems, a systematic method has to be developed to find the optimal solution. The 'Simplex Method' developed by George B Dantzig is an efficient algorithm to solve the problem. The simplex method is an iterative procedure for moving from an extreme point with a low profit value to another with a higher profit value until the maximum value of the objective function is achieved.

An application of the simplex method is illustrated below with the problem that has been discussed earlier in the chapter. The linear programming problem is to find optimal solution to:

Maximize: $4X_D + 2X_B + 6X_F$

Subject to: $2X_D + X_B + X_F \leq 15000$

$3X_D + 2X_B + X_F \leq 12000$

$X_D \geq 0, X_B \geq 0, X_F \geq 0, S_M \geq 0, S_L \geq 0$

The first step in applying the simplex method is to convert all inequalities into equations. This conversion could be accomplished by utilizing the concept of slack or unused resources. If we define:

S_M = Slack raw material

S_L = Slack labor

Then the constraints will be

$2X_D + X_B + X_F + S_M = 15000$

$3X_D + 2X_B + X_F + S_L = 12000$

$X_D \geq 0, X_B \geq 0, X_F \geq 0, S_M \geq 0, S_L \geq 0$

The profit contribution of slacks is taken as 0 so that objective function is

$4X_D + 2X_B + 6X_F + 0\,S_M + 0S_L$

Which is to be maximized. We call the original variables X_D, X_B and X_F as regular variables and the others as slack variables.

We first form an initial solution to the constraints. This is obtained by assigning value 0 to the regular variables X_D, X_B and X_F. The values of Slack Variables will now be:

S_M = 15000

S_L = 12000

We now construct a table (or tableau) and update the table. The explanation is given at the end of each table.

Tableau 1

Row 1	Profit			4	2	6	0	0
Row 2 Variables				X_D	X_B	X_F	S_M	S_L
	Profit	Variables	Solution	X_D	X_B	X_F	S_M	S_L
	1	2	3	4	5	6	7	8
	0	S_M	15000	2	1	1	1	0
	0	S_L	12000	3	2	1	0	1
$Z_j - C_j$ values			0	–4	–2	–6	0	0

Profit

Pivot Column

Explanation

i. Columns (4) to (8) represent all the variables that appear in the Problem i.e., X_D, X_B, X_F, S_M and S_L.

ii. First fill-in the second row with all the variables.

iii. Fill-in the first row with the profit contribution of these variables. The profit contributions are the co-efficients of the variables in the objective function.

iv. Fill column (2) with the slack variables S_M and S_L.

v. Fill column (1) with the profit contribution of variables that appear in column (2).

vi. Fill column (3) with the Solution Values of the variables in column (2).

vii. Column (4) is filled with co-efficients of X_D in the constraints. Similarly columns (5) to (8) are filled with the co-efficients of X_B, X_F, S_M and S_L respectively, in the constraints.

viii. The value in the profit cell under column (3) is obtained by multiplying the elements of column (1) with the elements of column (3), i.e.,

$= 0 \times 15000 + 0 \times 12000 = 0$

This implies that for the initial solution $X_D = 0$, $X_B = 0$, $X_F = 0$, (i.e. no production), the profit realized is 0.

ix. The cells in the last row under columns (4) to (9) are called $Z_j - C_j$ cells. These values indicate the increase in profit per unit increase in the production levels. The value under column (4) corresponding to variable is calculated by multiplying the elements of column (1) with the elements of column (4) and subtracting the contributions of X_D, i.e.,

$$0 \text{ x } 2 + 0 \text{ x } 3 - 4 = -4$$

The $(Z_j - C_j)$ value in column (5) is calculated as:

$\sum \text{Col}(1) \text{ x Col}(5)$ – Contribution of $X_B = -2$

The other $Z_j - C_j$ values are also calculated in a similar way.

Tableau 1 is now complete. At the end of each tableau, we should decide whether to update the tableau to obtain a better solution or stop. This is done using the following steps.

Step 1

Is the solution indicated in the tableau optimal?

The answer for this question is obtained by looking at the $(Z_j - C_j)$ values in the last row. As mentioned above, these values indicate the contribution that could be gained by increased production levels. For example, $Z_j - C_j$ the value corresponding to variable is – 4. This indicates that by not producing the product, a contribution of Rs.70 per unit is lost and hence by increasing the production level of X_D, the contribution can be increased at the rate of Rs.4 per unit increase in production. Similarly contribution can be increased by Rs.2 per unit by increasing the production level of X_B. Thus, there is scope for improving the profit and hence we have not reached the optimal solution. Thus we answer the question by looking at all the $(Z_j - C_j)$ values. If all these values are greater than or equal to zero, it implies that we have reached the optimal solution and hence we stop. If one of the $(Z_j - C_j)$ values is negative, then go to the next step.

Step 2

Find the variable to 'enter solution'. This means identifying the product for which the production level has to be increased. The rule is: Identify the most negative $(Z_j - C_j)$ value and this indicates the variable for which the value has to be increased in the next iteration. In this case, the $(Z_j - C_j)$ values are –4, –2, –6, 0, 0 and the most negative value is –6 in column (6) corresponding to variable. Hence we decide to increase the value of x_F. In the next iteration we bring x_F into the solution.

Step 3

Find the variable to 'leave solution'. This is obtained by answering the following question: In step 2, we decided to increase the value of X_F i.e., increase the production level of X_F. By how much the production of X_F can be increased?

The answer is, increase the production until one of the resources get exhausted. The requirement per unit is given in column (6) of the tableau. If the value is positive, it means that there is a positive requirement. If the value is 0 or negative, it means that particular resource is not required for increasing the value of X_F. By simple logic, it can be seen that the minimum positive ratio of the elements of column (3) with the elements of the column selected in step 2 i.e., column (6) will indicate the resource which will first be exhausted.

$$\text{Min}\left[\frac{15000}{1}, \frac{12000}{1}\right]$$

The minimum value is 12000 corresponding to the ratio $\frac{1200}{1}$ and the corresponding variable is S_L i.e., the labor hours gets exhausted by producing 12000 units of and we cannot increase the quantity beyond 12000 at this stage. As S_L value reduces to 0, we replace S_L by X_F in the column (2). We identify the row corresponding to S_L.

Step 4

Identify the pivot element. This element is the element common to the column identified in step 2 and the row identified in step 3, i.e. 1. This element is circled. The column and row where the pivot element lies is called pivot column and pivot row.

We are now ready to update tableau 1 and construct tableau 2. The format of tableau 2 is the same as tableau 1. The rules for updating are explained in tableau 2.

Explanation

1. Fill-in row 1 and row 2 of tableau 2 in the same way as tableau 1. Fill-in the column (2) replacing the variable selected in step 2.
2. Fill-in column (1) with the contribution margin of the variables in column (2).
3. Update the pivot row by dividing each element by the pivot.
4. Update the pivot column by filling it with zeros.
5. Update all other elements as follows:

The first element in column 3 is 15000 and it is to be updated. From this element we move to the pivot column, then to the pivot and then to the column we started with and trace the elements. These are:

Value to be updated 15000

12000 1

$$\text{The updated value} = \frac{\text{Old value} - (\text{Product of the diagonal elements})}{(\text{Pivot})}$$

$$= 15{,}000 - \left(\frac{1 \text{ x } 12{,}000}{1}\right)$$

$$= 3{,}000$$

The other elements are also updated in a similar fashion. The calculations are shown in the tableau.

The solution indicated in tableau 2 is

S_M = 3,000
S_F = 12,000

The Variables S_L, X_D and X_B which do not appear in column 2 take a value 0.

At the end of tableau 2, the four steps mentioned at the end of tableau 1 are repeated.

Is the solution indicated in tableau 2 optimal? The $(Z_j - C_j)$ values are (14, 10, 0, 0, 6) and as all are non-negative, we have reached the optimal solution:

The optimal solution is

X_D = 0
X_B = 0
X_F = 12000
S_M = 3000
S_L = 0

The maximum contribution is Rs.72,000 i.e., produce 12,000 units of alone and we are left with 3,000 units of raw materials unused.

Tableau 2

	Profit		4	2	6	0	0
	Variables		X_D	X_B	X_F	S_M	S_L
Profit	Variables	Solution					
1	2	3	4	5	6	7	8
0	S_M	$15000 - \frac{(1 \times 12000)}{1} = 3000$	-1 $\left(2 - \frac{(1 \times 3)}{1}\right)$	-1 $\left(1 - \frac{(1 \times 2)}{1}\right)$	0 $\left(1 - \frac{(1 \times 1)}{1}\right)$	1 $\left(1 - \frac{(1 \times 0)}{1}\right)$	1 $\left(0 - \frac{(1 \times 1)}{1}\right)$
6	X_F	12 (12000/1)	3/1 = 3	2/1 = 2	1/1 =1	0/1 = 0	1/1 = 1
		$0 - \frac{(-6 \times 12000)}{1}$ = 72,000	$-4 - \frac{(-6 \times 3)}{1}$ = 14	$-2 - \frac{(-6 \times 2)}{1}$ = 10	$-6 - \frac{(-6 \times 0)}{1}$ = 0	$0 - \frac{(-6 \times 0)}{1}$ = 0	$0 - \frac{(-6 \times 1)}{1}$ = 6

Chapter XIII

Decisions Involving Alternative Choices

After reading this chapter, you will be conversant with:

- Alternative Choice Decisions
- Nature of Managerial Decision Making
- Characteristics of Costs for Decision-Making

NATURE OF MANAGERIAL DECISION MAKING

Managerial decision making is the process of choosing among alternative courses of action. The manager chooses that course of action which he considers the most effective means at his disposal for achieving goals and solving problems. Decision-making is an integral part of all management functions – planning, organization, co-ordination and control. All decisions are futuristic in nature, involving a forecast of what management thinks is likely to occur. But we must not forget that the future is highly uncertain. Thus with uncertainty surrounding business decisions, decisions have to be made with the full realization that there is some probability of the prediction which underlay the decision taken, going wide off the mark. Some of the decisions which managers take are routine in nature. These decisions take up very little of the manager’s time either because there is very little uncertainty or because the cost is insignificant. On the other side of the coin we have those “nerve-racking” decisions which managers have to take. The manager has to spend a considerable amount of time and thought on these decisions because they are crucial to the organization, totally surrounded by uncertainty and involves large sums of money.

Let us now take a look at the process of decision-making.

Steps in Decision Making

Before discussing the use of accounting information useful for decision-making, it is helpful to look at the process of decision-making itself. While this process is complex and not amenable to standardization, the following steps seem useful for most of the problems:

- Defining the problem
- Developing alternative solutions
- Evaluating the alternatives
- Arrive at a decision.

DEFINING THE PROBLEM

Identifying a problem is the first and often a very critical step in the process of decision making. While this may be fairly easy in some cases, it might be more difficult in others. Perceptive analysis and insight may be required to articulate the problem. The real problem may have to be distinguished from the apparent one.

DEVELOPING ALTERNATIVE SOLUTIONS

Once the nature of a problem is understood, alternative courses of action to solve it have to be developed. This requires a sound understanding of the factors causing the problem and imaginative thinking about ways and means that can solve it. In the initial stages of developing alternative solutions several possibilities may arise. The analyst should eliminate those which are clearly unattractive and narrow his choice down to a few, perhaps two or three. This will prevent the analysis from becoming complex and unwieldy. Of course, there must be at least two alternatives. If only one course of action is available, then there is no choice, hence no decision making problem. Often one of the alternatives is to continue what is being currently done. Other alternatives may be compared against this.

EVALUATING THE ALTERNATIVES

The alternative solutions developed in the preceding step have to be carefully evaluated. Each solution may have several advantages and disadvantages. These have to be weighed and balanced for judging its overall desirability.

If the advantages and disadvantages of an alternative are stated in qualitative terms only, evaluation may be difficult. Consider, for example, the following statement: The proposed change in the manufacturing method will reduce material costs but enhance labor costs, maintenance charges, and electricity costs. Clearly, such a qualitative expression of costs and benefits does not facilitate overall evaluation. On the other hand, if it is stated that the material costs will be reduced by Rs.10,000, whereas labor costs, maintenance charges, and electricity costs will increase by Rs.6,000, Rs.1,000, and Rs.2,000, respectively, the net advantage of the proposed change in the manufacturing method can be easily figured out.

While efforts should not be spared to quantify costs and benefits it may be difficult, or even impossible, to measure certain consequences. How, for instance, can we measure consequences such as improvement in morale, greater customer satisfaction, increased vulnerability to competition, and higher threat of technological obsolescence. Such effects, though difficult to measure, are important in overall evaluation and have to be duly considered. Evaluation of non-measurable consequences is essentially a judgmental process.

ARRIVE AT A DECISION

Once the alternative courses of action are evaluated in terms of their measurable and non-measurable effects, the decision maker may be in a position to select one of the alternatives finally. Of course, he may decide to gather further information in order to sharpen his assessment before arriving at a decision. This, however, requires additional effort, cost, and time. So the act of decision cannot be delayed beyond reason. At some point, the decision maker would do well to reach a decision rather than defer it till more information is gathered.

CHARACTERISTICS OF COSTS FOR DECISION MAKING

We are already familiar with the concept of *relevance* and *relevant costs.* Essentially, relevant costs have the following two characteristics:

- They are expected future costs.

  All future costs are not necessarily relevant to decision making purposes, but no costs are relevant unless they pertain to the future. Expected future costs means that the costs are expected to occur during the time period covered by the decision. For example, a manager evaluating the cost of producing a new product for the next year uses the labor, material and overhead costs expected during the next year. Past or historical costs are relevant to the decision only if they are expected to continue in the future. Past costs which are not expected to continue in the future can be significant only to the extent that management can learn lessons from it and is thereby able to make more intelligent decisions regarding the future.

- If the same costs are incurred for both the alternatives, then they are not relevant. If the costs incurred for the alternatives are different, then they become relevant costs. For example, if the manager is evaluating the purchase of either a manual or an automated drill press, both of which require skilled labor costing Rs.80 per hour, the labor rate is not relevant since it is the same for both alternatives. If, however, the manual drill press requires only semi-skilled labor at Rs.60 per hour whereas the automatic drill press require skilled labor at Rs.80 per hour, then the labor rate is relevant because it is different between the two alternatives. The difference between the amounts of the two costs is called differential cost or incremental cost. In the above example, differential cost is computed as follows:

  Differential cost = Cost of one alternative – Cost of the other alternative
  = Rs.80 – Rs.60 = Rs.20

Accounting Data for Decision Making

COSTS FROM A COST ACCOUNTING SYSTEM

Typically, in a cost accounting system, each product is charged with a portion of indirect costs which are not traceable to the product. Hence, cost figures drawn from the cost accounting system are often not relevant for decision making purposes. Remember that costs which differ between the alternatives in future alone are seen as relevant.

VARIABLE COSTS

Are likely to be regarded as differential costs. The two concepts, however, are different. Variable costs are those which vary proportionately with the output.

Differential costs, as we have seen, are those which differ between the alternatives in future. Of course, in a decision making situation where the alternatives involve different levels of output, variable costs may be the same as differential costs. The latter, however, may include fixed costs too.

OPPORTUNITY COSTS

Represent the benefit foregone in sacrificing the best alternative. To illustrate, consider the use of a machine for manufacturing the product A. If product A is not manufactured, the best alternative use of the machine is to manufacture product B which generates certain revenue. Hence the opportunity cost of using the machine for product A is represented by the revenue that would be generated if the machine is put to the manufacture of product B (the best alternative use). In other words, it is the revenue of Product B forgone to manufacture Product A.

While relevant costs are usually represented by actual cash outflows, in some cases they also include opportunity costs. This happens when alternatives employ different resources.

DEPRECIATION

This represents periodic write-off of the cost of a long-lived asset. The depreciation charge is in the nature of a recovery of sunk cost, as the result of a past decision. For decision making purposes, sunk costs are irrelevant – bygones are bygones. Hence, depreciation charges are totally irrelevant for decision making purposes.

FIXED COSTS

For purposes of short-term decision making, fixed costs may be either relevant or irrelevant. When a fixed cost is incurred only if a certain decision is taken, it is relevant. For example, the manufacture of a new product may entail the salary of a production supervisor. His salary, a fixed cost that will be incurred only if the new product is manufactured, is a relevant cost. If a fixed cost is incurred irrespective of whatever decision is taken in a certain situation, it is an irrelevant cost. For example, the salary of chief executive is incurred whether or not a new product is manufactured. Hence, in the context of a decision relating to the manufacture of the new product, the salary of chief executive, a fixed cost, is not relevant.

ALTERNATIVE CHOICE DECISIONS

Many of the decisions discussed in this chapter are frequently referred to as alternative choice decisions. Alternative choice decisions involve situations with two or more courses of action from which the decision maker must select the best alternative. A decision involving more than two alternatives is called a multiple-alternative choice decision.

Many factors enter into the selection of the best alternative. Some decisions are based primarily on judgment, with little or no analytical data. Others involve systematic decision models. In most business decisions, some accounting data are useful in reaching a decision, and cost data are particularly useful in analyzing many alternative choice decisions.

Application of Differential or Incremental Cost Analysis

The decisions involving alternative choices uses the technique of differential costing which is an extension of marginal costing. This technique can be applied for decisions involving alternative choices such as discontinuance of a product line, make or buy decisions, own or lease, changes in sales mix etc. Let us consider important terms of differential cost analysis before we proceed to applicability of differential cost analysis.

INCREMENTAL PROFIT

For complete analysis of a decision alternative, we have to consider both revenues and costs and determine the profit associated with that decision. Referred to as the incremental profit related to the decision, this represents the contribution to the total profit of the firm which is specifically traceable to the alternative under analysis. Difference between incremental revenues and incremental costs is explained in the following paragraphs.

INCREMENTAL REVENUES

These are measured as:

Revenues directly flowing from the decision + Increase in revenues from other activities as a result of the decision – Decrease in revenues from other activities as a result of the decision.

INCREMENTAL COSTS

These are measured as:

Costs directly related to the decision + Increase in costs of other activities as a result of the decision – Decrease in costs of other activities as a result of the decision.

Decision to Make or Buy

A firm that is presently buying a product or part from outside may consider to manufacture that product or part in the firm itself. Such a decision making alternative requires the firm to compare the price being paid to outside supplier with all costs that are to be incurred additionally to manufacture the product or part within the firm. Similarly, there may be a firm manufacturing a product in its factory and may be considering purchasing the same from an outside supplier. It requires the firm to compare the price to be paid to the outside supplier and the saving effect on cost on account of discontinuing the manufacture of the product or part within the firm.

Zenith Automobiles Limited is engaged in the manufacture of automobiles. The company manufactures a wide range of parts and also buys many parts from external suppliers. One of the parts that it manufactures is Part No.101. The monthly requirement of this part is 1,000 units and the standard cost for one unit is:

	Rs.
Direct material	40.00
Direct labor	20.00
Variable manufacturing overhead	20.00
Fixed manufacturing overhead	35.00
	115.00

At a monthly budget meeting the materials manager suggested that the company could save money if Part No. 101 was purchased from an outside supplier willing to supply the quantity required by Zenith at Rs.100 per unit. He estimated that if the part is bought from outside, the fixed clerical costs would increase by Rs.1,500 and the variable handling cost would be Rs.5 per unit. The plant manager reported that if the manufacture of Part No.101 were discontinued there would be no change in fixed manufacturing overheads.

INCREMENTAL PROFIT ANALYSIS

A preliminary look at the alternatives may suggest that the company saves money if Part No.101 is bought from outside because the cost of manufacture is higher than the cost of purchase. Closer examination, however, reveals a different picture. A portion of the standard cost of Rs.115 represents the allocation of fixed manufacturing overhead. For purposes of inventory valuation, this allocation is proper if the system of absorption costing and a reasonable overhead allocation method are used. However, for purposes of decision making, such a cost is irrelevant because the fixed manufacturing overheads would not change if the firm decides to discontinue the manufacture of Part No.101. Only variable manufacturing costs (direct material, direct labor, and variable manufacturing overhead) are relevant in this case. Hence, the decision to make or buy the part would be analyzed as follows:

	Rs.
Make	
Variable manufacturing cost (1,000 units @ Rs.80 per unit)	80,000
Buy	
Purchase cost (1,000 units @ Rs.100)	1,00,000
Handling cost (1,000 units @ Rs.5)	5,000
Clerical cost	1,500
	1,06,500

Since it costs less to make than to buy, the company should continue to manufacture Part No.101.

OTHER ASPECTS

Other aspects that should be taken into account while making a decision of this kind are:

- Value of facilities that would be released if the part is not manufactured,
- Reliability of the external supplier,
- Control over the quality of the external supplier,
- Difficulty in retrenching or using labor for some other purpose if manufacture of the part is discontinued.

Again, while these aspects cannot be quantified, they cannot be ignored, too.

Decision to Accept a Special Order

Special orders or one-time orders often have different characteristics than recurring orders. As a result, each order should be evaluated based on costs relevant to the situation and the goals of the company. Let us take a look at how incremental or differential cost analysis can be applied to a special order situation.

Crisp Chocolate Company is operating at only 60% of capacity due to slow holiday season sales. A social service organization approaches the company with a proposal that the company produce 10,00,000 chocolate bars of 25 gms to be sold for Re.1 by members of the social service organization to raise money for poor students. The proposal calls for a Rs.0.55 purchase price per bar for the social service concern. The chocolate bars can be produced with the firm's current excess capacity. The firm's chief accountant prepares the following cost estimates associated with the production and sale of the chocolate bars.

	Total Cost Rs.	Unit Cost Rs.
Direct materials	2,50,000	0.25
Direct labor	1,00,000	0.10
Manufacturing overhead (60% is allocated fixed overhead)	2,50,000	0.25
Variable selling and administrative cost	50,000	0.05
	6,50,000	0.65

A glance at the unit cost data indicates that Crisp Chocolates would lose Rs.0.10 per bar, or Rs.1,00,000 by accepting this special order. But when we apply incremental analysis, we find that allocated fixed overhead costs are not relevant to this decision since fixed overhead will exist whether the order is accepted or rejected.

Incremental Profit Analysis

	Rs.
Direct Materials	0.25
Direct Labor	0.10
Variable Manufacturing Overhead (40%)	0.10
Variable Selling and Administration Cost	0.05
Incremental Cost	0.50
Sales Price	0.55
Incremental Profit	0.05

Here we see that accepting the order adds Rs.0.05 per bar or Rs.50,000 in total, to Crisp Chocolate's profit. If no other factors affect the decision, the order should be accepted.

OTHER ASPECTS

Other factors may influence special-order pricing decisions. These may be,

- Effect on regular customers: If regular customers are paying more, they may demand price deductions or stop buying from the company.
- Special order customers turning regular customers: Another problem is that special order customers may decide to become regular customers, and changes in the price may become necessary.

Decision to Continue or Drop a Product Line

Sameeksha Limited produces and sells three products: Bips, Nips, and Dips. The income statement of the company, prepared in the absorption costing format, is shown below. The management of the company is considering dropping Dips since it shows a loss on the income statement.

Income Statement of Sameeksha Limited

	Bips	Nips	Dips	Total
	Rs.	Rs.	Rs.	Rs.
Sales	30,00,000	15,00,000	9,00,000	54,00,000
Cost of goods sold				
Variable	18,00,000	10,00,000	6,50,000	34,50,000
Fixed	5,00,000	2,50,000	1,50,000	9,00,000
	23,00,000	12,50,000	8,00,000	43,50,000
Gross margin	7,00,000	2,50,000	1,00,000	10,50,000
Selling expenses				
Variable	2,00,000	1,20,000	80,000	4,00,000
Fixed	1,50,000	75,000	45,000	2,70,000
	3,50,000	1,95,000	1,25,000	6,70,000
Profit before tax	3,50,000	55,000	(25,000)	3,80,000

INCREMENTAL PROFIT ANALYSIS

In analyzing this decision, it is helpful to prepare the income statement in the variable costing format and remove the fixed cost allocation to the products. This has been done below where it becomes clear that Dips has a positive contribution margin. Hence it should not be discontinued. The loss attributed to Dips in the conventional income statement, shown as per absorption table, arises because of allocation of a portion of common fixed costs which are irrelevant for decision making purposes.

Income Statement of Sameeksha Limited (Before Dropping Dips)

	Bips	Nips	Dips	Total
	Rs.	Rs.	Rs.	Rs.
Sales	30,00,000	15,00,000	9,00,000	54,00,000
Variable costs				
Production	18,00,000	10,00,000	6,50,000	34,50,000
Selling	2,00,000	1,20,000	80,000	4,00,000
	20,00,000	11,20,000	7,30,000	38,50,000
Contribution	10,00,000	3,80,000	1,70,000	15,50,000
Fixed costs				
Production				9,00,000
Selling				2,70,000
				11,70,000
Profit before tax				3,80,000

Income Statement of Sameeksha Limited (After Dropping Dips)

	Bips	Nips	Total
	Rs.	Rs.	Rs.
Sales	30,00,000	15,00,000	45,00,000
Variable costs			
Production	18,00,000	10,00,000	28,00,000
Selling	2,00,000	1,20,000	3,20,000
	20,00,000	11,20,000	31,20,000
Contribution	10,00,000	3,80,000	13,80,000
Fixed costs			
Production			9,00,000
Selling			2,70,000
			11,70,000
Profit before tax			2,10,000

Hence it can be seen that if the product Dips is dropped, the profit before tax decreases by Rs.1,70,000.

OTHER ASPECTS

A decision concerning the discontinuation of a product should also take into account the following:

- Complementary/competitive nature of the products of the company
- Impact on the image of the company
- Effect on the motivation of the employees
- Value of resources released on discontinuation.

Decision Regarding Equipment Replacement

One of the more important decisions involving alternative choices is whether or not to buy new capital equipment. This is in the nature of a capital expenditure decision. Generally, the economic advantage offered by such an investment is the realization of operating cost savings which are translated into increased net profits.

The Managing Director of Auto Manufacturing Company, ever alert to the economic advantages of automation, is considering the replacement of his present semi-automatic assembly-line with a new, completely automatic computer controlled set-up.

The old equipment was purchased six years ago at a cost of Rs.12,20,000. It was estimated at that time to have a useful life of ten years and a salvage value of Rs.20,000. The supplier of new equipment has offered a 'Trade-in' allowance of Rs.2,00,000 towards the purchase price of the new equipment costing Rs.17,00,000. At present, the old equipment is estimated to have no salvage value at the end of its useful life.

The new equipment is estimated to offer savings in direct labor and other manufacturing costs of an amount of Rs.4,50,000 per year over its expected life of four years. At the end of four years, it is expected to have no salvage value.

The Controller points out to the Managing Director that the 'trade-in' allowance offered on the old equipment is substantially below its book value with the result that a sizable loss on disposal would be incurred if it is to be replaced by the new equipment.

Assuming no increased volume over the next four years, let us analyze the effect of the two alternatives (a) on an annual basis, and (b) taking four years as a whole.

Is there an economic advantage in replacing the old equipment? Suppose the Managing Director wishes to realize ten percent annual return on incremental investment, what should his decision be?

Analysis of Replacement Alternatives
(a) Annual Basis

	Semi-Automatic Rs.	Automatic Rs.	Difference Rs.
Operating Costs	4,50,000	Nil	(4,50,000)
Equipment Cost:			
Old-Depreciation	1,25,000	-	(1,25,000)
Write-off average (Rs.5, 00,000 ÷ 4 years)	-	1,25,000	1,25,000
New ($\frac{1}{4}$ of Rs.17,00,000)	-	4,25,000	4,25,000
Disposal of Old Equipment ($\frac{1}{4}$ of Rs.2,00,000)	-	(50,000)	(50,000)
Total	5,75,000	5,00,000	(75,000)
Incremental Investment (Rs.17,00,000 – Rs.2,00,000)			15,00,000
(Return on Incremental Investment in Percentage Rs.75,000/Rs.15,00,000 x 100)			5%

Workings
Calculation of the Amount of Annual Depreciation

Cost of Semi-automatic Equipment	12,20,000
Less: Estimated Salvage Value	20,000
Amount to be written-off over ten years	12,00,000
Annual Depreciation (Rs.12,00,000 ÷ 10 years)	1,20,000
Total Depreciation in six years (Rs.1,20,000 x 6)	7,20,000
Present book value (Rs.12,20,000 – Rs.7,20,000)	5,00,000
Average depreciation for remaining four years (Rs.5,00,000 ÷ 4 years)	1,25,000

(b) Four Year Basis

	Semi-Automatic Rs.	Automatic Rs.	Difference Rs.
Operating Costs	18,00,000	Nil	(18,00,000)
Equipment Cost:			
Old -			
Depreciation	5,00,000	–	(5,00,000)
Write-off	–	5,00,000	5,00,000
New Depreciation		17,00,000	17,00,000
Disposal of Old Equipment	–	(2,00,000)	(2,00,000)
Total	23,00,000	20,00,000	(3,00,000)
Incremental Investment (Rs.17,00,000 – Rs.2,00,000)		15,00,000	
Return on Incremental Investment in Percentage (Rs.3,00,000/15,00,000 x 100)		20%	

The above analysis highlights the fact that the economic advantage of the replacement of semi-automatic equipment with an automatic one is in the form of a 5% average return on incremental investment over a period of 4 years. In case the Managing Director desires a return of 10% on incremental investment, the replacement proposal should not be accepted.

Decision Regarding Construction of Facilities

Once the decision to replace or add to equipment (a capital expenditure decision as explained earlier) has been taken, it is possible that the company might be in a position to construct its own facilities apart from the possibility of getting the same thing done from outside sources. From this point of view, this becomes a variant of the decision to make or buy. While taking this decision, it must be borne in mind that no attempt must be made to spread total manufacturing overheads over regular business operations as well as the new project because the company has to incur the total overhead costs whether it is going in for the new project or not.

Let us take a look at how differential cost analysis can help a manager take this decision. Thomas Rook Limited plans to construct some new buildings for installing certain additional machinery acquired as part of their diversification program. The company can either construct the buildings on their own or assign the construction work to an outside builder. It is estimated that the benefits to be received from the buildings would warrant the acceptance of a bid for Rs.12,20,000 from any outside builder. The budget for manufacturing operations of the company at normal capacity is as follows:

	Rs.
Direct materials	20,00,000
Direct labor	16,00,000
Manufacturing overheads:	
Fixed	6,00,000
Variable	12,00,000
	54,00,000

It is expected that the new buildings will be completed within a year, and during this period, the company can meet its targeted sales by operating at 60% capacity, while utilizing the remaining capacity for construction of the new buildings. The incremental costs of construction have been estimated as follows:

	Rs.
Direct materials	6,00,000
Direct labor	4,00,000
Manufacturing overhead identified with construction	1,50,000
Other overheads identified with construction	50,000

How will the manager take the decision as to whether the company has to construct the buildings or whether they must contract it to an outside builder?

Incremental Profit Analysis

	Regular Production Cost 60% of normal capacity Rs.	Incremental Costs of Building Construction Rs.
Direct material	12,00,000	6,00,000
Direct labor	9,60,000	4,00,000
Manufacturing overheads:		
Fixed	6,00,000	–
Variable	7,20,000	–
Manufacturing overhead identified with construction	–	1,50,000
Other overheads identified with construction	–	50,000
Total	34,80,000	12,00,000

Thus if the buildings are constructed internally, it costs an additional Rs.12,00,000 to the company. On the other hand if they contract it out to an outside agency, it will cost the company Rs.12,20,000. In view of the saving of Rs.20,000 by getting the buildings constructed internally, the company may decide to go in for construction internally, provided there are no other constraints involved in arriving at the decision.

An important point to be noted here is that 40% of fixed overheads should not be included under costs of construction because they are irrelevant for the purpose of decision making because the fixed overheads have to be incurred anyway whether the construction is done internally or externally.

Decision Regarding Selling or Further Processing

The question of whether an item is to be sold at an intermediate stage or whether it should be processed further and sold as a finished product is another decision that managers are forced to make. For example, a leather company can either sell processed leather or make it into items like shoes and bags and sell the finished product. In cases where further processing entails additional facilities, a capital investment decision is required, but if facilities and spare capacity already exist, we can use incremental analysis to find whether it is worthwhile for the company to go in for further processing.

The Advance Company manufactures a product which it sells to other firms, who process it further and sell it to industrial users. The normal monthly production of the company is 50,000 units. The unit selling price and standard costs per unit are as follows:

	Rs.	Rs.
Selling price		60.00
Standard costs		45.00
– Direct materials	20.00	
– Direct labor	7.00	
– Variable manufacturing overhead	8.00	
–Fixed manufacturing overhead	4.00	
– Variable selling expenses	4.00	
– Fixed selling expenses	2.00	
Unit profit before tax		15.00

The management of the company is considering a proposal to process the product further so that it can sell the finished product directly to the industrial users at Rs.80.00 per unit. Further processing does not require any capital investment but does entail the following additional costs:

	Rs.
Direct labor	8.00
Variable manufacturing overhead	3.00
Variable selling expenses	2.00
Fixed manufacturing overhead	1,00,000 per month
Fixed selling expenses	50,000 per month

The question to be answered is, should the management process the product further?

INCREMENTAL PROFIT ANALYSIS

Before analyzing the alternatives the current fixed costs, in standard amounts per unit of product, is stated in total terms. This is because stating fixed costs per unit of volume can be misleading. The fixed manufacturing overhead cost is Rs.2,00,000 and the fixed selling expense is Rs.1,00,000.

To analyze the alternatives, we may follow two broad approaches: (i) gross comparison of the operations of the entire firm under the alternatives, and (ii) net analysis of the relevant data. The first kind of comparison – gross comparison – is shown in Table A which is based on the variable costing format. Since further processing results in greater net income, it becomes the preferable alternative.

The gross comparison of the alternatives shown in Table A, though correct, presents some irrelevant data which remains the same irrespective of the alternative chosen. A different way of analysis would call for considering only those revenues and costs which differ between the alternatives. For Advance Company, such an analysis is shown in Table B. Of course, this analysis will show exactly the same result as the first one.

Table A

Gross Comparison of the Two Alternatives

	Present Processing Rs.	Further Processing Rs.
Sales revenue	30,00,000	40,00,000
Variable Costs:		
Direct materials	10,00,000	10,00,000
Direct labor	3,50,000	7,50,000
Manufacturing overhead	4,00,000	5,50,000
Selling expense	2,00,000	3,00,000
	19,50,000	26,00,000
Contribution	10,50,000	14,00,000
Fixed costs		
Manufacturing overhead	2,00,000	3,00,000
Selling expense	1,00,000	1,50,000
	3,00,000	4,50,000
Profit before tax	7,50,000	9,50,000

Table B
Net Analysis of Alternatives

	Rs.
Incremental revenue per unit	20.00
Incremental variable cost per unit	13.00
Incremental contribution per unit	7.00
Monthly volume in units	50,000.00
Incremental contribution per month	3,50,000.00
Incremental fixed cost per month	1,50,000.00
Incremental profit before tax per month	2,00,000.00

The method of comparison – gross comparison or net analysis – is largely a matter of individual choice. The gross comparison seems to be more useful when the two (or more) alternatives under analysis are different from the existing operations of the firm. Otherwise, net analysis is preferable.

OTHER ASPECTS

Certain other aspects that may be looked into in this decision situation are:

- Technical know-how and skill of the firm to process the product further.
- Additional working capital requirements as a consequence of further processing.
- Flexibility in hiring and retrenching people.
- Marketing set-up for distributing the finished product.

While these aspects do not lend themselves to precise financial measurement, they cannot be overlooked before a decision is taken.

In this chapter we have illustrated the use of differential cost analysis to evaluate the economic advantage of various decisions taken by managers. In each of these decisions, other than the appropriate relevant costs there are also certain qualitative factors that must be considered before the final decision is taken.

Decisions Facing Management

The management of a firm is often faced with the need to make vital decisions. What should the firm produce? How much should it produce? What should it not produce? What prices should be charged? Such decisions can have a significant impact on costs and revenues, which in turn will have an impact on the firm's profits.

For example, if the firm produces and sells more high margin products, it will earn higher profits. On the other hand if the firm produces too much of a product that does not sell, it may be burdened with high finished goods inventory which may have to be disposed off at a loss. Raising prices of products can have unpredictable effects.

If the customers are willing to pay higher prices, demand for the product may not be significantly affected and profits will be higher. On the other hand if customers resist the higher prices demand may drop sharply so that profits will fall. If the company discontinues producing a loss-making product, overall profits will improve.

In decision making the management must consider both the short-term and the long-term implications. For the short-term it may be acceptable to even incur losses provided there are good long-term profits. In fact all investments involve current costs to earn future returns.

When firms go global, the scale of investments required escalate to a much larger scale in fixed assets, in the market place and in R&D. To make an entry into a new region the firm may have to bear losses for the first 3 to 5 years. This is in addition to the capital in manufacturing and distribution factories. In the old days it was possible first to build up a market through imports from an established base and then invest locally. Today the scale and intensity of competition is such that firms cannot afford to wait lest they miss the bus to a more aggressive competitor. That is why Pepsi Cola and Coca–Cola are set to invest probably $100 m each before they see any return from India.

T Thomas
Chairman
Glaxo India Limited.

The Role of Cost in Decision Making

Revenues – Costs = Profits

From the above equation it is clear that a reduction in cost is one way to increase profits. The other way is to increase revenues.

When reducing costs it is important to ensure that there is no corresponding reduction in revenues. The famous American Car manufacturing Genius Lee Iacocca once described at a meeting at which various executives proposed cost cutting measures to boost the profits of a flagging car company. One executive suggested that the maximum cost reduction would be possible by closing down the company! Now clearly this is not a viable alternative. The point is that the final objective is not minimizing of cost, it is the maximizing of profits. Costs should be minimized only so long as they contribute to higher profits.

Another famous management guru, Peter Drucker, goes so far as to say that it is not cost that justifies price. Rather, it is price that justifies cost. Drucker points out that American Companies have a tendency to price their products on the basis of cost. On the other hand Japanese Companies first find out what price the customer would be willing to pay for the product. Then they take all steps to ensure their costs are minimized below this price so that profits are maximized. The result is that Japanese goods captured the markets by being cheaper than American goods.

Hence in decision-making management seeks to minimize costs but not by sacrificing revenues. Secondly, it is price that justifies cost in competitive markets.

Relevant Costs: Their two Characteristics

Management decisions have implications for future costs and revenues. By making the best decision it may be possible to minimize future costs and thereby increase future profits. All costs that are relevant to a decision are future costs. For example, a firm may be considering whether to purchase a better quality of raw material for the manufacture of its product. Although the better quality raw material costs more, the additional cost may be recovered by charging a higher price for a better finished product. In such a case, the cost of raw material is a future cost. Management can decide whether or not to incur it by deciding for or against buying the better quality material. However, once the material is purchased, the cost is incurred. Then it is no longer a future cost and it may be difficult or impossible to reverse the purchase decision.

In Management Accounting we are concerned with relevant costs. One characteristic of relevant costs is that they are future costs which have not been incurred. Hence the cost of a material is a relevant cost as long as the material is not purchased because by deciding whether or not to purchase the material we can choose to incur the cost or avoid it. Hence all relevant costs are future costs.

Is the converse true? Are all future costs relevant? Consider again the decision about buying a material. The cost of the material is a relevant cost. Consider now the rent of the factory building. Next month's factory rent is a future cost. But it is not relevant to the decision about buying the material. This is because next month's factory rent will be incurred whether or not the material is purchased. Hence for a cost to be relevant it must have two characteristics.

1. It must be a future cost.
2. It must be affected by the decision being taken or not taken.

Some real life decisions are given in the Annexure.

Contribution Approach in Decision-Making

Whenever the costs of a product are ascertained, both fixed costs and variable costs are taken into account. It would appear that the omission of any costs would be a serious mistake. But it can be shown that such "full costs" can lead to the wrong decision being taken.

When Full Costs are Considered you may be Bewildered

Aay-Bie Ltd. manufactures two products Aay and Bie. The product-wise profit statement is given below:

(Rs. in crore)

	Product Aay	Product Bie	Total
Variable cost	10	20	30
Fixed cost	5	10	15
Total cost	15	30	45
Sales	30	30	60
Profit	15	–	15

As product Bie is earning no profit you decide that it should not be manufactured. However when the product is discontinued, the profits of Aay-Bie actually decline!

The above situation may arise because in the profit statement we are considering the fixed costs. Now these may be in the nature of general costs like depreciation, rents and staff costs. Such costs will be incurred in full even if product Bie is discontinued. Hence the profit statement of Aay-Bie Ltd. will now be as shown below:

(Only product Aay manufactured and sold)

(Rs. in crore)

Variable cost	10
Fixed cost (5 + 10)	15
Total cost	25
Sales	30
Profit	5

As can be seen from the above statement, profits which were Rs.15 crore earlier have reduced to Rs.5 crore.

To obtain a correct picture we should consider only the relevant variable costs as shown in the statement below:

(Rs. in crore)

	Product Aay	Product Bie	Total
Sales	30	30	60
Less: Relevant costs (variable costs)	10	20	30
Contribution	20	10	30
Less: Fixed costs			15
Profit			15

By discontinuing product Bie we are losing contribution of Rs.10 crore so that profits also reduce by Rs.10 crore to a level of only Rs.5 crore.

Relevance and Cost Behavior

From the above, we may be tempted to conclude that all variable costs are relevant and all fixed costs are irrelevant in a decision. This may not be true. A simple example given below shows how variable costs can be irrelevant and fixed costs can be relevant.

Modernize and Profits Raise

One of the great weaknesses of Indian industry has been the use of outdated machines and production methods. Most companies have realized this and are undertaking modernization measures on a war footing.

Consider a company using an old machine which costs Rs.150 lakh per annum to operate as per details given below:

	(Rs. in lakh)
Supervision	30
Repairs and Maintenance	100
Spares	20
Total	150

If the machine is replaced by a new model the annual costs are

	(Rs. in lakh)
Supervision	10
Repairs and Maintenance	50
Spares	5
Total	65

The saving in annual operating costs will pay back the cost of a machine within 3 years.

In the above case it appears that the new machine is worth installing. A full analysis of the decision would be taken based on the net present value or Internal Rate of Return of the decision to install the new machine. This is considered in the next section. The point to be noted is that the relevant costs in this case are of a fixed nature. There are no relevant variable costs. Hence fixed costs can be relevant and variable costs can be irrelevant. It would depend upon the decision being considered.

Short-Term and Long-Term Implications of Decisions

Decisions can have short-term and long-term implications. Hence a decision maker has to take into account both the aspects. For example, in the desire to maximize current profits a manager may not want to shut down machines for maintenance and servicing. In the long-term this can lead to breakdowns of the machines and a reduction in their life. Here the costs of short-term profits become apparent in the long-term. Another example is the case of overloading employees. People tend to work at their own pace. They can deal with overload situations for short spans of time. But if overloading becomes a regular feature then the employees may compromise on quality by omitting certain jobs they consider not essential. Alternately they may leave the job so that replacements have to be found and trained at additional cost to the firm.

Consider new projects taken up by a company. A project usually involves large outlays in the current period with the recoveries and returns coming over the subsequent years. In such cases it becomes necessary to have a planning horizon. A planning horizon usually covers a number of years over which the costs and benefits from the project are expected to arise. Due to the lesser impact and greater uncertainty of the far future, the planning horizon is limited to say 5-10 years even if there are benefits accruing thereafter.

Continuing the case of the previous box, suppose that the new machine is expected to cost Rs.256 lakh. The old machine which it replaces will fetch a salvage value of Rs.1 lakh.

The annual cash saving by replacing the old machine with the new one is Rs.85 lakh for at least the next 5 years. Currently the company can earn 12% after tax on any sum around Rs.255 crore.

Incremental cost of replacing old machine with new one

= Cost of new machine – Cost of old machine
= Rs.256 lakh – Rs.1 lakh
= Rs.255 lakh.

Incremental benefit of the replacement decision

= 85 x PVIFA (12%, 5 years)
= 85 x 3.6048
= Rs.306.41 lakh

As the incremental benefits exceed the incremental costs, it is worth replacing the old machine with the new one.

Notice how in such long-term decisions the time value of money plays a significant role. The time value of money has been explained in the Group Alpha subject "Financial Management".

Opportunity Costs in Decision Making

Very often it becomes necessary to consider opportunity costs in decision making. The opportunity cost is the gain foregone by giving up the next best alternative. The box below illustrates this idea.

Profit = Cost

A company has some spare capacity which can be used to manufacture only one of products A, B, C and D. The incremental profits from manufacturing each of the products are:

Product	A	B	C	D
Incremental Profit (Rs. in lakh)	30	60	40	10

We can now arrange the four products into 5 alternatives in decreasing order of profit as follows:

Decision Manufacture:	B	C	A	D	None
Incremental Profit (Rs. in lakh)	60	40	30	10	0

By deciding to manufacture D instead of none of the products, profits increase by Rs.10 lakh. By deciding to manufacture A instead of D profits increase to Rs.30 lakh (i.e., profit from A) less the gain foregone by not manufacturing D i.e., Rs.10 lakh. This Rs.10 lakh is called the opportunity cost of manufacturing A. So the net gain is only Rs.20 lakh.

By deciding to manufacture C instead of A there is a gain of Rs.40 lakh (from manufacturing C) less Rs.30 lakh (gain foregone by not manufacturing A). This Rs.30 lakh is called the opportunity cost of manufacturing C. By deciding to manufacture C instead of A there is a net gain of Rs.10 lakh.

By deciding to manufacture B instead of C there is a gain of Rs.60 lakh (from manufacturing B) less Rs.40 lakh (gain foregone by not manufacturing C). This Rs.40 lakh is called the opportunity cost of manufacturing B. By deciding to manufacture B instead of C there is a net gain of Rs.20 lakh.

Hence by taking opportunity costs into account we can obtain the net gain by shifting from one decision to another.

Opportunity cost also has implications in project decisions. Projects are usually evaluated in terms of their Net Present Value (NPV) or Internal Rate of Return. Below is a case of opportunity cost in an NPV evaluation.

> The manager of a firm is evaluating a project that will require an initial outlay of Rs.50 crore and will earn an annual incremental cash flow of Rs.15 crore for the next 6 years. The firms cost of capital is 11%. So NPV of the project
>
> = 15 (PVIFA 11, 6) – 50
> = 15 x 4.3160 – 50
> = Rs.14.74 crore.
>
> Hence it would be worth investing in the project.
>
> Assume now that the manager finds out that due to large direct foreign investment in the Indian Stock Market, share prices are expected to shoot up offering average annual returns of 30% or more in the next 6 years.
>
> In such a case the manager can take opportunity cost into account by discounting project cash flows using stock market returns rate.
>
> So NPV of project would be
>
> = 15 (PVIFA 30, 6) – 50
> = 15 x 2.6427 – 50
> = – Rs.10.36 crores
>
> Hence by investing in the project instead of the stock market, the firm loses Rs.10.36 crore. Hence strictly on NPV considerations, the manager would invest in the stock market.

SUMMARY

- Decision-making is an integral part of all management functions like planning, organizing, coordination and control. Planning for the future, organizing, coordinating and controlling the activities to achieve objectives are the major functions of a manager. All the decision making to be done by the managers involve an element of risk as it can have a great impact on the future of an organization. There are also routine decisions which may not take away much time of a manager. But the real ability of a manager is tested when they face risky decisions. In the process of making decisions, managers end up with various alternatives. The success lies in their ability to pick up the best alternative course of action
- In this chapter we have learnt the steps involved in decision making process, application of differential or incremental cost analysis in various decision making situations such as make or buy situation, acceptance of a special order, replacement decisions etc. and the short term and long term implications of decisions. Having learnt the techniques managers use for arriving at various decisions, we shall more specifically deal with cost analysis used in making pricing decisions in the next chapter.

Annexure
REAL LIFE DECISIONS

Cadbury: Restructuring Decision

Cadbury, the famous chocolate manufacturer, had a virtual monopoly of the Indian chocolate market for several years leading to complacency and inefficiencies in operations. With the entry of competitors like Nestle and Amul, Cadbury has found its net profits declining to a miniscule Rs.1.37 crores, and the net margins were under 1%.

To remedy this situation Cadburys has sold its Dollops ice cream business to Brooke Bond. Now Cadbury can concentrate all its resources on the chocolate business. Surplus employees have been separated under a voluntary retirement scheme at a cost of Rs.5.5 crores. Cost cutting measures are being undertaken and a new food drink will be introduced.

Gontermann-Peipers (India): Product Mix Decision

This company manufactures steel rolls. These rolls are used in the steel, paper and rubber industries. The company was manufacturing only medium size rolls used in the steel industry and its profits were low. Now, in view of the increasing demand for small size rolls in the paper and rubber industries, the company is changing its product mix by also manufacturing small size rolls.

Visaka Industries: Diversification went Wrong

Introducing new products or diversifying into unrelated industries is not a sure prescription for success. Visaka Industries, a manufacturer of asbestos cement products, diversified into the production of synthetic blended yarn. The diversification has led to a ballooning of interest and depreciation costs which could not adequately be covered by the increasing sales. The company has slipped into the red.

Voltas: Taxman turns Axeman

Voltas decided on the takeover of the refrigerator and furniture division of the ailing Hyderabad Allwyn for two reasons. The first was the substantial tax benefits available on taking over a sick company. Secondly, the takeover would expand Voltas' production capacity. Unfortunately, the taxman is using Section 72A of the Income Tax Act to axe away the substantial tax benefits Voltas should get. According to the said section, tax benefits are available only if the entire sick company is taken over. Takeover of a division does not qualify.

Vijay Mallya: Decisions gone Wrong?

Vijay Mallya is the high profile entrepreneur controlling a stable of companies in diverse industries like liquor, fertilizers, petrochemicals, telecommunications, and pharmaceutics. As shown below, even Vijay has had problems with his companies.

Company	Status
Mangalore Chemicals & Fertilizers	Accumulated losses Rs.115.6 crores
Unitel Communications	Accumulated losses Rs.24 crores
Best & Crompton	Accumulated losses Rs.11 crores, and labor problems
UB Elastomers	Project cost tripled to Rs.600 crores.

BPL: Preparing to Meet the Attack

The BPL group of companies has ambitious plans to diversify into power generation, cement, steel rolling, watches and shrimp farming. However with the Indian markets being opened up to foreign competition, it has become necessary to go slow on diversification and to strengthen the existing businesses. The BPL TVs which command about a 30% market share will now have to face world class competition from Sony, Matsushita and Sharp. The recently introduced BPL refrigerators will have to face the onslaught of General Electric joining hands with Godrej and Electrolux joining hands with Kelvinator.

Chapter XIV

Current Developments in Management Accounting

After reading this chapter, you will be conversant with:

- Activity-Based Costing
- Target Costing
- Life Cycle Costing – Product and Project

Activity-Based Costing

Applying overhead costs to each product or service based on the extent to which that product or service causes overhead cost to be incurred is the primary objective of accounting for overhead costs. In many production processes overhead is applied to products using a single predetermined overhead rate based on a single activity measure. With Activity-Based Costing (ABC), multiple activities are identified in the production process that are associated with costs. The events within these activities that cause work (costs) are called **cost drivers**. Examples of overhead cost drivers are machine set-ups, material-handling operations, and the number of steps in a manufacturing process. Examples of cost drivers in non-manufacturing organizations are hospital beds occupied, the number of take-offs and landings for an airline, and the number of rooms occupied in a hotel. The cost drivers are used to apply overhead to products and services when using ABC.

The following five steps are used to apply costs to products under an ABC system:

- Choose appropriate activities
- Trace costs to activities
- Determine cost drivers for each activity
- Estimate the application rate for each cost driver
- Apply costs to products.

These steps are discussed in more detail in the following paragraphs.

CHOOSE APPROPRIATE ACTIVITIES

The first step of ABC is to choose the activities that will be the intermediate cost objectives of overhead costs. These activities do not necessarily coincide with existing departments but rather represent a group of transactions that support the production process. Typical activities used in ABC are designing, ordering, scheduling, moving materials, controlling inventory, and controlling quality.

Each of these activities is composed of transactions that result in costs. More than one cost pool can be established for each activity. A cost pool is an account to record the costs of an activity with a specific cost driver.

TRACE COSTS TO ACTIVITIES

Once the activities have been chosen, costs must be traced to the cost pools for different activities. To facilitate this tracing, cost drivers are chosen to act as vehicles for distributing costs. These cost drivers are often called resource drivers**.** A predetermined rate is estimated for each resource driver. Consumption of the resource driver in combination with the predetermined rate determines the distribution of the resource costs to the activities.

DETERMINE COST DRIVERS FOR ACTIVITIES

Cost drivers for activities are sometimes called **activity drivers**. Activity drivers represent the event that causes costs within an activity. For example, activity drivers for the purchasing activity include negotiations with vendors, ordering materials, scheduling their arrival, and perhaps inspection. Each of these activity drivers represents costly procedures that are performed in the purchasing activity. An activity driver is chosen for each cost pool. If two cost pools use the same cost driver, then the cost pools could be combined for product-costing purposes.

Cooper has developed several criteria for choosing activity drivers. First, the data on the cost driver must be easy to obtain. Second, the consumption of the activity implied by the activity driver should be highly correlated with the actual consumption of the activity. The third criterion to consider is the behavioral effects induced by the choice of the activity driver. Activity drivers determine the application of costs, which in turn can affect individual performance measures.

The judicious use of more activity drivers increase the accuracy of product costs. Ostrenga concludes that there is a preferred sequence for accurate product costs.

Direct costs are the most accurate in applying costs to products. The application of overhead costs through cost drivers is the next most accurate process. Any remaining overhead costs must be allocated in a somewhat arbitrary manner, which is less accurate.

ESTIMATE APPLICATION RATES FOR EACH ACTIVITY DRIVER

An application rate must be estimated for each activity driver. A predetermined rate is estimated by dividing the cost pool by the estimated level of activity of the activity driver. Alternatively, an actual rate is determined by dividing the actual costs of the cost pool by the actual level of activity of the activity driver. Standard costs, could also be used to calculate a predetermined rate.

APPLYING COSTS TO PRODUCTS

The application of costs to products is calculated by multiplying the application rate times the usage of the activity driver in manufacturing a product or providing a service.

EXAMPLES OF ACTIVITY-BASED COSTING

Alpha Motors Inc. produces electric motors. The company makes a standard electric-starter motor for a major auto manufacturer and also produces electric motors that are specially ordered. The company has four essential activities: designing, ordering, machining, and marketing. Modison Motors incurs the following costs during the month of January to produce 10 standard motors and an equivalent number of special order motors:

	Standard Motors		Special Order Motors
Direct labor	Rs.10,00,000		Rs.2,00,000
Direct materials	30,00,000		10,00,000
Overhead:			
Indirect labor		Rs.35,00,000	
Depreciation on building		2,00,000	
Depreciation on machine		10,00,000	
Maintenance		3,00,000	
Utilities		10,00,000	
		60,00,000	

Traditional cost accounting would apply the overhead costs based on a single measure of activity. If direct labor costs were used, then the overhead rate would be 500% {(Rs.60,00,000÷(Rs.10,00,000 + Rs.2,00,000) x 100)}direct-labor cost. Hence:

Overhead for each standard motor is (Direct labor cost per motor is Rs. 1,00,000 i. e., 10,00,000/10)

= 500% of direct labor cost

= 500% of Rs. 1,00,000 = Rs.5,00,000

Overhead for each special order motor is (Direct labor cost per motor is Rs. 20,000 i. e., 2,00,000/10)

= 500% of direct labor cost

= 500% of Rs. 20,000 = Rs.1,00,000

With ABC, activities are chosen and the overhead costs are distributed to cost pools within these activities through resource drivers. The costs of activities are then applied to products through activity drivers. Suppose that Modison Motors uses the following activities: designing, ordering, machining, and marketing. Each activity has one cost pool. The overhead costs are distributed to the cost pools of the activities using the following resource drivers:

Overhead Account	Resource Driver
Indirect labor	Labor cost
Depreciation on building	Square feet area of building
Depreciation on machine	Machine hours
Maintenance	Square feet area of building
Utilities	Amps used

The usages of the resource drivers by activity are

	Designing	Ordering	Machining	Marketing	Totals
Labor cost	1,00,000	20,000	1,00,000	1,30,000	3,50,000
Sq. ft. of building	50,000	30,000	1,00,000	20,000	2,00,000
Machine hours	0	0	50,000	0	50,000
Amps	2,00,000	1,00,000	16,00,000	1,00,000	20,00,000

The resource driver application rates are calculated by dividing overhead costs by total resource driver usage:

Overhead Account	Resource Driver	Overhead Amount	Total Driver Usage	Application Rate
Indirect labor	Labor cost	Rs.35,00,000	Rs.3,50,000	1000% of Direct Labor Cost
Depreciation of building	Square feet of building	2,00,000	2,00,000 sq.ft	Rs.1/sq.ft.
Depreciation of machinery	Machine time	10,00,000	50,000 hrs.	Rs.20/hr.
Maintenance	Sq. ft. of building	3,00,000	2,00,000 sq. ft.	Rs.1.50/sq. ft.
Utilities	Amps used	10,00,000	20,00,000 amps	0.50/amp

By multiplying the application rate times the resource usage of each activity, overhead costs can be allocated to the different activities. For example, the cost of the indirect labor allocated to the designing activity is 1000% of Rs.10,000 in labor, or Rs.1,00,000.

	Designing	Ordering	Machining	Marketing	Totals
	Rs.	Rs.	Rs.	Rs.	Rs.
Indirect labor	10,00,000	2,00,000	10,00,000	13,00,000	35,00,000
Depreciation on building	50,000	30,000	1,00,000	20,000	2,00,000
Depreciation on machinery			10,00,000		10,00,000
Maintenance	75,000	45,000	1,50,000	30,000	3,00,000
Utilities	1,00,000	50,000	8,00,000	50,000	10,00,000
Totals	12,25,000	3,25,000	30,50,000	14,00,000	60,00,000

Once the overhead costs have been distributed to the activity cost pools, activity drivers must be chosen to apply the costs to the products. Suppose the following activity drivers are chosen:

Activity	Activity Driver
Designing	Design changes
Ordering	Number of orders
Machining	Machine time
Marketing	Number of contracts with customer

Modison Motors uses actual costs and activity levels to determine the application rates shown below:

Activity Driver	Costs of Activity	Total Driver Usage	Application Rate
Design changes	Rs.12,25,000	12,250 changes	Rs.100/change
Number of orders	3,25,000	6,500 orders	Rs.50/order
Machine time	30,50,000	1525 hours	Rs.2000/hour
Number of contracts	14,00,000	7,000 contracts	Rs.200/contract

The application rates are then multiplied by the cost driver usage for each product to determine the costs to be applied to each product.

Product	Activity	Application Rate	Driver Usage	Cost
Standard	Designing	Rs.100/change	225 changes	Rs.22,500
	Ordering	Rs.50/order	150 orders	7,500
	Machining	Rs.2000/hour	100 hours	2,00,000
	Marketing	Rs.200/contract	200 contracts	40,000
Total overhead costs to be applied to each standard motor				Rs.2,70,000
Special ordere	Designing	Rs.100/change	1000 changes	Rs.1,00,000
	Ordering	Rs.50/order	500 orders	25,000
	Machining	Rs.2000/hour	52.5 hours	1,05,000
	Marketing	Rs.200/contract	500 contract	1,00,000
Total overhead costs to be applied to each special order motors				Rs.3,30,000

The ABC method applied a much higher amount of the overhead cost to the special order motors compared to the traditional direct-labor cost method (Rs.3,30,000 versus Rs.1,00,000). The reason for the greater overhead application to the special order electric motors is the greater usage of the activities that enhance the manufacturing of the electric motors during their production. Use of direct-labor cost as the basis to allocate overhead does not recognize the extra overhead requirements of the special order motors. Misapplication of overhead could lead to inappropriate product line decisions.

The greater the diversity of requirements of products on overhead-related services and other overhead costs, the greater the need for an ABC system.

OTHER BENEFITS OF ACTIVITY-BASED COSTING

ABC is valuable for planning, because the establishment of an ABC system requires a careful study of the total manufacturing or service process of an organization. ABC highlights the causes of costs. An analysis of these causes can identify activities that do not add to the value of the product. These activities include moving materials and accounting for transactions. Although these activities cannot be completely eliminated, they may be reduced. A recognition of how various activities affect costs can lead to modifications in the planning of factory layouts and increased efforts in the design process stage to reduce future manufacturing costs.

An analysis of activities can also lead to better performance measurement. Workers on the line often understand activities better than costs and can be evaluated accordingly. At higher management levels, the activities can be aggregated to coincide with responsibility centers. Managers would be responsible for the costs of the activities associated with their responsibility centers.

WEAKNESSES OF ACTIVITY-BASED COSTING

First, ABC is based on historical costs. For planning decisions, future costs are generally the relevant costs. Second, ABC does not classify costs into variable and fixed costs. For many short run decisions, it is important to identify variable costs.

Third, ABC is only as accurate as the quality of the cost drivers. The distribution and application of costs becomes an arbitrary allocation process when the cost drivers are not associated with the factors that are causing costs. And finally, ABC tends to be more costly than the more traditional methods of applying costs to products.

> KPMG Worldwide has been instrumental in the evolution of Activity Based Costing. In India the concept of Activity based costing was introduced by KPMG to corporate sector. Activity Based Costing (ABC) provides the framework for cost capture and cost tracking and helps enterprises in achieving an understanding of costs. Activity Based Management (ABM) is the extension of ABC, wherein the consistent implementation of ABC helps to attain cost control and reduction .

Target Costing

Target costing has recently received considerable attention. Computer Aided Manufacturing-International defines target cost as “a market-based cost that is calculated using a sales price necessary to capture a predetermined market share.” In competitive industries a unit sales price would be established independent of the initial product cost. If the target cost is below the initial forecast of product cost, the company drives the unit cost down over a designed period to compete.

Target cost = Sales price (for the target market share) – Desired profit

Japanese cost management is known to be guided by the concept of target cost. Management decides, before the product is designed, what a product should cost, based on marketing (rather than manufacturing) factors.

Box 14.1: The Walkman: Setting the Price before the Cost
Sony’s Walkman was a classic example of how a company uses the “Profits = Sales – Costs” equation to full advantage: First set the price at which the customer will buy, then bring down your costs so that you can make profits. “I dictated the selling price (of the Walkman) to suit a young person’s pocketbook, even before we made the first machine,” wrote Sony Corp. Chairman Akio Morita in his book ‘Made In Japan’. “I said I wanted the first models ... to retail for no more than Yen 30,000. The accountants protested but I persisted. I told them I was confident we would be making our new product in very large numbers and our cost would come down as volume climbed.”

The target costing philosophy leads to a market-driven approach to accounting. Target costs are conceptually different from standard costs. Standard costs are predetermined costs built up from an internal analysis by industrial engineers. Target costs are based on external analysis of markets and competitors. Several Japanese firms are known to compute two separate variances, one comparing actual costs with target costs and another comparing actual costs with standard costs.

While introducing a new product, a company might test the market to determine the price it can charge in order to be competitive with products already on the market of similar function and quality. A target cost is the maximum manufactured cost for a product. It is arrived at by subtracting from its expected market price the required margin on sales.

Target costing is a market-driven design *methodology*. It estimates the cost for a product and then designs the product to meet that cost. It is used to encourage the various departments involved in design and production to find less expensive ways of achieving similar or better product features and quality.

It is a cost management tool which reduces a product’s costs over its entire life cycle. Target costing includes actions management must take to: establish reasonable target costs, develop methods for achieving those targets, and develop means by which to test the cost effectiveness of different cost-cutting scenarios.

There are several phases to the methodology.

CONCEPTION (PLANNING) PHASE

Based upon its strategic business plans, a company must first establish what type of product it wishes to manufacture.

Traditionally (before target costing), once the type of product was determined, its development was assigned to the product design department. Then the produced product was sent to the costing department, which assessed the cost of the design and frequently found it more expensive to produce than the market would tolerate.

The design was then returned to the design department with instructions to reduce its costs, usually by compromising its quality. The product design was sent back and forth between the two departments until a consensus was reached. The product was then sent to the manufacturing department, which often concluded that it was impossible to manufacture it in its proposed state. It was then sent back to the design department, and so on. Much time, money and effort were spent before the product reached the production stage. As a result, profit suffered.

Under target costing, a product's design begins at the opposite end. It first establishes a price at which the product can be competitive and then assigns a team to develop cost scenarios and search for ways to design and manufacture the product to meet those cost constraints. Several steps must be taken in order to establish a reasonable target cost.

- Market research should be done to determine several factors. First, the products of competitors' should be analyzed with regard to price, quality, service and support, delivery, and technology. After a preliminary test of competitor's product, it is necessary to establish the features consumers value in this type of product, and the important features that are lacking.
- After preliminary testing, a company should be able to pinpoint a market niche it believes is undersupplied, and in which it believes it might have some competitive advantage. Only then can a company set a target cost close to competitors' products of similar functions and value. The target cost is bound to change in the development and design stages. However, the new target costs should only be allowed to decrease, unless the company can provide added features that add value to the product.

DEVELOPMENT PHASE

The company must find ways to attain the target cost. This involves a number of steps.

- First, an in-depth study of the most competitive product on the market must be conducted. This study will show what materials were used and what features are provided, and it will give an indication of the manufacturing process needed to complete the product.

  Once a better understanding of the design has been achieved, the organization can target the costs against this 'best' design. But its competition will probably be engaged in similar analysis and will further improve its product toward this 'best' design. It is necessary when performing comparative cost analysis, and trying to establish the competitor's cost structure, that adequate attention be paid to the competitive advantages of the competitor, such as technology, location, and vertical integration.
- After trying to identify the cost structure of the competitor, the company should develop estimates for the internal cost structure of its own products. This is most effectively done by analyzing internal costs of similar products already being produced by the company and should take into account the different needs of the new product in assessing these costs.
- After preliminary analysis of the cost structures of both the competitor and itself, the company should further define these cost structures in terms of cost drivers. Focusing on cost drivers can help reduce waste, improve quality, minimize non-value-added activities, and identify ineffective product design.

The use of multiple drivers leads both to a better understanding of the inputs and resources required to produce products, and a better cost analysis through more detailed cost information.

When enough cost information is available, the product development team is able to generate cost estimates under different scenarios. After this, the designers, manufacturers, marketers, and engineers on the team should conduct a session of brainstorming to generate ideas on how to substantially reduce costs (by smoothing the process, using different materials, and so on) or add a number of different features to the product without increasing target costs. In these brainstorming sessions, no idea is rejected, and the best ideas are integrated into the development of the product.

PRODUCTION PHASE

In these stages, target costing becomes a tool for reducing costs of existing products. It is highly unlikely that the design, manufacturing, and engineering groups will develop the optimal, cost-efficient process at the beginning of production. The search for better, less expensive products should continue in the framework of continuous improvement.

- The ABC technique can be useful as a tool for target costing of existing products. ABC assists in identifying non-value-added activities and can be used to develop scenarios on how to minimize them. Target costing at the activity level makes opportunities for cost reduction highly viable.
- Target costing is also strongly linked to consumer requirements, and tries to identify the features such as performance specifications, services, warranties, and delivery consumers want products to provide. These consumers may also be questioned about which features they prefer in products, and how much they are worth to them. The surveys on preferable features and value of these features help management do cost-benefit analysis on different features of a product, and then try to reduce costs on features that are not ranked highly.
- Target costing also provides incentives to move towards less expensive means of production, as well as production techniques that provide a more even flow of goods. JIT provides an environment where there is better monitoring of costs and product quality as well as access to ideas for continues improvement and better production strategies.

BENEFITS OF TARGET COSTING

- The process of target costing provides detailed information on the costs involved in producing a new product, as well as a better way of testing different cost scenarios through the use of ABC.
- Target costing reduces the development cycle of a product. Costs can be targeted at the same time the product is being designed, bringing in the resources of the manufacturing and finance departments to ensure that all avenues of cost reduction are being explored and that the product is designed for manufacturability at an early stage of development.
- The internal costing model, using ABC, can provide an excellent understanding of the dynamics of production costs and can detail ways to eliminate waste, reduce non-value-added activities, improve quality, simplify the process, and attack the root causes of costs (cost drivers). It can also be used for measuring different cost scenarios to ensure that the best ideas available are incorporated from the outset into the production design.
- The profitability of new products is increased by target costing through promoting reduction in costs while maintaining or improving quality. It also helps in promoting the requirements of consumers, which leads to products that better reflect consumer needs and find better acceptance than existing products.
- Target costing is also used to forecast future costs and to provide motivation to meet future cost goals.

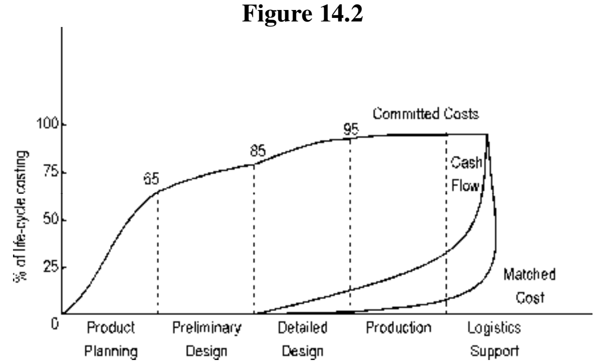
- Target costing is very attractive because it is used to control costs before the company even incurs any production costs, which save a great deal of time and money.

There is one major drawback to target costing. It is difficult to use with complex products that require many subassemblies, such as automobiles. This is because tracking costs becomes too complicated and tedious, and cost analysis must be performed at so many levels.

Life Cycle Costing

Life cycle costing can be defined as "the accumulation of costs for activities that occur over the entire life cycle of a product, from inception to abandonment by the manufacturer and the customer." Life cycle analysis provides a framework for managing the cost and performance of a product over the duration of its life. The life cycle commences with the initial identification of a consumer need and extends through planning, research, design, development, production, evaluation, use, logistics support in operation, retirement, and disposal. Figure 14.2 shows how the great majority of manufacturing costs become locked in early in the life cycle of the product. It may be noted that 95 percent of the costs are committed before production begins. Life cycle is important to cost control because of the interdependencies of activities in different time periods. For example, the output of the design activity has a significant impact on the cost and performance of subsequent activities.

Figure 14.2



Cost systems have focused primarily on the cost of physical production, without accumulating costs over the entire design, manufacture, market, and support cycle of a product. Resources committed to the development of products and the manufacturing process represent a sizeable investment of capital. The benefits accrue over many years, and under conventional accounting, are not directly identified with the product being developed. They are treated instead as a period expense and allocated to all products. Even companies which use life cycle models for planning and budgeting new products do not integrate these models into cost systems. It is important to provide feedback on planning effectiveness and the impact of design decisions on operational and support costs. Period reporting hinders management's understanding of product-line profitability and the potential cost impact of long-term decisions such as engineering design changes. Life cycle costing and reporting provide management with a better picture of product profitability and help managers to gauge their planning activities.

PRODUCT LIFE CYCLE COSTING

The cycle begins with the identification of new consumer needs and the invention of a new product and is often followed by patent protection and further development to make it saleable. This is usually followed by a rapid expansion in its sales as the product gains market acceptance. Then competitors enter the field with imitation and rival products and the distinctiveness of the new product starts diminishing. The speed of degeneration differs from product to product. The innovation of a new product and its degeneration into a common product is termed as the 'life cycle of a product'.

Characteristics

The major characteristics of product life cycle concepts are as follows:

- The products have finite lives and pass through the cycle of development, introduction, growth, maturity, decline and deletion at varying speeds.
- Product cost, revenue and profit patterns tend to follow predictable courses through the product life cycle. Profits first appear during the growth phase and after stabilizing during the maturity phase, decline thereafter to the point of deletion.
- Profit per unit varies as products move through their life cycles.
- Each phase of the product life cycle poses different threats and opportunities that give rise to different strategic actions.
- Products require different functional emphasis in each phase – such as an R&D emphasis in the development phase and a cost control emphasis in the decline.

ACTIVITIES IN PRODUCT LIFE CYCLE

Typically the life cycle of a manufactured product will consist of the following activities:

- Market research
- Specification
- Design
- Prototype manufacture
- Development of the product
- Tooling
- Manufacturing
- Selling
- Distribution
- Product support through after sales-service
- Decommissioning or Replacement.

PHASES IN PRODUCT LIFE CYCLE

There are five distinct phases in the life cycle of a product as shown.

Introduction phase: The Research and engineering skills lead to product development and when the product is put on the market and its awareness and acceptance are minimal. Promotional costs will be high, sales revenue low and profits probably negative. The skill that is exhibited in testing and launching the product will rank high in this phase as critical factor in securing success and initial market acceptance. Sales of new products usually rise slowly at first.

Despite little competition profits are negative or low. This is owing to high unit costs resulting from low output rates, and heavy promotional investments incurred to stimulate growth. The introductory stage may last from a few months to a year for consumer goods and generally longer for industrial products.

Growth phase: In the growth phase product penetration into the market and sales will increase because of the cumulative effects of introductory promotion, distribution. Since costs will be lower than in the earlier phase, the product will start to make a profit contribution. Following the consumer acceptance in the launch phase it now becomes vital to secure wholeseller/retailer support. But to sustain growth, consumer satisfaction must be ensured at this stage. If the product is successful, growth usually accelerates at some point, often catching the innovator by surprise.

Profit margins peak during this stage as 'experience curve' effects lower unit costs and promotion costs are spread over a larger volume.

Maturity Phase: This stage begins after sales cease to rise exponentially. The causes of the declining percentage growth rate or the market saturation – eventually most potential customers have tried the product and sales settle at a rate governed by population growth and the replacement rate of satisfied buyers. In addition there are no new distribution channels to fill. This is usually the longest stage in the cycle, and most existing products are in this stage. The period over which sales are maintained depends upon the firm's ability to stretch the cycle by means of market segmentation and finding new uses for it.

Profits decline in this stage because of the following reasons.

- The increasing number of competitive products.
- The innovators find market leadership under growing pressure.
- Potential cost economies are used up.
- Prices begin to soften as smaller competitors struggle to obtain market share in an increasingly saturated market.

Sales growth continues but at a diminishing rate because of the diminishing number of potential customers and the unsuccessful competing brands will probably withdraw from the market. For this reason sales are likely to continue to rise while the customers for the withdrawn brands are mopped up by the survivors. In this phase there will be stable prices and profits and the emergence of competitors. There is no improvement in the product but changes in selling effort are common. Profit margin slips despite rising sales.

Saturation Phase*:* As the market becomes saturated, pressure is exerted for a new product and sales along with profits begin to fall. Intensified marketing effort may prolong the period of maturity, but only by increasing costs disproportionately.

Decline Phase: Eventually most products and brands enter a period of declining sales. This may be caused by the following factors:

- Technical advances leading to product substitution.
- Fashion and changing tastes.
- The average length of the product life cycle is tending to shorten as a result of economic, technological and social change.

TURNING POINT INDICES IN PRODUCT LIFE CYCLE

The following checklist indicates some of the detailed information necessary to identify turning points in the product life cycle:

- Market saturation
  - Is the growth rate of sales volume declining?
  - What is the current level of ownership compared to potential?
  - Are first time buyers a declining proportion of total sales?
- Nature of competition
  - How many competitors have entered or plan to enter?
  - Is long-term over capacity emerging?
  - Are prices and profit margins being cut?
  - Are advertising and promotional elasticities declining and price elasticity increasing?

- Alternative products and technologies
  - Are new products being created in this industry or others which may meet consumer needs more effectively?
  - Is significant technical progress taking place which threatens existing products?

Project Life Cycle Costing

The term ‘project life cycle cost’ has been defined as follows: ‘It includes the costs associated with acquiring, using, caring for and disposing of physical assets, including the feasibility studies, research, design, development, production, maintenance, replacement and disposal, as well as support, training and operating costs generated by the acquisition, use, maintenance and replacement of permanent physical assets’.

PROJECT LIFE CYCLE COSTS

Product life cycle costs are incurred for products and services from their design stage through development to market launch, production and sales, and their eventual withdrawal from the market. In contrast project life cycle costs are incurred for fixed assets, i.e. for capital equipment and so on. The component elements of a project’s cost over its life cycle could include the following:

- Acquisition cost, i.e. costs of research, design, testing, production, construction, or purchase of capital equipment.
- Transportation and handling costs of capital equipment.
- Maintenance costs of capital equipment.
- Operations costs, i.e. the costs incurred in operations, such as energy costs, and various facility and other utility costs.
- Training costs, i.e. operator and maintenance training.
- Inventory costs, i.e. cost of holding spare parts, warehousing, etc.
- Technical data costs, i.e. costs of purchasing any technical data.
- Retirement and disposal costs at the end of life or the capital equipment life.

MANAGEMENT ACCOUNTANTS’ ROLE IN PROJECT LIFE CYCLE COSTING

Project life cycle costing is a new concept which places new demands upon the Management Accountant. The development of realistic project life cycle costing models will require the accountant to develop an effective working relationship with the operational researcher and the systems analyst, as well as with those involved in the terrotechnological system, particularly engineers. Engineers require a greater contribution from accountants in terms of effort and interest throughout the life of a physical asset. A key question for many accountants will be whether the costs of developing realistic life cycle costs will outweigh the benefits to be derived from their availability. Life cycle costing in the management of Physical Assets, much value can be obtained by thinking in life cycle costing concepts whenever a decision affecting the design and operation of a physical asset is to be made.

The concept project life cycle costing has become more widely accepted in recent years. The philosophy of it is quite simple. It involved accounting for all costs over the life of the decision which are influenced directly by the decision.

Terrotechnology is concerned with pursuit of economic life cycle costs. This is quite simply means trying to ensure that the assets produce the highest possible benefit for least cost. To do this, it is necessary to record the cost of designing, buying, installing, operating, and maintaining the asset, together with a record of the benefits produced. Most organizations keep a record of the initial capital costs, if only for asset accounting purposes.

Uses of Project Life Cycle Costing

The project life cycle costing is especially useful in the following:

- Projects operating in capital intensive industries
- Projects having a sizable, on-going constructing program
- Projects dependent on expensive or numerous items of plant with consequent substantial replacement programs
- Projects considering major expansion
- Projects contemplating the purchase/design/development of expensive new technology
- Projects sensitive to disruption due to down-time.

With the prime objective of imparting cost management philosophy in Indian industries, A TCM Cell (Total Cost Management Cell) has been started by Confederation of Indian Industry in 1999. It provides advisory services, and organizes programs on Activity Based Costing (ABC), Activity Based Management, Target costing and other techniques and tools of Total Cost Management, to provide organizations with conceptual framework for effective cost management.

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SUMMARY

- The need for more of cost has increased with the widening product portfolio, increasingly complex customer profile and use of common facilities across products/servicess Activity Based Costing (ABC) supports organizations in achieving such an understanding of costs by providing the framework for cost capture and cost tracking. Life cycle costing is a structured approach that addresses all the elements of this cost and can be used to produce a profile of the product or service over its anticipated life-span. Quality Costing is a process of evaluation of effectiveness of quality management activities or product quality through visualizing of quality by cost measures and for supporting improvement of these activities or products. In addition to the above contemporary concepts in management accounting we also had a glimpse of other concepts such as Value Chain Analysis, Target costing and Strategic Cost management which enable us to appreciate cost and cost analysis better. .

Chapter XV

Current Developments in Accounting

After reading this chapter, you will be conversant with:

- Concept of Value-Added
- Computation of Value-Added, Value-Added Ratios
- Brand Valuation Concept and Methods of Brand Valuation
- Inflation Accounting
- Human Resource Accounting
- Forensic Accounting

VALUE-ADDED STATEMENT

The activities of a company have not only economic impact but also social impact on the users of information. Since a company makes use of community-owned assets such as roads, railways and other infrastructural facilities and also concessions provided by the state, it is accountable to the society. A value-added statement forms part of social responsibility reporting.

Historical Background

Macro Level: The concept of value-added is being used for a long time in measuring National Income. The Net National Product (NNP) is value-added on available national resources during the measurement period. Value-added was used in 1970 in the first US Census of Production.

Micro Level: The use of the concept of value-added is recent at the micro level. Since 1965, all the German manufacturing companies, are required by law to prepare the value-added statement. In the UK also, many large companies are including value-added statement in their annual reports. In the USA, however, economic reporting continues to be the main focus.

DEFINITIONS OF VALUE-ADDED (VA)

Addition of wealth made by the organization with the efforts of management and employees using capital is called value addition. Value-added is measured as a difference between the sales and the cost of material and services purchased from outside. It is a key measure of performance and wealth creating ability of the organization. In calculating profit, bought-in-materials and services, labor, depreciation, interest, etc., are deducted from sales revenue. In calculating value-added only the cost of bought-in-materials and services are deducted. That is value-added equals pre-tax profit plus labor, depreciation and interest.

It should be understood that value-added is different from conversion cost. Value-added includes administration and selling overheads and profits besides conversion costs. It measures the value of increase in resources.

APPROACHES FOR COMPUTATION OF VALUE-ADDED

Additive Approach: In this approach, all the items that create value such as wages and salaries, interest, depreciation, rent, rates and insurance, employee benefits, other overhead expenses and profit before tax are all added up to give the sum of value-added.

Subtractive Approach: In this approach, the following items such as raw materials, bought-in components, sub-contracted processing, consumable stores, loose tools, repairs and maintenance of the plant and equipment and other bought-in-services are deducted from the sales revenue. To this, the increase or decrease in labor and relevant overhead in stocks and work-in-progress are added or deducted as the case may be.

VALUE-ADDED RATIOS

The following ratios which are of great help to the management and others, in making rational decisions. Different components of the value-added statement can be related to the total value-added number:

- Government share to value-added
- Interest and dividends to value-added
- Employee benefit to value-added
- Value-added retained to value-added
- Output to value-added.

Gross Value-Added

Gross value-added is arrived at by deducting from sales revenue and any other direct income and investment income, the cost of all materials and services and other extraordinary expenses, as shown in the following statement.

Gross Value-Added of a Manufacturing Company

	Rs.	Rs.
Sales	xx	
Add: Royalties and other direct income	xx	
Less: Materials and services used	(xx)	
Value-added by trading activities		xx
Add: Investment income	xx	
Add/Less: Investment income		xx
Gross value-added		xx
Applied as follows:		
To employees as salaries, wages, etc.	xx	
To government as taxes, duties, etc.	xx	
To financiers as interest on borrowings	xx	
To shareholders as dividends	xx	
To retained earnings including depreciation	xx	

Net Value-Added (NVA)

Net value-added is derived by deducting depreciation from the gross value-added.

Advantages of Value-Added (VA) Statements

i. VA concept is the most relevant concept of the social responsibility concept of the enterprise. Social responsibility concept says that the organization is a social institution working for the benefit of many interested groups in the society. Thus, VA statement reflects the broader view of the company's objectives and responsibilities. This enhances the attitude of the employees towards their employing firms.

ii. VA statement can be taken as a means to introduce the productivity linked bonus scheme for employees.

iii. VA based ratios can be used for comparisons with other companies and for international comparisons.

iv. VA statement can be used to measure the size and importance of a company in the economy. This statement shows the company's contribution to national income.

v. VA statement is formed on the basis of the general concepts like going concern, matching, consistency on which the current balance sheets and income statements are based. So, VA statement is a complementary to the existing statements.

Value-Added Statement

Value-added statement is the statement of profit presented in a different form. VA statement is presented under two parts. In the first part, the value-added by the firm is arrived at.

In the second part, application of the added value by the firm is arrived at.

Illustration 15.1

Given below is the Profit and Loss Account of Samaro Limited.

Profit and Loss Account for the year ended 31st March, 2004

	Notes	Amount Rs.
Income		
Sales	1	2,85,250
Other income		7,560
		2,92,810
Expenditure		
Operating cost	2	2,56,580
Excise duty		17,180
Interest on bank overdraft	3	930
Interest on 10% debentures		11,570
		2,86,260
Profit before depreciation		6,550
Less: Depreciation		2,550
Profit before tax		4,000
Provision for tax	4	2,750
Profit after tax		1,250
Less: Transfer to Fixed Assets Replacement Reserve		250
		1,000
Less: Dividend paid and payable		450
Retained profit		550

Notes:

1. This represents the invoice value of goods supplied after deducting discounts, returns and sales tax.
2. Operating cost includes Rs.1,02,470 as wages, salaries and other benefits to employees.
3. The bank overdraft is treated as a temporary source of finance.
4. The charge for taxation includes a transfer of Rs.450 to the credit of deferred tax account.

You are required to:

a. Prepare a value-added statement for the year ended 31st March, 2004.

b. Reconcile total value-added with profit before taxation.

Solution

a. **Samaro Limited**

Value-Added Statement for the year ended 31st March, 2004

		Rs.	Rs.	%
Sales			2,85,250	
Less:	Cost of bought-in material and services:			
	Operating cost	1,54,110		
	Excise duty	17,180		
	Interest on bank overdraft	930		
			1,72,220	

Value-added by manufacturing and trading activities		1,13,030	
Add: Other income		7,560	
Total value-added		1,20,590	
Application of value-added:			
To pay employees:			
Wages, salaries, and other benefits		1,02,470	84.97
To pay government corporation tax		2,300	1.90
To pay providers of capital:			
Interest on 10% debentures	11,570		
Dividends	450	12,020	9.98
To provide for the maintenance and expansion of the company:			
Depreciation	2,550		
Fixed Assets Replacement Reserve	250		
Deferred Tax Account	450		
Retained profit	550		
		3,800	3.15
		1,20,590	100.00

b. Reconciliation between Total Value-Added and Profit before Taxation

	Rs.	Rs.
Profit before tax		4,000
Add back:		
Depreciation	2,550	
Wages, salaries and others benefits	1,02,470	
Debenture interest	11,570	
		1,16,590
Total value-added		1,20,590

Notes:

1. Deferred tax could be shown as a part of "To pay government".
2. Bank overdraft, being a temporary source of finance, has been considered as the provision of a banking service rather than of capital.

VA statement can also be shown as NVA and Gross Value-added.

The illustration given above can be shown as follows:

a. **Samaro Limited**

Value-Added Statement for the year ended 31st March, 2004

	Rs.	Rs.
Sales		2,85,250
Less: Cost of bought-in material and services:		
Operating cost	1,54,110	
Interest on bank overdraft	930	
		1,55,040
Gross value-added		1,30,210
Less: Depreciation		2,550
Net value-added		1,27,660
Add: Other income		7,560
Available for application		1,35,220

Applied as follows:

	Rs.	Rs.	%
To pay employees:			
Wages, salaries and other benefits		1,02,470	75.78
To pay government:			
Corporation tax and excise duty		19,480	14.41
To pay providers of capital:			
Interest on 10% debentures	11,570		
Dividends	450		
		12,020	8.89
To provide for the maintenance and expansion of the company:			
Fixed assets replacement reserve	250		
Deferred tax account	450		
Retained	550		
		1,250	0.92
		1,35,220	100.00

b. Reconciliation between Total Value-added and Profit Before Taxation

	Rs.	Rs.
Profit before tax		4,000
Add back:		
Excise duty	17,180	
Wages, salaries and other, benefits	1,02,470	
Debenture interest	11,570	
		1,31,220
Total value-added		1,35,220

It can be seen that VA based ratios have changed significantly particularly with respect to payments to employees and government (i.e. Payroll/VA and taxation/VA). Taxation has gone up from 1.9% to 14.41% whereas payroll/VA ratio has come down from 84.97% to 75.78%. It suggests that although the employees are enjoying the major share of VA, government's share has also increased and profit of the company has significantly come down.

Limitations of VA

VA statement is being criticized due to various reasons:

i. The showing of value-added as an application to several interest groups is being questioned. It is argued that the ultimate risk-takers in times of emergency are shareholders. So, VA statement should be shown as an application to shareholders after meeting the obligations of all other interest groups.

ii. VA statement can only be used as a supplementary statement of financial information. It can in no way be used in lieu of Profit and Loss Account, the traditional income statement.

iii. VA statements are non-standardized. This can be seen in the inclusion or exclusion of certain items like depreciation, taxation, etc. Some companies report taxes paid under the heading of VA applied to Governments. Other companies report it under the same heading i.e. under VA statement.

Interpretation of VA Statement

In the interpretation of VA statement the contribution made by various factor costs to the net value-added must also be considered, besides considering the ratio of net value addition to gross output. While the absolute value of net VA and its proportion to gross output are very important, the factor components of value addition reveal more information. Generally, value addition in service industries is higher than that of trading companies. This can be understood with the help of a hypothetical example. Company A buys a lump of metal in the market for Rs.5,000. It performs four operations on it – annealing, forging, trimming and polishing – and sells the finished product for Rs.10,000. Company B buys the semi-finished product in the market for Rs.8,000, performs certain operations and sells the finished product at the said price of Rs.10,000.

Company C buys the finished product from another company for Rs.9,500 and sells it for Rs.10,000.

Though all the three companies have the same turnover, Company A has added highest net value to its product and Company C the least. As a percentage of the gross output, Company A's value addition is 50%, Company B's 20% and Company C's 5%.

It should not be interpreted that since Company A has the highest value addition, it will give highest returns to the shareholders. Suppose, if 90% of the value addition goes to the payment of wage bill, then the position will be different. Therefore, considering only the ratio of net value-added to gross output does not field a complete picture.

Value-Added Statement in India

Many large public and private sector companies are now voluntarily producing value-added statements in their annual reports. According to a Survey conducted in 1989, 14 out of 36 public sector companies are producing value-added statements. Companies producing value-added statements include CCI, BHEL, SAIL, BPCL, ACC, Indian Rayon, SPIC, Britannia Industries Ltd., Infosys Technologies Limited.

Value-Added Statement

in Rs. crore

	2004	2003
Year ending March 31,	4,976.33	3,740.24
Total revenue including other income		
Less: Non-personnel costs and provision:		
Software development expenses other than employee costs and provision for post-sales client support	393.68	351.77
Selling and marketing expenses other than provisions	131.86	124.44
General and administration expenses other than provisions	265.83	213.41
Sun-total	791.37	689.62
Total value-added	4,184.96	3,050.62
Applied to meet		
Employee costs	2,450.96	1,686.26
Provision for post-sales client support	0.30	(6.18)
Provision for bad and doubtful debts and doubtful loans and advances	16.13	0.66
Provision for investments	9.67	23.77
Income tax	227.54	201.00
Dividend (including dividend tax)	972.96	191.11
Retained in business	507.40	954.00
	4,184.96	3,050.62

Source: Annual Report, Infosys Technologies Limited.

BRAND VALUATION AND ACCOUNTING

Several major companies (consumer goods companies in particular) believe that their brands are there most valuable assets. This explains the increasing importance placed on brand creation and management. This also explains the reason for paying vast sums of money to acquire brand-rich companies. The idea of brands as financial assets emerged in mid-eighties. As brands have significant financial value, their absence from the balance sheet distorts the true financial position of a company. Hence, in order to ensure that the market valuation of a company is reflective of its true intrinsic worth it has become necessary for companies to determine the values of their brands.

In 1988, the Australian group Goodman Fielder Wattie (GFW) mounted a hostile bid on a British company Ranks Hovis McDougall (RHM). RHM issued a defense document that mentioned that GFW bid significantly undervalued RHM's true worth, since it did not take into account the company's strong brands. It said: "These valuable assets are not included in the Balance Sheet, but they have helped RHM build profits in the past and provide a sound base for future growth." RHM engaged the services of a professional consultancy firm to do a brand valuation. Viewing brands as assets, the consultants valued the business at 900 million Pounds, significantly higher than GFW bid of 600 million Pounds. Once they published that information, it was clear that GFW's bid undervalued the business and the bid finally drifted away.

Brand valuation is a tool that quantifies the economic value of a brand. However, there is an element of subjectivity in the process of brand valuation. We shall look at the various methods of brand valuation.

Earnings Valuation Method

This method of brand valuation is widely accepted in most of the markets around the world. The value of a brand like any other asset is equal to the present value of the future earnings of that brand. This is a two-stage process involving

- determining the future earnings attributable to a brand;
- applying an appropriate multiplier to determine its present value.

The computation of future brand earnings is characterized with a high degree of uncertainty. Firstly, earnings specifically identifiable with and arising out of the brands should only be considered. Normally, it is arrived based on the historical earnings profile of the brand. In order to eliminate the possibility of a single year earnings being unrepresentative, the earnings of the previous three years are generally taken. The weighted average earnings are computed by assigning a weightage of 3 to the current year's earnings, 2 for the previous year and 1 for the year before that. However, appropriate adjustments have to be made if the historical factors are significantly different from the future market conditions.

The determination of the earnings multiplier to be applied is derived from an in-depth assessment of the brand strength. The brand strength determines the reliability of the future brand earnings. An assessment of brand strength requires detailed review of the brand, its positioning, customer loyalty, the markets in which it operates, competition, stability, long-term trends, statutory protection, brand management by the company, etc.

Based on the above factors, an appropriate multiplier is determined.

The main drawbacks of this approach is that the future projections of the brand earnings may be optimistic. Further, the process of determining the multiplier is highly subjective. Due care has to be taken for the above factors, failing which the brand may be overvalued. Unscrupulous companies may possibly overvalue the brand as a tool for window-dressing.

The management has adapted the generic brand-earnings-multiple model (given in the article on *Valuation of Trademarks and Brand Names* by Michael Birkin in the book Brand Valuation, edited by John Murphy and published by Business Books Limited, London) to value its corporate brand, "Infosys". The methodology followed for valuing the brand is given below:

1. **Determine brand earnings**

   To do this:

- Determine brand profits by eliminating the non-brand profits from the total profits of the company.
- Restate the historical profits at present-day values.
- Provide for their remuneration of capital to be used for purposes other than promotion of the brand.
- Adjust for taxes.

2. **Determine the brand-strength or brand-earnings multiple**

   Brand-strength multiple is a function of a multitude of factors such as leadership, stability, market, internationality, trend, support and protection. These factors have been evaluated on a scale of 1 to 100 internally by the Infosys management, based on the information available within the company.

3. **Compute the brand value by multiplying the brand earnings with the multiple derived in step 2**

   The computation is as follows:

Year ended March 31	2004	2003	2002
PBIT	1,357.46	1,079.28	943.39
Less: Non-brand income	111.04	90.23	59.77
Adjusted profit	1,246.42	989.05	883.62
Inflation compound factor	1.000	1.053	1.108
Present value of profits for the brand	1,246.42	1,041.1	979.08
Weightage factor	3	2	1
Three-year average weighted profits	1,133.42		
Remuneration of capital (5% of average capital employed)	156.24		
Brand-related profits	977.18		
Tax	350.56		
Brand earnings	626.62		
Multiple-applied	13.06		
Brand value	8,185		

Assumptions

1. Total revenue excluding other income after fro cost of earning such income is brand revenue, since this is an exercise to determine the brand value of Infosys as a company and not for any of its products or services.
2. Inflation is assumed at 5% per annum.
3. 5% of the average capital employed is used for purposes other than promotion of the brand.
4. Tax rate is at 35.875% (Base rate of 35% and surcharge of 2.5% on base rate).

5. The earnings multiple is based on the ranking of Infosys against the industry average based on certain parameters (exercise undertaken internally and based on available information).

6. The figures above are based on Consolidated Indian GAAP financial statements.

   Thus, it is interesting to note that while Infosys has a market capitalization of Rs.32,909 crore as on March 31, 2004, the value of the "Infosys" brand alone is estimated at Rs.8,185 crore. The corresponding figures for market capitalization and brand value of Infosys as or March 31, 2003 and March 31, 2002 were Rs.26,847 crore and Rs.7,488 crore and Rs.24,654 crore and Rs.7,257 crore, respectively.

Cost Method

This method involves stating the brand value at its cost to the company. This is relatively easy when the brands are acquired. The money paid to buy the brands can be directly stated. It is more difficult to value the brand when the brand has been developed in-house by the company. The methodology involves determining the cost incurred in developing the brands. The process of identification of the costs incurred is characterized by a great degree of subjectivity. This may have a significant impact on the final valuation.

Thus, it can be concluded that brand valuation is expected to acquire vital significance for most firms. Brands which have strong franchise in the market are very valuable assets and should be managed properly. Brand owners need to understand how the value of these assets can help to fulfill the ultimate goal of enhancing long-term shareholder value.

Box 1: Evaluating the Aptech Brand

The strengths for which investors are often willing to pay a premium on the stock exchanges comprise the following: brands which are likely to drive growth over the future, patents, trade and distribution channels that ensure reach and other specific advantages that are likely to make growth sustainable for the company.

One of the principal drivers of our growth has been the Aptech brand. The brand in this instance goes far beyond the corporate lettering and the logo: it stands for the mental recall that the name evokes in the minds of its stakeholders – shareholders, customers, members, suppliers and the public. The more favorable the recall, the more our prospective customers will seek our services and the more our stakeholders will want to be associated with us, contributing to higher shareholder value.

The strength of the Aptech brand comes from everything we do. This includes innumerably diverse activities which contribute to our corporate recall.

Some seemingly unrelated contributors comprise:

– the way we answer our telephones

– the manner in which we ensure fair play and integrity in the dealings with our stakeholders

– our positioning in the media, the management style with which we run our company, our strategic focus coupled with our visibility and reach as an organization.

The benefits of our brand management ability have been reflected in the financials for 1998. Advertising expenditure per enrolled student and revenue per rupee of adspend have shown a decline, due to a stronger brand recall; the pre-interest margin on total revenue improved from 24 percent to 38 percent. The Aptech brand was valued as per the BEM (Brand Earning Multiple) Model developed by Michael Berkin, at Rs.4.03 billion – a 48 percent appreciation over its 1997 valuation.

Over the years, while focusing on the various initiatives that we have enumerated, the conscious policy was in positioning Aptech as a dynamic, friendly, contemporary IT Education and Training company providing excellent value to the customer.

While strengthening the intangibles that we have mentioned above, we intend to evolve in our positioning.

Over the coming years, our emphasis will be on positioning Aptech as a Global Technology Solutions company delivering quality solutions to clients in the areas of Software Exports, TBT products and services, ERP services, Knowledge Management, Domestic Software Solutions and Services, and, of course, IT Education and Training Services to the students, professional and Government community.

Brand is considered as the most valuable intangible asset in the balance sheet. It is not created overnight, but is a cautious effort of an organization to create confidence in quality of its services provided. It reflects quality in all activities undertaken by an organization as perceived by the customers' experience in dealing with the company.

We, at APTECH, have considered valuation of our brand on the famous BEM (Brand Earning Multiple) Model developed by Michael Berkin (Refer his article on Valuation of Trade Marks and Brand Names in the book 'Brand Valuation' edited by John Murphy). The Model mechanism is on the following lines.

Ascertain Brand Earnings

- Eliminate non-branded profits from the total profit of the company to arrive at the brand profit
- Calculate the historical profit at present day value
- Reduce cost of capital employed for products
- Adjust for taxes.

Evaluate Brand Earning Multiple

It is arrived at after considering the factors like leadership, international support, stability, etc. The factors have been evaluated by the management based on information available with the company.

Particulars	1998	1997	1996
PBIT	522,929,192	348,146,196	269,533,927
Less: Non-Branded Income	8,291,453	3,784,307	2,773,467
Adjusted profit before tax	514,637,739	344,361,889	266,760,466
Inflation factor @ 8.7%	1	1.087	1.182
Present value of profits for the brand	514,637,739	374,321,373	315,195,897

Weightage factor	3	2	1
Four years' weighted profit	1,543,913,217	748,642,747	315,195,897
Four yearly average weighted profit	434,625,310		
Less:			
Remuneration of capital employed in business	43,408,384		
(7% of average capital employed)			
Brand related profit	391,216,926		
Tax @ 35%	136,925,924		
Brand earning	254,291,002		
Multiple-applied	15.85		
Brand value	4,030,512,376		

Assumptions:

1. In order to determine brand value of Aptech, non-branded income is reduced from total revenue.
2. Inflation is at 8.7% per annum.
3. 7% of the Average capital employed is used for purposes other than promotion of brand.
4. Tax rate is at 35%.

Source: www.aptech-worldwide.com

Accounting for Price Level Changes

Inflation is the overall upward movement of prices of goods and services which is measured by consumer price index and producer price index. Consumer price index is an inflationary indicator that measures change in the cost of a fixed basket of products and services and producer price index is an inflationary indicator to evaluate whole sale price levels in the economy.

Inflation accounting can be simply stated as the methods of recognizing and stating the effects of inflation in the final accounts of a corporate entity.

Need for inflation accounting

The financial statements, according to conventional accounting are based on historical costs. These financial statements do not take into account the fact that the purchasing power of the money does not remain the same. The following are the limitations of historical accounting:

1. It assumes constant purchasing power which is illogical due to changes in specific and general price levels.
2. The costs are not relevant as they do not match with the current costs of assets which lead to insufficient provision of depreciation and unrealistic profits.
3. It violates the law of additivity.
4. It leads to erosion of operating capacity as the unrealistic profits are paid in the form of dividends.
5. It does not differentiate between holding gains and operating gains.

Objectives of Inflation Accounting

1. To correct conventional historical cost accounting by recognizing the fact that the purchasing power of money reduces day-by-day due to inflation.
2. To reduce the financial statements to 'real terms' and arrive at the actual performance and position of the corporate entity.

Advantages of Inflation Accounting

1. Eliminating holding gains and differentiating between operating and holding gains, thus arriving at the actual profits.
2. The value of the assets will be more accurate and closer to its intrinsic value.
3. Better inter-firm and inter-period comparison can be made.

Approaches to accounting for price level changes

There are three approaches to price level accounting.

1. Current Purchasing Power Accounting
2. Current Cost Accounting
3. Hybrid Method

Under Current Purchasing Power Accounting the historical accounting data is adjusted on the basis of the general price index which refers to the changes in the prices of the economy as a whole. In India, whole sale price index of the Reserve Bank of India is taken as the basis.

The advantages of CPPA are:

i. It is simple to calculate.

ii. It is objective as the choice involved is the inflation index.

The disadvantages of CPPA are:

i. Movements of prices of goods and services included in the general price level may not reflect specific price movements.

ii. It is found to be less useful in share price reactions.

Thus, under this method, the firm continues to prepare financial statements on historical basis in the usual manner but should also prepare supplementary statement showing the historical cost items in terms of the current value on the basis of index.

Under Current Cost Accounting method, the adoption current cost is recommended to overcome the drawback of Current Purchasing Power Accounting. In this method, the current values of individual items are taken as the basis of preparing profit and loss account and balance sheet.

The advantages of CCA are:

i. It differentiates between profits from trading and holding gains as the profits are divided into current operating profit, realized holding gains and unrealized holding gains.

ii. The revenues can be matched with operating costs as they are shown at their current values.

iii. Fixed assets are shown in the balance sheet at their current values thus reflecting their true value.

iv. It leads to better comparison of various entities performance.

v. This method maintains the operative capacity of the enterprise intact as it seeks to closely approximate the impact of inflation on the enterprise.

The disadvantages of CCA are:

i. It is subjective as the measure involves choice based on judgment.

ii. It is more complex, expensive and time consuming.

iii. It is opposed by auditors as it is subjective.

iv. Replacement cost is meaningless when the firm does not choose to replace the asset.

v. It is difficult to determine replacement costs.

vi. Allocating replacement cost via depreciation is still more arbitrary.

Hybrid method approach of accounting for price level changes combines the CPPA and CCA approaches. Financial statements can be prepared by combining the factors of CCA and CPPA.

The advantages of Hybrid method are:

It takes into consideration both changes in specific prices of individual items and the influences of general price level changes. Therefore, it is less arbitrary.

The disadvantages of Hybrid Method are:

i. It is more complex, expensive and time consuming.

ii. It is not proposed by any institutional body as CCA and CPPA approaches have been recommended by institutional bodies.

Human Resource Accounting

Until recently, the "value" of an enterprise as measured within traditional balance sheets, e.g. buildings, production plant, etc., was viewed as a sufficient reflection of the enterprise's assets. However, with the growing emergence of the knowledge economy, this traditional valuation has been called into question due to the recognition that human capital is an increasingly important part of an enterprise's total value. This has led to two important questions:

- how to assess the value of human capital in addition to an enterprise's tangible assets and
- how to improve the development of human capital in enterprises.

The emergence of methods for accounting human resources aimed at measuring, developing and managing the human capital in an enterprise, can thus be said to reflect the need for improving measuring and accounting.

Human resource accounting (HRA) as an approach was originally defined as the process of identifying, measuring and communicating information about human resources in order to facilitate effective management within an organization. It is an extension of the accounting principles of matching costs and revenues and of organizing data to communicate relevant information in financial terms.

The accounting of human resources can be seen as just as much a question of philosophy as of technique. This is one of the reasons behind the variety of approaches and is further underlined by the broad range of purposes for which accounting human resources can be used, e.g. as an information tool for internal and/or external use (employees, customers, investors, etc.), and as a decision-making tool for human resource management (investments in human resources as well as personnel management in general).

Approaches to HRA

The American Accounting Association's Committee has defined "HRA is the process of identifying and measuring data about human resources and communicating this information to interested parties to facilitate effective management within the organization.

In simple words, HRA is an art of evaluating the worth of human resources of an organization and the society and recording them for presenting the information in a significant manner in the financial statements to communicate their worth with changes over the period and results obtained from their utilization to the readers of financial statements. The primary purpose of HRA is to facilitate the management of people as organizational resources.

HRA comprises three aspects

i. Valuation of human resources.

ii. Recording the valuation in the books of accounts.

iii. Presenting the information in the financial statements for communication.

Valuation of Human Resources

Following are the important approaches suggested for the valuation of human resources.

1. **Historical Cost Approach: -** This approach was developed by Brummet, Flamhtoz and Pyle. According to this approach, the actual cost incurred on recruiting, selecting, hiring, training and developing the human resources of the organization are capitalized and written off over the expected useful life of the human resources. It deals with two types of costs (i) costs associated with the functions of the personnel management process in acquiring and developing human resources termed as 'Personnel Cost Accounting'. (ii) costs of people as human resources, termed as 'Human Asset Accounting'.

   Merits. The method has the following merits

   i. It facilitates easy understanding and simplified calculations.

   ii. The traditional accounting concept of matching cost with revenue forms the basis for this method.

   iii. The practical application of this method provides the organization with a basis for valuing a firm's returns on its investments on human resources.

   Demerits. The method suffers from the following limitations.

   i. The valuation of human resources using this method does not consider the aggregate value of the potential services rendered by the employees instead it only considers a part of acquisition cost of employees.

   ii. The estimation of the period for which the human resources will provide service to the organization becomes difficult.

   iii. This method does not recognize the appreciation in the value of the human asset through experience gained over a period of time, rather it accounts for a decrease in their value every year due to amortization.

2. **Replacement cost approach:** This approach was developed by Rennis Likert and Eric G Flamholtz. This is a measure of the cost to replace a firm's existing human resources. In other words, human resources of an organization are to be valued at their present replacement cost.

   Merits: The method has the following merit

   i. This approach gains an edge over the historical cost approach since it considers the current value of the firm's human resources.

   Demerits: The method suffers from the following limitations.

   i. The possibility of similar and certain existing assets is remote.

   ii. There is an element of subjectivity in the determination of a replacement value.

3. **Opportunity Cost Approach:** This approach has been suggested by Hekimian and Jones. According to this approach, the value of an employee is determined according to his alternative use. If an employee has no alternative use, no value will be placed on him. This approach excludes those types of employees who can be hired from outside. The opportunity cost of an employee in one department is calculated on the basis of the offers made by other department for the employees working in this department in the same organization.

Merits: The method has the following merits:

i. Human Resource allocation more optimal.

ii. This approach provides the quantitative base for planning, evaluating and developing human assets of the organization.

Demerits: The method suffers from the following limitations:

i. The narrow sense of opportunity cost concept restricts it to the next best use of the employee within the same organization.

ii. This method may furnish deceptive and erroneous figures in the total valuation of human resources.

iii. The purview of this approach specifically excludes all those employees who are not scarce or not being bid by other departments.

4. Standard Cost Approach: - This approach has been suggested by David Watson. According to this approach, standard costs of recruiting, hiring, training and developing per grade of employees are determined year after year and value placed based in this approach.

5. Present Value of Approach: According to this approach, the value of human resources of an organization is determined according to their present value to the organization. For determination of the present value, a number of valuation models have been developed. Some of the important models are as follows:

5.1 Present Value of Future Earnings Model**:** This model has been developed by Lav and Schwartz (1971). According to this model, the value of human resources is ascertained as follows:

i. All employees are classified in specific groups according to their age and skill.

ii. Average annual earnings are determined for various ranges of age.

iii. The total earnings which each group will get, up to retirement age are calculated.

iv. The total earnings calculated as above are discounted at the rate of cost of capital. The value thus arrived at will be the value of human resources / assets.

v. The following formula has been suggested for calculating the value of an employee according to this model.

$$V_r = \sum_{t=r}^{T} \frac{I(t)}{(1+R)^{t-r}}$$

Where,

V_r = the value of an individual r years old.

I(t) = the individual's annual earnings up to the retirement.

t= retirement age

r= present age of the employee

R= discount rate.

Illustration: From the following details compute the value of human resources of an employee group with an average of 59 years.

Annual Average Earning of an employee till the retirement age Rs 25,000

i.	Age of retirement	60 years
ii.	Cost of capital	10%
iii.	No. of employees	10

Solution

$$V_r = \sum_{t=r}^{T} \frac{I(t)}{(1+R)^{t-r}}$$

$$= \frac{25{,}000}{(1+0.10)^{(60-59)}}$$

$$= \frac{25{,}000}{(1+0.10)^{1}} = \text{Rs. } 22727.27$$

Problem: From the following details compute the value of human resources of an employee group with an average of 58 years.

i.	Annual Average Earning of an employee till the retirement age	Rs 20,000
ii.	Age of retirement	60 years
iii.	Cost of capital	10%
iv.	No. of employees	10

Answer Rs.34,710.75

5.2 Reward Valuation Model. This model has been suggested by Flamholtz (1971). This is an improvement on 'present value of future earnings model' since it takes into consideration the possibility or probability of an employee's movement from one role to another in his career and also of his leaving the firm earlier, than his death or retirement.

5.3 Net Benefit Model. This approach has been suggested by Morse (1973). According to this approach, the value of human resources is equivalent to the present value of net benefits derived by the organization from the service of its employees.

5.4 Aggregate Payment Approach This approach has been suggested by Prof. S.K. Chakraborty (1976). According to this model, the valuation of human resources is to done on the basis of a group not on an individual basis. He suggested some steps for the valuation of human resources. The following steps are:

1. The employees of an organization are divided on the basis of two groups i.e. managerial and non- managerial.
2. On the basis of the past experience, the average tenure of the employment is to be estimated.
3. The average salary is determined on the basis of the salary / wage structure prevalent in the organization.
4. The value of human resources is determined by multiplying the average salary of the group with the average tenure of the employees in that group.
5. To determine the present value, the value of human resources is discounted at the expected average after tax return on capital employed over the average tenure period.

5.5 Total Cost Concept This approach has been suggested by Prof. N. Dasgupta (1978). In this method the valuation of human resources is to done in such a way that it should consider both employed and unemployed persons. This approach should be beneficial for the preparation of balance sheet, showing the human resources not only for the firm but also for the nation. According to him, the total cost incurred by the individual, the organization and the state should be taken as the value of the person on the day when he starts serving the organization. In this method, the amount spent by the organization on recruitment, training and developing human beings should be considered separately.

Assumptions underlying HRA

1. People are valuable organizational resources capable of providing present and future services to the organization and such future services have economic value to the organization and can be measured.
2. Their value depends on how they are utilized by the organization as the value can be enhanced, depleted or conserved by various management actions like training, technological obsolescence.
3. It does not own such people but their service potential that makes them organizational resources to be provided for. Of course, necessary allowance for the expected turnover as they are not owned by the enterprise.
4. The information relating to the Human Resources would facilitate various management decisions on acquisitions, compensation, training, development.

Importance of Human Resource Accounting

Human Resource Accounting provides useful information to the management, financial analysis and employees as shown below:

1. Human Resource Accounting helps the management in the decision-making process relating to the following matters.
   a. Employment, locating and utilization of human resources.
   b. Transfers, promotions, training and retrenchment of human resources.
   c. Planning of physical assets vis-à-vis human resources.
   d. Identifying the causes of high labor turnover at various levels and taking preventive measures to contain it.
   e. Locating the real causes of low return on investment.
2. The Human Resource Accounting helps individual employees in improving their performance and bargaining power.

Human Resource Accounting in India

In India, the financial statements of companies have to be prepared as per the provisions of Companies Act, 1956. In view of the growing importance of human resource accounting, many corporate enterprises in India are voluntarily giving information about their human resources. They number about 15 in all and include many important public sector enterprise viz. Bharart Heavy Electrical Ltd.(BHEL), Steel Authority of India Ltd. (SAIL), Minerals and Metal Trading Corporation of India(MMTC), National Thermal Power Corporation(NTPC), Oil and Natural Gas Commission (ONGC) and Engineers India Ltd. (EIL).

Forensic Accounting

Meaning of Forensic Accounting

The outlook of investors for auditing and accounting profession is generally associated with detection and prevention of financial frauds. Lack of new auditing standards and acceptable penalties for those concealing or committing financial frauds has shown public dissatisfaction over past few years. What can be actually achieved is more than what is really attained by auditors and accountants.

In addition to the specialized techniques of accounting an accountant has to look into the financial frauds. Forensic accounting also known as investigative accounting and is a combination of accounting, auditing and investigative skills. It provides accounting analysis that will be suitable to the court to form a basis of discussion to arrive at a solution of the dispute.

Larger accounting firms as well as medium sized firms have professional forensic accounting departments. They specialize in insurance claims, fraud, construction or royalty audits.

Differences between auditing and forensic accounting

i. An auditor does the review of accounts and jumps into investigation only when a doubt arises whereas a forensic accountant starts the work with investigation.

ii. An auditor's duty ends with the submission of a report what went wrong where as a forensic accountant also has to see how it can be undone.

iii. An auditor's role is of a verifier where as forensic accountant's role is of a investigator.

iv. Detection of frauds is the secondary objective of auditing whereas forensic accounting alleges detection into details of spending, recording etc.

v. Auditor detects the frauds and reports it whereas a forensic accountant detects the fraud, conducts investigation and decodes the financial angle of the crime for analysis suitable to the court which will lead to dispute resolution.

vi. Auditors never use the tools of statistical and computer aided techniques to arrive at any conclusions whereas a forensic accountant does.

Role of a forensic accountant

Forensic accounting integrates accounting, auditing and investigation with an objective of providing analysis to the court which forms the basis for dispute resolution. It is a science that deals with the application of medical facts to legal problems arising out of the facts and figures in accounting. A person dealing as a forensic accountant shall posses not only the broad knowledge of accounting principles, practices and standards but also the knowledge of insurance, banking, civil and criminal law and human psychology. A forensic accountant plays an important role in an organization today. He is provides assistance to the management by performing reviews of possible or actual fraud. He also has a role to play in litigations by providing information relating to fraud in accounting transactions and can also defend by neutralizing the stand of the prosecution. He renders expert advice and witness.

Branches of forensic accounting

Forensic accounting can be divided into two streams

i. Investigative accounting

ii. Litigation support

Investigative accounting deals with investigation of criminal matters relating to employee theft, securities fraud, insurance fraud etc. It does not end with investigation but also includes provision of suggestions regarding possible courses of action.

Litigation support involves providing accounting assistance in litigation matters. It primarily deals with quantification of economic damages.

The steps involved in the review carried out by a forensic accountant

i. Recognition of the problem

ii. Plan for the review: While planning for the review an internal control system is undertaken and a flow chart is prepared as how to go about.

iii. Colleting the evidence relevant to the problem

iv. Evaluation and summarization of the evidence is done by using various statistical and computer aided techniques before arriving at the conclusion

v. Preparation and submission of report

Application of forensic accounting

The application of forensic accounting can be better understood by the following case let. It is a small case of expense account abuse by a manager of a company. It is brought to the notice of the auditor by an employee that the manager misuses his right of reimbursement of bills on official tours by submitting fake bills and making money around Rs.50,000 a year. The auditor of the company conducted an investigation into the matter and found out that multiple bills of conveyance, boarding and lodging are submitted for the same trip. After collecting the evidence, the auditor of the company brought the same to the notice of the managing director who initially was reluctant to review but later accepted a follow up of the case. The case is submitted to the audit committee and the board of directors. It has suggested initiation of action against the accused manager. Though the manager's behavior was reckless towards the audit committee he later admitted of submitting the inflated and duplicate bills. To settle the issue the audit committee authorized the company to conduct further review into the manager's case to satisfy itself that the abuse is limited to the expenses and set up a new internal control system to take heed of the executive tour and travel. But however the company resolved against punishing the manager as he was a valuable asset to the organization. The auditor argued that not disciplining the manager will send wrong signals to the staff in the organization. But it was decided that morale of the employees would suffer if the manager is disciplined than if the incident was glossed over. And the manager has agreed to go forth and sin no more. The auditor gave in as his duty is ensure accuracy of the financial statements and not to dictate policy to the management.

SUMMARY

- The most relevant concept of income in this broad Social Responsibility concept of an enterprise is the Value-Added concept. Reporting of VA improves the attitude of employees, and enhances the size and importance of a company.
- Accounting is undergoing rapid transition. The changing environment has not only extended the boundaries of accounting but also created a problem in defining the scope of the subject. However, all attempts have been made in this book to provide a solid foundation covering basics and also the crucial aspects on which students can build upon and, achieve success.