KMBN-103: Financial Accounting & Analysis (Unit-1)

Meaning and Definition of Accounting:

Accounting plays an important role in smooth functioning of business organization through systematic recording of business transactions. It also provides various information to business and its stakeholders such as – creditors, bankers, tax authorities, shareholders, suppliers etc., through systematic maintenance of books of accounts and access to these accounts as and when required.

In 1941, The American Institute of Certified Public Accountants (AICPA) had defined 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 financial character, and interpreting the results thereof'.

In 1966, the American Accounting Association (AAA) defined accounting as 'the process of identifying, measuring and communicating economic information to permit informed judgments and decisions by users of information'.

Scope of Accounting:

1. **Business: -** Accounting is widely applicable in the business sector. Today, in the modern world, most of the people are engaged in business sector and all businessmen follow Generally Accepted Accounting Principle (GAAP) to find out profit, loss and financial position of business firm.

2. **Government organizations:** Though, Government organizations do not follow Generally Accepted Accounting Principle (GAAP), it keeps systematic records of all transactions in order to find the position of public fund.

3. **Non-Government organizations:** Non-government and service organizations such as NGOS, INGOs, Red Cross Society, SOS etc. which plays a vital role in the development of nation also uses accounting. The accounting system used in these organizations are called fund accounting.

4. **Individuals:** Individuals also perform economic activities to earn their livelihood. They also perform some form of accounting to draw financial information for making personal economic decision.

5. **Professionals:** Professionals like doctors, engineers, advocates/ lawyers, actors and actresses also maintain their accounts. They maintain their accounts to keep a check on their income and expenditure and also the income tax liability is determined from the same.

Features of Accounting: -

1. Recording: - Accounting is the art of recording of transactions. Only business relative transactions are recorded in which money is mentioned. All transactions are recorded in detail. Both journal and subsidiary books are used for this.

2. Classifying: - Accounting's main feature is also classifying all business transactions. Accounting makes group of all similar accounting entries in one place. For example- all receipt and payment will be shown in cash book. So, all transactions are collected under one common head. This system is also called classification of transaction. This process is completed by opening accounts in books. These books are called ledger.

3. Summarizing: - Summarizing is the art of showing business results in summarize form. After this, it can use for all the interested parties. This feature tells about to financial statement. One is Trading and profit and loss account and other is Balance Sheet.

4. Interpreting: -By interpreting, we can know whether the position of profitability is good or bad. By knowing this, we can estimate business's performance.

Objective / Functions of Accounting: -

(1) To keep systematic record of business transactions: The main objective of accounting is to keep complete record of business transactions according specified rules. Complete record of business transactions helps to avoid the possibility of omission and fraud. For this purpose, all the business transactions are first of all recorded in Journal or Subsidiary Books and then posted into Ledger.

(2) To calculate profit or loss: The second main objective of accounting is to ascertain the net profit earned or loss suffered on account of business transactions during a particular period. For this purpose, Trading and Profit & Loss Account of the business is prepared at the end of each accounting period. All the items relating to purchases, sales, expenses and revenues (incomes) of the business are recorded in Trading and Profit & Loss Account. If the amount of revenue exceeds the expenditure incurred in earning that revenue, there is said to be a profit. In case the expenditure exceeds the revenue, there is said to be a loss. In addition, a businessman is able to get the following information's by preparing a Trading and Profit & Loss Account

I. How much goods have been purchased during a particular period?

II. How much goods have been sold during a particular period?

III. How much goods have remained unsold and what is its value?

IV. How much amount has been spent on various heads of expenditure and how much amount has been earned by various heads of revenues?

By attaining this information, a businessman can keep effective control on expenditure.

(3) To know the exact reasons leading to net profit or net loss.

(4) To ascertain the financial position of the business - For a businessman merely ascertaining profit or loss of the business is not sufficient. The business must also know the financial health of the business. For this purpose, after prepare the Profit & Loss Account a statement called 'Balance Sheet' is prepared which the assets and their values on the one hand and the liabilities and capital on the other hand. A Balance Sheet is actually a screen picture of the financial position business. At one glance, one would know the following by looking at the Blade Sheet

(i) How much the business has to recover from Debtors?

(ii)How much the business has to pay to Creditors?

(iii) How much the business has in the form of

(a) Cash in hand, (b) Cash at Bank, (c) Closing Stock, and (d) Fixed Assets?

(5) To ascertain the progress of the business from year to year.

(6) To prevent and detect errors and frauds.

Limitations of Accounting: -

1.Measurability: - One of the biggest limitations of accounting is that it cannot measure things/events that do not have a monetary value. If a certain factor, no matter how important, cannot be expressed in money it finds no place in accounting. Some very important qualities like management, loyalty, reputation, etc. find no place on the balance sheet or the income statement.

2.No Future Assessment: - The financial statements show the financial position of the firm on the date of preparation. The users of the statement are more interested in the future of the company in the short term and long term. However, accounting does not make any such estimates.

And due to the dynamic nature of the business environment, a lot can change between such dates. Auditors sometimes do disclose the important events occurring after the balance sheet date to rectify these limitations of accounting.

3.Historical Costs: - Accounting often uses historical costs to measure the values. This fails to take into consideration factors such as inflation, price changes, etc. This skews the relevance of such accounting records and information. This is one of the major limitations of accounting.

4. Accounting Policies: - There is no global standard in accounting policies. In India, we follow the Accounting Standards. Americans follow the GAAP and then there are the international standards, namely the IFRS. And if a global company operates in more than one country, there may be confusion.

Not all accounting policies follow the same line of thinking, and conflicts may arise due to this. It has long been said that the whole world must agree on uniform accounting policies but this has not happened yet.

5. Estimates: - Sometimes in accounting estimation may be required as it is not possible to establish exact amounts. But these estimates will depend on the personal judgment of the accountant. And estimates are extremely subjective in nature. They are basically a person’s guess of future events. In accounting, there are many cases where such estimates need to be made like provision of doubtful debt, methods of depreciation, etc.

6. Verifiability:- An audit of the financial statements does not guarantee the correctness of such statements. The auditor can only assure that the statements are free from error to the best of his judgment.

7. Errors and Frauds: - Accounting is done by humans, so there will always be the scope of human errors. There is also the fear of possible manipulation of accounts to cover up a fraud. Since fraud is deliberate, it is that much harder to spot. This is one of the most dreaded limitations of accounting.

End User of Accounting Information: -

Internal users

1. Management

Management uses accounting information for evaluating and analyzing organization's financial performance and position, to take important decisions and appropriate actions to improve the business performance in terms of profitability, financial position and cash flows. As many popular management accounting books make clear, one of the major roles of management is to set rules and procedures to achieve organizational goals. For this purpose, management uses information generated by financial as well as managerial accounting system of the organization.

2. Owners

Owners invest capital to start and run business with the primary objective to earn profit. They need accurate financial information to know what they have earned or lost during a particular period of time. On the basis of this information, they decide their future course of actions such as expansion or contraction of business.

In small businesses (like sole proprietorship and partnership) owners themselves perform the function of management.

External users

1. Investors

In corporate form of business, the ownership is often separated from the management. Normally investors provide capital and management runs the business.

The accounting information is used by both actual and potential investors. Actual investors use this information to know how their funds are used by the management and what is the expected performance of business in future in terms of profitability and growth. On the basis of this information, they decide whether to increase or decrease investment in corporation in future. Potential investors use accounting information to decide whether or not a particular corporation is suitable for their investment needs.

2. Lenders

Lenders are individuals or financial institutions that normally lend money to businesses and earn interest income on it. They need accounting information to assess the financial performance and position and to have a reasonable assurance that the business to whom they are going to lend money would be able to return the principal amount as well as pay interest there on.

3. Suppliers

Suppliers are business individuals or organizations that normally sell merchandise or raw materials to other businesses on credit. They use accounting information to have an idea about the future creditworthiness of the business and to decide whether or not to continue providing goods on credit.

4. Government agencies

Government agencies use financial information of businesses for the purpose of imposing taxes and regulations.

5. General public

General public also uses accounting information of business organizations. For example, accounting information is:

- a source of education for students of accounting and finance.
- a source of valuable data for those researching on organizational impacts on individuals and economy as a whole.
- a source of information for the people looking for job opportunities.
- a source of information about the future of a particular enterprise.

6. Customers

Accounting information provides important information to customers about current position of a business organization and to make a judgment about its future. Customers can be divided into three groups – manufactures or producers at various stages of production, wholesalers and retailers and end users or final consumers.

Manufacturers or producers at every stage of processing need assurance that the organization in question will continue providing inputs such as raw materials, parts, components and support etc. The wholesalers and retailers must be assured of consistent supply of products. The end users or final consumers are interested in continuous availability of products and related accessories. Because of these reasons, the accounting information is of significant importance for all three types of customers.

7. Employees

Employees who do not have a hand in core management of the business are considered external users of accounting information. They are interested in financial information because their present and future is tied up with the success or failure of the business. The success and profitability of business ensures job security, better remuneration, job promotion and retirement benefits.

Basic accounting terminologies

(i) Transaction: It means an event or a business activity which involves exchange of money or money's worth between parties. The event can be measured in terms of money and changes the financial position of a person e.g., purchase of goods would involve receiving material and making payment or creating an obligation to pay to the supplier at a future date. Transaction could be a cash transaction or credit transaction. When the parties settle the transaction immediately by making payment in cash or by cheque, it is called a cash transaction. In credit transaction, the payment is settled at a future date as per agreement between the parties.

(ii) Goods/Services: These are tangible article or commodity in which a business deal. These articles or commodities are either bought and sold or produced and sold. At times, what may be classified as 'goods' to one business firm may not be 'goods' to the other firm. e.g., for a machine manufacturing company, the machines are 'goods' as they are frequently made and sold. But for the buying firm, it is not 'goods' as the intention is to use it as a long-term resource and not sell it. Services are intangible in nature which are rendered with or without the object of earning profits.

(iii) Profit: The excess of Revenue Income over expense is called profit. It could be calculated for each transaction or for business as a whole.

(iv) Loss: The excess of expense over income is called loss. It could be calculated for each

transaction or for business as a whole.

(v) Asset: Asset is a resource owned by the business with the purpose of using it for generating future profits. Assets can be Tangible and Intangible. Tangible Assets are the Capital assets which have some physical existence. They can, therefore, be seen, touched and felt, e.g.**,** Plant and Machinery, Furniture and Fittings, Land and Buildings, Books, Computers, Vehicles, etc. The capital assets which have no physical existence and whose value is limited by the rights and anticipated benefits that possession confers upon the owner are known as lntangible Assets. They cannot be seen or felt although they help to generate revenue in future, e.g.

Goodwill, Patents, Trade-marks, Copyrights, Brand Equity, Designs, Intellectual Property, etc.

Assets can also be classified into Current Assets and Non-Current Assets.

Current Assets – An asset shall be classified as Current when it satisfies any of the following:

(a) It is expected to be realised in, or is intended for sale or consumption in the Company's

Normal Operating Cycle,

(b) It is held primarily for the purpose of being traded,

(c) It is due to be realised within 12 months after the Reporting Date, or

(d) It is Cash or Cash Equivalent unless it is restricted from being exchanged or used to settle a Liability for at least 12 months after the Reporting Date.

Non-Current Assets – All other Assets shall be classified as Non-Current Assets. e.g.

Machinery held for long term etc.

(vi) Liability: It is an obligation of financial nature to be settled at a future date. It represents amount of money that the business owes to the other parties. E.g. when goods are bought on credit, the firm will create an obligation to pay to the supplier the price of goods on an agreed future date or when a loan is taken from bank, an obligation to pay interest and principal amount is created.

Depending upon the period of holding, these obligations could be further classified into Long

Term on non-current liabilities and Short Term or current liabilities.

Current Liabilities – A liability shall be classified as Current when it satisfies any of the

following :

(a) It is expected to be settled in the Company's normal Operating Cycle,

(b) It is held primarily for the purpose of being traded,

(c) It is due to be settled within 12 months after the Reporting Date, or

(d) The Company does not have an unconditional right to defer settlement of the liability for at least 12 months after the reporting date (Terms of a Liability that could, at the option of the counterparty, result in its settlement by the issue of Equity Instruments do not affect its classification)

Non-Current Liabilities – All other Liabilities shall be classified as Non-Current Liabilities. E.g. Loan taken for 5 years, Debentures issued etc.

(vii) Internal Liability: These represent proprietor's equity, i.e., all those amounts which are

entitled to the proprietor, e.g., Capital, Reserves, Undistributed Profits, etc.

(viii) Working Capital: In order to maintain flows of revenue from operation, every firm needs certain amount of current assets. For example, cash is required either to pay for expenses or to meet obligation for service received or goods purchased, etc. by a firm. On identical reason, inventories are required to provide the link between production and sale. Similarly, Accounts Receivable generate when goods are sold on credit. Cash, Bank, Debtors, Bills Receivable, Closing Stock, Prepayments etc. represent current assets of firm. The whole of these current assets form the working capital of a firm which is termed as Gross Working Capital.

Gross Working capital = Total Current Assets = Long term internal liabilities plus long-term debts plus the current liabilities minus the amount blocked in the fixed assets.

There is another concept of working capital. Working capital is the excess of current assets over current liabilities. That is the amount of current assets that remain in a firm if all its current liabilities are paid. This concept of working capital is known as Net Working Capital which is a more realistic concept.

Working Capital (Net) = Current Assets – Currents Liabilities.

(ix) Contingent Liability: It represents a potential obligation that could be created depending on the outcome of an event. E.g. if supplier of the business files a legal suit, it will not be treated as a liability because no obligation is created immediately. If the verdict of the case is given in favour of the supplier, then only the obligation is created. Till that it is treated as a contingent liability. Please note that contingent liability is not recorded in books of account, but disclosed by way of a note to the financial statements.

(x) Capital: It is amount invested in the business by its owners. It may be in the form of cash, goods, or any other asset which the proprietor or partners of business invest in the business activity. From business point of view, capital of owners is a liability which is to be settled only in the event of closure or transfer of the business. Hence, it is not classified as a normal liability. For corporate bodies, capital is normally represented as share capital.

(xi) Drawings: It represents an amount of cash, goods or any other assets which the owner withdraws from business for his or her personal use. e.g. if the life insurance premium of proprietor or a partner of business is paid from the business cash, it is called drawings. Drawings will result in reduction in the owners' capital. The concept of drawing is not applicable to the corporate bodies like limited companies.

(xii) Net worth: It represents excess of total assets over total liabilities of the business. Technically, this amount is available to be distributed to owners in the event of closure of the business after payment of all liabilities. That is why it is also termed as Owner's equity. A profit-making business will result in increase in the owner's equity whereas losses will reduce it.

(xiii) Non-current Investments: Non-current Investments are investments which are held

beyond the current period as to sale or disposal. e. g. Fixed Deposit for 5 years.

(xiv) Current Investments: Current investments are investments that are by their nature

readily realizable and are intended to be held for not more than one year from the date on which such investment is made. e. g. 11 months Commercial Paper.

(xv) Debtor: The sum total or aggregate of the amounts which the customer owe to the business for purchasing goods on credit or services rendered or in respect of other contractual obligations, is known as Sundry Debtors or Trade Debtors, or Trade Payable, or Book-Debts or Debtors. In other words, Debtors are those persons from whom a business has to recover money on account of goods sold or service rendered on credit. These debtors may again be classified as under:

(i) Good debts: The debts which are sure to be realized are called good debts.

(ii) Doubtful Debts: The debts which may or may not be realized are called doubtful debts.

(iii) Bad debts: The debts which cannot be realized at all are called bad debts.

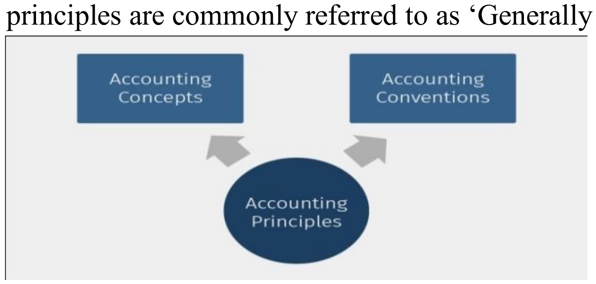
It must be remembered that while ascertaining the debtors balance at the end of the period certain adjustments may have to be made e.g., Bad Debts, Discount Allowed, Returns Inwards, etc.

(xvi) Creditor: A creditor is a person to whom the business owes money or money's worth. e.g. money payable to supplier of goods or provider of service. Creditors are generally classified as Current Liabilities.

(xvii) Capital Expenditure: This represents expenditure incurred for the purpose of acquiring a fixed asset which is intended to be used over long term for earning profits there from. e. g. amount paid to buy a computer for office use is a capital expenditure. At times expenditure may be incurred for enhancing the production capacity of the machine. This also will be a capital expenditure. Capital expenditure forms part of the Balance Sheet.

Accounting Principles: -

Accounting principle refers to common rules or guidelines for accounting financial transactions and preparing financial statements. Accounting principles are the foundational guidelines for recording and preparing financial statements. The accounting principles are commonly referred to as 'Generally Accepted Accounting Principles (GAAP).



Accounting Concepts:-

1. **Money measurement principle:** In accounting, all the business transactions are measured in terms of money as a common unit of measurement. Since money is the common unit of measurement, as an accounting principle, you are allowed to record only those transactions or events which can be measured or expressed in terms of money.

2. **Business entity concept:** This concept of accounting principle views business and business owner separately as far as their financial transactions are concerned. Legally, your business can exist independently of you and your firm can sue or can be sued in its own name.

3. **Going-concern principle:** This principle applies that all the transactions are recorded on the assumption that the business will remain in operation for a long time and will be able to carry out its obligations as per the plan.

4. **Cost principle:** This accounting principle sets the rules for accounting the fixed assets. According to the cost principle, all the fixed assets are accounted at the original price i.e. the price paid to procure it and subsequently, every year, value is depreciated based on usage, wear and tear, accidents, the passage of time etc.

5. **Dual-aspect concept:** This accounting principle states that for every debit, corresponding credit is made. This is the foundation on which the accounting system is carried out. This is important for you to understand in detail.

6. **Accounting year concept:** This implies that each business chooses a specific time period to complete the accounting cycle and financial reporting. In short, this principle talks about the periodicity of accounting. The period can be monthly, quarterly or annually.

7. **Matching concept:** The concept stress on the Accounting principle that if any revenue is recognized then expenses related to earn that revenue should also be recognized. This gives a true picture of profit earned during the accounting period.

8. **Realization concept:** The accounting concept implies that revenue is reported when it's earned, regardless of when payment is received. Anything paid or received is not considered as profit until the goods or services have been delivered to the buyer

Accounting conventions: -

Accounting conventions refers to a set of customs and traditions that guide the business in preparing the accounting statement. These conventions are derived by usage and practice.

1. **Consistency:** consistency is a fundamental assumption that states accounting practices and policies are consistent from one period to another.

2. **Full disclosure:** This convention as part of accounting principles implies that the accounts should be prepared in a manner that all material information is clearly disclosed.

3. **Conservatism:** This convention takes into consideration all prospective losses and leaves all prospective profit until they are earned.

4. **Materiality:** In the materiality principle, all the items having a significant economic effect on the business should be disclosed in the financial statement. All unimportant items are either ignored or merged with other items.

Accounting Equation: -

Double-Entry System

The double-entry practice ensures that the accounting equation always remains balanced, meaning that the left side value of the equation will always match the right-side value.

In other words, the total amount of all assets will always equal the sum of liabilities and shareholders' equity.

For a company keeping accurate accounts, every business transaction will be represented in at least two of its accounts. For instance, if a business takes a loan from a bank, the borrowed money will be reflected in its balance sheet as both an increase in the company's assets and an increase in its loan liability.

If a business buys raw materials and pays in cash, it will result in an increase in the company's inventory (an asset) while reducing cash capital (another asset). Because there are two or more accounts affected by every transaction carried out by a company, the accounting system is referred to as double-entry accounting.

Understanding the Accounting Equation

The financial position of any business, large or small, is based on two key components of the balance sheet: assets and liabilities. Owners' equity, or shareholders' equity, is the third section of the balance sheet.

The accounting equation is a representation of how these three important components are associated with each other.

Assets represent the valuable resources controlled by the company, while liabilities represent its obligations. Both liabilities and shareholders' equity represent how the assets of a company are financed. If it's financed through debt, it'll show as a liability, but if it's financed through issuing equity shares to investors, it'll show in shareholders' equity.

The accounting equation helps to assess whether the business transactions carried out by the company are being accurately reflected in its books and accounts. Below are examples of items listed on the balance sheet.

Assets

Assets include cash and cash equivalents or liquid assets.

Accounts receivables list the amounts of money owed to the company by its customers for the sale of its products.

Inventory is also considered an asset.

Liabilities

Liabilities are debts that a company owes and costs that it needs to pay in order to keep the company running.

Debt is a liability, whether it is a long-term loan or a bill that is due to be paid.

Costs include rent, taxes, utilities, salaries, wages, and dividends payable.

Shareholders' Equity

The shareholders' equity number is a company's total assets minus its total liabilities.

It can be defined as the total number of dollars that a company would have left if it liquidated all of its assets and paid off all of its liabilities. This would then be distributed to the shareholders.

Retained earnings are part of shareholders' equity. This number is the sum of total earnings that were not paid to shareholders as dividends.

Think of retained earnings as savings, since it represents the total profits that have been saved and put aside (or "retained") for future use.

Accounting Equation Formula and Calculation

Assets=(Liabilities Owner’s Equity)

The balance sheet holds the elements that contribute to the accounting equation:

1. Locate the company's total assets on the balance sheet for the period.
2. Total all liabilities, which should be a separate listing on the balance sheet.
3. Locate total shareholder's equity and add the number to total liabilities.
4. Total assets will equal the sum of liabilities and total equity.

As an example, say the leading retailer XYZ Corporation reported the following on its balance sheet for its latest full fiscal year:

- Total assets: Rs 170 billion
- Total liabilities:Rs. 120 billion
- Total shareholders' equity: $50 billion

If we calculate the right-hand side of the accounting equation (equity + liabilities), we arrive at (Rs.50 billion + Rs.120 billion) = Rs.170 billion, which matches the value of the assets reported by the company.

Accounting Equation: The accounting equation states that a company's total assets are equal to the sum of its liabilities and its shareholders' equity.

This straightforward number on a company balance sheet is considered to be the foundation of the double-entry accounting system. The accounting equation ensures that the balance sheet remains balanced. That is, each entry made on the debit side has a corresponding entry (or coverage) on the credit side.

The accounting equation is also called the basic accounting equation or the balance sheet equation.

KEY POINTS

- The accounting equation is considered to be the foundation of the double-entry accounting system.
- The accounting equation shows on a company's balance that a company's total assets are equal to the sum of the company's liabilities and shareholders' equity.
- Assets represent the valuable resources controlled by the company. The liabilities represent their obligations.
- Both liabilities and shareholders' equity represent how the assets of a company are financed.
- Financing through debt shows as a liability, while financing through issuing equity shares appears in shareholders' equity.

Depreciation

Depreciation:- Depreciation is defined as the reduction of the recorded cost of a fixed asset in a systematic manner until the value of the asset becomes zero or negligible.
An example of fixed assets are buildings, furniture, office equipment, machinery etc. The land is the only exception that cannot be depreciated as the value of land appreciates with time.
Depreciation allows a portion of the cost of a fixed asset to the revenue generated by the fixed asset. This is mandatory under the matching principle as revenues are recorded with their associated expenses in the accounting period when the asset is in use. This helps in getting a complete picture of the revenue generation transaction.
Depreciation is the process of deducting the total cost of something expensive you bought for your business. But instead of doing it all in one tax year, you write off parts of it over time. When you depreciate assets, you can plan how much money is written off each year, giving you more control over your finances.

An example of Depreciation – If a delivery truck is purchased by a company with a cost of Rs. 100,000 and the expected usage of the truck are 5 years, the business might depreciate the asset under depreciation expense as Rs. 20,000 every year for a period of 5 years.

Causes of Depreciation:

1. Wear and Tear:

Some assets physically deteriorate due to wear and tear in use. When an asset is constantly used for production, the asset wears out. More and more use of an asset, the greater would be the wear and tear. Physical deterioration of an asset is caused from movement, strain, friction, erosion etc. For instance, building, machineries, furniture, vehicles, plant etc. The wear and tear is general but primary cause of depreciation.

2. Lapse of Time:

There are certain assets like leasehold property, patents, copy-right etc. that are acquired for a particular period. After the expiry of the period, they are rendered useless i.e. their value ceases to exist. Thus, their cost is written off over their legal life.

3. Obsolescence:

Appearance of new and improved machines results in discarding of old machines. Thus new inventions, change in fashions and taste, market condition, Government policies etc. are the causes to discard the value of an asset. But this is not the cause of depreciation and not depreciation in real sense.

A new machine performs the same function more quickly and cheaply than the existing machine. As such, existing machine may become out of date or outmoded or obsolete.

4. Exhaustion:

Some assets are of wasting nature. For instance, quarries, mines, oil-well etc. It is the reduction in the value of natural deposits as resources have been extracted year after year. As such these assets are known as wasting assets. The coalmine or oil well gets physically exhausted by the removal of its contents.

5. Non-Use:

Machines which are idly lying become less and less useful with the passage of time. Certain types of machines exposed to weather conditions, may have more depreciation from not using it than from its use.

6. Maintenance:

A good maintenance of machine will naturally increase its life. When there is no maintenance, there is more depreciated value. When there is good maintenance, there is longer life to the machines. The long life of machine depends upon good and skilled maintenance.

Need For Depreciation:

1. To Ascertain the True Working Result:

Asset is an important tool in earning revenues. Huge amounts are spent for acquisition of assets which are worn out in the process of earning income. Thus, the assets get depreciated in their value, over a period of time due to many reasons explained above.

When the value of assets decreases, this loss must be brought into account; otherwise a true working result cannot be known. Depreciation is an operating expense of a physical asset, the same should be considered in arriving the true profit earned during each year.

The basic need of depreciation is to ascertain the true income. If depreciation is ignored, the loss that is occurring in respect of fixed assets will be ignored. So, depreciation should be debited to Profit and Loss Account before profit is ascertained.

2. To Ascertain True Value of Asset:

The function of the Balance Sheet is to show the true and correct view of the state of affairs of a business. If no depreciation is charged and when assets are shown at the original cost year after year, Balance Sheet will not disclose the correct state of affairs of a business.

3. To Retain Funds for Replacement:

Assets used in the business need replacement after the expiry of their service. It is always not possible to determine the useful life of assets. But, in certain cases, machine often becomes, obsolete long before it wears out because of rapid changes in tastes and technology. It is a permanent loss in value of the asset. When an asset is continuously used, a time will come when the asset is to be given up and hence its replacement is essential.

Therefore, if no depreciation is charged against the profit, during the life time of the asset, it will be very difficult to find cash to replace the asset and if replaced it may cripple resources. Therefore, it is necessary to make provision and create funds to replace such assets, in proper time.

4. To Reduce Tax Liability:

Depreciation is a tax-deductible expense. As such, it is permitted by the prevailing taxation laws to be deducted from profit. Consequently, the owner of a business may avail himself of this benefit by charging depreciation to his profit and reducing his tax liability.

5. To Present True Position:

Financial position can be studied from the Balance Sheet and for the preparation of the Balance Sheet fixed assets are required to be shown at their true value. If assets are shown in the Balance Sheet without any charge made for their use, (that is, depreciation) then their value must have been overstated in the Balance Sheet and will not reflect the true financial position of the business.

Therefore, for the purpose of reflecting true financial position, it is necessary that depreciation must be deducted from the asset and then at such reduced value may be shown in the Balance Sheet.

Factors for Estimating Depreciation

Cost of the Asset

The cost of the asset is also known as the historical cost. It comprises of the purchase price of the fixed asset and the other costs incurred to put the asset into working condition. These costs include freight and transportation, installation cost, commission, insurance, etc.

Salvage Value

Salvage value is also known as the net residual value or scrap value. It is the estimated net realizable value of an asset at the end of its useful life. This value is determined as a result of the difference between the sale price and the expenses necessary to dispose of an asset.

Estimated Useful Life

The commercial or economic life of an asset is termed as the useful life of an asset. Now, for estimating the useful life of an asset, its physical life is not taken into consideration. This is because an asset might be in good physical condition after a few years but it may not be used for production purposes.

Methods for Calculating Depreciation

1. Straight Line Method:

This method assumes that depreciation is a function of time rather than use. This method is based on the assumption that each accounting period receives same a benefit from using the assets. It allocates an equal amount of depreciation in each accounting periods of the service life of the assets. Therefore, it is called Straight Line Method.

The formula for calculating depreciation charge for each accounting period is:

$$\text{Annual Depreciation} = \frac{\text{Acquisition cost} - \text{Estimated scrap value}}{\text{Estimated Life in Years}}$$

Advantages:

(i) It is simple in use.

(ii) It realistically matches cost and revenue and determine income of each period easily.

(iii) There is no change either in the rate or the amount of depreciation over the useful life of the assets. Such a procedure provides for improved comparability.

Disadvantages:

(i) It ignores the cost of capital.

(ii) It is based on the wrong assumption of equal utility of the assets during the useful life.

(iii) It is also wrong to consider depreciation as a function of time rather than use.

(iv) The maintenance of asset is generally costly in the later years with the result that deductions from the revenue would be greater in later years than in the earlier years.

Illustration :

ABC Ltd. acquires a machine on 1st July, 2007 at a cost of Rs. 2, 80,000 and spent Rs. 20,000 on its installation. The firm writes off depreciation at 10% of the original cost every year. The books are closed on 31st December every year. Prepare machinery A/c for 3 years.

Solution: **Machinery A/c**

Date	Particulars	(₹)	Date	Particulars	(₹)
2006	To Bank	2,80,000	2006	By Depreciation A/c	15,000
July 1	To Bank (installation Exps.)	20,000	Dec. 31	By Balance c/d	2,85,000
		3,00,000			3,00,000
2007			2007		
Jan. 1	To balance b/d	2,85,000	Dec. 31	By Depreciation A/c	30,000
			Dec. 31	By balance c/d	2,55,000
		2,85,000			2,85,000
2008			2008		
Jan. 1	To balance b/d	2,55,000	Dec. 31	By Depreciation A/c	30,000
			Dec. 31	By balance c/d	2,25,000
		2,55,000			2,55,000

2. Diminishing Balance Method:

Under this method, a fixed percentage is applied to book value of the assets (cost of assets). In other words, the depreciation is calculated on the reducing balance (assets cost-depreciation) and not on the original cost. The procedure is that depreciation calculated is deducted from the cost of assets and balance known as the written down value. The written down value at the end of the estimated useful life of the assets should equal the estimated salvage or scrap value.

The formula for determining the rate of depreciation in diminishing balance method is as follows:

Depreciation Expense = (Book value of asset at beginning of the year x Rate of Depreciation)/100

Advantages:

1. It is easy to use.

2. There is same weight-age, in totality, on profit and loss A/c, of depreciation.

3. It facilitates replacement of fixed assets as it makes more funds available at an early stage.

4. This method is permissible under the Income Tax Act.

5. The higher depreciation is charged in the earlier years when the machine is most efficient compared to later years.

Disadvantages:

1. Under this method, value of asset can never be zero.

2. It is difficult to calculate proper rate of deprecation.

3. There is no provision of interest on capital invested in use of assets.

Illustration 4:

Y Ltd. Co. purchased a machine costing Rs. 3, 00,000 on 1st January, 2007. The depreciation is to be charged at 20% p.a. on Diminishing Balance method.

Write up Machinery A/c for first four years.

Solution: **Machinery A/c**

2007	Particulars	(₹)	2007	Particulars	(₹)
Jan. 1	To Bank	3,00,000	Dec. 31	By Depreciation	60,000
			Dec. 31	By Balance c/d	2,40,000
		3,00,000			3,00,000
2008			2008		
Jan. 1	To balance	2,40,000	Dec. 31	By Depreciation	48,000
			Dec. 31	By balance c/d	1,92,000
		2,40,000			2,40,000
2009			2009		
Jan. 1	To balance b/d	1,92,000	Dec. 31	By Depreciation	38,400
			Dec. 31	By balance c/d	1,53,600
		1,92,000			1,92,000
2010			2010		
Jan. 1	To balance b/d	1,53,600	Dec. 31	By Depreciation	30,720
			Dec. 31	By Bal. c/d	1,22,880
		1,53,600			1,53,600

3. Annuity Method:

Under this method, it is assumed that the amount spent in the purchase of the asset is an investment which should yield interest. The amount spent in acquiring an asset assumed as an investment and interest is charged at a certain rate on the diminishing balance of the asset and is debited to Asset Account and credited to Interest Account which is transferred to Profit and Loss Account.

The asset is credited every year with a fixed amount of depreciation. The amount of depreciation to be charged every year is such that in spite of asset being debited with interest every year, the asset is reduced to zero or its residual value.

The amount of depreciation is calculated from the ready Annuity Tables. The amount of depreciation will be different according to the rate of interest and the life time of the asset.

The main disadvantages of the different methods are that they do not consider the interest on the capital invested on fixed assets. Annuity method deals with the effect of cost of capital in depreciation calculation. It makes treatment more explicit by showing the interest payment in the P&L A/c.

Under this system the capital sum is assumed to earn a certain rate of interest. The assets are, therefore, charged with interest along with actual payment; interest is calculated on the debit balance of the assets on the commencement of the year.

The important point to be noted is that the amount of depreciation to be charged every year must be calculated as to reduce the assets together with interest accumulated thereon to its salvage value at the end of the useful life of the assets.

Illustration 1:

X Ltd. acquires a lease costing Rs. 2, 00,000 on April 1st, 1997 for a term of 4 years. You find from annuity tables that in order to write off lease on the annuity method at 6% p.a. interest, the amount to be written off annually works out to be Rs. 2,88,591 for every rupee. Prepare lease A/c for 4 years. Books are closed on 31st March every year.

Solution: **Lease A/c**

Date	Particulars	Amount (₹)	Date	Particulars	Amount (₹)
1997			1998		
April 1	To Bank	2,00,000	March 31	By Dep.	57,718
	To Interest (6% of ₹ 20,000)	12,000		By Bal. c/d	1,54,282
		2,12,000			2,12,000
1998			1999		
April 1	To Bal. b/d	1,54,282	March 31	By Dep.	57,718
	To Interest (6% of ₹ 1,54,282)	9,527		By Bal. c/d	1,05,821
		1,63,539			1,63,539

Date	Particulars	Amount (₹)	Date	Particulars	Amount (₹)
1999			2000		
April 1	To Bal. b/d	1,05,821	Mar. 31	By Dep.	57,718
	To Interest	6,349		By Bal. c/d	54,452
	(6% of ₹ 1,05,821)	1,12,170			1,12,170
2000			2000		
April 1	To Balance b/d	54,452	Mar. 31	By depreciation	57,718
	To Interest (*Balancing fig.*)	3,266			
		57,718			57,718

Working:

Depreciation = Rs. 2, 00,000 x .288591= Rs. 57,718.2

Illustration2: (Depreciation by Annuity Method)

A five year lease worth Rs 30,000 is to be depreciated by Annuity system, the unwritten balance of the asset bearing interest at 5%. The annual amount to be written off as shown by the Annuity table is Rs 6,929.24. Show the working of the Lease Account for the five years.

Solution:

Dr. **Lease Account** Cr.

		Rs			Rs
1st Year			1st Year		
Jan. 1	To Bank Account	30,000	Dec. 31	By Depreciation Account	6,929.24
Dec. 31	To Interest Account	1,500	Dec. 31	By Balance c/d	24,570.76
		31,500			31,500
IInd Year			IInd Year		
Jan. 1	To Balance b/d	24,570.76	Dec. 31	By Depreciation Account	6,929.24
Dec. 31	To Interest Account	1,228.54	Dec. 31	By Balance c/d	18,870.06
		25,799.30			25,799.30
IIIrd Year			IIIrd Year		
Jan. 1	To Balance b/d	18,870.06	Dec. 31	By Depreciation Account	6,929.24
Dec. 31	To Interest Account	943.50	Dec. 31	By Balance c/d	12,884.32
		19,813.56			19,813.56
IVth Year			IVth Year		
Jan. 1	To Balance b/d	12,884.32	Dec. 31	By Depreciation Account	6,929.24
Dec. 31	To Interest Account	644.22	Dec. 31	By Balance c/d	6,599.30
		13,528.54			13,528.54
Vth Year			Vth Year		
Jan. 1	To Balance b/d	6,599.30	Dec. 31	By Depreciation Account	6,929.24
Dec. 31	To Interest Account	329.94			
		6,929.24			6,929.24

Merits (Annuity Method):

1. The amount of depreciation to be charged is ascertained from Annuity Tables. Therefore, this method is scientific.

2. This method provides for recovery of invested capital along with interest. This is a great advantage.

3. This method is most suitable to such assets which require heavy initial investment.

Demerits:

1. Calculation of depreciation becomes very difficult when additions are made to assets.

2. Calculation of interest is arbitrary.

3. This system is not at all suitable for those assets which are of small value.