UNIT-I

INTRODUCTION TO BUSINESS ECONOMICS

Business

Definition: Business is defined as an organised economic activity, wherein the exchange of goods and services takes place, for adequate consideration. It is nothing but a method of making money, from commercial transactions. It includes all those activities whose sole aim is to make available the desired goods and services to the society, in an effective manner.

It is a systematic attempt of the businesspersons to produce goods and services, and sell them at the market, to reap the reward, by way of profit.

Profit plays a pivotal role, as all the business activities are directed towards it, because it works an incentive to the entrepreneurs, for their efforts, and thus, necessary for every business.

Characteristics of Business

- **Economic Activity**: Business is an economic activity, as it is conducted with the primary objective of earning money, i.e. for an economic motive.
- **Production/purchase of goods and services**: Goods and services are produced or procured by business entities, so as to add value and sell them to the consumer. Goods are either manufactured by the company or procured from the supplier, with the aim of selling it further to the consumer, for profit.
    - **Selling of goods and services**: Business must involve the transfer of goods to the customer for value, through selling, meaning that if the goods are acquired for personal consumption, then the transaction will not amount to business activity.
    - **Continuity in dealings**: Every business requires regularity in transactions, i.e. an isolated transaction of exchange of goods or services will not be considered as business. So, to constitute business, the dealings must be carried out on a regular basis.
    - **Profit earning**: The basic purpose of business is to make the profit from its activities. It is the spine of business, which keeps the business going, in the long term.
    - **Element of risk**: Risk is the key element of every business, concerned with exposure to loss. Efforts are made to forecast future events and plan the business strategies accordingly. However, the factors that affect business are uncertain and so does the business opportunities, which can be a shift in demand, floods, fall in prices, strikes, lockout, money market fluctuation, etc.
    - **Uncertain return**: In business, the return is never predictable and guaranteed, i.e. the amount of money which the business is going to reap is not certain. It may be possible that the business earns a huge profit or suffer heavy losses.

- **Legal and Lawful**: No matter, in which type of business the company is engaged, it should be legal in the eyes of the law, or else it will not be considered as business.
- **Consumer satisfaction**: The aim of business is to supply goods and services to consumers, so as to satisfy their wants, as when the consumer (final user) is satisfied, he/she will purchase the goods or services. But, if they are not, there are chances that they will look for substitutes.

The consumer is regarded as the king, and so all the activities of the business are aligned towards the satisfaction of consumers. This can be done by making available quality-riched goods easily available to them, at reasonable prices.

Imagine you want to do business. Which are you interested in? For example, you want to get into InfoTech industry. What can you do in this industry? Which one do you choose? The following are the alternatives you have on hand:

• You can buy and sell

• You can set up a small/medium/large industry to manufacture

• You can set up a workshop to repair

• You can develop software

• You can design hardware

• You can be a consultant/trouble-shooter If you choose any one or more of the above, you have chosen the line of activity.

The next step for you is to decide whether.

You want to be only owner (It means you what to be sole trader) or

• You want to take some more professionals as co-owners along with you (If means you what to from partnership with others as partners) or

• You want to be a global player by mobilizing large resources across the country/world

• You want to bring all like-minded people to share the benefits of the common enterprise (You want to promote a joint stock company) or

• You want to involve government in the IT business (here you want to suggest government to promote a public enterprise!)

To decide this, it is necessary to know how to evaluate each of these alternatives. Factors affecting the choice of form of business organization Before we choose a particular form of business organization, let us study what factors affect such a choice? The following are the factors affecting the choice of a business organization or Structure of Firm:

1. Easy to start and easy to close: The form of business organization should be such that it should be easy to close. There should not be hassles or long procedures in the process of setting up business or closing the same.

2. Division of labour: There should be possibility to divide the work among the available owners.

3. Large amount of resources: Large volume of business requires large volume of resources. Some forms of business organization do not permit to raise larger resources. Select the one which permits to mobilize the large resources.

4. Liability: The liability of the owners should be limited to the extent of money invested in business. It is better if their personal properties are not brought into business to make up the losses of the business.

5. Secrecy: The form of business organization you select should be such that it should permit to take care of the business secrets. We know that century old business units are still surviving only because they could successfully guard their business secrets.

6. Transfer of ownership: There should be simple procedures to transfer the ownership to the next legal heir.

7. Ownership, Management and control: If ownership, management and control are in the hands of one or a small group of persons, communication will be effective and coordination will be easier. Where ownership, management and control are widely distributed, it calls for a high degree of professional‟s skills to monitor the performance of the business.

8. Continuity: The business should continue forever and ever irrespective of the uncertainties in future.

9. Quick decision-making: Select such a form of business organization, which permits you to take decisions quickly and promptly. Delay in decisions may invalidate the relevance of the decisions.

10. Personal contact with customer: Most of the times, customers give us clues to improve business. So choose such a form, which keeps you close to the customers.

11. Flexibility: In times of rough weather, there should be enough flexibility to shift from one business to the other. The lesser the funds committed in a particular business, the better it is.

12. Taxation: More profit means more tax. Choose such a form, which permits to pay low tax. These are the parameters against which we can evaluate each of the available forms of business organizations.

The five forms of business organizations include the following:

- Sole proprietorship
- Partnership
- Joint stock company
- Cooperative Societies
- Public Enterprises

SOLE TRADER

The sole trader is the simplest, oldest and natural form of business organization. It is also called sole proprietorship. „Sole" means one. „Sole trader" implies that there is only one trader who is the owner of the business. It is a one-man form of organization wherein the trader assumes all the risk of ownership carrying out the business with his own capital, skill and intelligence. He is the boss for himself. He has total operational freedom. He is the owner, Manager and controller. He has total freedom and flexibility. Full control lies with him. He can take his own decisions. He can choose or drop a particular product or business based on its merits. He need not discuss this with anybody. He is responsible for himself. This form of organization is popular all over the world. Restaurants, Supermarkets, pan shops, medical shops, hosiery shops etc.

Features

- It is easy to start a business under this form and also easy to close.

- He introduces his own capital. Sometimes, he may borrow, if necessary

- He enjoys all the profits and in case of loss, he lone suffers.

- He has unlimited liability which implies that his liability extends to his personal properties in case of loss.

- He has a high degree of flexibility to shift from one business to the other.

- Business secretes can be guarded well

- There is no continuity. The business comes to a close with the death, illness or insanity of the sole trader. Unless, the legal heirs show interest to continue the business, the business cannot be restored.

- He has total operational freedom. He is the owner, manager and controller.

- He can be directly in touch with the customers.

- He can take decisions very fast and implement them promptly.

- Rates of tax, for example, income tax and so on are comparatively very low.

ADVANTAGES The following are the advantages of the sole trader from of business organization:

1. Easy to start and easy to close: Formation of a sole trader from of organization is relatively easy even closing the business is easy.

2. Personal contact with customers directly: Based on the tastes and preferences of the customers the stocks can be maintained.

3. Prompt decision-making: To improve the quality of services to the customers, he can take any decision and implement the same promptly. He is the boss and he is responsible for his business Decisions relating to growth or expansion can be made promptly.

4. High degree of flexibility: Based on the profitability, the trader can decide to continue or change the business, if need be

. 5. Secrecy: Business secrets can well be maintained because there is only one trader.

6. Low rate of taxation: The rate of income tax for sole traders is relatively very low.

7. Direct motivation: If there are profits, all the profits belong to the trader himself. In other words. If he works more hard, he will get more profits. This is the direct motivating factor. At the same time, if he does not take active interest, he may stand to lose badly also.

8. Total Control: The ownership, management and control are in the hands of the sole trader and hence it is easy to maintain the hold on business.

9. Minimum interference from government: Except in matters relating to public interest, government does not interfere in the business matters of the sole trader. The sole trader is free to fix price for his products/services if he enjoys monopoly market.

10. Transferability: The legal heirs of the sole trader may take the possession of the business.

DISADVANTAGES The following are the disadvantages of sole trader form:

1. Unlimited liability: The liability of the sole trader is unlimited. It means that the sole trader has to bring his personal property to clear off the loans of his business. From the legal point of view, he is not different from his business.

2. Limited amounts of capital: The resources a sole trader can mobilize cannot be very large and hence this naturally sets a limit for the scale of operations.

3. No division of labour: All the work related to different functions such as marketing, production, finance, labour and so on has to be taken care of by the sole trader himself. There is nobody else to take his burden. Family members and relatives cannot show as much interest as the trader takes.

4. Uncertainty: There is no continuity in the duration of the business. On the death, insanity of insolvency the business may be come to an end.

5. Inadequate for growth and expansion: This from is suitable for only small size, oneman-show type of organizations. This may not really work out for growing and expanding organizations.

6. Lack of specialization: The services of specialists such as accountants, market researchers, consultants and so on, are not within the reach of most of the sole traders.

7. More competition: Because it is easy to set up a small business, there is a high degree of competition among the small businessmen and a few who are good in taking care of customer requirements along can service.

8. Low bargaining power: The sole trader is the in the receiving end in terms of loans or supply of raw materials. He may have to compromise many times regarding the terms .

PARTNERSHIP

Partnership is an improved from of sole trader in certain respects. Where there are like-minded persons with resources, they can come together to do the business and share the profits/losses of the business in an agreed ratio. Persons who have entered into such an agreement are individually called „partners" and collectively called „firm". The relationship among partners is called a partnership. Indian Partnership Act, 1932 defines partnership as the relationship between two or more persons who agree to share the profits of the business carried on by all or any one of them acting for all

Features

1. Relationship: Partnership is a relationship among persons. It is relationship resulting out of an agreement.

2. Two or more persons: There should be two or more number of persons.

3. There should be a business: Business should be conducted.

4. Agreement: Persons should agree to share the profits/losses of the business

5. Carried on by all or any one of them acting for all: The business can be carried on by all or any one of the persons acting for all. This means that the business can be carried on by one person who is the agent for all other persons. Every partner is both an agent and a principal. Agent for other partners and principal for himself. All the partners are agents and the „partnership" is their principal.

The following are the other features:

(a) Unlimited liability: The liability of the partners is unlimited. The partnership and partners, in the eye of law, and not different but one and the same. Hence, the partners have to bring their personal assets to clear the losses of the firm, if any.

(b) Number of partners: According to the Indian Partnership Act, the minimum number of partners should be two and the maximum number if restricted, as given below: • 10 partners is case of banking business • 20 in case of non-banking business

(c) Division of labour: Because there are more than two persons, the work can be divided among the partners based on their aptitude.

(d) Personal contact with customers: The partners can continuously be in touch with the customers to monitor their requirements.

(e) Flexibility: All the partners are likeminded persons and hence they can take any decision relating to business.

Advantages The following are the advantages of the partnership from:

1. Easy to form: Once there is a group of like-minded persons and good business proposal, it is easy to start and register a partnership.

2. Availability of larger amount of capital: More amount of capital can be raised from more number of partners.

3. Division of labour: The different partners come with varied backgrounds and skills. This facilities division of labour.

4. Flexibility: The partners are free to change their decisions, add or drop a particular product or start a new business or close the present one and so on.

5. Personal contact with customers: There is scope to keep close monitoring with customers requirements by keeping one of the partners in charge of sales and marketing. Necessary changes can be initiated based on the merits of the proposals from the customers.

6. Quick decisions and prompt action: If there is consensus among partners, it is enough to implement any decision and initiate prompt action. Sometimes, it may more time for the partners on strategic issues to reach consensus.

7. The positive impact of unlimited liability: Every partner is always alert about his impending danger of unlimited liability. Hence he tries to do his best to bring profits for the partnership firm by making good use of all his contacts.

Disadvantages: The following are the disadvantages of partnership:

1. Formation of partnership is difficult: Only like-minded persons can start a partnership. It is sarcastically said,‟ it is easy to find a life partner, but not a business partner‟.

2. Liability: The partners have joint and several liabilities beside unlimited liability. Joint and several liability puts additional burden on the partners, which means that even the personal properties of the partner or partners can be attached. Even when all but one partner become insolvent, the solvent partner has to bear the entire burden of business loss.

3. Lack of harmony or cohesiveness: It is likely that partners may not, most often work as a group with cohesiveness. This result in mutual conflicts, an attitude of suspicion and crisis of confidence. Lack of harmony results in delay in decisions and paralyses the entire operations.

4. Limited growth: The resources when compared to sole trader, a partnership may raise little more. But when compare to the other forms such as a company, resources raised in this form of organization are limited. Added to this, there is a restriction on the maximum number of partners.

5. Instability: The partnership form is known for its instability. The firm may be dissolved on death, insolvency or insanity of any of the partners.

6. Lack of Public confidence: Public and even the financial institutions look at the unregistered firm with a suspicious eye. Though registration of the firm under the Indian Partnership Act is a solution of such problem, this cannot revive public confidence into this form of organization overnight. The partnership can create confidence in other only with their performance. nditions of purchase of materials or borrowing loans from the finance houses or banks

PARTNERSHIP DEED

The written agreement among the partners is called „the partnership deed‟. It contains the terms and conditions governing the working of partnership. The following are contents of the partnership deed.

1. Names and addresses of the firm and partners

2. Nature of the business proposed

3. Duration

4. Amount of capital of the partnership and the ratio for contribution by each of the partners.

5. Their profit sharing ratio (this is used for sharing losses also)

6. Rate of interest charged on capital contributed, loans taken from the partnership and the amounts drawn, if any, by the partners from their respective capital balances.

7. The amount of salary or commission payable to any partner

8. Procedure to value good will of the firm at the time of admission of a new partner, retirement of death of a partner

9. Allocation of responsibilities of the partners in the firm

10. Procedure for dissolution of the firm

11. Name of the arbitrator to whom the disputes, if any, can be referred to for settlement.

12. Special rights, obligations and liabilities of partners(s), if any.

KINDS OF PARTNERS The following are the different kinds of partners:

1. Active Partner: Active partner takes active part in the affairs of the partnership. He is also called working partner.

2. Dormant Partner: Dormant partner contributes to capital but does not take part in the affairs of the partnership.

3. Nominal Partner: Nominal partner is partner just for namesake. He neither contributes to capital nor takes part in the affairs of business. Normally, the nominal partners are those who have good business connections, and are well places in the society.

4. Partner by Estoppels: Estoppels means behavior or conduct. Partner by estoppels gives an impression to outsiders that he is the partner in the firm. In fact be neither contributes to capital, nor takes any role in the affairs of the partnership.

5. Partner by holding out: If partners declare a particular person (having social status) as partner and this person does not contradict even after he comes to know such declaration, he is called a partner by holding out and he is liable for the claims of third parties. However, the third parties should prove they entered into contract with the firm in the belief that he is the partner of the firm. Such a person is called partner by holding out.

6. Minor Partner: Minor has a special status in the partnership. A minor can be admitted for the benefits of the firm. A minor is entitled to his share of profits of the firm. The liability of a minor partner is limited to the extent of his contribution of the capital of the firm.

Right of partners Every partner has right

(a) To take part in the management of business

(b) To express his opinion

(c) Of access to and inspect and copy and book of accounts of the firm

(d) To share equally the profits of the firm in the absence of any specific agreement to the contrary

(e) To receive interest on capital at an agreed rate of interest from the profits of the firm

f) To receive interest on loans, if any, extended to the firm.

(g) To be indemnified for any loss incurred by him in the conduct of the business

(h) To receive any money spent by him in the ordinary and proper conduct of the business of the firm.

JOINT STOCK COMPANY

The joint stock company emerges from the limitations of partnership such as joint and several liability, unlimited liability, limited resources and uncertain duration and so on. Normally, to take part in a business, it may need large money and we cannot foretell the fate of business. It is not literally possible to get into business with little money. Against this background, it is interesting to study the functioning of a joint stock company. The main principle of the joint stock company from is to provide opportunity to take part in business with a low investment as possible say Rs.1000. Joint Stock Company has been a boon for investors with moderate funds to invest. The word „ company‟‟ has a Latin origin, com means „ come together‟‟, company means „ bread‟‟, joint stock company means, people come together to earn their livelihood by investing in the stock of company jointly.

Company Defined Lord Justice Lindley explained the concept of the joint stock company from of organization as „an association of many persons who contribute money or money‟‟s worth to a common stock and employ it for a common purpose.

FEATURES This definition brings out the following features of the company:

1. Artificial person: The Company has no form or shape. It is an artificial person created by law. It is intangible, invisible and existing only, in the eyes of law.

2. Separate legal existence: it has an independence existence, it separate from its members. It can acquire the assets. It can borrow for the company. It can sue other if they are in default in payment of dues, breach of contract with it, if any. Similarly, outsiders for any claim can sue it. A shareholder is not liable for the acts of the company. Similarly, the shareholders cannot bind the company by their acts.

3. Voluntary association of persons: The Company is an association of voluntary association of persons who want to carry on business for profit. To carry on business, they need capital. So they invest in the share capital of the company.

4. Limited Liability: The shareholders have limited liability i.e., liability limited to the face value of the shares held by him. In other words, the liability of a shareholder is restricted to the extent of his contribution to the share capital of the company. The shareholder need not pay anything, even in times of loss for the company, other than his contribution to the share capital.

5. Capital is divided into shares: The total capital is divided into a certain number of units. Each unit is called a share. The price of each share is priced so low that every investor would like to invest in the company. The companies promoted by promoters of good standing (i.e., known for their reputation in terms of reliability character and dynamism) are likely to attract huge resources.

6. Transferability of shares: In the company form of organization, the shares can be transferred from one person to the other. A shareholder of a public company can cell sell his holding of shares at his will. However, the shares of a private company cannot be transferred. A private company restricts the transferability of the shares.

7. Common Seal: As the company is an artificial person created by law has no physical form, it cannot sign its name on a paper; so, it has a common seal on which its name is engraved. The common seal should affix every document or contract; otherwise the company is not bound by such a document or contract.

8. Perpetual succession: „Members may comes and members may go, but the company continues for ever and ever‟ A. company has uninterrupted existence because of the right given to the shareholders to transfer the shares.

9. Ownership and Management separated: The shareholders are spread over the length and breadth of the country, and sometimes, they are from different parts of the world. To facilitate administration, the shareholders elect some among themselves or the promoters of the company as directors to a Board, which looks after the management of the business. The Board recruits the managers and employees at different levels in the management. Thus the management is separated from the owners.

10. Winding up: Winding up refers to the putting an end to the company. Because law creates it, only law can put an end to it in special circumstances such as representation from creditors of financial institutions, or shareholders against the company that their interests are not safeguarded. The company is not affected by the death or insolvency of any of its members.

11. The name of the company ends with „limited‟: it is necessary that the name of the company ends with limited (Ltd.) to give an indication to the outsiders that they are dealing with the company with limited liability and they should be careful about the liability aspect of their transactions with the company. Formation of Joint Stock Company

ADVANTAGES

The following are the advantages of a joint Stock Company

1. Mobilization of larger resources: A joint stock company provides opportunity for the investors to invest, even small sums, in the capital of large companies. The facilities rising of larger resources.

2. Separate legal entity: The Company has separate legal entity. It is registered under Indian Companies Act, 1956.

3. Limited liability: The shareholder has limited liability in respect of the shares held by him. In no case, does his liability exceed more than the face value of the shares allotted to him.

4. Transferability of shares: The shares can be transferred to others. However, the private company shares cannot be transferred.

5. Liquidity of investments: By providing the transferability of shares, shares can be converted into cash.

6. Inculcates the habit of savings and investments: Because the share face value is very low, this promotes the habit of saving among the common man and mobilizes the same towards investments in the company.

7. Democracy in management: the shareholders elect the directors in a democratic way in the general body meetings. The shareholders are free to make any proposals, question the practice of the management, suggest the possible remedial measures, as they perceive, The directors respond to the issue raised by the shareholders and have to justify their actions.

8. Economics of large scale production: Since the production is in the scale with large funds

9. Continued existence: The Company has perpetual succession. It has no natural end. It continues forever and ever unless law put an end to it.

10. Institutional confidence: Financial Institutions prefer to deal with companies in view of their professionalism and financial strengths.

11. Professional management: With the larger funds at its disposal, the Board of Directors recruits competent and professional managers to handle the affairs of the company in a professional manner.

12. Growth and Expansion: With large resources and professional management, the company can earn good returns on its operations, build good amount of reserves and further consider the proposals for growth and expansion

. DISADVANTAGES

1. Formation of company is a long drawn procedure: Promoting a joint stock company involves a long drawn procedure. It is expensive and involves large number of legal formalities.

2. High degree of government interference: The government brings out a number of rules and regulations governing the internal conduct of the operations of a company such as meetings, voting, audit and so on, and any violation of these rules results into statutory lapses, punishable under the companies act.

3. Inordinate delays in decision-making: As the size of the organization grows, the number of levels in organization also increases in the name of specialization. The more the number of levels, the more is the delay in decision-making. Sometimes, so-called professionals do not respond to the urgencies as required. It promotes delay in administration, which is referred to „red tape and bureaucracy‟.

4. Lack or initiative: In most of the cases, the employees of the company at different levels show slack in their personal initiative with the result, the opportunities once missed do not recur and the company loses the revenue.

5. Lack of responsibility and commitment: In some cases, the managers at different levels are afraid to take risk and more worried about their jobs rather than the huge funds invested in the capital of the company lose the revenue.

6. Lack of responsibility and commitment: In some cases, the managers at different levels are afraid to take risk and more worried about their jobs rather than the huge funds invested in the capital of the company. Where managers do not show up willingness to 59 take responsibility, they cannot be considered as committed. They will not be able to handle the business risks

Different types of Companies

(A) On the basis of incorporation:

On the basis of incorporation, companies can be classified as:

(i) Chartered companies

(ii) Statutory companies

(iii) Registered companies

(i) Chartered companies:

The crown in exercise of the royal prerogative has power to create a corporation by the grant of a charter to persons assenting to be incorporated. Such companies or corporations are known as chartered companies. Examples of this type of companies are Bank of England (1694), East India Company (1600). The powers and the nature of business of a chartered company are defined by the charter which incorporates it. After the country attained independence, these types of companies do not exist in India.

(ii) Statutory companies:

A company may be incorporated by means of a special Act of the Parliament or any state legislature. Such companies are called statutory companies, Instances of statutory companies in India are Reserve Bank of India, the Life Insurance Corporation of India, the Food Corporation of India etc. The provisions of the Companies Act 1956 apply to statutory companies except where the said provisions are inconsistent with the provisions of the Act creating them. Statutory companies are mostly invested with compulsory powers.

(iii) Registered companies:

Companies registered under the Companies Act 1956, or earlier Companies Acts are called registered companies. Such companies come into existence when they are registered under the Companies Act and a certificate of incorporation is granted to them by the Registrar.

(B) On the basis of liability:

On the basis of liability the company can be classified into:

(i) Companies limited by shares

(ii) Companies limited by guarantee

(iii) Unlimited companies.

(i) Companies limited by shares:

When the liability of the members of a company is limited to the amount if any unpaid on the shares, such a company is known as a company limited by shares. In a company limited by shares the liability of the members is limited to the amount if any unpaid on the shares respectively held by them. The liability can be enforced during existence of the company as well as during the winding up. Where the shares are fully paid up, no further liability rests on them.

(ii) Companies limited by guarantee:

It is a registered company in which the liability of members is limited to such amounts as they may respectively undertake by the memorandum to contribute to the assets of the company in the event of its being wound up. In the case of such companies the liability of its members is limited to the amount of guarantee undertaken by them. Clubs, trade associations, research associations and societies for promoting various objects are various examples of guarantee companies.

(iii) Unlimited companies:

A company not having a limit on the liability of its members is termed as unlimited company. In case of such a company every member is liable for the debts of the company as in an ordinary partnership in proportion to his interest in the company. Such companies are not popular in India.

(C) On the basis of number of members:

(i) Private company:

A private company means a company which by its articles of association:

(i) Restricts the right to transfer its shares

(ii) Limits the number of its members to fifty (excluding members who are or were in the employment of the company) and

(iii) Prohibits any invitation to the public to subscribe for any shares or debentures of the company.

(iv) Where two or more persons hold one or more shares in a company jointly, they are treated as a single member. There should be at least two persons to form a private company and the maximum number of members in a private company cannot exceed 50. Acc to present Companies Act,2013 200 members.A private limited company is required to add the words "Private Ltd" at the end of its name.

(ii) Public company:

A public company means a company which is not a private company. There must be at least seven persons to form a public company. It is of the essence of a public company that its articles do not contain provisions restricting the number of its members or excluding generally the transfer of its shares to the public or prohibiting any invitation to the public to subscribe for its shares or debentures. Only the shares of a public company are capable of being dealt in on a stock exchange.

(D) According to Domicile:

(i) Foreign company:

It means a company incorporated outside India and having a place of business in India.

According to Section 591 a foreign company is one incorporated outside India:

(a) Which established a place of business within India after the commencement of this Act or

(b) Which had a place of business within India before the commencement of this Act and continues to have the same at the commencement of this Act.

(ii) Indian Companies:

A company formed and registered in India is known as an Indian Company.

(E) Miscellaneous Category:

(i) Government Company:

It means any company in which not less than 51 percent of the paid up share capital is held by the Central Govt, and/or by any State Government or Governments or partly by the Central Government and partly by one or more State Governments. The subsidiary of a Government company is also a Government company.

(ii) Holding and subsidiary companies:

A company is known as the holding company of another company if it has control over another company. A company is known as subsidiary of another company when control is exercised by the latter over the former called a subsidiary company. A company is to be deemed to be subsidiary company of another

(a) If the other:

(a) Controls the composition of its Board of directors or

(b) Exercises or controls more than half of its total voting power where it is an existing company in respect where of the holders of preference shares issued before the commencement of the Act have the same voting rights as the holders of equity shares or

(c) In the case of any other company holds more than half in nominal value of its equity share capital or

(b) If it is a subsidiary of a third company which is subsidiary of the controlling company.

(iii) One man Company:

This is a company in which one man holds practically the whole of the share capital of the company and in order to meet the statutory requirement of minimum number of members, some dummy members hold one or two shares each. The dummy members are usually nominees of principal shareholder. The principal shareholder is in a position to enjoy the profits of the business with limited liability. Such type of companies are perfectly valid

Steps in formation of Company

-Identifying name for the company

-Preparing necessary documents

-Submission of documents to ROC(Registrar of Company) along with prescribed fee

-Certificate of Incorporation

-Certificate of Commencement of Business

There are two stages in the formation of a joint stock company. They are:

(a) To obtain Certificates of Incorporation

(b) To obtain certificate of commencement of Business

Certificate of Incorporation: The certificate of Incorporation is just like a „date of birth" certificate. It certifies that a company with such and such a name is born on a particular day. Certificate of commencement of Business: A private company need not obtain the certificate of commencement of business. It can start its commercial operations immediately after obtaining the certificate of Incorporation.

The persons who conceive the idea of starting a company and who organize the necessary initial resources are called promoters. The vision of the promoters forms the backbone for the company in the future to reckon with. The promoters have to file the following documents, along with necessary fee, with a registrar of joint stock companies to obtain certificate of incorporation:

(a) Memorandum of Association: The Memorandum of Association is also called the charter of the company. It outlines the relations of the company with the outsiders. If furnishes all its details in six clause such as (ii) Name clause (II) situation clause (iii) objects clause (iv) Capital clause and (v) subscription clause duly executed by its subscribers.

b) Articles of association: Articles of Association furnishes the byelaws or internal rules government the internal conduct of the company.

Contents of Articles of Association

The articles generally deal with the following

1. Classes of shares, their values and the rights attached to each of them.

2. Calls on shares, transfer of shares, forfeiture, conversion of shares and alteration of capital.

3. Directors, their appointment, powers, duties etc.

4. Meetings and minutes, notices etc.

5. Accounts and Audit

6. Appointment of and remuneration to Auditors.

7. Voting, poll, proxy etc.

8. Dividends and Reserves

9. Procedure for winding up.

10. Borrowing powers of Board of Directors and managers etc.

11. Minimum subscription.

12. Rules regarding use and custody of common seal.

13. Rules and regulations regarding conversion of fully paid shares into stock.

14. Lien on shares.

Prospectus

Definition: Prospectus is an offer document or information brochure issued by a public company used for inviting offers from the general public for subscribing the shares.

It contains all the material information as to the price and number of shares/convertible shares being offered for sale to the public, which helps the investors to take a rational decision regarding the investment of his/her funds.

The prospectus is a legally mandated document and so it needs to be registered with the Registrar of Companies (RoC) prior to the opening of an issue when there is a fixed price issue and after the closure of issue when there is a book built issu

The registrar of joint stock companies peruses and verifies whether all these documents are in order or not. If he is satisfied with the information furnished, he will register the documents and then issue a certificate of incorporation, if it is private company, it can start its business operation immediately after obtaining certificate of incorporation. If it is a Public Company then one more certificate called Certificate of Commence of Business is issued so that business can be stated.

PUBLIC ENTERPRISES

Public enterprises occupy an important position in the Indian economy. Today, public enterprises provide the substance and heart of the economy. Its investment of over Rs.10,000 crore is in heavy and basic industry, and infrastructure like power, transport and communications. The concept of public enterprise in Indian dates back to the era of pre-independence. Genesis of Public Enterprises In consequence to declaration of its goal as socialistic pattern of society in 1954, the Government of India realized that it is through progressive extension of public enterprises only, the following aims of our five years plans can be fulfilled.

• Higher production • Greater employment • Economic equality, and • Dispersal of economic power The government found it necessary to revise its industrial policy in 1956 to give it a socialistic bent.

Need for Public Enterprises

The Industrial Policy Resolution 1956 states the need for promoting public enterprises as follows:

- To accelerate the rate of economic growth by planned development
- To speed up industrialization, particularly development of heavy industries and to expand public sector and to build up a large and growing cooperative sector.
- To increase infrastructure facilities
- To disperse the industries over different geographical areas for balanced regional development
- To increase the opportunities of gainful employment
- To help in raising the standards of living
- To reducing disparities in income and wealth (By preventing private monopolies and curbing concentration of economic power and vast industries in the hands of a small number of individuals)

Achievements of public Enterprises

The achievements of public enterprise are vast and varied. They are:

1. Setting up a number of public enterprises in basic and key industries
2. Generating considerably large employment opportunities in skilled, unskilled, supervisory and managerial cadres.
3. Creating internal resources and contributing towards national exchequer for funds for development and welfare.

4. Bringing about development activities in backward regions, through locations in different areas of the country.

5. Assisting in the field of export promotion and conservation of foreign exchange.

6. Creating viable infrastructure and bringing about rapid industrialization (ancillary industries developed around the public sector as its nucleus).

7. Restricting the growth of private monopolies

8. Stimulating diversified growth in private sector

9. Taking over sick industrial units and putting them, in most of the vases, in order,

10. Creating financial systems, through a powerful networking of financial institutions, development and promotional institutions, which has resulted in social control and social orientation of investment, credit and capital management systems.

11. Benefiting the rural areas, priority sectors, small business in the fields of industry, finance, credit, services, trade, transport, consultancy and so on.

Let us see the different forms of public enterprise and their features now.

Forms of public enterprises Public enterprises can be classified into three forms:

a) Departmental undertaking (b) Public corporation (c) Government company

These are explained below

DEPARTMENTAL UNDERTAKING

This is the earliest from of public enterprise. Under this form, the affairs of the public enterprise are carried out under the overall control of one of the departments of the government. The government department appoints a managing director (normally a civil servant) for the departmental undertaking. He will be given the executive authority to take necessary decisions. The departmental undertaking does not have a budget of its own. As and when it wants, it draws money from the government exchequer and when it has surplus money, it deposits it in the government exchequer. However, it is subject to budget, accounting and audit controls. Examples for departmental undertakings are Railways, Department of Posts, All India Radio, and Doordarshan, Defence undertakings like DRDL, DLRL, ordinance factories, and such.

FEATURES

1. Under the control of a government department: The departmental undertaking is not an independent organization. It has no separate existence. It is designed to work under close control of a government department. It is subject to direct ministerial control.

2. More financial freedom: The departmental undertaking can draw funds from government account as per the needs and deposit back when convenient.

3. Like any other government department: The departmental undertaking is almost similar to any other government department

4. Budget, accounting and audit controls: The departmental undertaking has to follow guidelines (as applicable to the other government departments) underlying the budget preparation, maintenance of accounts, and getting the accounts audited internally and by external auditors.

5. More a government organization, less a business organization. The set up of a departmental undertaking is more rigid, less flexible, and slow in responding to market needs.

ADVANTAGES

1. Effective control: Control is likely to be effective because it is directly under the Ministry.

2. Responsible Executives: Normally the administration is entrusted to a senior civil servant. The administration will be organized and effective.

3. Less scope for mystification of funds: Departmental undertaking does not draw any money more than is needed, that too subject to ministerial sanction and other controls. So chances for mis-utilisation are low.

4. Adds to Government revenue: The revenue of the government is on the rise when the revenue of the departmental undertaking is deposited in the government account.

DISADVANTAGES

1. Decisions delayed: Control is centralized. This results in lower degree of flexibility. Officials in the lower levels cannot take initiative. Decisions cannot be fast and actions cannot be prompt.

2. No incentive to maximize earnings: The departmental undertaking does not retain any surplus with it. So there is no inventive for maximizing the efficiency or earnings.

3. Slow response to market conditions: Since there is no competition, there is no profit motive; there is no incentive to move swiftly to market needs.

4. Redtapism and bureaucracy: The departmental undertakings are in the control of a civil servant and under the immediate supervision of a government department. Administration gets delayed substantially.

5. Incidence of more taxes: At times, in case of losses, these are made up by the government funds only. To make up these, there may be a need for fresh taxes, which is undesirable. Any business organization wants to be more successful needs to be more dynamic, flexible, and responsive to market conditions, fast in decision making and prompt in actions. None of these qualities figure in the features of a departmental undertaking. It is true that departmental undertaking operates as a extension to the government. With the result, the government may miss certain business opportunities. So as not to miss business opportunities, the government has thought of another form of public enterprise, that is, Public corporation

PUBLIC CORPORATION

Having released that the routine government administration would not be able to cope up with the demand of its business enterprises, the Government of India, in 1948, decided to organize some of its enterprises as statutory corporations. In pursuance of this, Industrial

Finance Corporation, Employees‟ State Insurance Corporation was set up in 1948. Public corporation is a „right mix of public ownership, public accountability and business management for public ends‟.

The public corporation provides machinery, which is flexible, while at the same time retaining public control.

Definition: A public corporation is defined as a „body corporate create by an Act of Parliament or Legislature and notified by the name in the official gazette of the central or state government. It is a corporate entity having perpetual succession, and common seal with power to acquire, hold, dispose off property, sue and be sued by its name". Examples of a public corporation are Life Insurance Corporation of India, Unit Trust of India, Industrial Finance Corporation of India, Damodar Valley Corporation and others.

Features

1. A body corporate: It has a separate legal existence. It is a separate company by itself. If can raise resources, buy and sell properties, by name sue and be sued.

2. More freedom and day-to-day affairs: It is relatively free from any type of political interference. It enjoys administrative autonomy.

3. Freedom regarding personnel: The employees of public corporation are not government civil servants. The corporation has absolute freedom to formulate its own personnel policies and procedures, and these are applicable to all the employees including directors.

4. Perpetual succession: A statute in parliament or state legislature creates it. It continues forever and till a statue is passed to wind it up.

5. Financial autonomy: Through the public corporation is fully owned government organization, and the initial finance are provided by the Government, it enjoys total financial autonomy, Its income and expenditure are not shown in the annual budget of the government, it enjoys total financial autonomy. Its income and expenditure are not shown in the annual budget of the government. However, for its freedom it is restricted regarding capital expenditure beyond the laid down limits, and raising the capital through capital market.

6. Commercial audit: Except in the case of banks and other financial institutions where chartered accountants are auditors, in all corporations, the audit is entrusted to the comptroller and auditor general of India.

7. Run on commercial principles: As far as the discharge of functions, the corporation shall act as far as possible on sound business principles.

ADVANTAGES

1. Independence, initiative and flexibility: The Corporation has an autonomous set up. So it is independent, take necessary initiative to realize its goals, and it can be flexible in its decisions as required.

2. Scope for Redtapism and bureaucracy minimized: The Corporation has its own policies and procedures. If necessary they can be simplified to eliminate redtapism and bureaucracy, if any.

3. Public interest protected: The corporation can protect the public interest by making its policies more public friendly, Public interests are protected because every policy of the corporation is subject to ministerial directives and board parliamentary control.

4. Employee friendly work environment: Corporation can design its own work culture and train its employees accordingly. It can provide better amenities and better terms of service to the employees and thereby secure greater productivity.

5. Competitive prices: the corporation is a government organization and hence can afford with minimum margins of profit, It can offer its products and services at competitive prices.

6. Economics of scale: By increasing the size of its operations, it can achieve economics of large-scale production.

7. Public accountability: It is accountable to the Parliament or legislature; it has to submit its annual report on its working results.

DISADVANTAGES

1. Continued political interference: the autonomy is on paper only and in reality, the continued.

2. Misuse of Power: In some cases, the greater autonomy leads to misuse of power. It takes time to unearth the impact of such misuse on the resources of the corporation. Cases of misuse of power defeat the very purpose of the public corporation.

3. Burden for the government: Where the public corporation ignores the commercial principles and suffers losses, it is burdensome for the government to provide subsidies to make up the losses.

GOVERNMENT COMPANY

Section 617 of the Indian Companies Act defines a government company as "any company in which not less than 51 percent of the paid up share capital" is held by the Central Government or by any State Government or Governments or partly by Central Government and partly by one or more of the state Governments and includes and company which is subsidiary of government company as thus defined".

A government company is the right combination of operating flexibility of privately organized companies with the advantages of state regulation and control in public interest. Government companies differ in the degree of control and their motive also. Some government companies are promoted as

- industrial undertakings (such as Hindustan Machine Tools, Indian Telephone Industries, and so on)

- Promotional agencies (such as National Industrial Development Corporation, National Small Industries Corporation, and so on) to prepare feasibility reports for promoters who want to set up public or private companies.

- Agency to promote trade or commerce. For example, state trading corporation, Export Credit Guarantee Corporation and so such like.

• A company to take over the existing sick companies under private management (E.g. Hindustan Shipyard)

• A company established as a totally state enterprise to safeguard national interests such as Hindustan Aeronautics Ltd. And so on.

• Mixed ownership company in collaboration with a private consult to obtain technical know how and guidance for the management of its enterprises, e.g. Hindustan Cables)

FEATURES The following are the features of a government company:

1. Like any other registered company: It is incorporated as a registered company under the Indian companies Act. 1956. Like any other company, the government company has separate legal existence. Common seal, perpetual succession, limited liability, and so on. The provisions of the Indian Companies Act apply for all matters relating to formation, administration and winding up. However, the government has a right to exempt the application of any provisions of the government companies.

2. Shareholding: The majority of the share are held by the Government, Central or State, partly by the Central and State Government(s), in the name of the President of India, It is also common that the collaborators and allotted some shares for providing the transfer of technology.

3. Directors are nominated: As the government is the owner of the entire or majority of the share capital of the company, it has freedom to nominate the directors to the Board. Government may consider the requirements of the company in terms of necessary specialization and appoints the directors accordingly.

4. Administrative autonomy and financial freedom: A government company functions independently with full discretion and in the normal administration of affairs of the undertaking.

5. Subject to ministerial control: Concerned minister may act as the immediate boss. It is because it is the government that nominates the directors, the minister issue directions for a company and he can call for information related to the progress and affairs of the company any time.

ADVANTAGES

1. Formation is easy: There is no need for an Act in legislature or parliament to promote a government company. A Government company can be promoted as per the provisions of the companies Act. Which is relatively easier

2. Separate legal entity: It retains the advantages of public corporation such as autonomy, legal entity.

3. Ability to compete: It is free from the rigid rules and regulations. It can smoothly function with all the necessary initiative and drive necessary to complete with any other private organization. It retains its independence in respect of large financial resources, recruitment of personnel, management of its affairs, and so on.

4. Flexibility: A Government company is more flexible than a departmental undertaking or public corporation. Necessary changes can be initiated, which the framework of the company

law. Government can, if necessary, change the provisions of the Companies Act. If found restricting the freedom of the government company. The form of Government Company is so flexible that it can be used for taking over sick units promoting strategic industries in the context of national security and interest.

5. Quick decision and prompt actions: In view of the autonomy, the government company take decision quickly and ensure that the actions and initiated promptly. 6. Private participation facilitated: Government company is the only from providing scope for private participation in the ownership. The facilities to take the best, necessary to conduct the affairs of business, from the private sector and also from the public sector.

DISADVANTAGES

1. Continued political and government interference: Government seldom leaves the government company to function on its own. Government is the major shareholder and it dictates its decisions to the Board. The Board of Directors gets these approved in the general body. There were a number of cases where the operational polices were influenced by the whims and fancies of the civil servants and the ministers.

2. Higher degree of government control: The degree of government control is so high that the government company is reduced to mere adjuncts to the ministry and is, in majority of the cases, not treated better than the subordinate organization or offices of the government.

3. Evades constitutional responsibility: A government company is creating by executive action of the government without the specific approval of the parliament or Legislature.

4. Poor sense of attachment or commitment: The members of the Board of Management of government companies and from the ministerial departments in their ex-officio capacity. The lack the sense of attachment and do not reflect any degree of commitment to lead the company in a competitive environment.

5. Divided loyalties: The employees are mostly drawn from the regular government departments for a defined period. After this period, they go back to their government departments and hence their divided loyalty dilutes their interest towards their job in the government company.

6.Fexibility on paper: The powers of the directors are to be approved by the concerned Ministry, particularly the power relating to borrowing, increase in the capital, appointment of top officials, entering into contracts for large orders and restrictions on capital expenditure. The government companies are rarely allowed to exercise their flexibility and independence

Cooperative Society

A **cooperative society** is a voluntary **association** that started with the aim of the service of its members. It is a form of business where individuals belonging to the same class join their hands for the promotion of their common goals. These are generally formed by poor people or weaker sections of people in **society**.

The Indian Co-operative Societies Act, 1912 defines co-operative in section 4 as “Society which has its objective the promotion of economic interests of its members in accordance with co-operative principle.”

Features of Cooperative Society

- As it is a voluntary association, the membership is also voluntary. A person is free to join a cooperative society, and can also leave anytime as per his desire. Irrespective of their religion, gender & caste, membership is open to all.
- It is compulsory for the co-operative society to get registration. The co-operative society is a separate legal identity to the society.
- It does not get affected by the entry or exit of its members.
- There is limited liability of the members of co-operative society. Liability is limited to the extent of the amount contributed by members as capital.
- An elected managing committee has the powers to take decisions. Members have the right to vote, by which they elect the members who will constitute the managing committee.
- The cooperative society works on the principle of mutual help & welfare. Hence, the principal of service dominates it's working. If any surplus is generated, it is distributed amongst the members as a dividend in conformity with the bye-laws of the society.

Types of Cooperative Society

1] Producer Cooperative

To protect the interest of small producers, these societies are set up. The co-operative society members may be farmers, landowners, owners of the fishing operations. To increase the marketing possibilities and production efficiency, producers decide to work together or as separate entities.

They perform several activities like processing, marketing & distributing their own products. This helps in lower costs and strains in each area with a mutual benefit to each producer.

2] Consumer Cooperative

These businesses are owned and governed by consumers of a particular area for their mutual benefit. Their view is to provide daily necessary commodities at an optimum price. Rather than earning a pecuniary profit, their aim is towards providing service to the consumers.

3] Credit Unions

Credit unions are generally member-owned financial cooperatives. Their principle is of people helping people. They provide credit and financial services to the members at competitive prices. Each and every depositor has the right to become a member. Members attend the annual meeting and are given rights to elect a board of directors.

4] Marketing Cooperative Society

With an aim of helping small producers in selling their products, these societies are established. The producers who wish to obtain reasonable prices for their output are the members of this society.

For securing a favourable market for the products they eliminate the middlemen and improve the competitive position of its members. It collects the output of individual members. Various marketing functions like transportation, packaging, warehousing, etc are performed by the cooperative societies to sell the product at the best possible price.

5] Housing Cooperative Society

To help people with limited income to construct houses at reasonable costs, these societies are established. Their aim is to solve the housing problems of the members. A member of this society aims to procure the residential house at lower cost.

They construct the houses and give the option to members to pay in installments to purchase the house. They construct flats or provide plots to members on which the members themselves can construct the houses as per their choice.

Limited Liability Company,

A Limited Liability Company, also known as an LLC, is a type of business structure that combines traits of both a sole-proprietorship and a corporation. An LLC is eligible for the pass-through taxation feature of a partnership or sole proprietorship, while at the same time limiting the liability of the owners, similar to a corporation.

As the LLC is not considered a separate entity, the company does not pay taxes or take on losses. Instead, this is done by the owners as they have to report the business profits, or losses, on their personal income tax returns. However, just like corporations, members of an LLC are protected from personal liabilities, thus the name Limited Liability.

Advantages of an LLC

- The members of an LLC have protection against liability. They cannot be held liable for company losses, or debts and business credit, and their personal assets (such as a house or car) cannot be recovered by the debtors.
- LLCs have the freedom of selecting any form of profit distribution, which does not have to be in the ratio of the ownership between different members.
- LLCs do not have a legal requirement to conduct formal meetings, maintain minutes of the meeting, or record resolutions.
- Benefits similar to a corporation are available without going through any incorporation formalities.
- Pass-through taxation principles apply and the company itself is not taxed unless it opts for being treated as a regular corporation. All business profits, losses, and expenses are accounted for by its individual members. Members have to show the earnings in their individual tax returns and accordingly pay taxes. This allows the avoidance of double taxation by way of corporate tax payment along with the individual income tax.

Disadvantages of an LLC

While the advantages largely benefit most small businesses, certain aspects of an LLC can prove to be disadvantageous. This is especially true for larger organizations. Some of the disadvantages of an LLC are:

- LLCs have a limited life and are usually dissolved when a member dies, or if the company faces bankruptcy.
- LLCs cannot go public, as there are no shares or shareholdings. For the same reason, issuing shares to employees through stock options is not possible.
- Even though the paperwork and the complexities associated with LLCs are significantly less than those required for forming a corporation, its formation is still substantially more complex than a partnership or sole-proprietorship.

In most states, an LLC can be created simply by filing the "articles of organization" and paying the required filing fee. This document is also known as a "certificate of organization" or a "certificate of formation". Some states have an additional requirement of publishing an intention to create an LLC in a local newspaper. Another part of forming an LLC is the operating agreement, which is not compulsory in most states, but is highly recommended. This document explicitly states the rights and responsibilities of the LLC owners.

SOURCES OF FINANCE FOR A BUSINESS / SOURCES OF CAPITAL FOR A COMPANY

I. The source of long – term finance are: 1. Issue of shares 2. Issue debentures 3. Loan from financial 4. Retained profits and 5. Public deposits

II Sources of Short-term Finance are: 1. Trade credit 2. Bank loans and advances and 3. Short-term loans from finance companies.

Sources of Long Term Finance

1. Issue of Shares: The amount of capital decided to be raised from members of the public is divided into units of equal value. These units are known as share and the aggregate values of shares are known as share capital of the company. Those who subscribe to the share capital become members of the company and are called shareholders. They are the owners of the company. Hence shares are also described as ownership securities.

- Issue of Preference Shares: Preference share have three distinct characteristics. Preference shareholders have the right to claim dividend at a fixed rate, which is decided according to the terms of issue of shares. Moreover, the preference dividend is to be paid first out of the net profit. The balance, it any, can be distributed among other shareholders that is, equity shareholders. However, payment of dividend is not legally compulsory. Only when dividend is declared, preference shareholders have a prior claim over equity shareholders. Preference shareholders also have the preferential right of claiming repayment of capital in the event of winding up of the company. Preference capital has to be repaid out of assets after meeting the loan obligations and claims of creditors but before any amount is repaid to equity shareholders. Holders of preference shares enjoy certain privileges, which cannot be claimed by the equity shareholders. That is why; they cannot directly take part in matters, which may be discussed at the general meeting of shareholders, or in the election of directors. Depending upon the terms of conditions of issue, different types of preference shares may be issued by a company to raises funds.

Preference shares may be issued as:
1.Cumulative or Non-cumulative
2. Participating or Non-participating
3. Redeemable or Non-redeemable,
4. Convertible or non-convertible preference shares.
In the case of cumulative preference shares, the dividend unpaid if any in previous years gets accumulated until that is paid. No cumulative preference shares have any such provision. Participatory shareholders are entitled to a further share in the surplus profits after a reasonable divided has been paid to equity shareholders. Non-participating preference shares do not enjoy such right. Redeemable preference shares are those, which are repaid after a specified period, where as the irredeemable preference shares are not repaid. However, the company can also redeem these shares after a specified period by giving notice as per the terms of issue. Convertible preference shares are those, which are entitled to be converted into equity shares after a specified period.

-Issue of Equity Shares: The most important source of raising long-term capital for a company is the issue of equity shares. In the case of equity shares there is no promise to shareholders a fixed dividend. But if the company is successful and the level profits are high, equity shareholders enjoy very high returns on their investment. This feature is very attractive to many investors even through they run the risk of having no return if the profits are inadequate or there is loss. They have the right of control over the management of the company and their liability is limited to the value of shares held by them. From the above it can be said that equity shares have three distinct characteristics:
1. The holders of equity shares are the primary risk bearers. It is the issue of equity shares that mainly provides „risk capital‟, unlike borrowed capital. Even compared with preference capital, equity shareholders are to bear ultimate risk.
2. Equity shares enable much higher return sot be earned by shareholders during prosperity because after meeting the preference dividend and interest on borrowed capital at a fixed rate, the entire surplus of profit goes to equity shareholders only.
3. Holders of equity shares have the right of control over the company. Directors are elected on the vote of equity shareholders.

2. Issue of Debentures: When a company decides to raise loans from the public, the amount of loan is dividend into units of equal. These units are known as debentures. A debenture is the instrument or certificate issued by a company to acknowledge its debt. Those who invest money in debentures are known as „debenture holders‟. They are creditors of the company. Debentures are therefore called „creditor ship‟ securities. The value of each debentures is generally fixed in multiplies of 10 like Rs. 100 or Rs. 500, or Rs. 1000. Debentures carry a fixed rate of interest, and generally are repayable after a certain period, which is specified at the time of issue. Depending upon the terms and conditions of issue there are different types of debentures.
There are: a. Secured or unsecured Debentures b. Convertible of Non convertible Debentures.

If debentures are issued on the security of all or some specific assets of the company, they are known as secured debentures. The assets are mortgaged in favor of the debenture holders. Debentures, which are not secured by a charge or mortgage of any assets, are called unsecured debentures. The holders of these debentures are treated as ordinary creditors. Sometimes under the terms of issue debenture holders are given an option to covert their debentures into equity shares after a specified period. Or the terms of issue may lay down that the whole or part of the debentures will be automatically converted into equity shares of a specified price after a certain period. Such debentures are known as convertible debentures. If there is no mention of conversion at the time of issue, the debentures are regarded as nonconvertible debentures

3. Loans from financial Institutions: Government with the main object of promoting industrial development has set up a number of financial institutions. These institutions play an important role as sources of company finance. Besides they also assist companies to raise funds from other sources. These institutions provide medium and long-term finance to industrial enterprises at a reason able rate of interest. Thus companies may obtain direct loan from the financial institutions for expansion or modernization of existing manufacturing units or for starting a new unit. Often, the financial institutions subscribe to the industrial debenture issue of companies some of the institutions (ICICI) and (IDBI) also subscribe to the share issued by companies. All such institutions also underwrite the public issue of shares and debentures by companies. Underwriting is an agreement to take over the securities to the extent there is no public response to the issue. They may guarantee loans, which may be raised by companies from other sources. Loans in foreign currency may also be granted for the import of machinery and equipment wherever necessary from these institutions, which stand guarantee for re-payments. Apart from the national level institutions mentioned above, there are a number of similar institutions set up in different states of India. The state-level financial institutions are known as State Financial Corporation, State Industrial Development Corporations, State Industrial Investment Corporation and the like. The objectives of these institutions are similar to those of the national-level institutions. But they are mainly concerned with the development of medium and small-scale industrial units. Thus, smaller companies depend on state level institutions as a source of medium and long-term finance for the expansion and modernization of their enterprise.

4. Retained Profits: Successful companies do not distribute the whole of their profits as dividend to shareholders but reinvest a part of the profits. The amount of profit reinvested in the business of a company is known as retained profit. It is shown as reserve in the accounts. The surplus profits retained and reinvested may be regarded as an internal source of finance. Hence, this method of financing is known as self-financing. It is also called sloughing back of profits. Since profits belong to the shareholders, the amount of retained profit is treated as ownership fund. It serves the purpose of medium and long-term finance. The total amount of ownership capital of a company can be determined by adding the share capital and accumulated reserves.

5. Public Deposits: An important source of medium – term finance which companies make use of is public deposits. This requires advertisement to be issued inviting the general public of deposits. This requires advertisement to be issued inviting the general public to deposit their savings with the company. The period of deposit may

extend up to three years. The rate of interest offered is generally higher than the interest on bank deposits. Against the deposit, the company mentioning the amount, rate of interest, time of repayment and such other information issues a receipt. Since the public deposits are unsecured loans, profitable companies enjoying public confidence only can be able to attract public deposits. Even for such companies there are rules prescribed by government limited its use.

II. Medium term finance : Bank Loans, Hire purchase, Leasing and renting , Venture capital etc.

III. SHORT TERM FINANCE The major sources of short-term finance are discussed below:

1. Trade credit: Trade credit is a common source of short-term finance available to all companies. It refers to the amount payable to the suppliers of raw materials, goods etc. after an agreed period, which is generally less than a year. It is customary for all business firms to allow credit facility to their customers in trade business. Thus, it is an automatic source of finance. With the increase in production and corresponding purchases, the amount due to the creditors also increases. Thereby part of the funds required for increased production is financed by the creditors. The more important advantages of trade credit as a source of short-term finance are the following: It is readily available according to the prevailing customs. There are no special efforts to be made to avail of it. Trade credit is a flexible source of finance. It can be easily adjusted to the changing needs for purchases. Where there is an open account for any creditor failure to pay the amounts on time due to temporary difficulties does not involve any serious consequence Creditors often adjust the time of payment in view of continued dealings. It is an economical source of finance. However, the liability on account of trade credit cannot be neglected. Payment has to be made regularly. If the company is required to accept a bill of exchange or to issue a promissory note against the credit, payment must be made on the maturity of the bill or note. It is a legal commitment and must be honored; otherwise legal action will follow to recover the dues.

2. Bank loans and advances: Money advanced or granted as loan by commercial banks is known as bank credit. Companies generally secure bank credit to meet their current operating expenses. The most common forms are cash credit and overdraft facilities. Under the cash credit arrangement the maximum limit of credit is fixed in advance on the security of goods and materials in stock or against the personal security of directors. The total amount drawn is not to exceed the limit fixed. Interest is charged on the amount actually drawn and outstanding. During the period of credit, the company can draw, repay and again draw amounts with in the maximum limit. In the case of overdraft, the company is allowed to overdraw its current account up to the sanctioned limit. This facility is also allowed either against personal security or the security of assets. Interest is charged on the amount actually overdrawn, not on the sanctioned limit.

3. Short term loans from finance companies: Short-term funds may be available from finance companies on the security of assets. Some finance companies also provide funds according to the value of bills receivables

4. Debt Factoring & Credit factoring

Debt factoring is when a business sells its accounts receivables to a third party. That third party pays the business a percentage of the total amount originally charged to the client and usually takes full responsibility for collecting the payment from the buyer. This transaction allows businesses to get **quick access to cash before the clients pay for the goods or services received**, allowing them to re-invest that money right away.
Credit factoring: Credit factoring is a third party which pays business amounts to outsiders that has to be paid by business.

Non Conventional Sources of Finance

Use of modified loan terms or eligibility requirements that allow lending to borrowers with limited financial resources. 'Non conventional' refers to the financial mechanisms employed, and not necessarily to the financial institutions who employ them.

1.Angel Investors

This category refers to retired company executives or wealthy individuals who make direct investments in startups and small firms.

These investors are typically leaders in their respective fields. They contribute by means of their network of contacts and experience and also provide their technical and management knowledge.

However, you should know that in exchange for their investments, angel investors might monitor your startup management practices and might want a say in your business.

2.Venture Capital

This funding source is ideal for tech-based startups that have a high growth potential in communications, information technology, or biotechnology.

The venture capitalists basically invest in your startup in exchange for equity, so you have to share ownership with an external party. Venture capitalists also expect a high return on investment once the business is properly established.

Always look for venture capitalists who have a background in your business's industry and can bring relevant knowledge and experience.

3.Business Loans

Business loans are the most common source of funding, not only for startups but also for small and medium-sized businesses.

Banks and other financial institutions offer many types of business loans in return for regular interest payments. They will need you to have a solid business plan in place. Your plan should show potential and have numbers to back it up.

Having a good idea is not enough; you need to have evidence to support it. In some cases, banks might ask you for something as collateral, but every situation is different. If you don't offer collateral, they might charge you a higher rate of interest but this will help you in avoiding bad credit too.

4. Incubators

This term refers to a university, company, or any organization that is willing to provide you with resources for your startup. These resources could include office space, laboratories, marketing, consulting, cash, or anything else you might need.

What do incubators ask for in exchange? They are aware that you are in a vulnerable position, so they will typically demand equity. The reason why is they see a lot of potential in your idea and want to profit from it in the future.

5. Grants and Subsidies

Bringing innovations to light is not always easy. As a result, some government agencies provide support to budding businesses.

Access to this funding allows you to cover different expenses, such as marketing, research and development, equipment, salaries, and improvement in productivity.

Technically, governments give grants to startups unconditionally and you don't have to repay them. But you cannot use the grant money for any other purpose, or you will be vulnerable to legal action.

Once a government source has provided you with funding and you fulfill the terms of the program, that agency might offer you additional funding in the future.

6. Crowdfunding

As the name indicates, crowdfunding refers to getting funds from a crowd, i.e., the general public. Entrepreneurs typically use this option when developing a product that's essential to people and not available elsewhere.

There are crowdfunding websites that enable members of the public to pool their funds to help various causes. Every member can contribute as little as $10, and the money can go a long way if many people add to it. Use a good crowdfunding platform, and advertise your cause to get more people to contribute.

Startups can use any of these sources of finance to launch their operations and offer quality products and services to people.

Theory of Firm

Objectives of Business firms

- Profit Maximisation
- Alternative Objectives

Profit as Business Objective

The word profit has different meaning to businessmen, accountants, Tax collectors, workers and economists.

In general profit means income according to Entrepreneurs.

Accountant:- Profit means the excess of revenue over all paid-out costs including both manufacturing and overhead expenses - also known as Accounting profit - more or less the same as Net Profit.

Economist:-Pure Profit – Economic Profit

It is the return over and above the opportunity cost.

Accounting Profit Vs Economic Profit

Accounting profit:- Total Revenue – (Wages+Rent+Interest+Cost of Materials)

Explicit or Book costs are the costs recorded in the books of accounts and are considered materialistically.

Economic profit:-Implict or Imputed costs are the costs which are not recorded in the books of accounts but are considered important in decision making process.

The implicit cost is the opportunity costie; It is the income foregone which a businessman could make from the second best use of this resources.

Economic or pure profit makes provision also for

- Insurable risk
- Depreciation

- Necessary minimum payment to shareholders to prevent them from withdrawing their capital.

Pure profit:- A residual left after all contractual costs have been met, including the transfer costs of management, insurable risks, depreciation and payments to shareholders sufficient to maintain investment at its current level.

Pure Profit = Total Revenue – (Explicit costs+ Implicit costs)

Pure profit = Accounting profit – (opportunity cost+ Unauthorised payments ie;bribes)

Pure Profit is considered to be a short term phenomenon – it does not exist in the long run, especially under perfectly competitive market conditions.

<u>Sources of profit</u>

Economists are not unanimous on this issue.

<u>Theories of Profit</u>

1. <u>WALKERS THEORY OF PROFIT</u> (PROFIT AS RENT OF ABILITY- F.A.WALKER)
   According to him profit is the rent of "exceptional abilities that an entrepreneur may possess" over others.
   Walker assumes a state of perfect competition in which all firms are presumed to possess equal managerial ability. Each firm would receive only the wages of management.
   According to Walker, under perfectly competitive conditions, these would be no pure profit and all firms would earn only managerial wages, popularly known as "Normal Profit".

2. <u>CLARKS DYNAMIC THEORY OF PROFIT – J.B. CLARK</u>
   According to him profits arise in a dynamic economy, not in static one.

   A static economy is one in which things do not change significantly, population and capital are stationary, production process remains unchanged overtime.
   Goods continue to remain homogeneous; factors enjoy freedom of mobility but do not move because their marginal product in every industry is the same, there is no uncertainty and hence no risk and if there is any risk it is Insurable.

   In a Static economy, all firms make only the "normal profit" ie; the wages of management on the other hand, a dynamic economy is characterised by the following generic changes;
   a) Increase in population
   b) Increase in Capital
   c) Improvement in Production Technique
   d) Changes in the forms of business organisation

e) Increase in and multiplication of consumer wants.

The entrepreneurs who successfully take advantage of changing conditions in a dynamic economy maker pure profit id; profit in addition to "normal profit"

Pure profit , however exist only in the short run.

In Clark own words" profit is an elusive sum which entrepreneurs grasp but cannot hold. It slips through their fingers and bestows itself on all members of society"

According to clark, emergence, disappearance and re-emergence of profit is a continuous process.

3. HAWLEYS'S RISK THEORY OF PROFITS – F.B.HAWLEY-1893
   Risk in business may arise for such reason as obsolescence of a product, sudden fall in prices, non-availability of certain crucial materials, and introduction of better substitute by a competitor, and risks due to fire,war etc.
   Hawley regarded risk-taking as an inevitable accompaniment of dynamic production and those who take risks have a sound claim, to an additional reward, known as profit.
   Profit according to Hawley consists of two parts
   a) Compensation for actuarial or average loss incidental to the various

4. KNIGHTS THEORY OF PROFIT – FRANK H.KNIGHT
   He treated profits as a residual return to uncertainty bearing, not to risk bearing obviously, knight made a distinction between risk and uncertainty. He divided risk into calculable and Non-calculable risks.
   a) Calculable risks are those whose probability of occurrence can be statistically estimated on the basis of available data.Eg:- risk due to fire, theft, accidents etc.
   b) Non-calculable risks – an area of risk in which probability of risk occurrences cannot be calculated.
      Eg:- cost of eliminating competitors may not be accurately calculated and the strategies of the competitors may not be precisely assessable.
      The risk element of such calculable events are not insurable. The area of incalculable risk is the area of uncertainty.
      Thus, according to knight, profit arises from the decisions taken and implemented under the conditions of uncertainty.

5. SCHUMPETER'S INNOVATION THEORY OF PROFIT – JOSEPH A.SCHUMPETER
   The theory of profit is in fact, the constituent of his theory of economic development. According to him economic development takes place only when there are innovations in goods and service, manufacturing techniques and methods of supply.

Innovations are made and introduced by the nosiness firms to make pure profit – profit in excess of normal profit.

These kinds of innovations provide opportunities to innovative firms to fix a price of their product higher than the static equilibrium price.
Therefore, innovative firms charge a price higher than production cost and hence make a new profit. Thus according to Schumpeter innovation is the source of profit.

6. MONOPOLY POWER A SOURCE OF PROFIT – Single Seller of a commodity without close substitutes.
   Monopoly is said to be another source of pure profit.
   Monopoly arises due to
   - Economies of Scale
   - Sole ownership of certain crucial raw materials
   - Mergers and Acquisitions

   A monopolist may earn "Pure Profit" or what is generally called in this case "Monopoly Profit".

   Monopoly is the source of Pure Profit.

   Government Sector (Production and Supply of electricity, water, transport services etc.) Pure Monopoly tool is a rare Phenomenon.

ALTERNATIVE OBJECTIVES OF BUSINESS FIRMS

While Postulating the objectives of business firms , the conventional theory of firms does not distinguish between "owners" and "managers" intrest.

The recent theories of firm called "Managerial" and "Behavioural" Theories of firm however assumes owners and managers to be separate entities in large corporations with different goals and motivation.

- BERLE AND MEANS
  Dichotomy between ownership and Management.
  Berle – Means – Galbraith Hypothesis (B-M-G)
  The B-M-G hypothesis states that
  (i) The owner controlled firms have higher profit rather than manager controlled firms.
  (ii) That Managers have no incentive for profit Maximisation.
  Profit Maximisation:-Higher profit Means
- Higher dividends for shareholders.
- More profits can be used to finance R & D.
- Higher profit makes the firm less vulnerable to takeover.
- Higher profit enables higher salaries for workers.

Objectives of a Firm

Why do people do business?

PROFIT MAXIMISATION THEORY- Nobel Laureate MILTON FRIEDMAN

According to profit Maximisation theory, objective of business is generation of the largest amount of profit.

1) Which measure of profit to consider among
   a) Gross profit, Net profit, Net profit before tax, net profit after tax
2) Which period of time to take into account among-
   Current year, Next year, Next 5 years, Next 10 years
   Future profit – Time Value of Money
   Short term profits – Pressure to Focus
   Long term Growth of the company – adversely affected.

- Validity of Profit Maximisation may also be questioned in competitive Markets.
- To Maximise profits in modern times of high customer awareness and highly competitive market.
- Similar questions gave rise to alternative theories of firm's objectives.

BAUMOL'S THEORY OF SALES REVENUE MAXIMISATION

In competitive markets, firms would rather aim at maximising revenue, through maximisation of sales.

According to Baumol Sales volumes and not profit volumes, determine market leadership in competition.

Sales Maximisation theory asserts that managers attempts to maximise the firms total revenue, instead of profits.

In large organisations management is separate from owner's .Hence, there would always be a dichotomy of managers goals and owners goals.

Manager's salary and other benefits are largely linked with Sales Volume, rather than Profits.

MARRI'S HYPOTHESIS OF MAXIMISATION OF GROWTH RATE(Mergers & Takeovers)

According to Growth Maximisation theory owner's (shareholders) aim at profits and Market share, whereas managers aim at better salary, job security and growth.

These two sets of goals can be achieved by maximising balanced growth of the firm(G), which is dependent on the growth rate of demand for the firm's products(Gd) and growth rate of capital supply to the firm(Gc).

Hence growth rate of the firm is balanced when the demand for its product and the capital supply to the firm grow at the same rate.

Marris further said that firms face two constraints in the objective of maximisation of balanced growth.

Managerial Constraint

Marris stressed on the importance of the role of human resources in achieving organisational objectives.

According to him skills, expertise, effiencey and sincerity of team manager are vital to the growth of the firm.

Non-availability of managerial skills sets in required size creates constraints for growth, organisations on their high levels of growth may face constraints of skill ceiling among the existing employees.

- ➔ New recruitments may be used to increase the size of the managerial pool with desired skills; however new recruits lack experience to make quick decisions, which may pose as another constraint.

Financial Constraint

This relates to the prudence needed in managing financial resources. Marris suggested that prudent financial policy will be based on atleast three financial ratios, which in turn set the limit for the growth of the firm. In order to prove their discretion managers will normally create a trade off and prefer a moderate debt equity ratio(r1), Moderate Liquidity ratio(r2), Moderate retained profit ratio(r3).

Firm's growth rate is balanced when demand for its product and supply of capital to the firm increases at the same rate.

Marris translates the two growth rates into two utility functions.

- > Manager's utility function Um=F(Salary, Power ,Job Security, Prestige, Status)
- > Owner's utility function Uo=F(Output, Capital, Market share, Profit, Public esteem)

*Size of the firm

The manager seek to maximise a steady growth rate.

WILLIAMSON'S HYPOTHESIS OF MAXIMISATION

Owners (Stockholders) and managers are two separate entities with different objectives.

Under these conditions, the problem of determining the firm's objectives is generally known as Prinicipal- Agent Problem.

Williamson's theory

Manager's Utility Function

(U) is expressed as U = F(S,M,Id) where, S= Additional expenditure on staff

M=Managerial emoluments

Id = Discretionary Investments

According to williamson's theory of Hypothesis, Manager's Maximise their utility function subject to a satisfactory profit.

A reasonable profit is necessary to satisfy the shareholder's or else manager's job security is endangered.

Manager's utility function include both quantifiable variables like salary and stock earnings and non-quantitative variables such as prestige, power, status, job security, professional excellence etc.

ROTHSCHILD'S HYPOTHESIS OF LONG-RUN SURVIVAL AND MARKET SHARE GOALS

Primary goal – Long run survival

Secure the Market share and Long run survival.

In order to reconcile between the conflicting interests and goals, managers's form an aspiration level of the firm combining the following goals

- Production Goal
- Sales and Market share goals
- Inventory goals
- Profit goal

CYERT-MARCH HYPOTHESIS

Extension of Simon's hypothesis of firm's satisfying behaviour.
Satisfactory Profit Satisfactory growth.
The behaviour of firms is termed as "satisfaction Behaviour".
Manager,Staff,Labour,Shareholder's,Customers,Suppliers,Financiers,Accountants, Lawyers.

Entry-Prevention and Risk-Avoidance

Prevent entry of new firms into the industry.
The motive behind entry prevention may be

- Profit Maximisation in the long run
- Securing of constant market share
- Avoidance or risk caused by unpredictable behaviour of the new firms.

Maximisation of value of the firm

Owners Objective – Maximisation of the value of the firm – Long run

Managers objective – Maximise profit – Short run

Present Value of the expected future Profits.

Business Cycle:

Meaning of Business Cycle:

The period of high income, output and employment has been called the period of expansion, upswing or prosperity, and the period of low income, output and employment has been described as contraction, recession, downswing or depression.

The economic history of the free market capitalist countries has shown that the period of economic prosperity or expansion alternates with the period of contraction or recession.

These alternating periods of expansion and contraction in economic activity has been called business cycles. They are also known as trade cycles. J.M. Keynes writes, "A trade cycle is composed of periods of good trade characterized by rising prices and low unemployment percentages with periods of bad trade characterized by falling prices and high unemployment percentages."

A noteworthy feature about these fluctuations in economic activity is that they are recurrent and have been occurring periodically in a more or less regular fashion. Therefore, these fluctuations have been called business cycles. It may be noted that calling these fluctuations as 'cycles' means they are periodic and occur regularly, though perfect regularity has not been observed.

The duration of a business cycle has not been of the same length; it has varied from a minimum of two years to a maximum of ten to twelve years, though in the past it was often assumed that fluctuations of output and other economic indicators around the trend showed repetitive and regular pattern of alternating periods of expansion and contraction.

However, actually there has been no clear evidence of very regular cycles of the same definite duration. Some business cycles have been very short lasting for only two to three years, while others have lasted for several years. Further, in some cycles there have been large swings away from trend and in others these swings have been of moderate nature.

A significant point worth noting about business cycles is that they have been very costly in the economic sense of the word. During a period of recession or depression many workers lose their jobs and as a result large-scale unemployment, which causes loss of output that could have been produced with full employment of resources, come to prevail in the economy.

Besides, during depression many businessmen go bankrupt and suffer huge losses. Depression causes a lot of human sufferings and lowers the levels of living of the people. Fluctuations in economic activity creates a lot of uncertainty in the economy which causes anxiety to the individuals about their future income and employment opportunities and involve a great risk for long-run investment in projects. Who does not remember the great havoc caused by the great depression of the early thirties of the present century?

Even boom when it is accompanied by inflation has its social costs. Inflation erodes the real incomes of the people and makes life miserable for the poor people. Inflation distorts allocation of resources by drawing away scarce resources from productive uses to unproductive ones. Inflation redistributes income in favour of the richer sections and also when inflation rate is high, it impedes economic growth.

About the harmful effects of the business cycles Crowther writes, “On the one hand, there is the misery and shame of unemployment with all the individual poverty and social disturbances that it may create. On the other hand, there is the loss of wealth represented by so much wasted and idle labour and capital.”

Phases of Business Cycles:
Business cycles have shown distinct phases the study of which is useful to understand their underlying causes. These phases have been called by different names by different economists.

Generally, the following phases of business cycles have been distinguished:
1. Expansion (Boom, Upswing or Prosperity)

2. Peak (upper turning point)

3. Contraction (Downswing, Recession or Depression)

4. Trough (lower turning point)

(or)

1.Recovery stage 2. Prosperity 3. Revival 4.Depression

1.

The four phases of business cycles have been shown in Fig. 13.1 where we start from trough or depression when the level of economic activity i.e., level of production and employment is at the lowest level.

With the revival of economic activity the economy moves into the expansion phase, but due to the causes explained below, the expansion cannot continue indefinitely, and after reaching peak, contraction or downswing starts. When the contraction gathers momentum, we have a depression. The downswing continues till the lowest turning point which is also called trough is reached.

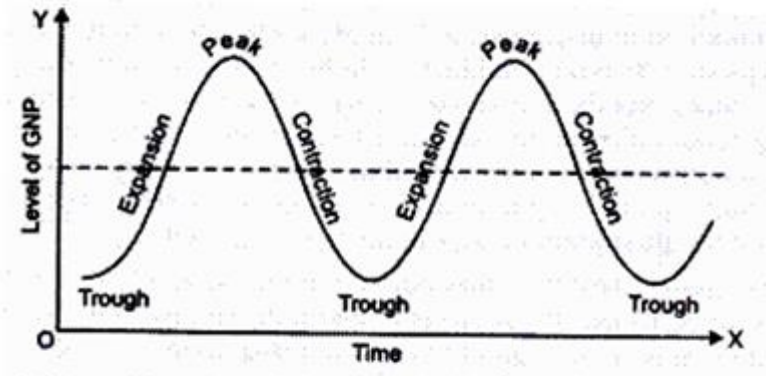


Fig. 13.1. ***Four Phases of Business Cycles without Growth Trend***

In this way cycle is complete. However, after remaining at the trough for some time the economy revives and again the new cycle starts.

Expansion and Prosperity:

In its expansion phase, both output and employment increase till we have full employment of resources and production is at the highest possible level with the given productive resources. There is no involuntary unemployment and whatever unemployment prevails is only of frictional and structural types.

Thus, when expansion gathers momentum and we have prosperity, the gap between potential GNP and actual GNP is zero, that is, the level of production is at the maximum production level. A good amount of net investment is occurring and demand for durable consumer goods is also high. Prices also generally rise during the expansion phase but due to high level of economic activity people enjoy a high standard of living.

Then something may occur, whether banks start reducing credit or profit expectations change adversely and businessmen become pessimistic about future state of the economy that brings an end to the expansion or prosperity phase. Economists differ regarding the possible causes of the end of prosperity and start of downswing in economic activity.

:

Monetarists have argued that contraction in bank credit may cause downswing. Keynes has argued that sudden collapse of expected rate of profit (which he calls marginal efficiency of capital, MEC) caused by adverse changes in expectations of entrepreneurs lowers investment in the economy. This fall in investment, according to him, causes downswing in economic activity.

Peak

Peak represent highest profits, growth and prosperity

Contraction and Depression:
As stated above, expansion or prosperity is followed by contraction or depression. During contraction, not only there is a fall in GNP but also level of employment is reduced. As a result, involuntary unemployment appears on a large scale. Investment also decreases causing further fall in consumption of goods and services.

At times of contraction or depression prices also generally fall due to fall in aggregate demand. A significant feature of depression phase is the fall in rate of interest. With lower rate of interest people's demand for money holdings increases. There is a lot of excess capacity as industries producing capital goods and consumer goods work much below their capacity due to lack of demand.

Capital goods and durable consumer goods industries are especially hit hard during depression. Depression, it may be noted, occurs when there is a severe contraction or recession of economic activities. The depression of 1929-33 is still remembered because of its great intensity which caused a lot of human suffering.

Trough and Revival:
There is a limit to which level of economic activity can fall. The lowest level of economic activity, generally called trough, lasts for some time. Capital stock is allowed to depreciate without replacement. The progress in technology makes the existing capital stock obsolete. If the banking system starts expanding credit or there is a spurt in investment activity due to the emergence of scarcity of capital as a result of non-replacement of depreciated capital and also because of new technology coming into existence requiring new types of machines and other capital goods.

The stimulation of investment brings about the revival or recovery of the economy. The recovery is the turning point from depression into expansion. As investment rises, this causes induced increase in consumption. As a result industries start producing more and excess capacity is now put into full use due to the revival of aggregate demand. Employment of labour increases and rate of unemployment falls. With this the cycle is complete.

Features of Business Cycles:

Though different business cycles differ in duration and intensity, they have some common features which we explain below:

1. Business cycles occur periodically. Though they do not show same regularity, they have some distinct phases such as expansion, peak, contraction or depression and trough. Further the duration of cycles varies a good deal from minimum of two years to a maximum of ten to twelve years.

2. Secondly, business cycles are synchronic. That is, they do not cause changes in any single industry or sector but are of all-embracing character. For example, depression or contraction occur simultaneously in all industries or sectors of the economy.

Recession passes from one industry to another and chain reaction continues till the whole economy is in the grip of recession. Similar process is at work in the expansion phase, prosperity spreads through various linkages of input-output relations or demand relations between various industries, and sectors.

3. Thirdly, it has been observed that fluctuations occur not only in level of production but also simultaneously in other variables such as employment, investment, consumption, rate of interest and price level.

4. Another important feature of business cycles is that investment and consumption of durable consumer goods such as cars, houses, refrigerators are affected most by the cyclical fluctuations. As stressed by J.M. Keynes, investment is greatly volatile and unstable as it depends on profit expectations of private entrepreneurs.

These expectations of entrepreneurs change quite often making investment quite unstable. Since consumption of durable consumer goods can be deferred, it also fluctuates greatly during the course of business cycles.

5. An important feature of business cycles is that consumption of non-durable goods and services does not vary much during different phases of business cycles. Past data of business cycles reveal that households maintain a great stability in consumption of non-durable goods.

6. The immediate impact of depression and expansion is on the inventories of goods. When depression sets in, the inventories start accumulating beyond the desired level. This leads to

cut in production of goods. On the contrary, when recovery starts, the inventories go below the desired level. This encourages businessmen to place more orders for goods whose production picks up and stimulates investment in capital goods.

7. Another important feature of business cycles is that profits fluctuate more than any other type of income. The occurrence of business cycles causes a lot of uncertainty for businessmen and makes it difficult to forecast the economic conditions.

During the depression period profits may even become negative and many businesses go bankrupt. In a free market economy profits are justified on the ground that they are necessary payments if the entrepreneurs are to be induced to bear uncertainty.

8. Lastly, business cycles are international in character. That is, once started in one country they spread to other countries through trade relations between them. For example, if there is a recession in the USA, which is a large importer of goods from other countries, it will cause a fall in demand for imports from other countries whose exports would be adversely affected causing recession in them too. Depression of 1930s in USA and Great Britain engulfed the entire capital world.

National Income

National Income is total amount of goods and services produced within the nation during the given period say, 1 year. It is the total of factor income i.e. wages, interest, rent, profit, received by factors of production i.e. labour, capital, land and entrepreneurship of a nation.

Concepts of National Income
There are various concepts of National Income, such as GDP, GNP, NNP, NI, PI, DI, and PCI which explain the facts of economic activities.

1. **GDP at market price:** Is money value of all goods and services produced within the domestic domain with the available resources during a year.
   GDP = (P*Q)
   Where,
   GDP = gross domestic product
   P = Price of goods and services
   Q= Quantity of goods and services
   GDP is made up of 4 Components

- consumption
- investment
- government expenditure

- net foreign exports of a country
  GDP = C+I+G+(X-M)
  Where,
  C=Consumption
  I=Investment
  G=Government expenditure
  (X-M) =Export minus import

1. **Gross National Product (GNP):** Is market value of final goods and services produced in a year by the residents of the country within the domestic territory as well as abroad. GNP is the value of goods and services that the country's citizens produce regardless of their location.
   GNP=GDP+NFIA or,
   GNP=C+I+G+(X-M) +NFIA

   Where,
   C=Consumption
   I=Investment
   G=Government expenditure
   (X-M) =Export minus import
   NFIA= Net factor income from abroad.

1. **Net National Product (NNP) at MP:** Is market value of net output of final goods and services produced by an economy during a year and net factor income from abroad.
   NNP=GNP-Depreciation
   or, NNP=C+I+G+(X-M) +NFIA- IT-Depreciation
   Where,
   C=Consumption
   I=Investment
   G=Government expenditure
   (X-M) =Export minus import
   NFIA= Net factor income from abroad.

   IT= Indirect Taxes

1. **National Income (NI):** Is also known as National Income at factor cost which means total income earned by resources for their contribution of land, labour, capital and organisational ability. Hence, the sum of the income received by factors of production in the form of rent, wages, interest and profit is called National Income.
   Symbolically,
   NI=NNP +Subsidies-Interest Taxes
   or, GNP-Depreciation +Subsidies-Indirect Taxes
   or, NI=C+G+I+(X-M) +NFIA-Depreciation-Indirect Taxes +Subsidies
1. **Personal Income (PI):** Is the total money income received by individuals and households of a country from all possible sources before direct taxes. Therefore, personal income can be expressed as follows:
   PI=NI-Corporate Income Taxes-Undistributed Corporate Profits- Social Security Contribution +Transfer Payments.
2. **Disposable Income (DI) :** It is the income left with the individuals after the payment of direct taxes from personal income. It is the actual income left for disposal or that can be spent for consumption by individuals.
   Thus, it can be expressed as:

DI=PI-Direct Taxes

1. **Per Capita Income (PCI): Is c**alculated by dividing the national income of the country by the total population of a country.
   Thus, **PCI=Total National Income/Total National Population**

Measurement of National Income

There are three methods to calculate National Income:

1. Income Method
2. Product/ Value Added Method
3. Expenditure Method

- **INCOME METHOD**
  In this National Income is measured as flow of income.

  We can calculate NI as:

  NET NATIONAL INCOME = Compensation of Employees+ Operating surplus mixed (w +R +P +I) + Net income + Net factor income from abroad.

  Where,

  W = Wages and salaries

  R = Rental Income

  P = Profit

  I = Mixed Income

- **Product/ Value Added Method**
  In this National Income is measured as flow of goods and services.

  We can calculate NI as:

  NATIONAL INCOME = G.N.P – COST OF CAPITAL – DEPRECIATION – INDIRECT TAXES

- **Expenditure Method**
  In this National Income is measured as flow of expenditure.

  We can calculate NI through Expenditure method as:

  National Income=National Product-National Expenditure.

Importance of National Income

The following are the main uses of national income.

- 1. Since income is a flow of wealth changes in the national income give some indication of economic welfare.
- 2. National income is used to compare standards of living in different countries.
- 3. National income figures are used to measure the rate of growth of a country.
- 4. The national income accounts make it possible for an analysis of the behaviour of the different sectors of the economy.
- 5. Inflationary and deflationary pressures can be estimated with the help of national income statistics.
- 6 National income statistics can be used to forecast the level of business activity at later date, and to find out trends in other annual data.
- 7. The national income figures are useful in providing a correct sense of proportion about the structure of the economy.
- 8. In war time, the study of components of national income is of great importance because they show the maximum possible production possibilities of the country.
- 9. National income statistics can be used to determine how an international financial burden should be an apportioned between different countries. The quantum of national income measures the ability of a country to pay contributions for international purposes, just as the income of a person measures his ability to pay for the upkeep of his country.
- 10. Above all the national income statistics are used for planned economic development of a country. In the absence of such data, planning will not be possible.

Money Supply and Inflation

Definition: The total stock of money circulating in an economy is the money supply. The circulating money involves the currency, printed notes, money in the deposit accounts and in the form of other liquid assets.

Description: Valuation and analysis of the money supply help the economist and policy makers to frame the policy or to alter the existing policy of increasing or reducing the supply of money. The valuation is important as it ultimately affects the business cycle and thereby affects the economy.

Periodically, every country's central bank publishes the money supply data based on the monetary aggregates set by them. In India, the Reserve Bank of India follows M0, M1, M2, M3 and M4 monetary aggregates

1. M1= C+ DD+ OD

where,

C: It refers to currency held by public in terms of coins and paper notes.

DD: It refers demand deposits of the people with the commercial bank.

OD: These includes other deposits with public financial institution, foreign central banks and international financial institution.

2. M2 = M1+ deposits with the post office saving bank account
3. M3 = M1 + net time deposits with the commercial banks
4. M4 = M3 + Total deposits with post offices other than in the form of national saving certificate

Why Is the Money Supply Important?

Because money is used in virtually all economic transactions, it has a powerful effect on economic activity. An increase in the supply of money works both through lowering **INTEREST RATES**, which spurs **INVESTMENT**, and through putting more money in the hands of consumers, making them feel wealthier, and thus stimulating spending. Business firms respond to increased sales by ordering more raw materials and increasing production. The spread of business activity increases the demand for labor and raises the demand for capital goods. In a buoyant economy, **STOCK MARKET** prices rise and firms issue equity and debt. If the money supply continues to expand, prices begin to rise, especially if output growth reaches capacity limits. As the public begins to expect **INFLATION**, lenders insist on higher interest rates to offset an expected decline in purchasing power over the life of their loans.

Inflation:

Meaning of Inflation:

Inflation is often defined in terms of its supposed causes. Inflation exists when money supply exceeds available goods and services. Or inflation is attributed to budget deficit financing. A deficit budget may be financed by the additional money creation. But the situation of monetary expansion or budget deficit may not cause price level to rise. Hence the difficulty of defining 'inflation'.

Inflation may be defined as 'a sustained upward trend in the general level of prices' and not the price of only one or two goods. G. Ackley defined inflation as 'a persistent and appreciable rise in the general level or average of prices'. In other words, inflation is a state of rising prices, but not high prices.

It is not high prices but rising price level that constitute inflation. It constitutes, thus, an overall increase in price level. It can, thus, be viewed as the devaluing of the worth of money. In other words, inflation reduces the purchasing power of money. A unit of money now buys less. Inflation can also be seen as a recurring phenomenon.

While measuring inflation, we take into account a large number of goods and services used by the people of a country and then calculate average increase in the prices of those goods and services over a period of time. A small rise in prices or a sudden rise in prices is not inflation since they may reflect the short term workings of the market.

It is to be pointed out here that inflation is a state of disequilibrium when there occurs a sustained rise in price level. It is inflation if the prices of most goods go up. Such rate of increases in prices may be both slow and rapid. However, it is difficult to detect whether there is an upward trend in prices and whether this trend is sustained. That is why inflation is difficult to define in an unambiguous sense.

Types of Inflation:

As the nature of inflation is not uniform in an economy for all the time, it is wise to distinguish between different types of inflation. Such analysis is useful to study the distributional and other effects of inflation as well as to recommend anti-inflationary policies. Inflation may be caused by a variety of factors. Its intensity or pace may be different at different times. It may also be classified in accordance with the reactions of the government toward inflation.

Thus, one may observe different types of inflation in the contemporary society:

A. On the Basis of Causes:

(i) Currency inflation:

This type of inflation is caused by the printing of currency notes.

(ii) Credit inflation:

Being profit-making institutions, commercial banks sanction more loans and advances to the public than what the economy needs. Such credit expansion leads to a rise in price level.

(iii) Deficit-induced inflation:
The budget of the government reflects a deficit when expenditure exceeds revenue. To meet this gap, the government may ask the central bank to print additional money. Since pumping of additional money is required to meet the budget deficit, any price rise may the be called the deficit-induced inflation.

(iv) Demand-pull inflation:
An increase in aggregate demand over the available output leads to a rise in the price level. Such inflation is called demand-pull inflation . But why does aggregate demand rise? Classical economists attribute this rise in aggregate demand to money supply. If the supply of money in an economy exceeds the available goods and services, Demand Pull Inflation appears.

(v) Cost-push inflation:
Inflation in an economy may arise from the overall increase in the cost of production. This type of inflation is known as cost-push inflation .Cost of production may rise due to an increase in the prices of raw materials, wages, etc. Often trade unions are blamed for wage rise since wage rate is not completely market-determinded. Higher wage means high cost of production. Prices of commodities are thereby increased.

A wage-price spiral comes into operation. But, at the same time, firms are to be blamed also for the price rise since they simply raise prices to expand their profit margins.

B. On the Basis of Speed or Intensity:
(i) Creeping or Mild Inflation:
If the speed of upward thrust in prices is slow but small then we have creeping inflation. What speed of annual price rise is a creeping one has not been stated by the economists. To some, a creeping or mild inflation is one when annual price rise varies between 2 p.c. and 3 p.c. If a rate of price rise is kept at this level, it is considered to be helpful for economic development. Others argue that if annual price rise goes slightly beyond 3 p.c. mark, still then it is considered to be of no danger.

(ii) Walking Inflation:
If the rate of annual price increase lies between 3 p.c. and 4 p.c., then we have a situation of walking inflation. When mild inflation is allowed to fan out, walking inflation appears. These two types of inflation may be described as 'moderate inflation'.

Often, one-digit inflation rate is called 'moderate inflation' which is not only predictable, but also keep people's faith on the monetary system of the country. Peoples' confidence get lost once moderately maintained rate of inflation goes out of control and the economy is then caught with the galloping inflation.

(iii) Galloping and Hyperinflation:
Walking inflation may be converted into running inflation. Running inflation is dangerous. If it is not controlled, it may ultimately be converted to galloping or hyperinflation. It is an extreme form of inflation when an economy gets shattered."Inflation in the double or triple digit range of 20, 100 or 200 p.c. a year is labelled "galloping inflation".

(iv) Government's Reaction to Inflation:
Inflationary situation may be open or suppressed. Because of anti-inflationary policies pursued by the government, inflation may not be an embarrassing one. For instance, increase in income leads to an increase in consumption spending which pulls the price level up.

If the consumption spending is countered by the government via price control and rationing device, the inflationary situation may be called a suppressed one. Once the government curbs are lifted, the suppressed inflation becomes open inflation. Open inflation may then result in hyperinflation.

Introduction to Economics

Economics is a study of human activity both at individual and national level. The economists of early age treated economics merely as the science of wealth. The reason for this is clear. Every one of us in involved in efforts aimed at earning money and spending this money to satisfy our wants such as food, Clothing, shelter, and others. Such activities of earning and spending money are called Economic activities".

It was only during the eighteenth century that Adam Smith, the Father of Economics, defined economics as the study of nature and uses of national wealth‟

. Dr. Alfred Marshall, one of the greatest economists of the nineteenth century, writes "Economics is a study of man‟s actions in the ordinary business of life: it enquires how he gets his income and how he uses it".

Thus, it is one side, a study of wealth; and on the other, and more important side; it is the study of man. As Marshall observed, the chief aim of economics is to promote „human welfare‟, but not wealth.

Prof. Lionel Robbins defined Economics as "the science, which studies human behaviour as a relationship between ends and scarce means which have alternative uses". With this, the focus of economics shifted from „wealth‟ to human behavior.

Microeconomics The term „micro‟ means small.

Micro Economics
Microeconomics is the study of decisions made by people and businesses regarding the allocation of resources and prices of goods and services. It also takes into account taxes, regulations, and government legislation.

Microeconomics focuses on supply and demand and other forces that determine the price levels in the economy. It takes what is referred to as a bottom-up approach to analyzing the economy. In other words, microeconomics tries to understand human choices, decisions, and the allocation of resources.

Having said that, microeconomics does not try to answer or explain what forces should take place in a market. Rather, it tries to explain what happens when there are changes in certain conditions.

For example, microeconomics examines how a company could maximize its production and capacity so that it could lower prices and better compete in its industry. A lot of microeconomic information can be gleaned from the financial statements.

Microeconomics involves several key principles including (but not limited to):

- **Demand, Supply, and Equilibrium**: Prices are determined by the theory of supply and demand. Under this theory, suppliers offer the same price demanded by consumers in a perfectly competitive market. This creates economic equilibrium.

- **Production Theory**: This principle is the study of how goods and services are created or manufactured.
- **Costs of Production**: According to this theory, the price of goods or services is determined by the cost of the resources used during production.
- **Labor Economics**: This principle looks at workers and employers, and tries to understand the pattern of wages, employment, and income.

The rules in microeconomics flow from a set of compatible laws and theorems, rather than beginning with empirical study.

Importance of Micro Economics: Micro Economics has both theoretical and practical importance. From the theoretical point of view it explain the function of a free intense economics it tells as how consumer and producer take the decision for millions of goods and services to consume and produce. It tells us how goods and services distributed among them. It explains the determination of the relative prices of various goods and services. For Practical importance micro economics helps in the formulation of economics policies calculated to promote efficiency in production and welfare of the masses. In professor Lerner's words Micro Economics theory facilities the understanding of what would be a hopelessly complicated confusion of billions of facts by constructing simplified model of behaviors.

Limitation of Micro Economics:

Micro Economics has some limitations

A. It cannot give an idea of the functioning of the economy as whole.

B. It assume fall employment which is rare phenomena, it is therefore, an unrealistic assumption.

Macroeconomics

The term „macro‟ means large. The study of „aggregate or total level of economic activity in a country is called macroeconomics. It studies the flow of economics resources or factors of production (such as land, labour, capital, organisation and technology) from the resource owner to the business firms and then from the business firms to the households. It deals with total aggregates, for instance, total national income total employment, output and total investment.

It studies the interrelations among various aggregates and examines their nature and behaviour, their determination and causes of fluctuations in the. It deals with the price level in general, instead of studying the prices of individual commodities. It is concerned with the level of employment in the economy.

It discusses aggregate consumption, aggregate investment, price level, and payment, theories of employment, and so on. Though macroeconomics provides the necessary framework in term of government policies etc., for the firm to act upon dealing with analysis of business conditions, it has less direct relevance in the study of theory of firm.

Macroeconomics, on the other hand, studies the behavior of a country and how its policies affect the economy as a whole. It analyzes entire industries and economies, rather than individuals or specific companies, which is why it's a top-down approach. It tries to answer questions like "What should the rate of inflation be?" or "What stimulates economic growth?"

Macroeconomics examines economy-wide phenomena such as gross domestic product (GDP) and how it is affected by changes in unemployment, national income, rate of growth, and price levels.

Macroeconomics analyzes how an increase or decrease in net exports affects a nation's capital account, or how GDP would be affected by the unemployment rate.

Macroeconomics focuses on aggregates and econometric correlations, which is why it is used by governments and their agencies to construct economic and fiscal policy. Investors of mutual funds or interest-rate-sensitive securities should keep an eye on monetary and fiscal policy. Outside of a few meaningful and measurable impacts, macroeconomics doesn't offer much for specific investments.

1. Microeconomics studies the particular market segment of the economy, whereas Macroeconomics studies the whole economy, that covers several market segments.

2. Micro economics stresses on individual economic units. As against this, the focus of macro economics is on aggregate economic variables.

3. While microeconomics is applied to operational or internal issues, environmental and external issues are the concern of macro economics.

4. Microeconomics deals with an individual product, firm, household, industry, wages, prices, etc., while Macroeconomics deals with aggregates like national income, national output, price level, etc.

5. Microeconomics covers issues like how the price of a particular commodity will affect its quantity demanded and quantity supplied and vice versa while Macroeconomics covers major issues of an economy like unemployment, monetary/ fiscal policies, poverty, international trade, etc.

6. Microeconomics determine the price of a particular commodity along with the prices of complementary and the substitute goods, whereas the Macroeconomics is helpful in maintaining the general price level.

7. While analyzing any economy, micro economics takes a bottom-up approach, whereas the macroeconomics takes a top-down approach into consideration.

Differences between Micro and Macro Economics

Basis for Differentiation	Microeconomics	Macroeconomics
Meaning	Microeconomics studies the particular market segment of the economy	Macroeconomics studies the whole economy, that covers several market segments
Deals with?	Microeconomics deals with various issues like demand, supply, factor pricing, product pricing, economic welfare, production, consumption, etc.,	Macroeconomics deals with various issues like national income, distribution, employment, general price level, money, etc.,
Business Application	Applied to internal issues	Environment and external issues
Scope	Covers several issues like demand, supply, factor pricing, product pricing, economic welfare, production, consumption, etc.	Covers several issues like distribution, national income, employment, money, general price level, etc.,
Significance	Useful in regulating the prices of a product alongside the prices of factors of production (labour, land, entrepreneur, capital, etc) within the economy	Perpetuates firmness in the broad price level and solves the major issues of the economy like deflation, inflation, rising prices (reflation), unemployment and poverty as a whole
Limitations	It is based on impractical presuppositions, i.e. In microeconomics, it is presumed that there is full employment in the community which is not at all feasible	It has been scrutinized that Misconception of Composition' incorporates, which sometimes fails to prove accurate because it is feasible that what is true for aggregate (comprehensive) may not be true for individuals too

.

Business Economics

Introduction Business Economics

Business Economics is “the applications of economics theory and methodology to business administration practice”. M. H. Spencer and Louis Siegel man explain the “Business Economics or Managerial Economics is the integration of economic theory with business practice for the purpose of facilitating decision making and forward planning by management”.

It is clear, therefore, that Business economics deals with economic aspects of managerial decisions of with those managerial decisions, which have an economics contest. Business economics may therefore, be defined as a body of knowledge, techniques and practices which give substance to those economic concepts which are useful in deciding the business strategy of a unit of management.

Business economics is designed to provide a rigorous treatment of those aspects of economic theory and analysis that are most use for managerial decision analysis Managerial Economics, therefore, focuses on those tools and techniques, which are useful in decision-making.

Nature or Features of Business Economics

(a) Close to microeconomics: Business Economics is concerned with finding the solutions for different managerial problems of a particular firm. Thus, it is more close to microeconomics.

(b) Operates against the backdrop of macroeconomics: The macroeconomics conditions of the economy are also seen as limiting factors for the firm to operate. In other words, the Business economist has to be aware of the limits set by the macroeconomics conditions such as government industrial policy, inflation and so on.

(c) Normative statements: A normative statement usually includes or implies the words „ought‟ or „should‟. They reflect people‟s moral attitudes and are expressions of what a team of people ought to do. For instance, it deals with statements such as „Government of India should open up the economy. Such statement are based on value judgments and express views of what is „good‟ or „bad‟, „right‟ or „ wrong‟. One problem with normative statements is that they cannot to verify by looking at the facts, because they mostly deal with the future. Disagreements about such statements are usually settled by voting on them.

(d) Prescriptive actions: Prescriptive action is goal oriented. Given a problem and the objectives of the firm, it suggests the course of action from the available alternatives for optimal solution. If does not merely mention the concept, it also explains whether the concept can be applied in a given context on not. For instance, the fact that variable costs are marginal costs can be used to judge the feasibility of an export order.

(e) Applied in nature: „Models‟ are built to reflect the real life complex business situations and these models are of immense help to managers for decision-making. The different areas where models are extensively used include inventory control, optimization, project management etc. In Business economics, we also employ case study methods to conceptualize the problem, identify that alternative and determine the best course of action.

(f) Offers scope to evaluate each alternative: Business economics provides an opportunity to evaluate each alternative in terms of its costs and revenue. The Business economist can decide which is the better alternative to maximize the profits for the firm.

(g) Interdisciplinary: The contents, tools and techniques of business economics are drawn from different subjects such as economics, management, mathematics, statistics, accountancy, psychology, organizational behavior, sociology and etc.

(h) Assumptions and limitations: Every concept and theory of Business economics is based on certain assumption and as such their validity is not universal. Where there is change in assumptions, the theory may not hold good at all.

Scope of Business Economics

1. Demand Analyses and Forecasting: A firm can survive only if it is able to the demand for its product at the right time, within the right quantity. Understanding the basic concepts of demand is essential for demand forecasting. Demand analysis should be a basic activity of the firm because many of the other activities of the firms depend upon the outcome of the demand fore cost. Demand analysis provides: 1. The basis for analyzing market influences on the firms; products and thus helps in the adaptation to those influences. 2. Demand analysis also highlights for factors, which influence the demand for a product. This helps to manipulate demand. Thus demand analysis studies not only the price elasticity but also income elasticity, cross elasticity as well as the influence of advertising expenditure with the advent of computers, demand forecasting has become an increasingly important function of managerial economics.

2. Pricing and competitive strategy: Pricing decisions have been always within the preview of managerial economics. Pricing policies are merely a subset of broader class of managerial economic problems. Price theory helps to explain how prices are determined under different types of market conditions. Competitions analysis includes the anticipation of the response of competitions the firm‟s pricing, advertising and marketing strategies. Product line pricing and price forecasting occupy an important place here.

3. Production and cost analysis: Production analysis is in physical terms. While the cost analysis is in monetary terms cost concepts and classifications, cost-out-put relationships, economies and diseconomies of scale and production functions are some of the points constituting cost and production analysis.

4. Resource Allocation: Business Economics is the traditional economic theory that is concerned with the problem of optimum allocation of scarce resources. Marginal analysis is applied to the problem of determining the level of output, which maximizes profit. In this respect linear programming techniques has been used to solve optimization problems. In fact lines programming is one of the most practical and powerful managerial decision making tools currently available.

5. Profit analysis: Profit making is the major goal of firms. There are several constraints here an account of competition from other products, changing input prices and changing business

environment hence in spite of careful planning, there is always certain risk involved. Managerial economics deals with techniques of averting of minimizing risks. Profit theory guides in the measurement and management of profit, in calculating the pure return on capital, besides future profit planning.

6. Capital or investment analyses: Capital is the foundation of business. Lack of capital may result in small size of operations. Availability of capital from various sources like equity capital, institutional finance etc. may help to undertake large-scale operations. Hence efficient allocation and management of capital is one of the most important tasks of the managers.

Role of Business Economist

The basic role of **business economist** is to identify various problems that are uplifting a company, find out various reasons behind these problems, analyze their effects on the functioning of the company and finally suggest rational alternative and corrective measures to be taken by the management

The **role of Business economist** can be summarized as follows:

1. He studies the economic patterns at macro-level and analysis it's significance to the specific firm he is working in.
2. He has to consistently examine the probabilities of transforming an ever-changing economic environment into profitable business avenues.
3. He assists the business planning process of a firm.
4. He also carries cost-benefit analysis.
5. He assists the management in the decisions pertaining to internal functioning of a firm such as changes in price, investment plans, type of goods /services to be produced, inputs to be used, techniques of production to be employed, expansion/ contraction of firm, allocation of capital, location of new plants, quantity of output to be produced, replacement of plant equipment, sales forecasting, inventory forecasting, etc.
6. In addition, a business economist has to analyze changes in macro- economic indicators such as national income, population, business cycles, and their possible effect on the firm's functioning.
7. He is also involved in advicing the management on public relations, foreign exchange, and trade. He guides the firm on the likely impact of changes in monetary and fiscal policy on the firm's functioning.
8. He also makes an economic analysis of the firms in competition. He has to collect economic data and examine all crucial information about the environment in which the firm operates.
9. The most significant function of a business economist is to conduct a detailed research on industrial market.
10. In order to perform all these roles, a business economist has to conduct an elaborate statistical analysis.
11. He must be vigilant and must have ability to cope up with the pressures.
12. He also provides management with economic information such as tax rates, competitor's price and product, etc. They give their valuable advice to government authorities as well.

UBIT-II

Demand Analysis

Introduction & Meaning:

Demand in common parlance means the desire for an object. But in economics demand is something more than this. According to Stonier and Hague, “Demand in economics means demand backed up by enough money to pay for the goods demanded”. This means that the demand becomes effective only it if is backed by the purchasing power in addition to this there must be willingness to buy a commodity.

Thus demand in economics means the desire backed by the willingness to buy a commodity and the purchasing power to pay. In the words of “Benham” “The demand for anything at a given price is the amount of it which will be bought per unit of time at that Price”. (Thus demand is always at a price for a definite quantity at a specified time.)

Therefore to say that there is demand or any product 3 conditions has to be satisfied

1.Need or desire on the part of the buyer for a product

2.Ability to pay specified amount of money

3.Willingness to pay for it.

Factors affecting demand

1. Price of the Commodity: The most important factor-affecting amount demanded is the price of the commodity. The amount of a commodity demanded at a particular price is more properly called price demand. The relation between price and demand is called the Law of Demand. It is not only the existing price but also the expected changes in price, which affect demand.

2. Income of the Consumer: The second most important factor influencing demand is consumer income. In fact, we can establish a relation between the consumer income and the demand at different levels of income, price and other things remaining the same. The demand for a normal commodity goes up when income rises and falls down when income falls. But in case of Giffen goods the relationship is the opposite.

3. Prices of related goods: The demand for a commodity is also affected by the changes in prices of the related goods also. Related goods can be of two types:

(i). Substitutes which can replace each other in use; for example, tea and coffee are substitutes. The change in price of a substitute has effect on a commodity‟s demand in the ame direction in which price changes. The rise in price of coffee shall raise the demand for tea;

(ii). Complementary foods are those which are jointly demanded, such as pen and ink. In such cases complementary goods have opposite relationship between price of one commodity and the amount demanded for the other. If the price of pens goes up, their demand is less as a result of which the demand for ink is also less. The price and demand go in opposite direction. The effect of changes in price of a commodity on amounts demanded of related commodities is called Cross Demand.

4. Tastes of the Consumers: The amount demanded also depends on consumer‟s taste. Tastes include fashion, habit, customs, etc. A consumer‟s taste is also affected by advertisement. If the taste for a commodity goes up, its amount demanded is more even at the same price. This is called increase in demand. The opposite is called decrease in demand.

5. Wealth: The amount demanded of commodity is also affected by the amount of wealth as well as its distribution. The wealthier are the people; higher is the demand for normal commodities. If wealth is more equally distributed, the demand for necessaries and comforts is more. On the other hand, if some people are rich, while the majorities are poor, the demand for luxuries is generally higher.

6. Population: Increase in population increases demand for necessaries of life. The composition of population also affects demand. Composition of population means the proportion of young and old and children as well as the ratio of men to women. A change in composition of population has an effect on the nature of demand for different commodities.

7. Government Policy: Government policy affects the demands for commodities through taxation. Taxing a commodity increases its price and the demand goes down. Similarly, financial help from the government increases the demand for a commodity while lowering its price.

8. Expectations regarding the future: If consumers expect changes in price of commodity in future, they will change the demand at present even when the present price remains the same.

9 Similarly, if consumers expect their incomes to rise in the near future they may increase the demand for a commodity just now.

9. Climate and weather: The climate of an area and the weather prevailing there has a decisive effect on consumer‟s demand. In cold areas woolen cloth is demanded. During hot summer days, ice is very much in demand. On a rainy day, ice cream is not so much demanded.

10. State of business: The level of demand for different commodities also depends upon the business conditions in the country. If the country is passing through boom conditions, there

will be a marked increase in demand. On the other hand, the level of demand goes down during depression

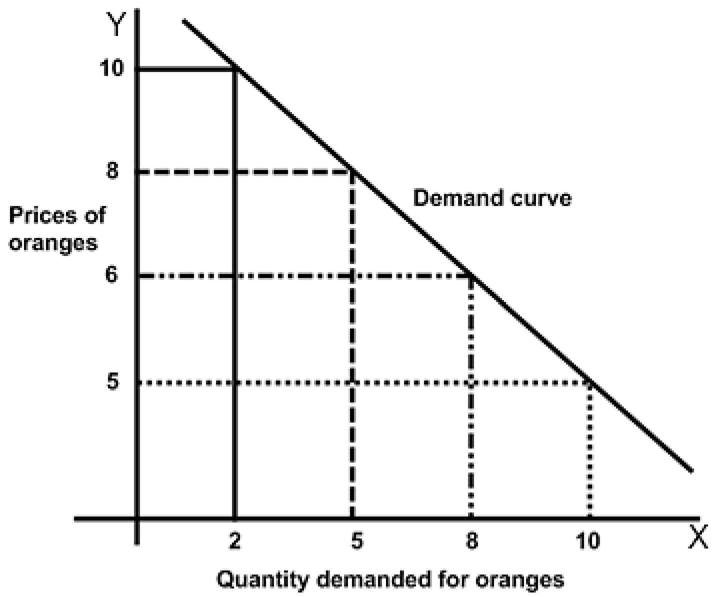
Law of Demand

Law of demand shows the relation between price and quantity demanded of a commodity in the market. In the words of Marshall, "the amount demand increases with a fall in price and diminishes with a rise in price". A rise in the price of a commodity is followed by a reduction in demand and a fall in price is followed by an increase in demand, if a condition of demand remains constant. The law of demand may be explained with the help of the following demand schedule.

Demand Schedule.

Price of good (In. Rs.)	Quantity Demanded
10	2
8	5
6	8
5	10

DEMAND CURVE (graphical presentation of law of demand)



Law is demand is based When the price falls from Rs. 10 to 8 quantity demand increases from 2 to 5. In the same way as price falls, quantity demand increases on the basis of the demand schedule we can draw the demand curve. The demand curve DD shows the inverse relation between price and quantity demand of a good is downward sloping.

Assumptions:

1. This is no change in consumers taste and preferences.

2. Income should remain constant.

3. Prices of other goods should not change.

4. There should be no substitute for the commodity

5. The commodity should not confer at any distinction

6. The demand for a commodity should be continous

7. People should not expect any change in price of commodity

Exceptions to Law of Demand

In this case the demand curve has a positive slope. When price increases quantity demanded also increases and vice versa. The reasons for exceptional demand curve are as follows.

1. Giffen paradox: The Giffen good or inferior good is an exception to the law of demand. When the price of an inferior good falls, the poor will buy less and vice versa. For example, when the price of maize falls, the poor are willing to spend more on superior goods than on maize if the price of maize increases, he has to increase the quantity of money spent on it. Otherwise he will have to face starvation. Thus a fall in price is followed by reduction in quantity demanded and vice versa.

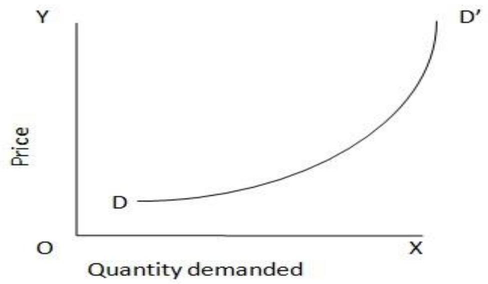
2. Veblen or Demonstration effect. Rich people buy certain good because it gives social distinction or prestige for example diamonds are bought by the richer class for the prestige it possess. It the price of diamonds falls poor also will buy is hence they will not give prestige. Therefore, rich people may stop buying this commodity.

3. Ignorance: Sometimes, the quality of the commodity is Judge by its price. Consumers think that the product is superior if the price is high. As such they buy more at a higher price.

4. Speculative effect: If the price of the commodity is increasing the consumers will buy more of it because of the fear that it increase still further, Thus, an increase in price may not be accomplished by a decrease in demand.

5. Fear of shortage: During the times of emergency of war People may expect shortage of a commodity. At that time, they may buy more at a higher price to keep stocks for the future. 6. Necessaries: In the case of necessaries like rice, vegetables etc. people buy more even at a higher price.

Exceptional Demand Curve



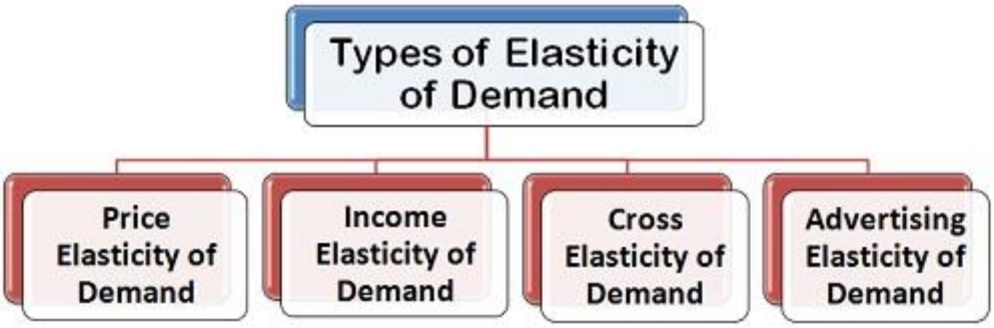
Types of Elasticity of Demand

Definition: The **Elasticity of Demand** measures the percentage change in quantity demanded for a percentage change in the price. Simply, the relative change in demand for a commodity as a result of a relative change in its price is called as the elasticity of demand..

Elasticity of Demand = <u>Percentage of change in demand of a good</u>

Percentage of change in determinants of demand

Types of Elasticity of Demand



1. **Price Elasticity of Demand:** The price elasticity of demand, commonly known as the elasticity of demand refers to the responsiveness and sensitiveness of demand for a product to the changes in its price. In other words, the price elasticity of demand is equal to

$$E_p = \frac{\text{Proportionate change in Quantity Demanded}}{\text{Proportionate change in Price}}$$

Numerically,

$$E_p = \frac{\Delta Q}{\Delta P} X \frac{P}{Q}$$

Where,

$\Delta Q = Q_1 - Q_0$, $\Delta P = P_1 - P_0$, Q_1= New quantity, Q_2= Original quantity, P1 = New price, P0 = Original price

The following are the main **Types of Price Elasticity of Demand**:(Internal measurement of elasticity of demand)

- Perfectly Elastic Demand
- Perfectly Inelastic Demand
- Relatively Elastic Demand
- Relatively Inelastic Demand
- Unitary Elastic Demand

1. Perfectly Elastic Demand:

When a small change in price of a product causes a major change in its demand, it is said to be perfectly elastic demand. In perfectly elastic demand, a small rise in price results in fall in demand to zero, while a small fall in price causes increase in demand to infinity. In such a case, the demand is perfectly elastic or e_p = 00.

The degree of elasticity of demand helps in defining the shape and slope of a demand curve. Therefore, the elasticity of demand can be determined by the slope of the demand curve. Flatter the slope of the demand curve, higher the elasticity of demand.

In perfectly elastic demand, the demand curve is represented as a horizontal straight line, which is shown in Figure-2:

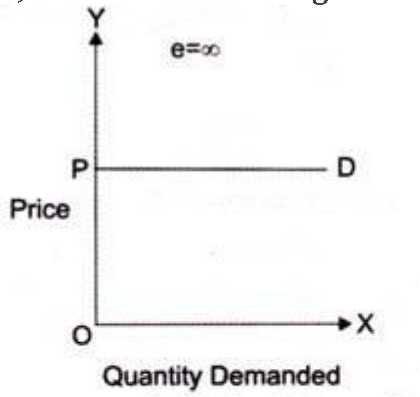


Figure-2: Perfectly Elastic Demand

From Figure-2 it can be interpreted that at price OP, demand is infinite; however, a slight rise in price would result in fall in demand to zero. It can also be interpreted from Figure-2 that at price P consumers are ready to buy as much quantity of the product as they want. However, a small rise in price would resist consumers to buy the product.

Though, perfectly elastic demand is a theoretical concept and cannot be applied in the real situation. However, it can be applied in cases, such as perfectly competitive market and homogeneity products. In such cases, the demand for a product of an organization is assumed to be perfectly elastic.

From an organization's point of view, in a perfectly elastic demand situation, the organization can sell as much as much as it wants as consumers are ready to purchase a large quantity of product. However, a slight increase in price would stop the demand.

2. Perfectly Inelastic Demand:

A perfectly inelastic demand is one when there is no change produced in the demand of a product with change in its price. The numerical value for perfectly inelastic demand is zero (e_p=0).

In case of perfectly inelastic demand, demand curve is represented as a straight vertical line, which is shown in Figure-3:

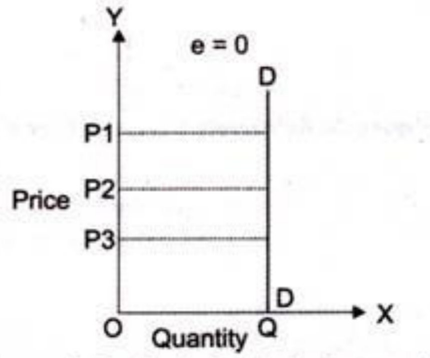


Figure-3: Perfectly Inelastic Demand

It can be interpreted from Figure-3 that the movement in price from OP1 to OP2 and OP2 to OP3 does not show any change in the demand of a product (OQ). The demand remains constant for any value of price. Perfectly inelastic demand is a theoretical concept and cannot be applied in a practical situation. However, in case of essential goods, such as salt, the demand does not change with change in price. Therefore, the demand for essential goods is perfectly inelastic.

3. Relatively Elastic Demand:

Relatively elastic demand refers to the demand when the proportionate change produced in demand is greater than the proportionate change in price of a product. The numerical value of relatively elastic demand ranges between one to infinity.

Mathematically, relatively elastic demand is known as more than unit elastic demand (e_p>1). For example, if the price of a product increases by 20% and the demand of the product decreases by 25%, then the demand would be relatively elastic.

The demand curve of relatively elastic demand is gradually sloping, as shown in Figure-4:

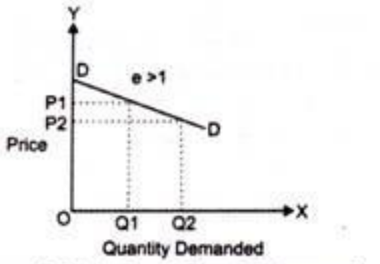


Figure-4: Relatively Elastic Demand

It can be interpreted from Figure-4 that the proportionate change in demand from OQ1 to OQ2 is relatively larger than the proportionate change in price from OP1 to OP2. Relatively elastic demand has a practical application as demand for many of products respond in the same manner with respect to change in their prices.

For example, the price of a particular brand of cold drink increases from Rs. 15 to Rs. 20. In such a case, consumers may switch to another brand of cold drink. However, some of the consumers still consume the same brand. Therefore, a small change in price produces a larger change in demand of the product.

4. Relatively Inelastic Demand:

Relatively inelastic demand is one when the percentage change produced in demand is less than the percentage change in the price of a product. For example, if the price of a product increases by 30% and the demand for the product decreases only by 10%, then the demand would be called relatively inelastic. The numerical value of relatively elastic demand ranges between zero to one ($e_p<1$). Marshall has termed relatively inelastic demand as elasticity being less than unity.

The demand curve of relatively inelastic demand is rapidly sloping, as shown in Figure-5:

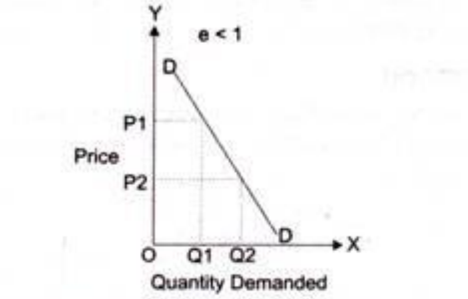


Figure-5: Relatively Inelastic Demand

It can be interpreted from Figure-5 that the proportionate change in demand from OQ1 to OQ2 is relatively smaller than the proportionate change in price from OP1 to OP2. Relatively inelastic demand has a practical application as demand for many of products respond in the same manner with respect to change in their prices. Let us understand the implication of relatively inelastic demand with the help of an example.

Example

The demand schedule for milk is given in Table

Table-3: Demand Schedule for Milk

Price of Milk(per litre)	Quantity Demanded(litres)
15	100
20	90

Calculate the price elasticity of demand and determine the type of price elasticity.

Solution:

P= 15

Q = 100

P1 = 20

Q1 = 90

Therefore, change in the price of milk is:

$\Delta P = P1 - P$

$\Delta P = 20 - 15$

$\Delta P = 5$

Similarly, change in quantity demanded of milk is:
ΔQ = Q1 – Q

ΔQ = 90 – 100

ΔQ = -10

The change in demand shows a negative sign, which can be ignored. This is because of the reason that the relationship between price and demand is inverse that can yield a negative value of price or demand.

Price elasticity of demand for milk is:
e_p = ΔQ/ΔP * P/Q
e_p = 10/5 * 15/100
e_p = 0.3
The price elasticity of demand for milk is 0.3, which is less than one. Therefore, in such a case, the demand for milk is relatively inelastic.

5. Unitary Elastic Demand:
When the proportionate change in demand produces the same change in the price of the product, the demand is referred as unitary elastic demand. The numerical value for unitary elastic demand is equal to one (e_p=1).
The demand curve for unitary elastic demand is represented as a rectangular hyperbola, as shown in Figure-6:

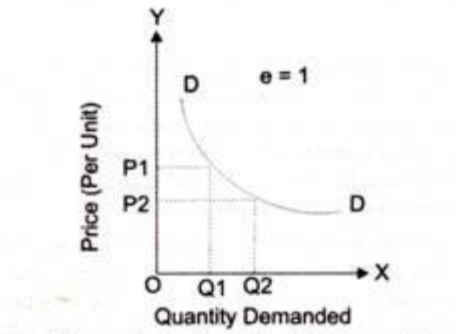


Figure-6: Unitary Elastic Demand

From Figure-6, it can be interpreted that change in price OP1 to OP2 produces the same change in demand from OQ1 to OQ2. Therefore, the demand is unitary elastic.

2. **Income Elasticity of Demand:** The income is the other factor that influences the demand for a product. Hence, the degree of responsiveness of a change in demand for a product due to the change in the income is known as income elasticity of demand. The formula to compute the income elasticity of demand is:

$$E_y = \frac{\text{Percentage Change in Demand for a product}}{\text{Percentage Change in Income}}$$

For most of the goods, the income elasticity of demand is greater than one indicating that with the change in income the demand will also change and that too in the same direction, i.e. more income means more demand and vice-versa.

3. **Cross Elasticity of Demand:** The cross elasticity of demand refers to the change in quantity demanded for one commodity as a result of the change in the price of another commodity. This type of elasticity usually arises in the case of the interrelated goods such as substitutes and complementary goods. The cross elasticity of demand for goods X and Y can be expressed as:

$$E_c = \frac{\text{Proportionate Change in Purchase of Commodity X}}{\text{Proportionate change in the Price of Commodity Y}}$$

The two commodities are said to be complementary, if the price of one commodity falls, then the demand for other increases, on the contrary, if the price of one commodity rises the demand for another commodity decreases. For example, petrol and car are complementary goods.

While the two commodities are said to be substitutes for each other if the price of one commodity falls, the demand for another commodity also decreases, on the other hand, if the price of one commodity rises the demand for the other commodity also increases. For example, tea and coffee are substitute goods.

4. **Advertising Elasticity of Demand:** The responsiveness of the change in demand to the change in advertising or rather promotional expenses, is known as advertising elasticity of demand. In other words, the change in the demand as a result of the change in advertisement and other promotional expenses is called as the advertising elasticity of demand. It can be

$$E_a = \frac{\text{Proportionate change in Demand}}{\text{Proportionate change in Advertising Expenditure}}$$

expressed as:
Numerically,

$$E_a = \frac{\frac{Q_2 - Q_1}{Q_2 + Q_1}}{\frac{A_2 - A_1}{A_2 + A_1}}$$

Where,
Q1 = Original Demand
Q2= New Demand
A1= Original Advertisement Outlay
A2 = New Advertisement Outlay

These are some of the important types of elasticity of demand that helps in understanding the criteria of demand for the goods and services and the factors that influence the demand.

Demand Forecasting

The information about the future is essential for both new firms and those planning to expand the scale of their production. Demand forecasting refers to an estimate of future demand for the product. It is an „objective assessment of the future course of demand". In recent times, forecasting plays an important role in business decision-making. Demand forecasting has an important influence on production planning. It is essential for a firm to produce the required quantities at the right time. It is essential to distinguish between forecasts of demand and forecasts of sales. Sales forecast is important for estimating revenue cash requirements and expenses. Demand forecasts relate to production, inventory control, timing, reliability of forecast etc. However, there is not much difference between these two terms.

Types of demand Forecasting: Based on the time span and planning requirements of business firms, demand forecasting can be classified in to

1. Short-term demand forecasting and 2. Long – term demand forecasting. 1. Short-term demand forecasting: Short-term demand forecasting is limited to short periods, usually for one year. It relates to policies regarding sales, purchase, price and finances. It refers to existing production capacity of the firm. Short-term forecasting is essential for formulating is essential for formulating a suitable price policy. If the business people expect of rise in the prices of raw materials of shortages, they may buy early. This price forecasting helps in sale policy formulation. Production may be undertaken based on expected sales and not on actual sales. Further, demand forecasting assists in financial forecasting also. Prior information about production and sales is essential to provide additional funds on reasonable terms.

2. Long – term forecasting: In long-term forecasting, the businessmen should now about the long-term demand for the product. Planning of a new plant or expansion of an existing unit depends on long-term demand.

Methods of Forecasting

Several methods are employed for forecasting demand. All these methods can be grouped under survey method and statistical method. Survey methods and statistical methods are further subdivided in to different categories.

1. Survey Method: Under this method, information about the desires of the consumer and opinion of exports are collected by interviewing them. Survey method can be consumer Survey, Sales Force Opinion method or Expert opinion method.

Consumer Survey can be again complete survey, sample survey or end use method

Survey method can be divided into four type‟s viz., Option survey method; expert opinion; Delphi method and consumers interview methods.

a. Opinion survey method: This method is also known as sales-force composite method (or) collective opinion method. Under this method, the company asks its salesman to submit estimate of future sales in their respective territories. Since the forecasts of the salesmen are biased due to their optimistic or pessimistic attitude ignorance about economic developments etc. these estimates are consolidated, reviewed and adjusted by the top executives. In case of wide differences, an average is struck to make the forecasts realistic. This method is more useful and appropriate because the salesmen are more knowledge. They can be important source of information. They are cooperative. The implementation within unbiased or their basic can be corrected.

B. Expert opinion method:

Apart from salesmen and consumers, distributors or outside experts may also e used for forecasting. In the United States of America, the automobile companies get sales estimates directly from their dealers. Firms in advanced countries make use of outside experts for estimating future demand. Various public and private agencies all periodic forecasts of short or long term business conditions.

C. Delphi Method: A variant of the survey method is Delphi method. It is a sophisticated method to arrive at a consensus. Under this method, a panel is selected to give suggestions to solve the problems in hand. Both internal and external experts can be the members of the panel. Panel members one kept apart from each other and express their views in an anonymous manner. There is also a coordinator who acts as an intermediary among the panelists. He prepares the questionnaire and sends it to the panelist. At the end of each round, he prepares a summary report. On the basis of the summary report the panel members have to give suggestions. This method has been used in the area of technological forecasting. It has proved more popular in forecasting. It has provided more popular in forecasting non-economic rather than economic variables.

D. Consumers interview method: In this method the consumers are contacted personally to know about their plans and preference regarding the consumption of the product. A list of all potential buyers would be drawn and each buyer will be approached and asked how much he plans to buy the listed product in future. He would be asked the proportion in which he intends to buy. This method seems to be the most ideal method for forecasting demand.

2. Statistical Methods: Statistical method is used for long run forecasting. In this method, statistical and mathematical techniques are used to forecast demand. This method relies on post data.

a. Time series analysis or trend projection methods: A well-established firm would have accumulated data. These data are analyzed to determine the nature of existing trend. Then, this trend is projected in to the future and the results are used as the basis for forecast. This is called as time series analysis. This data can be presented either in a tabular form or a graph. In the time series post data of sales are used to forecast future

b. Barometric Technique: Simple trend projections are not capable of forecasting turning paints. Under Barometric method, present events are used to predict the directions of change in future. This is done with the help of economics and statistical indicators. Those are

1) Construction Contracts awarded for building materials (2) Personal income (3) Agricultural Income. (4) Employment (5) Gross national income (6) Industrial Production (7) Bank Deposits etc

c. Regression and correlation method: Regression and correlation are used for forecasting demand. Based on post data the future data trend is forecasted. If the functional relationship is analyzed with the independent variable it is simple correction. When there are several independent variables it is multiple correlation. In correlation we analyze the nature of relation between the variables while in regression; the extent of relation between the variables is analyzed. The results are expressed in mathematical form. Therefore, it is called as econometric model building. The main advantage of this method is that it provides the values of the independent variables from within the model itself.

Other methods of forecasting demand are

i)Test Marketing

Test marketing is a tool used by the companies to check the viability of their new product or a marketing campaign before it is being launched in the market on a large scale.The market test is generally carried out to ascertain the probable market success in terms of new product's performance, the level of acceptance of the product, customer satisfaction, and the efficiency of the marketing campaign.

Through test marketing, a marketer may ascertain the success ratio of the new product and the marketing campaign and can design the marketing mix (viz. Product, price, place, promotion) very well before its launch.

ii) Judgemental Approach method: If product is such that none of the above methods are not suitable to forecast demand then there is no alternative for the Management to take its own decision in estimating future demand of that product.

iii) Experimental Learning method: Firms may do some changes in the regular determinants of demand like reducing slightly price of the product, altering product packing, changing sales pattern or advertising and based on results demand for a product can be forcasted

Factors Influencing Demand Forecasting:

Demand forecasting is a proactive process that helps in determining what products are needed where, when, and in what quantities. There are a number of factors that affect demand forecasting.

The various factors that influence demand forecasting are explained as follows

:i. Types of Goods: Affect the demand forecasting process to a larger extent. Goods can be producer‟s goods, consumer goods, or services. Apart from this, goods can be established and new goods. Established goods are those goods which already exist in the market, whereas new goods are those which are yet to be introduced in the market. Information regarding the demand, substitutes and level of competition of goods is known only in case of established goods. On the other hand, it is difficult to forecast demand for the new goods. Therefore, forecasting is different for different types of goods

. ii. Competition Level: Influence the process of demand forecasting. In a highly competitive market, demand for products also depend on the number of competitors existing in the market. Moreover, in a highly competitive market, there is always a risk of new entrants. In such a case, demand forecasting becomes difficult and challenging.

iii. Price of Goods: Acts as a major factor that influences the demand forecasting process. The demand forecasts of organizations are highly affected by change in their pricing policies. In such a scenario, it is difficult to estimate the exact demand of products

. iv. Level of Technology: Constitutes an important factor in obtaining reliable demand forecasts. If there is a rapid change in technology, the existing technology or products may become obsolete. For example, there is a high decline in the demand of floppy disks with the introduction of compact disks (CDs) and pen drives for saving data in computer. In such a case, it is difficult to forecast demand for existing products in future.

v. Economic Viewpoint: Play a crucial role in obtaining demand forecasts. For example, if there is a positive development in an economy, such as globalization and high level of investment, the demand forecasts of organizations would also be positive.

Apart from aforementioned factors, following are some of the other important factors that influence demand forecasting:

a. Time Period of Forecasts: Act as a crucial factor that affect demand forecasting. The accuracy of demand forecasting depends on its time period. Forecasts can be of three types, which are explained as follows:

1. Short Period Forecasts: Refer to the forecasts that are generally for one year and based upon the judgment of the experienced staff. Short period forecasts are important for deciding the production policy, price policy, credit policy, and distribution policy of the organization.

2. Long Period Forecasts: Refer to the forecasts that are for a period of 5-10 years and based on scientific analysis and statistical methods. The forecasts help in deciding about the introduction of a new product, expansion of the business, or requirement of extra funds.

3. Very Long Period Forecasts: Refer to the forecasts that are for a period of more than 10 years. These forecasts are carried to determine the growth of population, development of the economy, political situation in a country, and changes in international trade in future. Among the aforementioned forecasts, short period forecast deals with deviation in long period forecast. Therefore, short period forecasts are more accurate than long period forecasts.

4. Level of Forecasts: Influences demand forecasting to a larger extent. A demand forecast can be carried at three levels, namely, macro level, industry level, and firm level. At macro level, forecasts are undertaken for general economic conditions, such as industrial production and allocation of national income. At the industry level, forecasts are prepared by trade associations and based on the statistical data. Moreover, at the industry level, forecasts deal with products whose sales are dependent on the specific policy of a particular industry. On the other hand, at the firm level, forecasts are done to estimate the demand of those products whose sales depends on the specific policy of a particular firm. A firm considers various factors, such as changes in income, consumer‟s tastes and preferences, technology, and competitive strategies, while forecasting demand for its products.

5. Nature of Forecasts: Constitutes an important factor that affects demand forecasting. A forecast can be specific or general. A general forecast provides a global picture of business environment, while a specific forecast provides an insight into the business environment in which an organization operates. Generally, organizations opt for both the forecasts together because over-generalization restricts accurate estimation of demand and too specific information provides an inadequate basis for planning and execution.

Features of Good demand forecasting

1. Reliability
2. Economical
3. Selecting proper method for forecasting
4. Result oriented
5. Accuracy
6. The more the lead time there will chances for differing in the results (lead times means the time gap between conducting demand forecasting and its occurance)

Meaning of Supply

Supply refers to the amount of a good or service that the producers/providers are willing and able to offer to the market at various prices during a period of time. There are two important aspects of supply:

- Supply refers to what is offered for sale and not what is finally sold.
- Supply is a flow. Hence, it is a certain quantity per day or week or month, etc.

Determinants of Supply

While the price is an important aspect for determining the willingness and desire to part with goods/services, many other factors determine the supply of a product or service as discussed below:

Price of the Good/ Service

The most obvious one of the determinants of supply is the price of the product/service. With all other parameters being equal, the supply of a product increases if its relative price is higher. The reason is simple. A firm provides goods or services to earn profits and if the prices rise, the profit rises too.

Price of Related Goods

Let's say that the price of wheat rises. Hence, it becomes more profitable for firms to supply wheat as compared to corn or soya bean. Hence, the supply of wheat will rise, whereas the supply of corn and soya bean will experience a fall.

Hence, we can say that if the price of related goods rises, then the firm increases the supply of the goods having a higher price. This leads to a drop in the supply of the goods having a lower price.

Price of the Factors of Production

Production of a good involves many costs. If there is a rise in the price of a particular factor of production, then the cost of making goods that use a great deal of that factors experiences a huge increase. The cost of production of goods that use relatively smaller amounts of the said factor increases marginally.

For example, a rise in the cost of land will have a large effect on the cost of producing wheat and a small effect on the cost of producing automobiles.

Therefore, the change in the price of one factor of production causes changes in the relative profitability of different lines of production. This causes producers to shift from one line to another, leading to a change in the supply of goods.

State of Technology

Technological innovations and inventions tend to make it possible to produce better quality and/or quantity of goods using the same resources. Therefore, the state of technology can increase or decrease the supply of certain goods.

Government Policy

Commodity taxes like excise duty, import duties, GST, etc. have a huge impact on the cost of production. These taxes can raise overall costs. Hence, the supply of goods that are impacted by these taxes increases only when the price increases. On the other hand, subsidies reduce the cost of production and usually lead to an increase in supply.

Other Factors

There are many other factors affecting the supply of goods or services like the government's industrial and foreign policies, the goals of the firm, infrastructural facilities, market structure, natural factors etc.

The supply function can be expressed as:
Sx = f (Px)

Where:
Sx = Quantity supplied for product X

Px = Price of product X

f = Constant representing change produced in Sx with one unit change in Px

Law Of Supply

Law of supply states that other factors remaining constant, price and quantity supplied of a good are directly related to each other. In other words, when the price paid by buyers for a good rises, then suppliers increase the supply of that good in the market.

Law of supply depicts the producer behavior at the time of changes in the prices of goods and services. When the price of a good rises, the supplier increases the supply in order to earn a profit because of higher prices.

Following Tableshows the supply schedule for the different quantities of milk supplied in the market at different prices:

Table-8: Individual Supply Schedule	
Price of Milk (per liter in ₹)	Quantity Supplied(1000 per day in liters)
10	10
12	13
14	20
16	25

Figure-14 shows the individual supply curve for the individual supply schedule

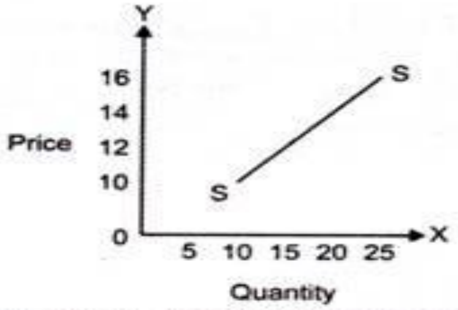


Figure-14: Individual Supply Curve

The supply curve is showing a straight line and an upward slope. This implies that the supply of a product increases with increase in the price of a product.

Assumptions in Law of Supply:

The law of supply expresses the change in supply with relation to change in price. In other words the main assumption of law of supply is that it studies the effect of price on supply of a product, while keeping other determinants of supply at constant. Other assumptions are:

i. Assumes that the price of a product changes
ii. Assumes that there is no change in the technique of production
iii. Assumes that there is no change in the scale of production.
iv. Assumes that the policies of the government remain constant
v. Assumes that the transportation cost remain the same.
vi. Assumes that there is no speculation about prices in future

UNIT- III:

Production, Cost, Market Structures & Pricing

Definition of Production:

According to Bates and Parkinson:

"Production is the organised activity of transforming resources into finished products in the form of goods and services; the objective of production is to satisfy the demand for such transformed resources".

According to J. R. Hicks:

"Production is any activity directed to the satisfaction of other peoples' wants through exchange". This definition makes it clear that, in economics, we do not treat the mere making of things as production. What is made must be designed to satisfy wants.

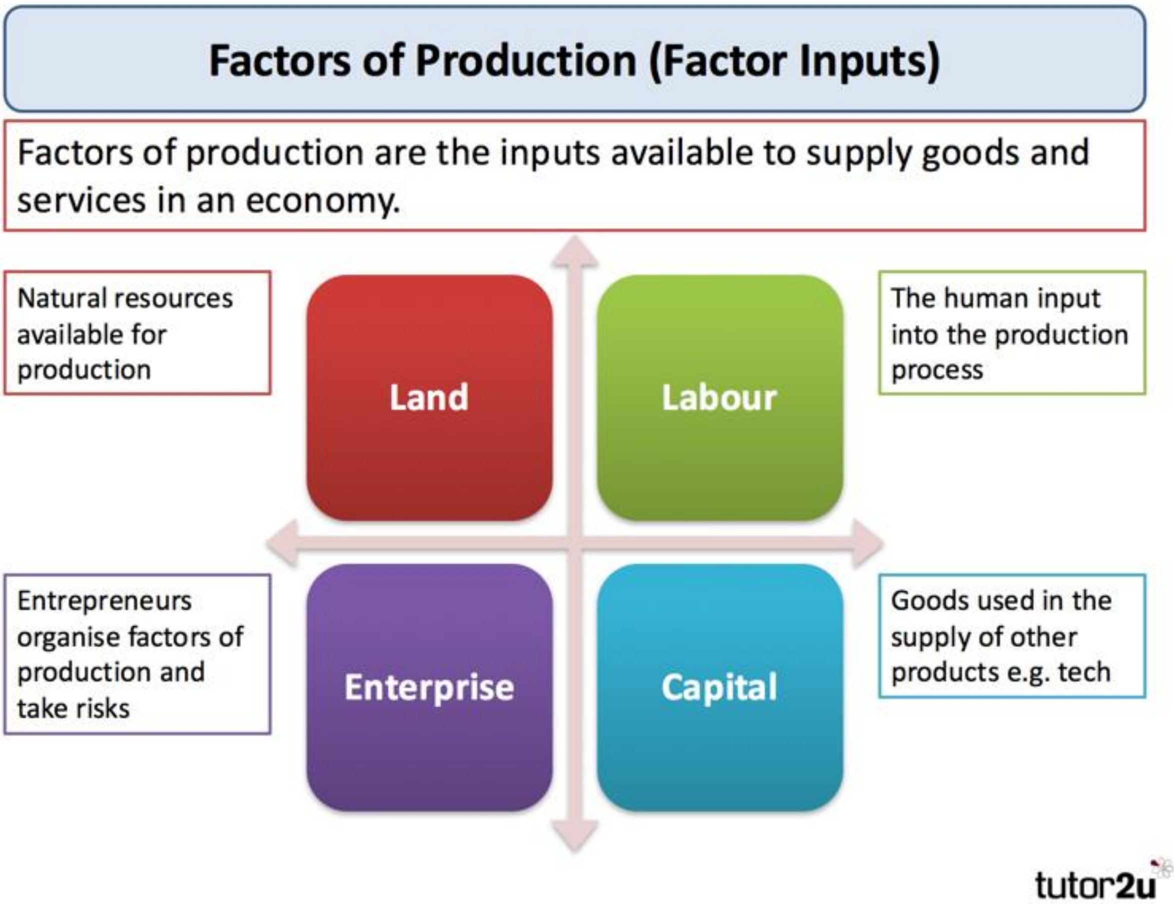
What is not Production?

The making or doing of things which are not wanted or are made just for the fun of it does not qualify as production. On the other hand, all jobs which do aim at satisfying wants are part of production.

Those who provide services Such as hair-dressers, solicitors, bus drivers, postmen, and clerks are as much a part of the process of satisfying wants as are farmers, miners, factory workers and bakers. The test of whether or not any activity is productive is whether or not anyone will buy its end-product. If we will buy something we must want it; if we are not willing to buy it then, in economic terms, we do not want it.

Factors of Production

Land, Labour, Capital, Organisation and Technology



Factors of production are the inputs available to supply goods and services in an economy.

Land:

- Land includes all **natural physical resources** – e.g. fertile farm land, the benefits from a temperate climate or the harnessing of **Labour:**

- Labour is the **human input** into production e.g. the supply of workers available and their productivity
- An increase in the size and the quality of the labour force is vital if a country wants to achieve **growth**. In recent years the issue of the **migration of labour** has become important. Can migrant workers help to solve labour shortages? What are the long-term effects on the countries who suffer a drain or loss of workers through migration?

Capital:

- **Capital goods** are used to produce other consumer goods and services in the future
- **Fixed capital** includes machinery, equipment, new technology, factories and other buildings
- **Working capital** means **stocks** of finished and semi-finished goods (or components) that will be either consumed in the near future or will be made into consumer goods
- New items of capital machinery, buildings or technology are used to boost the **productivity** of labour. For example, improved technology in farming has vastly increased productivity and allowed millions of people to move from working on the land into more valuable jobs in other industries.

Infrastructure – a crucial type of capital

Examples of infrastructure include road & rail networks; airports & docks; telecommunications e.g. cables and satellites to enable web access.

The World Bank regards infrastructure as an essential pillar for economic growth in developing countries. India is often cited as a country whose growth prospects are being limited by weaknesses in national infrastructure.

Entrepreneurship (Organisation)

- Regarded by some as a specialised form of labour input
- An **entrepreneur** is an individual who supplies products to a market to make a profit
- Entrepreneurs will usually invest their own **financial capital** in a business and take on the risks. Their main reward is the **profit** made from running the business

Technology also plays important role in production

Land is a fixed factor because it cannot be varied in long run

Labour and capital can be varied in short run and they are variable factors3

These factors also have price like for land rent has to paid, labour wages is paid, interest on capital and expenses are also paid on organisation and technology.

Production Function :

The production function expresses a functional relationship between physical inputs and physical outputs of a firm at any particular time period. The output is thus a function of inputs. Mathematically production function can be written as

Q= f (L1,L2,C,O,T)

Where "Q" stands for the quantity of output and L1, L2, C, O,T are various input factors such as land, labour, capital and organization. Here output is the function of inputs. Hence output becomes the dependent variable and inputs are the independent variables.

The above function does not state by how much the output of "Q" changes as a consequence of change of variable inputs. In order to express the quantitative relationship between inputs and output. An entrepreneur has to make such a combination of inputs which yield maximum output .

Factors affecting Production

1.Technology 2. Usage of inputs 3. Time Period (Short/Long period)

PRODUCTION FUNCTION WIITH ONE VARIABLE / LAW OF PRODUCTION:

LAW OF VARIABLE PROPORTIONS / LAW OF DIMINISHING RETURNS

Production analysis in economics theory considers two types of input-output relationships. Output can be increased in two ways:

1. When quantities of certain inputs, are fixed and others are variable and which is possible in short run.

2. When all inputs are variable which is possible only in long run.

This Law of Production can be observed in first way. The law of variable proportions states that as the quantity of one factor is increased, keeping the other factors fixed, the marginal product of that factor will eventually decline. This means that upto the use of a certain amount of variable factor, marginal product of the factor may increase and after a certain stage it starts diminishing. When the variable factor becomes relatively abundant, the marginal product may become negative.

Illustration of the Law: The law of variable proportion is illustrated in the following table and figure. Suppose there is a given amount of land in which more and more labour (variable factor) is used to produce wheat.

Table 1.

Units of Land	Units of Labour	Total Production	Average Production	Marginal Production
10 Acres	0	–	–	–
"	1	20	20	20
"	2	50	25	30 } 1st stage
"	3	90	30	40 } MP > AP
"	4	120	30	30 } AP = MP
"	5	140	28	20
"	6	150	25	10 } 2nd stage
"	7	150	21.3	0 } MP=0 and TP Maximum
"	8	140	17.5	-10 } 3rd stage MP < 0

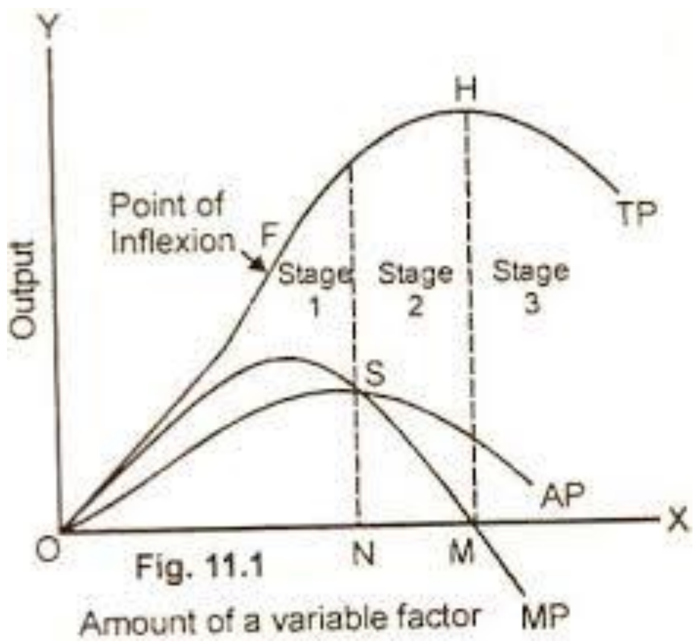


Fig. 11.1

We observe that with the increase in labour output starts increasing in first stage next stage constant and final stage output decreases.

Assumptions: The law of variable proportions holds good under the following conditions:

1. ***Constant State of Technology***: First, the state of technology is assumed to be given and unchanged. If there is improvement in the technology, then the marginal product may rise instead of diminishing.

2. ***Fixed Amount of Other Factors***: Secondly, there must be some inputs whose quantity is kept fixed. It is only in this way that we can alter the factor proportions and know its effects on output. The law does not apply if all factors are proportionately varied.
3. ***Possibility of Varying the Factor proportions***: Thirdly, the law is based upon the possibility of varying the proportions in which the various factors can be combined to produce a product. The law does not apply if the factors must be used in fixed proportions to yield a product.

PRODUCTION FUNCTION WITH TWO VARIABLES /

ISOQUANTS

The term 'isoquant' is composed of two terms 'iso' and 'quant'. Iso is a Greek word which means equal and quant is a Latin word which means quantity. Therefore, these words together refer to equal quantity or equal product.
An isoquant curve is the representation of a set of locus of different combinations of two inputs (labor and capital) which yield the same level of output. It is also known as or equal product curve or producer's Indifference curve.

It is a firm's counterpart of the consumer's indifference curve. Thus, an isoquant may also be defined as the graphical representation of different combinations of two inputs which give same level of output to the producer. Since all the combinations lying in an isoquant curve yield the same level of production, a producer is indifferent between the combinations. Any and every combination is a good combination for the manufacturer.

Example of Isoquant Schedule and Isoquant Curve

Table 1: isoquant schedule

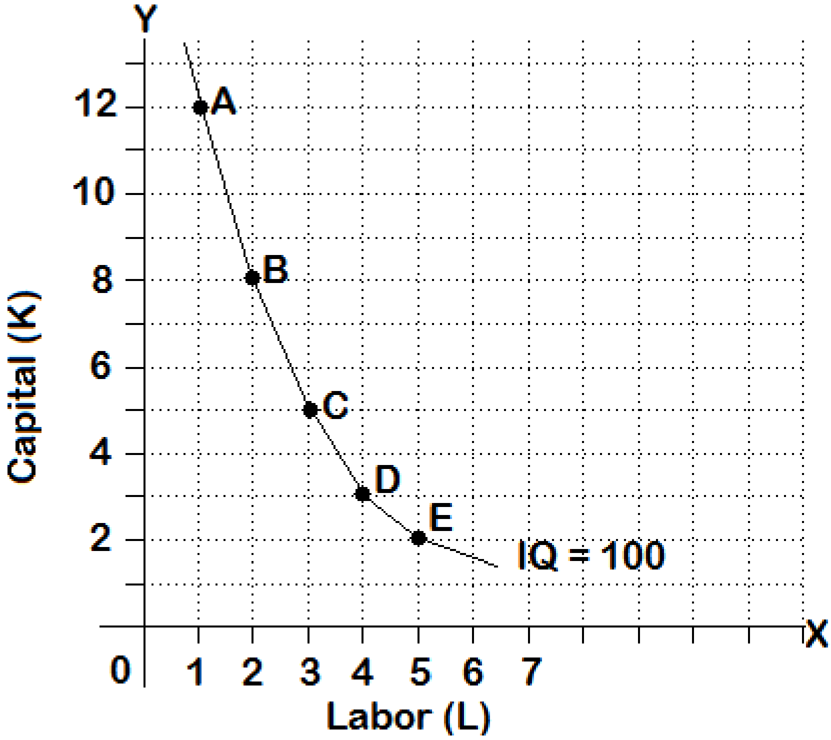
Combinations	**Labor (L)**	**Capital (K)**	**Output (units)**
A	1	12	100
B	2	8	100
C	3	5	100
D	4	3	100
E	5	2	100

The given isoquant schedule represents various combinations of inputs (labor and capital).

From the table, we can see combination A consists of 1 unit of labor and 12 units of capital which together produce 100 units of output. In combination B, when 1 unit of labor was added in place of 4 units of capital, the production process still produced 100 units of output.

In the same way, other combinations C (3L + 5K), D (4L + 3K) and E (5L + 2K) made the same level of output, i.e. 100 units.

Figure 1: graphical representation of isoquant schedule (isoquant curve)



Properties of Isoquant Curve

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1.Isoquant is convex to the origin

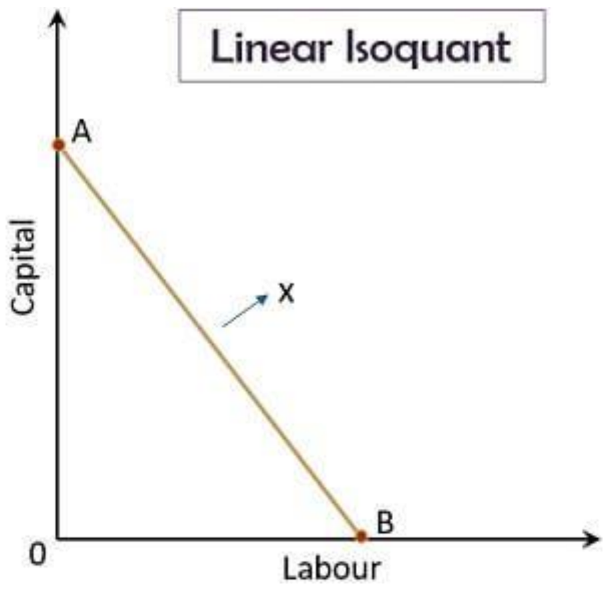
2.isoquant is negatively sloped

3.Higher isoquant represents higher production

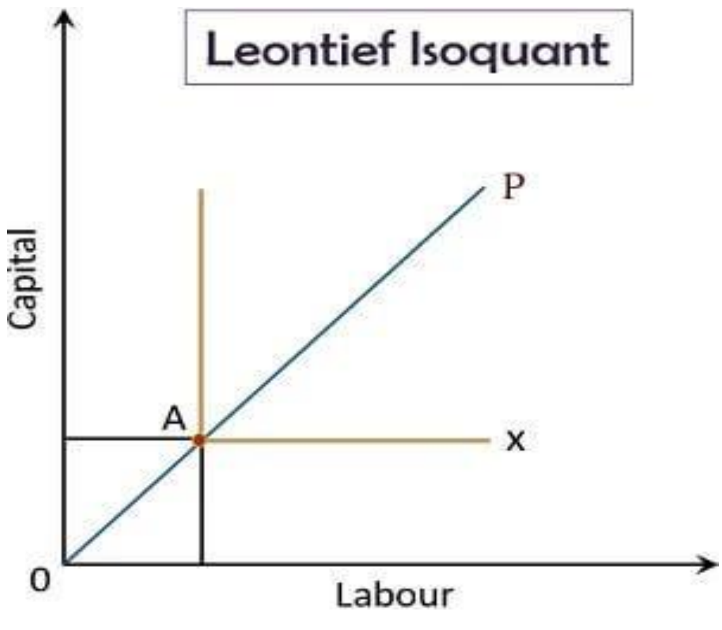
4.Two isoquants never intersect each other

Types of Isoquants

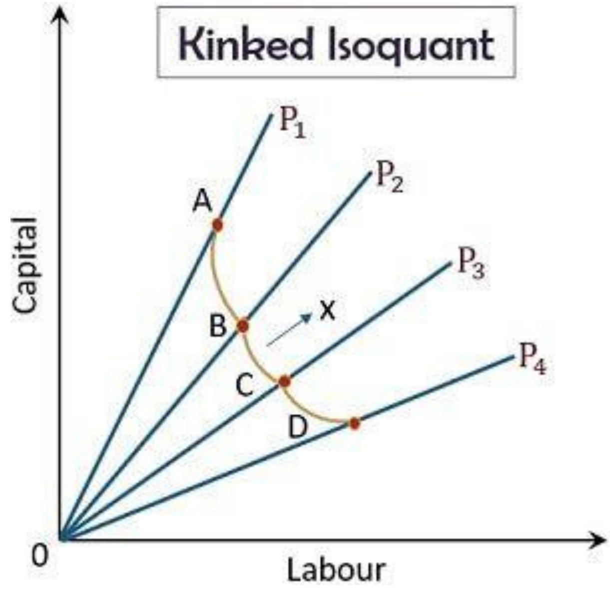
1. Linear Isoquant: This type assumes perfect substitutability of factors of production: a given commodity may be produced by using only capital, or only labour, or by an infinite combination of K and L.



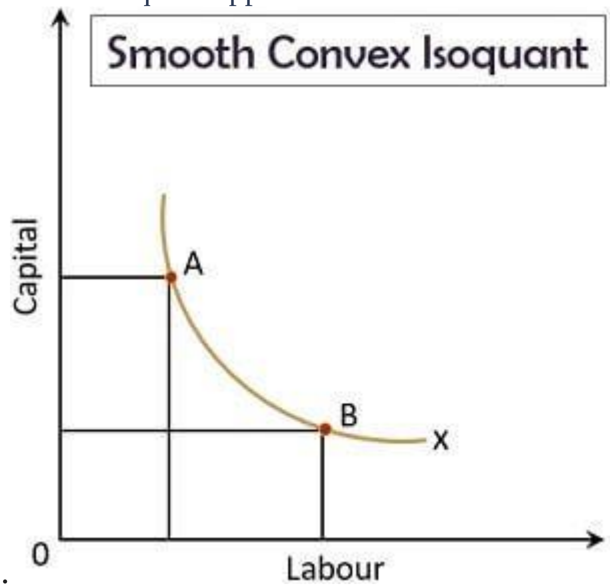
2. Input-Output Isoquant: It is also called Leontief Isoquant. This assumes strict complementarity[that is, zero substitutability] of the factors of production. The isoquant take the shape of a right angle. This type of isoquant is also called 'Leontief isoquant' after Leontief, who invented the input-output analysis



3. Kinked Isoquant: This assmes limited substitutability of K and L. There are only a few processes for producing any one commodity. Substitutability of factors is possibleonly at the kinks. This form is also called 'activity analysis-isoquant' or 'linear-programming isoquant', because it is basically used in linear programming.



4. Smooth , Convex Isoquant: This form assumes continuous substitutability of K and L only over a certain range, beyond which factors cannot substitute each other. The isoquant appears as a smooth curve convex to the origin.



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Isocost

An isocost shows all the combination of factors that cost the same amount of expenditure to employ for a particular level of output. If output changes cost also changes.

Marginal Rate of Technical Substitution

Marginal rate of technical substitution (MRTS) indicates the rate at which one factor (labor) can be substituted for the other input (capital) in the production process of a commodity without changing the level of output or production. The marginal rate of technical substitution of labor for capital ($MRTS_{L,K}$) can be defined as the units of capital which can be replaced by one unit of labor, keeping constant the level of output. Mathematically, it is represented as

$$MRTS_{L,K} = \frac{\text{Change in capital}}{\text{Change in labor}}$$

$$= \frac{\Delta K}{\Delta L} \quad \text{(for fixed level of output)}$$

$$= \text{Slope of IQ curve}$$

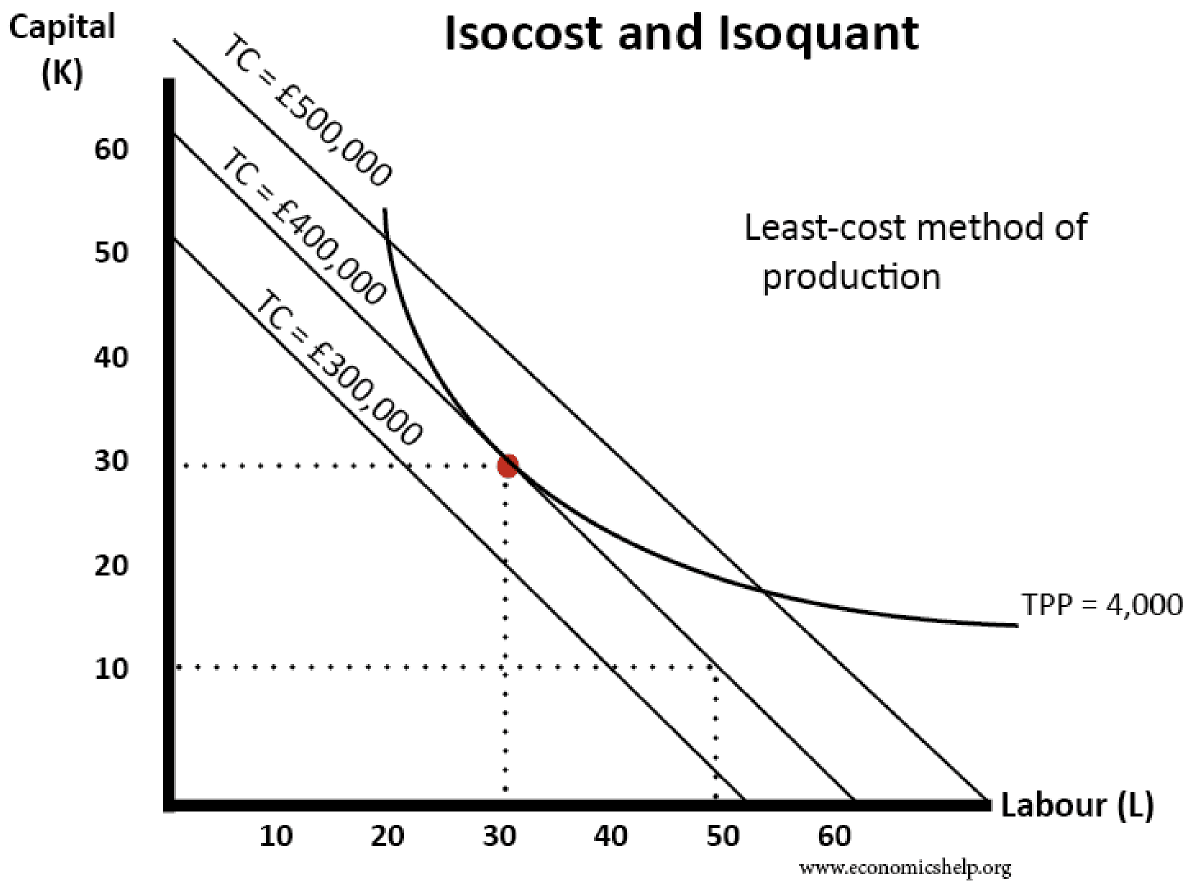
Table 2: marginal rate of technical substitution (MRTS)

Combination	**Capital (K)**	**Labor (L)**	**$MRTS_{L,K}$**	**Output**
A	12	1		100
B	8	2	4:1	100
C	5	3	3:1	100
D	3	4	2:1	100
E	2	5	1:1	100

Given table 2 represents various combinations of inputs, all of which yield the same level of output, i.e. 100 units, to the producer.

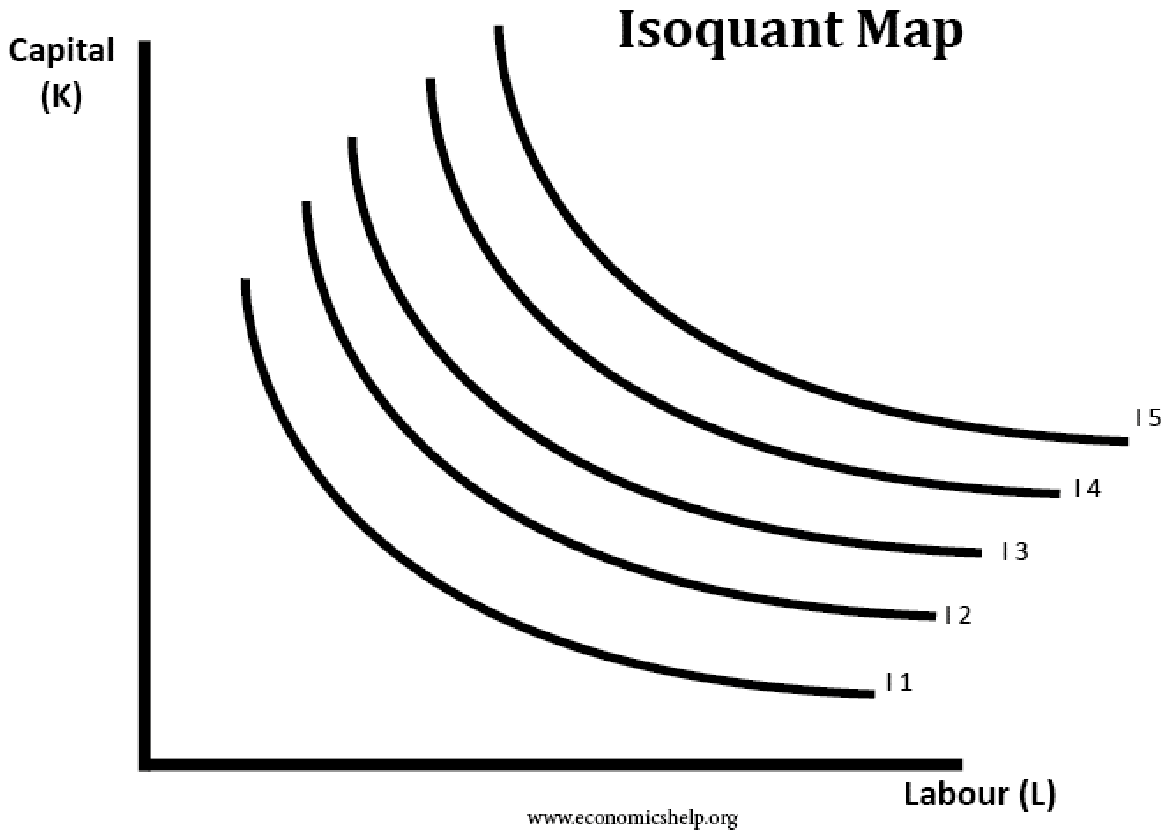
Comparing combination A with B, we see that 4 units of capital is replaced by 1 unit of labor, without altering the output. Therefore, 4:1 is the marginal rate of technical substitution in this case.
Similarly, if we compare combination B with C, we can find that the MRTS for this case is 3:1. Likewise, MRTS between C and D, and D and E is 2:1 and 1:1, respectively.

Profit maximisation – the least cost method of production



Another way of seeking to maximise profits is to target an output of say 4,00 and then find the isocost with the lowest possible cost. In this case, the isocost which touches the tangential point of the TPP is a TC of £400,000.

Isoquant map



An isoquant map shows different levels of output. For example

- I1 may show the combinations of capital and labour that can produce 4,000 TPP.
- I2 may show the combinations of capital and labour that can produce 5,000 TPP.
- I5 is a higher output than I4

In the short-term, a firm faces a trade-off along one particular isoquant. But, in the long-term, a firm can invest in increasing capital stock and produce at a higher output for the same quantity of labour

COBB-DOUGLAS PRODUCTION FUNCTION:

Production function of the linear homogenous type is invented by Junt wicksell and first tested by C. W. Cobb and P. H. Dougles in 1928. This famous statistical production function is known as Cobb-Douglas production function. Originally the function is applied on the empirical study of the American manufacturing industry. Cobb – Douglas production function takes the following mathematical form.

Q = K La C(1-a) ,

Where Q=output K=Capital L=Labour a & (1-a)=positive constants and if we add 1 and (1-a) we get 1 i.e constant returns to scale.

Assumptions

1. The function assumes that output is the function of two factors viz. capital and labour.

2. It is a linear homogenous production function of the first degree

3. The function assumes that the logarithm of the total output of the economy is a linear function of the logarithms of the labour force and capital stock.

4. There are constant returns to scale

5. All inputs are homogenous

6. There is perfect competition

7. There is no change in technology

One American Manufacturing Company Production function is

Q=1.10 L 0.75 C 0.25

If We add 0.75 &0.25 we get1 i.e Constant returns to scale

Afterwards the production function is further developed by economist Durand.He gav production function as

Q=KLq Cp

Here q+P=1 which means increasing returns to scale,

q+p> which means Increasing returns to scale or

q+P<1 which means decreasing returns to scale.

Production function with all Variables (Long run)

Laws of Returns to Scale

There is no fixed factor of production in the long run. The law of returns to scale describes the relationship between variable inputs and output when all the inputs, or factors are increased in the same proportion. The law of returns to scale analysis the effects of scale on the level of output. Here we find out in what proportions the output changes when there is proportionate change in the quantities of all inputs. The answer to this question helps a firm to determine its scale or size in the long run.

(1) Increasing Returns to Scale:

If the output of a firm increases more than in proportion to an equal percentage increase in all inputs, the production is said to exhibit increasing returns to scale.

For example, if the amount of inputs are doubled and the output increases by more than double, it is said to be an increasing returns returns to scale. When there is an increase in the scale of production, it leads to lower average cost per unit produced as the firm enjoys economies of scale.

(2) Constant Returns to Scale:

When all inputs are increased by a certain percentage, the output increases by the same percentage, the production function is said to exhibit constant returns to scale.

For example, if a firm doubles inputs, it doubles output. In case, it triples output. The constant scale of production has no effect on average cost per unit produced.

(3) Decreasing Returns to Scale or diminishing returns to scale

The term 'diminishing' returns to scale refers to scale where output increases in a smaller proportion than the increase in all inputs.

For example, if a firm increases inputs by 100% but the output increases by less than 100%, the firm is said to exhibit decreasing returns to scale. In case of decreasing returns to scale, the firm faces diseconomies of scale. The firm's scale of production leads to higher average cost per unit produced.

ECONOMIES OF SCALE

Production may be carried on a small scale or o a large scale by a firm. When a firm expands its size of production by increasing all the factors, it secures certain advantages known as economies of production.

Marshall has classified these economies of large-scale production into internal economies and external economies. Internal economies are those, which are opened to a single factory or a single firm independently of the action of other firms. They result from an increase in the scale of output of a firm and cannot be achieved unless output increases. Hence internal economies depend solely upon the size of the firm and are different for different firms.

INTERNAL ECONOMIES:

Internal economies may be of the following types.

A). Technical Economies. Technical economies arise to a firm from the use of better machines and superior techniques of production. As a result, production increases and per unit cost of production falls. A large firm, which employs costly and superior plant and equipment, enjoys a technical superiority over a small firm. Another technical economy lies in the mechanical advantage of using large machines. The cost of operating large machines is less than that of operating mall machine. More over a larger firm is able to reduce it‟s per unit cost of production by linking the various processes of production. Technical economies may also be associated when the large firm is able to utilize all its waste materials for the development of by-products industry. Scope for specialization is also available in a large firm. This increases the productive capacity of the firm and reduces the unit cost of production.

B). Managerial Economies: These economies arise due to better and more elaborate management, which only the large size firms can afford. There may be a separate head for manufacturing, assembling, packing, marketing, general administration etc. Each department is under the charge of an expert. Hence the appointment of experts, division of administration into several departments, functional specialization and scientific co-ordination of various works make the management of the firm most efficient.

C). Marketing Economies: The large firm reaps marketing or commercial economies in buying its requirements and in selling its final products. The large firm generally has a separate marketing department. It can buy and sell on behalf of the firm, when the market trends are more favorable. In the matter of buying they could enjoy advantages like preferential treatment, transport concessions, cheap credit, prompt delivery and fine relation with dealers. Similarly it sells its products more effectively for a higher margin of profit.

D). Financial Economies: The large firm is able to secure the necessary finances either for block capital purposes or for working capital needs more easily and cheaply. It can barrow from the public, banks and other financial institutions at relatively cheaper rates. It is in this way that a large firm reaps financial economies.

E). Risk bearing Economies: The large firm produces many commodities and serves wider areas. It is, therefore, able to absorb any shock for its existence. For example, during business depression, the prices fall for every firm. There is also a possibility for market fluctuations in a particular product of the firm. Under such circumstances the risk-bearing economies or survival economies help the bigger firm to survive business crisis.

F). Economies of Research: A large firm possesses larger resources and can establish it‟s own research laboratory and employ trained research workers. The firm may even invent new production techniques for increasing its output and reducing cost.

G). Economies of welfare: A large firm can provide better working conditions in-and out-side the factory. Facilities like subsidized canteens, crèches for the infants, recreation room, cheap houses, educational and medical facilities tend to increase the productive efficiency of the workers, which helps in raising production and reducing costs.

EXTERNAL ECONOMIES: Business firm enjoys a number of external economies, which are discussed below:

A). Economies of Concentration: When an industry is concentrated in a particular area, all the member firms reap some common economies like skilled labour, improved means of transport and communications, banking and financial services, supply of power and benefits from subsidiaries. All these facilities tend to lower the unit cost of production of all the firms in the industry.

B). Economies of Information The industry can set up an information centre which may publish a journal and pass on information regarding the availability of raw materials, modern machines, export potentialities and provide other information needed by the firms. It will benefit all firms and reduction in their costs.

C). Economies of Welfare: An industry is in a better position to provide welfare facilities to the workers. It may get land at concessional rates and procure special facilities from the local bodies for setting up housing colonies for the workers. It may also establish public health care units, educational institutions both general and technical so that a continuous supply of skilled labour is available to the industry. This will help the efficiency of the workers.

D). Economies of Disintegration: The firms in an industry may also reap the economies of specialization. When an industry expands, it becomes possible to spilt up some of the processes which are taken over by specialist firms. For example, in the cotton textile industry, some firms may specialize in manufacturing thread, others in printing, still others in dyeing, some in long cloth, some in dhotis, some in shirting etc. As a result the efficiency of the firms specializing in different fields increases and the unit cost of production falls. Thus internal economies depend upon the size of the firm and external economies depend upon the size of the industry.

DISECONOMIES OF LARGE SCALE PRODUCTION

When firms grow in size it become difficult to manage.Problems of controlling, coordination and communication may arise.

COST ANALYSIS

Profit is the ultimate aim of any business and the long-run prosperity of a firm depends upon its ability to earn sustained profits. Profits are the difference between selling price and cost of production. In general the selling price is not within the control of a firm but many costs are under its control. The firm should therefore aim at controlling and minimizing cost. Since every business decision involves cost consideration, it is necessary to understand the meaning of various concepts for clear business thinking and application of right kind of costs.

COST CONCEPTS: A managerial economist must have a clear understanding of the different cost concepts for clear business thinking and proper application. The several alternative bases of classifying cost and the relevance of each for different kinds of problems are to be studied. The various relevant concepts of cost are:

1. Opportunity costs and outlay costs: Out lay cost also known as actual costs obsolete costs are those expends which are actually incurred by the firm these are the payments made for labour, material, plant, building, machinery traveling, transporting etc., These are all those expense item appearing in the books of account, hence based on accounting cost concept. On the other hand opportunity cost implies the earnings foregone on the next best alternative, has the present option is undertaken. This cost is often measured by assessing the alternative, which has to be scarified if the particular line is followed. The opportunity cost concept is made use for long-run decisions. This concept is very important in capital expenditure budgeting. This concept is very important in capital expenditure budgeting. The concept is also useful for taking short-run decisions opportunity cost is the cost concept to use when the supply of inputs is strictly limited and when there is an alternative. If there is no alternative, Opportunity cost is zero. The opportunity cost of any action is therefore measured by the value of the most favorable alternative course, which had to be foregoing if that action is taken.

2. Explicit and implicit costs: Explicit costs are those expenses that involve cash payments. These are the actual or business costs that appear in the books of accounts. These costs include payment of wages and salaries, payment for raw-materials, interest on borrowed capital funds, rent on hired land, Taxes paid etc. Implicit costs are the costs of the factor units that are owned by the employer himself. These costs are not actually incurred but would have been incurred in the absence of employment of self – owned factors. The two normal implicit costs are depreciation, interest on capital etc. A decision maker must consider implicit costs too to find out appropriate profitability of alternatives.

3. Historical and Replacement costs: Historical cost is the original cost of an asset. Historical cost valuation shows the cost of an asset as the original price paid for the asset acquired in the past. Historical valuation is the basis for financial accounts. A replacement cost is the price that would have to be paid currently to replace the same asset. During periods of substantial change in the price level, historical valuation gives a poor projection of the future cost intended for managerial decision. A replacement cost is a relevant cost concept when financial statements have to be adjusted for inflation.

4. Short – run and long – run costs: Short-run is a period during which the physical capacity of the firm remains fixed. Any increase in output during this period is possible only by using the existing physical capacity more extensively. So short run cost is that which varies with output when the plant and capital equipment in constant. Long run costs are those, which

vary with output when all inputs are variable including plant and capital equipment. Long-run cost analysis helps to take investment decisions.

5. Out-of pocket and books costs: Out-of pocket costs also known as explicit costs are those costs that involve current cash payment. Book costs also called implicit costs do not require current cash payments. Depreciation, unpaid interest, salary of the owner is examples of back costs. But the book costs are taken into account in determining the level dividend payable during a period. Both book costs and out-of-pocket costs are considered for all decisions. Book cost is the cost of self-owned factors of production.

6. Fixed and variable costs: Fixed cost is that cost which remains constant for a certain level to output. It is not affected by the changes in the volume of production. But fixed cost per unit decrease, when the production is increased. Fixed cost includes salaries, Rent, Administrative expenses depreciations etc. Variable is that which varies directly with the variation is output. An increase in total output results in an increase in total variable costs and decrease in total output results in a proportionate decline in the total variables costs. The variable cost per unit will be constant. Ex: Raw materials, labour, direct expenses, etc.

7. Past and Future costs: Post costs also called historical costs are the actual cost incurred and recorded in the book of account these costs are useful only for valuation and not for decision making. Future costs are costs that are expected to be incurred in the futures. They are not actual costs. They are the costs forecasted or estimated with rational methods. Future cost estimate is useful for decision making because decision are meant for future.

8. Traceable and common costs: Traceable costs otherwise called direct cost, is one, which can be identified with a products process or product. Raw material, labour involved in production is examples of traceable cost. Common costs are the ones that common are attributed to a particular process or product. They are incurred collectively for different processes or different types of products. It cannot be directly identified with any particular process or type of product.

9. Avoidable and unavoidable costs: Avoidable costs are the costs, which can be reduced if the business activities of a concern are curtailed. For example, if some workers can be retrenched with a drop in a product – line, or volume or production the wages of the retrenched workers are escapable costs. The unavoidable costs are otherwise called sunk costs. There will not be any reduction in this cost even if reduction in business activity is made. For example cost of the ideal machine capacity is unavoidable cost.

10. Controllable and uncontrollable costs: Controllable costs are ones, which can be regulated by the executive who is in charge of it. The concept of controllability of cost varies with levels of management. Direct expenses like material, labour etc. are controllable costs. Some costs are not directly identifiable with a process of product. They are appointed to various processes or products in some proportion. This cost varies with the variation in the basis of allocation and is independent of the actions of the executive of that department. These apportioned costs are called uncontrollable costs.

11. Incremental and sunk costs: Incremental cost also known as different cost is the additional cost due to a change in the level or nature of business activity. The change may be caused by adding a new product, adding new machinery, replacing a machine by a better one etc. Sunk costs are those which are not altered by any change – They are the costs incurred in the past. This cost is the result of past decision, and cannot be changed by future decisions. Investments in fixed assets are examples of sunk costs.

12. Total, average and marginal costs: Total cost is the total cash payment made for the input needed for production. It may be explicit or implicit. It is the sum total of the fixed and variable costs. Average cost is the cost per unit of output. If is obtained by dividing the total cost (TC) by the total quantity produced (Q) 36 TC Average cost = ------ Q Marginal cost is the additional cost incurred to produce and additional unit of output or it is the cost of the marginal unit produced.

13. Accounting and Economics costs: Accounting costs are the costs recorded for the purpose of preparing the balance sheet and profit and ton statements to meet the legal, financial and tax purpose of the company. The accounting concept is a historical concept and records what has happened in the post. Economics concept considers future costs and future revenues, which help future planning, and choice, while the accountant describes what has happened, the economics aims at Short

Determinants of cost

S-size of plant, O-Level of output, P-Prices of inputs used in production,

T-nature of technology .

Managerial efficiency can also be included but it cannot be quantified

Cost-Output function

C=f(S,O,P,T)

C-cost of production, S-size of plant, O-Level of output, P-Prices of inputs used in production,

T-nature of technology .

Short Run Average Costs

While the total cost of production helps firms understand the overall expenses incurred, the average costs help identify the expenditures involved in manufacturing a single unit. In this article, we will look at the short run average costs and marginal costs of production.

Short Run Average Costs can be divided into

1. Average Fixed Cost (AFC)
2. Average Variable Cost (AVC)
3. Average Total Cost (ATC)

Units of output	Total fixed cost	Total variable cost	Total Cost	Average fixed cost	Average variable cost	Average total cost	Marginal cost
0	100	0	100	-	-	-	-
1	100	50	150	100	50	150	50
2	100	75	175	50	37.5	87.5	25
3	100	100	200	33.33	33.33	66.66	25
4	100	150	250	25	37.5	62.5	50
5	100	200	300	20	40	60	50
6	100	275	375	16.66	45.83	62.49	75

The diagram below shows the AFC, AVC, ATC, and Marginal Costs (MC) curves:

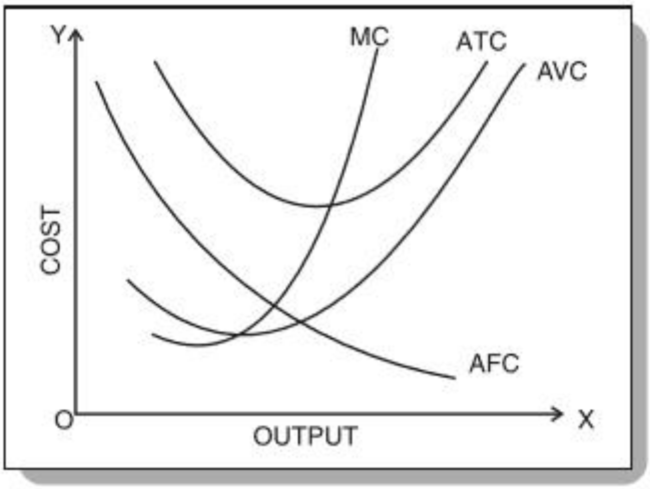
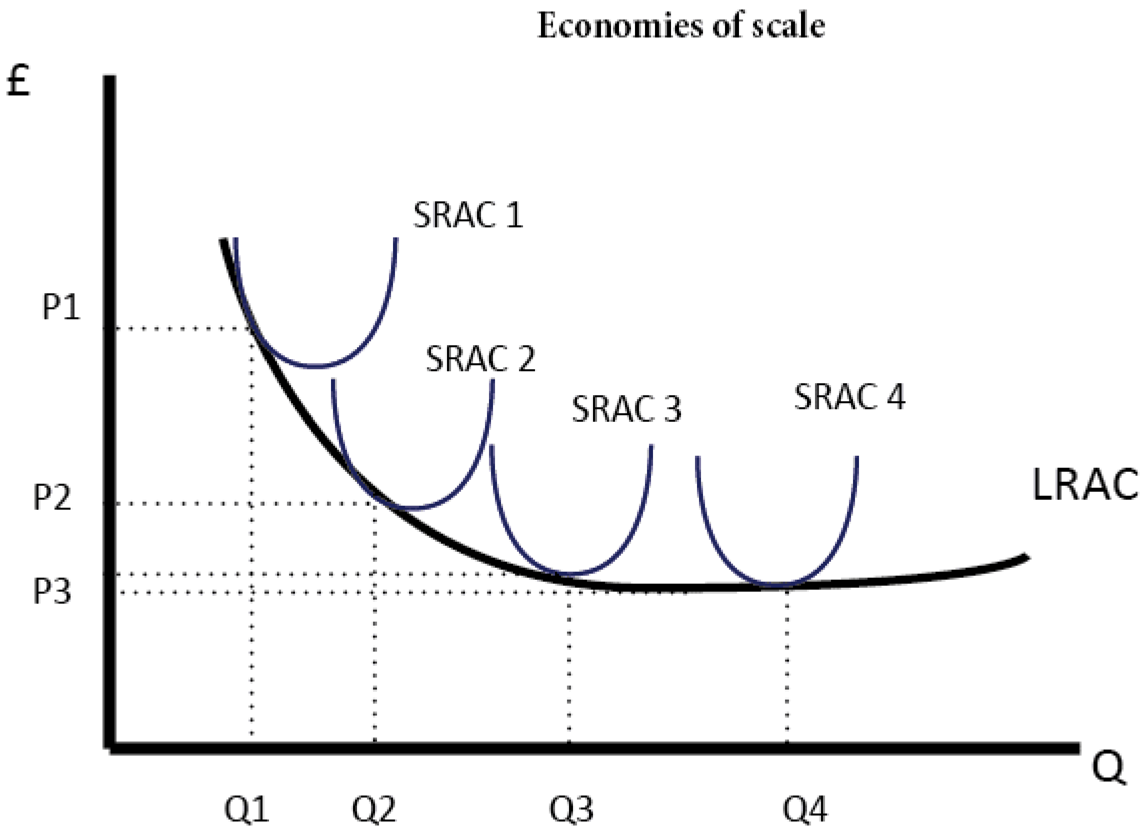


Fig. 1 : Short run Average and Marginal Cost Curves

Long run

- The long run is a situation where all main factors of production are variable. The firm has time to build a bigger factory and respond to changes in demand. In the long run:
- We have time to build a bigger factory.
- Firms can enter or leave a market.
- Prices have time to adjust. For example, we may get a temporary surge in prices, but in the long-run, supply will increase to meet it.
- The long run may be a period greater than six months/year
- Price elasticity of demand can vary – e.g. over time, people may become more sensitive to price changes, in short run, people keep buying a good they are used to.

Relationship between short-run costs and long-run costs



- SRAC = short run average costs
- LRAC = long run average costs

This shows how a firm's long-run average costs are influenced by different short-run average costs (SRAC) curves.

The SRAC is u-shaped because of diminishing returns in the short run

MARKETS:

Market is a place where buyer and seller meet, goods and services are offered for the sale and transfer of ownership occurs. A market may be also defined as the demand made by a certain group of potential buyers for a good or service. Economists describe a market as a collection of buyers and sellers who transact over a particular product or product class (the housing market, the clothing market, the grain market etc.). For business purpose we define a market as people or organizations with wants (needs) to satisfy, money to spend, and the willingness to spend it. Broadly, market represents the structure and nature of buyers and sellers for a commodity/service and the process by which the price of the commodity or service is established.

In this sense, we are referring to the structure of competition and the process of price determination for a commodity or service. The determination of price for a commodity or service depends upon the structure of the market for that commodity or service (i.e., competitive structure of the market). Hence the understanding on the market structure and the nature of competition are a pre-requisite in price determination.

Markets can be classified as

Different Market Structures based on Competition

Market structure describes the competitive environment in the market for any good or service. A market consists of all firms and individuals who are willing and able to buy or sell a particular product. This includes firms and individuals currently engaged in buying and selling a particular product, as well as potential entrants. The determination of price is affected by the competitive structure of the market. This is because the firm operates in a market and not in isolation. In making decisions concerning economic variables it is affected, as are all institutions in society by its environment.

I Perfect Competition

Perfect competition refers to a market structure where competition among the sellers and buyers prevails in its most perfect form. In a perfectly competitive market, a single market price prevails for the commodity, which is determined by the forces of total demand and total supply in the market.

Characteristics of Perfect Competition The following features characterize a perfectly competitive market:

1. A large number of buyers and sellers: The number of buyers and sellers is large and the share of each one of them in the market is so small that none has any influence on the market price.

2. Homogeneous product: The product of each seller is totally undifferentiated from those of the others.

3. Free entry and exit: Any buyer and seller is free to enter or leave the market of the commodity.

4. Perfect knowledge: All buyers and sellers have perfect knowledge about the market for the commodity.

5. Indifference: No buyer has a preference to buy from a particular seller and no seller to sell to a particular buyer.

6. Non-existence of transport costs: Perfectly competitive market also assumes the nonexistence of transport costs.

7. Perfect mobility of factors of production: Factors of production must be in a position to move freely into or out of industry and from one firm to the other.

Under such a market no single buyer or seller plays a significant role in price determination. One the other hand all of them jointly determine the price. The price is determined in the industry, which is composed of all the buyers and seller for the commodity. The demand curve facing the industry is the sum of all consumers‟ demands at various prices. The industry supply curve is the sum of all sellers‟ supplies at various prices.

8. Each seller is a price taker

II .Imperfect competition market: It is a type of market where there is no competition among the sellers. Imperfect competition market includes monololy, monopolistic and Duopoly markets.

1)MONOPOLY

The word monopoly is made up of two syllables, Mono and poly. Mono means single while poly implies selling. Thus monopoly is a form of market organization in which there is only one seller of the commodity. There are no close substitutes for the commodity sold by the seller. Pure monopoly is a market situation in which a single firm sells a product for which there is no good substitute.

Features of monopoly The following are the features of monopoly.

1. Single person or a firm: A single person or a firm controls the total supply of the commodity. There will be no competition for monopoly firm. The monopolist firm is the only firm in the whole industry.

2. No close substitute: The goods sold by the monopolist shall not have closely competition substitutes. Even if price of monopoly product increase people will not go in far substitute. For example: If the price of electric bulb increase slightly, consumer will not go in for kerosene lamp.

3. Large number of Buyers: Under monopoly, there may be a large number of buyers in the market who compete among themselves.

4. Price Maker: Since the monopolist controls the whole supply of a commodity, he is a price-maker, and then he can alter the price.

5. Supply and Price: The monopolist can fix either the supply or the price. He cannot fix both. If he charges a very high price, he can sell a small amount. If he wants to sell more, he has to charge a low price. He cannot sell as much as he wishes for any price he pleases.

6. Downward Sloping Demand Curve: The demand curve (average revenue curve) of monopolist slopes downward from left to right. It means that he can sell more only by lowering price.

Types of Monopoly Monopoly may be classified into various types. The different types of monopolies are explained below:

1. Legal Monopoly: If monopoly arises on account of legal support or as a matter of legal privilege, it is called Legal Monopoly. Ex. Patent rights, special brands, trade means, copyright etc.

2. Voluntary Monopoly: To get the advantages of monopoly some private firms come together voluntarily to control the supply of a commodity. These are called voluntary monopolies.

3. Government Monopoly: Sometimes the government will take the responsibility of supplying a commodity and avoid private interference. Ex. Water, electricity. These monopolies, created to satisfy social wants, are formed on social considerations. These are also called Social Monopolies.

4. Private Monopoly: If the total supply of a good is produced by a single private person or firm, it is called private monopoly. Hindustan Lever Ltd. Is having the monopoly power to produce Lux Soap.

5. Limited Monopoly: if the monopolist is having limited power in fixing the price of his product, it is called as „Limited Monopoly". It may be due to the fear of distant substitutes or government intervention or the entry of rivals firms.

6. Unlimited Monopoly: If the monopolist is having unlimited power in fixing the price of his good or service, it is called unlimited monopoly. Ex. A doctor in a village.

7. Single Price Monopoly: When the monopolist charges same price for all units of his product, it is called single price monopoly. Ex. Tata Company charges the same price to all the Tata Indiaca Cars of the same model.

8. Discriminating Monopoly: When a Monopolist charges different prices to different consumers for the same product, it is called discriminating monopoly. A doctor may take Rs.20 from a rich man and only Rs.2 from a poor man for the same treatment.

9. Natural Monopoly: Sometimes monopoly may arise due to scarcity of natural resources. Nature provides raw materials only in some places. The owner of the place will become monopolist. For Ex. Diamond mine in South Africa.

2) MONOPOLISTIC COMPETITION

Perfect competition and pure monopoly are rate phenomena in the real world. Instead, almost every market seems to exhibit characteristics of both perfect competition and monopoly. Hence in the real world it is the state of imperfect competition lying between these two extreme limits that work. Edward. H. Chamberlain developed the theory of monopolistic competition, which presents a more realistic picture of the actual market structure and the nature of competition. Characteristics of Monopolistic Competition

The important characteristics of monopolistic competition are:

1.Existence of Many firms: Industry consists of a large number of sellers, each one of whom does not feel dependent upon others. Every firm acts independently without bothering about the reactions of its rivals. The size is so large that an individual firm has only a relatively small part in the total market, so that each firm has very limited control over the price of the product. As the number is relatively large it is difficult for these firms to determine its price-output policies without considering the possible reactions of the rival forms. A monopolistically competitive firm follows an independent price policy.

2. Product Differentiation: Product differentiation means that products are different in some ways, but not altogether so. The products are not identical but the same time they will not be entirely different from each other. IT really means that there are various monopolist firms competing with each other. An example of monopolistic competition and product differentiation is the toothpaste produced by various firms. The product of each firm is different from that of its rivals in one or more respects. Different toothpastes like Colgate, Close-up, Forehans, Cibaca, etc., provide an example of monopolistic competition. These products are relatively close substitute for each other but not perfect substitutes. Consumers have definite preferences for the particular verities or brands of products offered for sale by various sellers. Advertisement, packing, trademarks, brand names etc. help differentiation of products even if they are physically identical.

3. Large Number of Buyers: There are large number buyers in the market. But the buyers have their own brand preferences. So the sellers are able to exercise a certain degree of monopoly over them. Each seller has to plan various incentive schemes to retain the customers who patronize his products.

4. Free Entry and Exist of Firms: As in the perfect competition, in the monopolistic competition too, there is freedom of entry and exit. That is, there is no barrier as found under monopoly.

5. Selling costs: Since the products are close substitute much effort is needed to retain the existing consumers and to create new demand. So each firm has to spend a lot on selling cost, which includes cost on advertising and other sale promotion activities.

6. Imperfect Knowledge: Imperfect knowledge about the product leads to monopolistic competition. If the buyers are fully aware of the quality of the product they cannot be influenced much by advertisement or other sales promotion techniques. But in the business world we can see that thought the quality of certain products is the same, effective advertisement and sales promotion techniques make certain brands monopolistic. For examples, effective dealer service backed by advertisement-helped popularization of some brands through the quality of almost all the cement available in the market remains the same.

7. The Group: Under perfect competition the term industry refers to all collection of firms producing a homogenous product. But under monopolistic competition the products of various firms are not identical through they are close substitutes. Prof. Chamberlin called the collection of firms producing close substitute products as a group.

3)OLIGOPOLY

The term oligopoly is derived from two Greek words, oligos meaning a few, and pollen meaning to sell. Oligopoly is the form of imperfect competition where there are a few firms in the market, producing either a homogeneous product or producing products, which are close but not perfect substitute of each other.

Characteristics of Oligopoly The main features of oligopoly are:

1. Few Firms: There are only a few firms in the industry. Each firm contributes a sizeable share of the total market. Any decision taken by one firm influence the actions of other firms in the industry. The various firms in the industry compete with each other.

2. Interdependence: As there are only very few firms, any steps taken by one firm to increase sales, by reducing price or by changing product design or by increasing advertisement expenditure will naturally affect the sales of other firms in the industry. An immediate retaliatory action can be anticipated from the other firms in the industry every time when one firm takes such a decision. He has to take this into account when he takes decisions. So the decisions of all the firms in the industry are interdependent.

3. Indeterminate Demand Curve: The interdependence of the firms makes their demand curve indeterminate. When one firm reduces price other firms also will make a cut in their prices. So he firm cannot be certain about the demand for its product. Thus the demand curve facing an oligopolistic firm loses its definiteness and thus is indeterminate as it constantly changes due to the reactions of the rival firms.

4. Advertising and selling costs: Advertising plays a greater role in the oligopoly market when compared to other market systems. According to Prof. William J. Banumol “it is only oligopoly that advertising comes fully into its own”. A huge expenditure on advertising and sales promotion techniques is needed both to retain the present market share and to increase it. So Banumol concludes “under oligopoly, advertising can become a life-and-death matter where a firm which fails to keep up with the advertising budget of its competitors may find its customers drifting off to rival products.”

5. Price Rigidity: In the oligopoly market price remain rigid. If one firm reduced price it is with the intention of attracting the customers of other firms in the industry. In order to retain their consumers they will also reduce price. Thus the pricing decision of one firm results in a loss to all the firms in the industry. If one firm increases price. Other firms will remain silent there by allowing that firm to lost its customers. Hence, no firm will be ready to change the prevailing price. It causes price rigidity in the oligopoly market.

4) Duopoly Duopoly refers to a market situation in which there are only two sellers. As there are only two sellers any decision taken by one seller will have reaction from the other E.g. Coca-Cola and Pepsi. Usually these two sellers may agree to co-operate each other and share the market equally between them, So that they can avoid harmful competition.

The duopoly price, in the long run, may be a monopoly price or competitive price, or it may settle at any level between the monopoly price and competitive price. In the short period, duopoly price may even fall below the level competitive price with the both the firms earning less than even the normal price.

Monopsony Mrs. Joan Robinson was the first writer to use the term Monopsony to refer to market, which there is a single buyer. (Ex- FCI)

Duopsony is a market where there are two buyers.

Oligopsony is a market where there are few buyers. Ex Milk diaries.

PRICING & PRICING STRATEGIES

Introduction

Pricing is the most important function of all enterprises. Since every enterprise is engaged in the production of some goods or/and service. Incurring some expenditure, it must set a price for the same to sell it in the market. It is only in extreme cases that the firm has no say in pricing its product; because there is severe or rather perfect competition in the market of the good happens to be of such public significance that its price is decided by the government.

In an overwhelmingly large number of cases, the individual producer plays the role in pricing its product. It is said that if a firm were good in setting its product price it would certainly flourish in the market. This is because the price is such a parameter that it exerts a direct influence on the products demand as well as on its supply, leading to firm‟s turnover (sales) and profit. Every manager endeavors to find the price, which would best meet with his firm‟s objective.

If the price is set too high the seller may not find enough customers to buy his product. On the other hand, if the price is set too low the seller may not be able to recover his costs. There is a need for the right price further, since demand and supply conditions are variable over time what is a right price today may not be so tomorrow hence, pricing decision must be reviewed and reformulated from time to time.

PRICE Price denotes the exchange value of a unit of good expressed in terms of money. The process of setting price for product is called pricing.

PRICING OBJECTIVES AND POLICIES : Pricing objectives or goals give direction to the whole pricing process .When deciding on pricing objectives the following things to be considering,

1) The overall financial, marketing, and strategic objectives of the company

2) The objectives of the product or brand

3) Consumer price elasticity and price points

4) The resources made available.

Five main objectives of pricing are:

(i) Achieving a Target Return on Investments

(ii) Price Stability

(iii) Achieving Market Share

(iv) Prevention of Competition and

(v) Increased Profits

Determinants of price- demand and supply are the factors which determine price. Alone demand or price cannot fix the price both are considered simultaneously

Equilibrium price:

Definition: Equilibrium price is the price where the demand for a product or a service is equal to the supply of the product or service. At equilibrium, both consumers and producers are satisfied, thereby keeping the price of the product or the service stable.

Price (Rs)	Demand (units)	Supply (Units)
Rs.5	12000	18000
Rs.3	15000	15000
Rs.1	20000	12000

Rs.3 is equilibrium price where demand and supply are equal. When price decreases demand will increase and supply will reduce, in between the price at which demand and supply are equal is equilibrium price i.e both producer and consumer are satisfied at this price.

Pricing Methods

1. Cost-Oriented Methods
   - Cost Plus Pricing
   - Mark-up Pricing
   - Marginal Cost Pricing

    - Target Return Pricing
    - Break-Even Pricing
    - Early Cash Recovery Pricing
2. Market Oriented Methods
    - Going Rate Method
    - Sealed Bid Pricing Method
    - Customer-Oriented Method
3. Other Pricing Methods
    - Market Skimming Pricing
    - Limit Pricing
    - Peak Load Pricing
    - Bundle Pricing
    - Psychological Pricing
    - Internet Pricing Models

Cost-Oriented Methods

These are the traditional methods of product pricing. The major factors which influence the product price are the fixed cost, variable cost other overheads incurred in manufacturing the products.

Let us now go through the different cost-oriented pricing models below:

Cost Plus Pricing

Cost-plus pricing is one of the simplest ways of price determination. A certain percentage of cost is added as a profit margin to the value of the product to acquire the selling price.

Mark-up Pricing

It is a form of cost-plus pricing, but here the profit margin is presented as a percentage of expected return on sales. The formula for mark-up pricing is:

$$\text{Mark} - \text{up Price} = \frac{\text{Unit Cost (Fixed + Variable)}}{1 - \text{Percentage of Expected Return on Sales}}$$

Example: If the unit cost of manufacturing a bag is ₹100 and the expected return on sales is 25%, determine the mark-up price.

Mark-up Price=Unit Cost (Fixed+Variable)/(1-Percentage of Expected Return on Sales)
Mark-up Price=100/1-25%
Mark-up Price=₹133.33

Marginal Cost Pricing

The primary aim of the company adopting this pricing method is to meet its marginal cost and overheads. The marginal costing method is suitable for entering the industries which are dominated by giant players, posing a fierce competition for the organization to sustain in the business.

Target Return Pricing

The pricing objective in target return method is to attain a certain level of ROI (Return on Investment). The formula for determining the target return price is:

$$\text{Target Return Price} = \frac{\text{Total Cost} + \text{Desired Return on Investment}}{\text{Total Sales in Units}}$$

To find out the desired return on investment:

$$\text{Desired Return on Investment} = \text{Desired \%ROI} \times \text{Total Investment Value}$$

Example: If the total business investment is ₹80000, the desired ROI is 25%; the total cost incurred is ₹30000 and the expected sales are 5000 units, determine the target return price.

Target Return Price=(Total Cost+Desired Return on Investment)/Total Sales in Units
Desired Return on Investment=Desired %ROI×Total Investment Value
Desired Return on Investment=25%×80000
Desired Return on Investment=₹20000
Target Return Price=(30000+20000)/5000
Target Return Price=₹10

Break-Even Pricing

This method is similar to break-even analysis, here the company needs to price the products such that it generates profit after recovering the fixed and variable costs. The selling price should be equal to or more than the break-even price (the point at which the sales revenue matches the cost of goods sold).

The formula for ascertaining the break-even limit is:

$$\text{Break} - \text{Even Limit} = \frac{\text{Total Fixed Cost}}{\text{Selling Price Per Unit} - \text{Variable Cost Per Unit}}$$

For instance, a company incurs ₹500000 as fixed cost and ₹25 as a variable cost. If the selling price is Rs.75, find out the break-even limit.

Break-Even Limit=Total Fixed Cost/(Selling Price Per Unit-Variable Cost Per Unit)
Break-Even Limit=500000/(75-25)
Break-Even Limit=10000 Units

Thus, the organization either needs to sell more than 10000 units or price the product higher than Rs.75 to earn a profit.

Early Cash Recovery Pricing

When it comes to rapidly growing technological products or the ones with a short life cycle, the cost needs to recover as early as possible. This method is very similar to target return pricing; the only difference is that it considers a high value of return on investment owing to a short recovery period.

II. Market-Oriented Methods (Competition oriented method)

In a highly competitive market, the company cannot survive with cost-oriented pricing. Hence, it needs to price its products according to the market demand and competitor's pricing strategy.

To understand the three primary market-oriented models of pricing, read below:

Going Rate Pricing Method

'Follow the crowd' method is based on market competition, where the company price its product similar to the competitor's product price. If the market leader reduces the price of its product, the organization also needs to decrease its product price, even if the latter's cost of production is high.

Sealed Bid Pricing Method

When it comes to industrial marketing or government projects, the supplier needs to bid specific product price, which he/she assumes to be the lowest, in a sealed quotation.

In other words, the organization needs to fill a tender, which indicates its costing and competitiveness. The pricing should be done smartly by estimating the profit margin at different price levels and enclosing the most competitive price.

Customer-Oriented Method

This method is also called perceived value pricing. It is demand-based pricing where the company determines the product price on value perception in terms of consumer demand for the particular goods or service. This perceived value is based on the following constituents:

- **Acquisition Value**: The acquisition value is based on the opportunity cost of a product or service, which is estimated through the comparison of the perceived benefit and the perceived sacrifice.
- **Transaction Value**: The comparison of the customer's reference price (assumed or quoted price) with the actual price paid for the product or service is the transaction value.

The other methods to find out the perceived value are as follows:

- **Direct Price Rating Method**: The customers need to determine the price of products displayed to them, where each product belong to a different brand.
- **Direct Perceived Value Rating**: The buyers rate the different brand products on a scale of 0-100 according to their preference. The highest-rated product has the maximum perceived value.
- **Economic Value to the Customer**: To determine the target market segment, the companies correlate its total product cost to the consumer benefits of the current product.

Strategy based pricing (or) Other Pricing Methods

There are specific other methods for determining the price of a product or service, other than considering the cost or market competition as the basis. These are explained in detail below:

Market Skimming Pricing

The skimming method is usually implemented in case of speciality, luxury or innovative products.

Here, the company avails the profit opportunity in the initial stage of marketing by selling the products at a high price in a non-price-sensitive market segment. Later, the prices are dropped down gradually to sustain in the market.

Limit Pricing

This is defensive pricing strategy. The company price its products immensely low (and this price is known as entry forestalling price), to retain the monopoly in the market. It is done to discourage the entry of competitors by presenting the business as unattractive and non-profitable.

Peak Load Pricing

The peak load method is demand-based pricing, where the companies charge high prices in the peak seasons or period when the demand for the product is quite high. However, in the off-peak time or season when the demand falls, the prices are kept low.

It is applied for seasonal product pricing, airline travel pricing, tourism package pricing, etc.

Bundle Pricing

Bundling refers to compiling of two or more products together and selling it as a single product. The company prices the complete bundle at a single price known as the offer price.

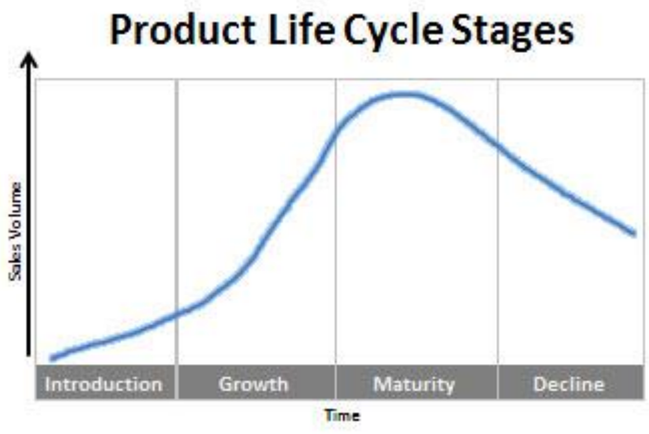
An organization can either opt for pure bundling, where the products in a bunch are strictly not available individually. Or it may go for a mixed bundling, i.e. the products in a bundle can be sold separately but at a higher price.

Block Pricing: Firm charges single price for selling group of products or block of products. Ex. Six Lux soaps sold with single price. Here the price charged may be low compared to the price for selling products individually but firm is able to sell more number of products at a time.

Two part pricing: Pricing: In this method price is divided into two parts . First part is for right to use the product and second part depends upon usage for products or service. Ex Entry fee for Exhibition can be considered as first part and second parts includes the charges for making use of services or buying products.

Market penetration Price: This is opposite to Market skimming price. A firm charges low price initially when product is introduced in the market later firm increases prices as demand increases. Here the strategy is to increase market share first than profits.

Product Life Cycle Stages



As consumers, we buy millions of products every year. And just like us, these products have a life cycle. Older, long-established products eventually become less popular, while in contrast, the demand for new, more modern goods usually increases quite rapidly after they are launched.

Because most companies understand the different product life cycle stages, and that the products they sell all have a limited lifespan, the majority of them will invest heavily in new product development in order to make sure that their businesses continue to grow.

Product Life Cycle Stages Explained

The product life cycle has 4 very clearly defined stages, each with its own characteristics that mean different things for business that are trying to manage the life cycle of their particular products.

Introduction Stage – This stage of the cycle could be the most expensive for a company launching a new product. The size of the market for the product is small, which means sales are low, although they will be increasing. On the other hand, the cost of things like research and development, consumer testing, and the marketing needed to launch the product can be very high, especially if it's a competitive sector.

Growth Stage – The growth stage is typically characterized by a strong growth in sales and profits, and because the company can start to benefit from economies of scale in production, the profit margins, as well as the overall amount of profit, will increase. This makes it possible for businesses to invest more money in the promotional activity to maximize the potential of this growth stage.

Maturity Stage – During the maturity stage, the product is established and the aim for the manufacturer is now to maintain the market share they have built up. This is probably the most competitive time for most products and businesses need to invest wisely in any marketing they undertake. They also need to consider any product modifications or improvements to the production process which might give them a competitive advantage.

Decline Stage – Eventually, the market for a product will start to shrink, and this is what's known as the decline stage. This shrinkage could be due to the market becoming saturated (i.e. all the customers who will buy the product have already purchased it), or because the consumers are switching to a different type of product. While this decline may be inevitable, it may still be possible for companies to make some profit by switching to less-expensive production methods and cheaper markets.

Pricing based on Product Life Cycle

A Product's Life Cycle (PLC) can be divided into several stages characterized by the revenue generated by the product.

The life cycle concept may apply to a brand or to a category of product. Its duration may be as short as a few months for a fad item or a century or more for product categories such as the gasoline-powered automobile.

Product development is the incubation stage of the product life cycle. There are no sales and the firm prepares to introduce the product. As the product progresses through its life cycle, changes in the marketing mix usually are required in order to adjust to the evolving challenges and opportunities.

Introduction Stage:

When the product is introduced, sales will be low until customers become aware of the product and its benefits. Some firms may announce their product before it is introduced, but such announcements also alert competitors and remove the element of surprise.

Advertising costs typically are high during this stage in order to rapidly increase customer awareness of the product and to target the early adopters.

During the introductory stage the firm is likely to incur additional costs associated with the initial distribution of the product. These higher costs coupled with a low sales volume usually make the introduction stage a period of negative profits. During the introduction stage, the primary goal is to establish a market and build primary demand for the product class.

Price under Introduction Stage:

Generally high, assuming a skim pricing strategy for a high profit margin as the early adopters buy the product and the firm seeks to recoup development costs quickly. In some cases a penetration pricing strategy is used and introductory prices are set low to gain market share rapidly.

Growth Stage:

The growth stage is a period of rapid revenue growth. Sales increase as more customers become aware of the product and its benefits and additional market segments are targeted. Once the product has been proven a success and customers begin asking for it, sales will increase further as more retailers become interested in carrying it.

The marketing team may expand the distribution at this point. When competitors enter the market, often during the later part of the growth stage, there may be price competition and/or increased promotional costs in order to convince consumers that the firm's product is better than that of the competition. During the growth stage, the goal is to gain consumer preference and increase sales.

Maturity Stage:

The maturity stage is the most profitable stage. While sales continue to increase in this stage, they do so at a slower pace. Because brand awareness is strong, advertising expenditures will be reduced. Competition may result in decreased market share and/or prices. The competing products may be very similar at this point, increasing the difficulty of differentiating the product.

The firm places effort into encouraging competitors' customers to switch, increasing usage per customer, and converting non-users into customers. Sales promotions may be offered to encourage retailers to give the product more shelf space over competing products. During the maturity stage, the primary goal is to maintain market share and extend the product life cycle.

Price under Maturity Stage:

Possible price reductions in response to competition while avoiding a price war.

Decline Stage:

Eventually sales begin to decline as the market becomes saturated, the product becomes technologically obsolete, or customer tastes change. If the product has developed brand loyalty, the profitability may be maintained longer. Unit costs may increase with the declining production volumes and eventually no more profit can be made.

Price under Decline Stage:

Prices may be lowered to liquidate inventory of discontinued products. Prices may be maintained for continued products serving a niche market.

Break-Even Analysis

A break-even analysis is a financial tool which helps you to determine at what stage your company, or a new service or a product, will be profitable. In other words, it's a financial calculation for determining the number of products or services a company should sell to cover its costs (particularly fixed costs). Break-even is a situation where you are neither making money nor losing money, but all your costs have been covered.
Break-even analysis is useful in studying the relation between the variable cost, fixed cost and revenue. Generally, a company with low fixed costs will have a low break-even point of sale. For an example, a company has a fixed cost of Rs.0 (zero) will automatically have broken even upon the first sale of its product. BEA is also termed as CVP analysis (Cost Volume Profit Analysis) when it I used to analyse cost, volume of production and estimation of profits.

Components of Break Even Analysis

Fixed costs

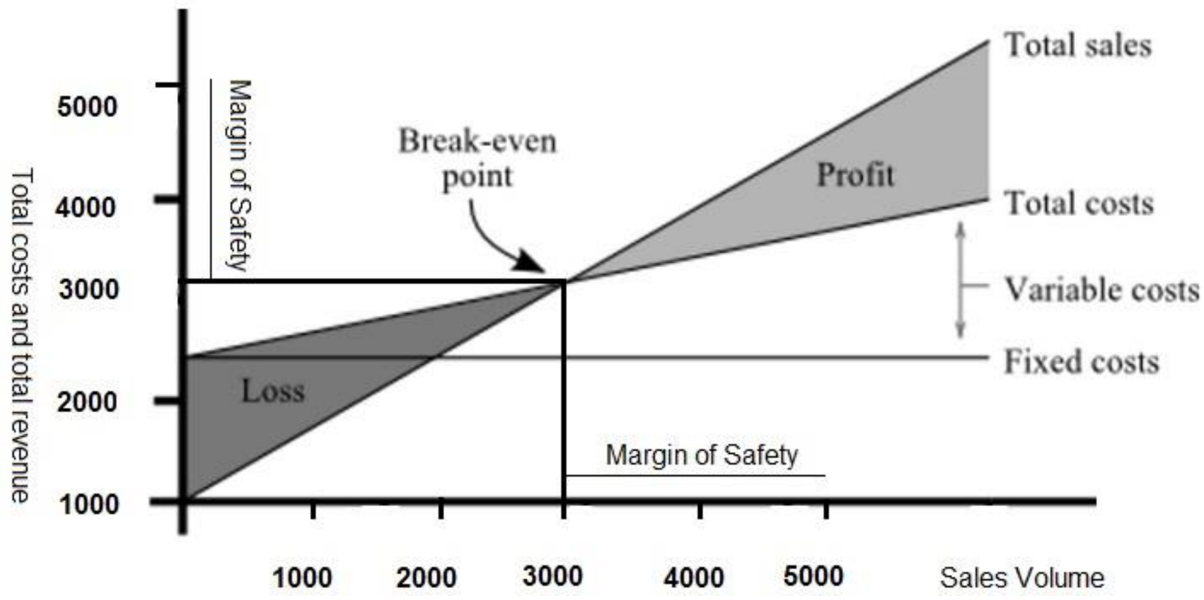
Fixed costs are also called as the overhead cost. These overhead costs occur after the decision to start an economic activity is taken and these costs are directly related to the level of production, but not the quantity of production. Fixed costs include (but are not limited to) interest, taxes, salaries, rent, depreciation costs, labour costs, energy costs etc. These costs are fixed no matter how much you sell.

Variable costs

Variable costs are costs that will increase or decrease in direct relation to the production volume. These cost include cost of raw material, packaging cost, fuel and other costs that are directly related to the production.

Explanation of the Concept of Break Even Analysis with Diagram:

Break even chart may be prepared in different forms and styles; but they all in addition to break-even point indicate revenues, costs, profits or losses on different output levels. Usually a break-even chart is prepared in the following form diagram:



Explanation of the diagram:

- Sales volume is shown on X axis
- Total cost (Fixed cost and variable cost) are shown on Y axis
- Variable line varies proportionately starting from 0
- Fixed cost remains fixed to some extent then start increasing with production
- Sales revenue also increases along with production
- The point where Total cost = Total Revenue (TC=TR) is called Break even point
- Excess sales /production above BEP is called Margin of Safety (MOS)

The break-even analysis is based on the following set of assumptions:
(i) The total costs may be classified into fixed and variable costs. It ignores semi-variable cost.

(ii) The cost and revenue functions remain linear.

(iii) The price of the product is assumed to be constant.

(iv) The volume of sales and volume of production are equal.

(v) The fixed costs remain constant over the volume under consideration.

(vi) It assumes constant rate of increase in variable cost.

(vii) It assumes constant technology and no improvement in labour efficiency.

(viii) The price of the product is assumed to be constant.

(ix) The factor price remains unaltered.

(x) Changes in input prices are ruled out.

(xi) In the case of multi-product firm, the product mix is stable.

Merits:

1. Information provided by the Break Even Chart can be understood more easily then those contained in the profit and Loss Account and the cost statement.
2. Break Even Chart discloses the relationship between cost, volume and profit. It reveals how changes in profit. So, it helps management in decision-making.
3. It is very useful for forecasting costs and profits long term planning and growth
4. The chart discloses profits at various levels of production.
5. It serves as a useful tool for cost control.
6. It can also be used to study the comparative plant efficiencies of the industry.
7. Analytical Break-even chart present the different elements, in the costs – direct material, direct labour, fixed and variable overheads.

Demerits:

1. Break-even chart presents only cost volume profits. It ignores other considerations such as capital amount, marketing aspects and effect of government policy etc., which are necessary in decision making.
2. It is assumed that sales, total cost and fixed cost can be represented as straight lines. In actual practice, this may not be so.
3. It assumes that profit is a function of output. This is not always true. The firm may increase the profit without increasing its output.
4. A major draw back of BEC is its inability to handle production and sale of multiple products.
5. It is difficult to handle selling costs such as advertisement and sale promotion in BEC.

6. It ignores economics of scale in production.
7. Fixed costs do not remain constant in the long run.
8. Semi-variable costs are completely ignored.
9. It assumes production is equal to sale. It is not always true because generally there may be opening stock.
10. When production increases variable cost per unit may not remain constant but may reduce on account of bulk buying etc.

Some important terms in calculating BEP and formulae:

1. ***Fixed cost:*** Expenses that do not vary with the volume of production are known as fixed expenses. Eg. Manager's salary, rent and taxes, insurance etc. It should be noted that fixed changes are fixed only within a certain range of plant capacity. The concept of fixed overhead is most useful in formulating a price fixing policy. Fixed cost per unit is not fixed.
2. ***Variable Cost:*** Expenses that vary almost in direct proportion to the volume of production of sales are called variable expenses. Eg. Electric power and fuel, packing materials consumable stores. It should be noted that variable cost per unit is fixed.
3. ***Contribution:*** Contribution is the difference between sales and variable costs and it contributed towards fixed costs and profit. It helps in sales and pricing policies and measuring the profitability of different proposals. Contribution is a sure test to decide whether a product is worthwhile to be continued among different products.

Total Revenue – Total Cost = Profit

(Total cost = Fixed cost + Variable cost)

Therefore Total Revenue (Sales) – Variable cost = Contribution

And Contribution – Fixed cost = Profit

Contribution = Sales – Variable cost

(Contribution per unit = S.P per unit-V.C per unit)

Contribution = Fixed Cost + Profit.

4.Break – Even- Point:

Break Even Point refers to the point where total cost is equal to total revenue. It is a point of no profit, no loss. This is also a minimum point of no profit, no loss. This is also a minimum point of production where total costs are recovered. If sales go up beyond the Break Even Point, organization makes a profit. If they come down, a loss is incurred.

1. Break Even point (Units) = $\dfrac{\text{Fixed Expenses}}{\text{Contribution per unit}}$

2. Break Even value(In Rupees) = Fixed cost/PVR

5.Margin of safety: Margin of safety is the excess of sales over the break even sales. It can be expressed in absolute sales amount or in percentage. It indicates the extent to which the sales can be reduced without resulting in loss. A large margin of safety indicates the soundness of the business. The formula for the margin of safety is:

Margin of Safety(Mos) = Total sales – Break even sales or $\dfrac{\text{Profit}}{\text{P. V. ratio}}$

Profit Volume Ratio (PV Ratio) = $\dfrac{\text{Sales – Variable cost}}{\text{Sales}}$

(or) PVR = Contribution / sales x 100

Example #1

Let's look at the details of the two companies.

	Company A	Company B
Fixed Cost	30000	50000
Price per unit	100	90
Variable Cost per unit	40	20
Actual sales	60000	70000

Calculate a) BEP units b)BE sales or Volume C) PV ratio d) MOS sales

Solution:

Company A:

a) BEP units = Fixed expenses/contribution per unit

Contribution per unit = Selling price per unit – variable cost per unit

100-40 = 60

BEP units = Fixed cost/Contribution per unit i.e 30000/60 = 500 units

b) BEP sales = BEP units/Selling price per unit i.e 500 units x 100 = Rs.50000

(or) Fixed expenses/Profit Volume Ratio = 30000/40 = Rs.50000

c)PV Ratio = Contribution / sales x 100 ie 60/90x100 = 66% (0.66)

d) Margin of safety (MOS) = Actual sales – Break Even sales

60000-50000 =Rs.10000

Company B:

a) BEP units = Fixed expenses/contribution per unit

Contribution per unit = Selling price per unit – variable cost per unit

90-20 = 70

BEP units = Fixed cost/Contribution per unit i.e 50000/70 = 714 units

b) BEP sales = BEP units/Selling price per unit i.e 714 units x 90 = Rs.64260

(or) Fixed expenses/Profit volume Ratio = 50000/0.8 = Rs.62500

c)PV Ratio = Contribution / sales x 100 ie 70/90x90 = 80% (0.8)

d) Margin of safety (MOS) = Actual sales – Break Even sales

70000-64260 =Rs.5740

Formulae for Desired Sales or Desired Profit

PVR= Fixed expenses + Profit/ sales

Cost Volume Profit Analysis (CVP)

Definition: The cost volume profit analysis, commonly referred to as CVP, is a planning process that management uses to predict the future volume of activity, costs incurred, sales made, and profits received. In other words, it's a mathematical equation that computes how changes in costs and sales will affect income in future periods. Some time this is also termed as BEA.

What Does Cost Volume Profit Analysis Mean?

The CVP analysis classifies all costs as either fixed or variable. Fixed costs are expenses that don't fluctuate directly with the volume of units produced. These costs effectively remain constant. An example of a fixed cost is rent. It doesn't matter how many units the assembly line produces. The rent expense will always be the same.

Example

Variable costs, on the other hand, change with the levels of production. These costs include materials and labor that go into each unit produced. For example, a bike factory would classify bicycle tire costs as a variable cost. Every bike that is produced must have two tires. The more units produced, the more tire costs increase.

The CVP analysis uses these two costs to plot out production levels and the income associated with each level. As production levels increase, the fixed costs become a smaller percentage of total income while variable costs remain a constant percentage. Cost accountants and management analyze these trends in an effort to predict what costs, sales, and profits the company will have in the future.

They also use cost volume profit analysis to calculate the break-even point in production processes and sales. The break-even point is drawn on the CVP graph where the sales, fixed costs, and variable costs' lines all intersect. This is a key concept because it shows management that the revenue from a project will be able to cover all the costs associated with it. Using a variation of the CVP, management can calculate the break-even point in profits, units, and even dollars.

UNIT – IV

INTRODUCTION TO FINANCIAL ACCOUNTING

A Business concern has to keep a systematic record of its business transactions. Book-Keeping is the art of recording business transactions in regular and systematic manner. According to Carter "Book-Keeping" is the science and art of correctly recording in books of account all those business transactions that result in the transfer of money or money's worth. The term 'Accountancy' is used for accounting work of a higher order. According Smith and Ashburne "Accounting is the science of recording and classifying business transactions and events, primarily of financial character, and the art of making significant summaries, analysis and interpretations of those transactions and events, and communicating the results to persons who must make decisions or form judgements."

According to Committee on Terminology of American Institute of certified Public Accountants (A.I.C.P.A) "Accounting is 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 there of."

According to above definition, Accounting involves the following characteristics:

1). It is an art of recording financial transactions.

2). It involves making summaries and analysis of financial transactions.

3). It is an art of interpreting the results of the financial transactions and communicating the results to the persons who are interested in such results.

Accountings are regarded as 'language of business'. It means that it Communicates with parties concerned through accounting statements.

Book keeping: It is concerned with proper maintenance of books of accounts. It is not concerned with disclosing or interpreting the results of the business.

"Book keeping is the science and art of correctly recording in the books of accounts all those business transactions that results in transfer of money or money's worth.

Let us look at the most important points of difference between bookkeeping and accounting in the following table:

Bookkeeping	Accounting
Definition	
Bookkeeping deals with identifying and recording financial transactions only	Accounting refers to the process of summarising, interpreting and communicating the financial data of an organisation.
Decision making	
Data provided by bookkeeping is not sufficient for decision making	Management can take important decisions based on the data obtained from accounting
Preparation of Financial Statement	
Not done in the case of bookkeeping	Financial statements are a part of the accounting process
Analysis	
No analysis is required in the bookkeeping	Accounting analyses the data and creates insights for the business
Persons Involved	
The person concerned with bookkeeping is known as a bookkeeper	The person concerned with accounting is known as an accountant
Determining Financial Position	
Bookkeeping does not show the financial	Accounting helps in showing a clear picture of the financial

position of a business	position of a business
Level of Learning	
No high-level learning required	High-level learning required for understanding and analysing accounting concepts

Objectives of Accounting

1. Maintaining proper record of business transactions
2. Calculation of profit or loss
3. Depiction of financial position
4. Providing effective control over the business
5. Making information available to various groups.

Users of accounting information.

Internal users

1. Owners
2. Management
3. Employees

External users

1. Investors
2. Customers
3. Creditors
4. Financial Institutions
5. Government
6. Tax authorities
7. Labour unions
8. Trade associations
9. Stock Exchanges
10. Researchers and others

Advantages of Accounting

1. Replacing memory
2. Assisting the performance of business
3. Assessing financial status of the business
4. Documentary evidence
5. Assisting in realization of debts
6. Preventing and detecting frauds
7. Helpful to Management

Limitations of Accouning

1. Records only monetary transactions
2. Effect of price level changes not considered
3. No realistic information
4. Personal bias of accountant affects the accounting statements
5. Permits alternative treatments
6. No real test of managerial performance
7. Historical in nature

ACCOUNTING PRINCIPLES

If accounting has to serve the purpose of communicating the results of a business to the outside world, it should be based on certain uniform and scientifically laid down principles. Accounting Principles or standards are general rules adopted in accounting. These principles enable standardization in reporting of financial information. They are developed for common usage to ensure uniformity and understandability. Accounting principles may be defined as those rules of conduct or procedure which are adopted by the accountants universally while recording the accounting transactions. Accounting principles are not rigid. They are in the process of evolution, i.e. they are fast developing. Accounting principles can be classified into two categories:

1). Accounting Concepts and 2). Accounting Conventions.

Accounting Concepts

Accounting concepts mean the assumptions or conditions upon which accounting is based. There are a number of accounting concepts agreed upon and adopted by accountants. Some of the important accounting concepts are:

1). Business Entity Concept:

In accounting, business is treated as an entity different from the proprietor. The business and the ;proprietors, i.e. owners, are regarded as two separate entities

(i.e. parties). All the transactions of the business are recorded in the books of the business from the view point of business as an entity. In case this concept is not followed, affairs of the business will be mixed with the personal transactions of the proprietor and the true picture of the business will not be known. Even the proprietor is regarded as creditor to the extent of the capital contributed by him to the business. Capital is regarded as liability of the business to the proprietor.

2). Dual Aspects Concept:

According to this concept, every business transaction has a dual aspect. Every business transaction always results in receiving of some benefit of some value and giving of some other benefit of equal value. For instance, when a business purchases goods for cash, it receives goods of some value and gives cash of equal value. Every business transaction involves dual or double aspects of equal value so in accounting, a record is made of the dual or two aspects of each transaction.

3). Going Concern Concept:

Accounting is done on the assumption that the business shall have a long life and it will continue to exist until it is dissolved. It is for this reason that fixed assets are recorded at original cost and are depreciated on the basis of their expected life rather than on the basis of market value. It is not proper to show fixed assets in the Balance Sheet at the marked value, as they are not intended to be sold immediately.

4). Cost Concept:

According to this concept, an asset is recorded in the books at the price paid to acquire it and this cost is the basis for all subsequent accounting for the asset. Assets are not recorded at market values bcoz these values keep on changing with changes in price level from time to time.

5). Money Measurement Concept:

The money measurement concept signifies that in accounting a record is made only of those transactions or events which can be expressed in terms of money. Any happening or fact which can not be expresses in terms of money cannot be recorded in accounting books. Non-monetary events such as retirement of manager, sales policy of management, working conditions of workers, worker satisfaction, etc. cannot be recorded in accounting books. The money measurement concept has one great advantage. It helps a concern to express heterogeneous items such as bank balance, stock-in-trade, Furniture, Machinery, Building etc. in terms of a common denominator viz money.

6). Accounting Period Concept:

Even though it is assumed that business will continue to exist for a long period, it is necessary to keep accounts in such a way that the results are known at frequent intervals. Accountants generally adopt a twelve month period for measuring the income of a concern. This time interval is called ‘Accounting Period ’.

7) Dual aspect concept: Recording two aspects of transaction

8) Matching Concept

9) Realisation concept

10) Accounting Equation Concept (Assets=Owner's Equity +Liabilities)

Accounting Conventions

Accounting Conventions refer to customs, traditions, usages or practices followed by accountants as a guide in preparation of financial statement. They are followed to make the financial statements clear and meaningful.

1). Convention of Consistency:

The convention of consistency signifies that the accounting practices and methods should remain consistent (unchanged) from one accounting year to another. In other words, accounting practices should remain the same from one period to another. Comparison of results from one period to another is possible only when same accounting rules are followed. For example, if a concern adopts Written down value method of depreciation in one year and Straight line method of depreciation in another year, then it will be difficult to make comparison between the results of the two periods. Sometimes, wrong conclusions may be drawn. If change becomes necessary the change and its effect should be stated clearly.

2). Convention of Disclosure:

The convention of disclosure means that all the material facts must be disclosed in the financial statements. For example, in case of sundry debtors not only the total amount of sundry debtors should be disclosed, but also the amount of good, bad and doubtful debtors should be stated. Full disclosure does not mean disclosure of each and every item of information. It only means disclosure of such information which is of significance to owners, investors and creditors.

3). Convention of Materiality:

According to this convention, a detailed record is made only of those business transactions which are material (i.e.significiant). Accounts must not be over burdened with unnecessary minute details. Only material facts should be disclosed. "An item should be regarded as material if there is reason to believe that knowledge of it would influence the decision of informed investors." Hence, unimportant matters should be either left out or merged with other items.

4). Convention of Conservatism:

This convention is based on the policy of 'playing safe'. According to this convention all possible or expected losses should be provided for but unearned or unrealized profit should be left out. Examples of application of this convention are valuation of stock at cost price or market price, whichever is less, making provision for doubtful debts, or any other reserves and provisions etc. The idea behind the convention of conservatism is that the financial position of a firm should not be shown better than what it is…

Accounting Process:

1. Identify the financial transaction
2. Classifying the business transaction
3. Recording the business transaction
4. Summarizing business transaction
5. Analyzing and interpreting business transaction

Business transaction->Journal-> Ledger-> Trial balance->Financial accounts (Trading a/c, Profit & Loss a/c, Balance sheet) -> Analysis-Inerpretation-> Decision making

<u>DOUBLE - ENTRY SYSTEM</u>

Every transaction has two aspects. When we receive something, we give something else in return. For example, when we purchase goods for cash, we receive goods and give cash in return. Similarly, when we sell goods on credit, goods are given and the customer becomes debtor. This method of writing every transaction in two accounts is known as Double-Entry System. Every transaction is divided into two aspects, debit and credit. One account is to be debited and another account is to be credited for every transaction in order to have a complete record of the same. Every transaction affects two accounts in opposite direction. A transaction has to be recorded in two different accounts in opposite sides for an equal value. Both the accounts cannot be debited or credited. One account has to be debited and the other account has to be credited. The basic principle of Double-Entry System of Book-Keeping is that for every debit there is a corresponding credit of equal value.

Advantages of Double Entry System:

1. **Entire transactions report:** All the transactions of the business, as well as personal operations of proprietor or firm, are recorded in this system.
2. **Find exact profit or loss:** Preparing profit and loss account, which shows the precise position of profit or loss earned by the business during the financial year, becomes more accessible with this system.
3. **Arithmetical accuracy check:** Every transaction has double entries; thus, maintaining arithmetical accuracy of transactions gets maintained, which can be checked by preparing a trial balance.
4. **Control over frauds:** Double entry system restricts the fraudulent activities as it is a scientific system of accounting.

5. **Finds the accurate and fair position of financial statement:** This system helps to prepare the balance sheet any time during the year to see the actual financial position of the company as and when required.
6. **Feasibility of business management:** In this system, the administration has control over the business exercises as complete information is available to monitor.
7. **Effortless approachability of the facts:** Gathering information and facts regarding business becomes much easier under this system which helps the management to grow the business.
8. **Relative study approach:** In this system of accounting, it is feasible to do a comparative study of the statements of previous years with the current year which aids to take necessary actions to achieve the desired results.
9. **Decisive information:** However, the data collected under this system is based on a scientific and systematic approach; it acts as crucial information for business actions.

Disadvantages of Double Entry System

The following are the disadvantages of Double-entry system:

1. Double Entry System of accounting is convenient for large business enterprises.
2. This system is quite expensive than the single-entry system.
3. For maintaining this system of accounting, complete knowledge of accounting is essential.
4. In Double Entry System, if any transaction gets omitted, it becomes difficult to trace such transaction.

Although these are the disadvantages of this system, the fact is that the system is not faulty, it’s human who makes errors. If it is followed with proper care, it is scientifically proven as the best and perfect system.

Example of Double Entry System

Sunita purchases a television from J. K. Appliances for ₹ 60,000; thus, for this purchase, Sunita paid ₹ 60,000 and received a television in exchange.

From the seller’s edge, it can be said that J. K. Appliances gave television and receives cash in exchange. I.e., there is a mutual exchange relationship amidst two parties. It can be illuminated as follows:

From party I (Television) to Party II (Cash₹ 60,000)
From party II (Cash₹ 60,000) to Party I (Television)

However, these dual aspects, receiving and giving, are to be reported at the same time as this system reveals two aspects of every transaction.

Classification of Accounts:

An account is a summary of the record of all the transactions relating to a person, asset, expense or gain. It has two sides – the left hand side called the Debit side and the right hand side, called Credit side.

Accounts are broadly classified into three heads.

1). Personal Accounts. 2). Real Accounts. 3). Nominal Accounts.

Personal Accounts:

Personal Accounts are accounts of persons with whom a concern carries on business. Personal accounts may be:

a). Accounts of natural persons such as Gopal, Suresh etc.

b). Accounts of artificial persons, (Banks, Institutions, & Companies etc. are artificial persons). Such as Syndicate Bank, Reliance Company, etc.

c).Representative Personal Accounts such as outstanding salaries, prepaid insurance etc.

Real Accounts:

Accounts relating to properties or assets of a trader are known as real accounts. It includes tangible assets such as building, furniture, cash etc and also intangible assets such as goodwill, trade marks etc. (All purchases and sales also comes under real account only)

Nominal Accounts:

Accounts dealing with expenses, losses, gains and incomes are called Nominal Accounts. Examples: Salaries, Rent, Commission, Interest paid or received etc.

Basic Accounting Rules or Conventional Rules

There are three rules for recording the transactions:

Personal Accounts:

Debit	**The Receiver.**
Credit	**The Giver.**

Real Accounts:

Debit	**What comes in.**
Credit	**What goes out.**

Nominal Accounts:

Debit	**Expenses and Losses.**
Credit	**Incomes and Gains.**

JOURNAL

'Journal means a day book or daily record. It is the book where in all the transactions are first recorded in chronological order (i.e. as and when they take place). It is a book of prime, original or first entry, as all business transactions are first recorded in the journal. From journal the posting are made in the Ledger. The process of recording transactions in journal is termed as 'journalising'. The journal is ruled as follows:

Journal

1	2	3	4	5
Date	Particulars	L.F.	Debit Amount Rs.	Credit Amount Rs.
Year Month Day	Name of A/c (To be debited) ....Dr To Name of A/c (To be credited) (Narration or explanation)		xxx	xxx

Column (1) (Date) : the date on which the transaction took place in entered in this column. The year is written on the top, then the date column is divided in to two parts, the first part is used for writing the month and the second part is used for writing the date.

Column (2) (Particulars). In the first line, the name of the account to be debited is written. The word 'Dr. i.e. the abbreviation of the term 'Debit' is written at the end of the first line. In the second line some space is left and the word 'To' is written before the name of the account to be credited, then the name of the account to be credited is written. A brief explanation, usually beginning with the word 'Being' or 'For' is written called 'narration'. The 'narration' helps one to understand the nature and purpose of the journal entry at a future date. To separate one entry from another, a line is drawn below every entry to cover particulars column only. The line does not extend to other columns.

Column (3) (L.F). L.F. stands for 'ledger folio' in this column the page numbers on which the various accounts appear in the ledger are entered.

Column (4) (Debit Amount) in this column the amount to be debited against the debit account is written.

Column (5) (Credit Amount) in this column, the amount to be credited against the credit account is written.

Steps required for Journalising:

For Journalising a transaction, i.e. for passing an entry for a transaction in the Journal, the following steps are required to be taken.

1). First ascertain the two accounts involved in the transaction. It should be noted that the account of firm in whose books the transaction is recorded should not be taken into account, as the entry is passed in the books of that firm. Only the accounts of other persons with whom the firm deals, accounts of assets, liabilities, gains & incomes, expenses & losses of the business should be considered.

2). Then see the nature of the accounts involved, i.e. see whether they are persona, real or nominal accounts.

3). Then apply the corresponding or relevant rules for debit and credit and find out which accounts is to be debited and which account is to be credited. It one account is debited, the other account is credited. Both the accounts cannot be only debited or only credited.

Points to be noted while passing journal entries:

1). For the purpose of accounting, the proprietor should be considered as separate entity and all transactions with him should be recorded in the books. When the proprietor brings cash, stock or any other asset into the business, then his capital account should be credited. When cash, stock etc is withdrawn from business, then Drawings account should be debited. When the personal expenses of the proprietor such as life insurance premium, income tax etc are paid by the firm then Drawings account should be debited. At the end of the year, Drawings account is closed by transfer to Capital account.

2). If the proprietor takes loan from wife for carrying on business then his wife's loan account and not capital account should be credited.

3). When it is not clearly stated in the transaction whether goods are purchased for cash or credit the purchase should be considered as cash purchases if the name of the supplier of goods is not given. On the other hand, if the name of the supplier is given without stating whether it is for cash or credit then purchase should be considered as credit purchases.

4). Whenever goods are purchased for cash from a party, then the name of the party from whom goods are purchased should be ignored. The amount due to him is already paid, there is no further liability towards him.

5). Whenever cash is paid to a person for an expense, say salary, rent etc the two concerned accounts involved in the transaction are (1) concerned expense account and (2) cash account. The personal account of the party to whom the payment is made is not at all involved because payment is made to him for service already rendered by him and he is not liable to pay us any amount at a later date. Similarly, when some income such as interest, commission etc is received from a party, then party's account should not be taken into account.

Opening and Closing Entries:

Any business concern will be started with an intention to continue in the future indefinitely, but it closes its business operations at the end of an accounting period by closing the books of accounts and recommencing the same by opening a new set of books of accounts from the next day. In this process of closing and opening the books of accounts, it is required to pass a closing entry to close the books of accounts and an opening entry to open the books of accounts of the next accounting period.

A journal entry, by means of which the balances of various assets, liabilities and capital appearing in the balance sheet of previous accounting period are brought forward in the books of current accounting period, is known as 'Opening Entry'.

While passing an opening entry, all asset accounts are debited and all liabilities accounts are credited. The excess of assets over liabilities is the proprietor's or owner's capital and is credited to his capital account.

Example:

Pass the 'Opening Entry' on January 1, 2009 with the following information about a business.

Cash in hand	Rs. 2,000
Cash at bank	Rs. 4,000

Closing Stock	Rs. 5,000
Land and buildings	Rs. 25,000
Plant and machinery	Rs. 30,000
Debtors	Rs. 4,000
Creditors	Rs. 10,000
Bills payable	Rs. 5,000

Dr. **Journal** **Cr.**

Date	Particulars	L.F.	Debit	Credit
Jan, 1, 2009	Cash A/c---------------------------Dr		2,000	
	Bank A/c----------------------------Dr		4,000	
	Stock A/c--------------------------Dr		5,000	
	Land & Buildings A/c-----------Dr		25,000	
	Plant & Machinery A/c---------Dr		30,000	
	Debtors A/c-----------------------Dr		4,000	
	To Creditors A/c			10,000
	To Bills Payable A/c			5,000
	To Capital A/c (balancing figure)			55,000
	(Being balances brought forward from the last year.)			

LEDGER

After Journalising the transactions, the entries in the journal are transferred to appropriate accounts in the Ledger to know the exact position of each account on any particular date. Ledger is a book in which various Personal, Real and Nominal Accounts are opened and posting are made. It is a book of final entry. All business transactions are first recorded in the Journal and then recorded in Ledger. The process of transferring the transactions from Journal to the Ledger is called 'Posting'.

Each Ledger Account has the shape of English Alphabet 'T'. Each account in the Ledger is divided into two equal parts. The left hand side of the account is known as 'Debit' side and the right hand side is called 'Credit' side. Each of the two sides is further divided into four columns namely, Date, Particulars, J.F. and Amount.

A Ledger Account is ruled as follows:

Name of the Account

Dr **Cr**

Date	Particulars	J.F	Amount	Date	Particulars	J.F	Amount
	To (Name of the account which is credited)				By (Name of the account which is credited)		

Steps for posting:

1). Date column:

In this column, date of the transaction is recorded.

2). Particulars:

This column is meant for the recording the details of the transaction. Every entry on the debit side of this column much be prefixed with the word 'To' and on the credit side with the word 'By'. On the debit side after the word 'To' write Name of the credit part of Journal Entry. On the credit side, after the word 'By' write Name of the debit part of the Journal Entry.

3). J.F.Column:

J.F. stands for the page number of Journal from where the entry is posted.

4). Amount Column:

In this column the amount with which the account is debited or credited is written.

Points to be noted:

1). In the Ledger, a separate account should be opened for each account appearing in Journal.
2). For all the transactions relating to any particular account, only one ledger account should be opened.

3). The name of the account should be written in bold letters at the top and in the center of each account.

4). The word 'Dr'.(abbreviation of debit) should be written at the left hand top corner of each account to indicate the debit side of the account, and the word 'Cr'(abbreviation of credit) should be written at the right hand top corner of each account to indicate the credit side of the account.

5). The journal entries should be posted to the ledger accounts in the order of their dates.

6). While making posting in any ledger account, the name of that account should not appear either on the debit side or on the credit side of that account.

** For example, in Rent Account, we cannot have To Rent Account or By Rent Account.

Balancing of Ledger Accounts:

After the transactions have been posted in the various accounts, they are balanced. The term 'balance' is an accounting term which means the difference between the two sides of an account. The following steps are followed for balancing the accounts:

1). Take the totals of the two sides of the account on a rough sheet.

2). Ascertain the difference between the totals of two sides. The difference is called 'balance'.

3). Enter the difference in the amount column of the side showing less total. If the credit side total is less, then write in the particulars column 'By balance c/d' against the amount.

Similarly, if the debit side total is less, then write in the particulars column on the debit side 'To balance c/d' against the amount.

4). After putting the difference in the appropriate side of the account, add both the sides of the account. Draw a line above and below the totals.

5). At the beginning of the next accounting period, the balance is written on the opposite side with the words 'To balance b/d' or 'By balance b/d' as the case may be.

Example:

Journalise the following transactions in the books of ABC & Co. Ltd and prepare necessary Ledger Accounts:

1/1/2009	ABC & Co. Started business with Rs. 1,25,000
2/1/2009	Paid into Bank Rs. 25,000
4/1/2009	Purchased goods Rs. 10,000
5/1/2009	Sold goods Rs. 12,000
6/1/2009	Paid Salaries Rs. 5,000
9/1/2009	Purchased Machinery Rs. 40,000
10/1/2009	Purchased goods from Mr. A for Rs. 12,000
11/1/2009	Goods returned to Mr. A worth Rs. 2,000
15/1/2009	Paid to Mr. A in full settlement of A/c Rs. 9,950
18/1/2009	Interest received Rs. 1,000
19/1/2009	Sold goods to Mr. X - Rs. 15,000
20/1/2009	Returned goods by Mr. X worth Rs. 1,000
22/1/2009	Issued a cheque for Rs. 2,500 towards Rent
25/1/2009	Cheque received from Mr.X for 13,900 in full settlement
28/1/2009	Commission paid Rs. 800
30/1/2009	Sale of machinery Rs. 10,000

Journal Entries in the books of ABC & Co. Ltd..,

Date	Particulars	L.F	Debit	Credit
1/1/2009	Cash A/c----------------------------Dr To ABC & Co's Capital A/c (Being the business Commenced)		1,25,000	 1,25,000

2/1/2009	Bank A/c----------------------------Dr To Cash A/c (Being cash deposited in the bank)		25,000	25,000
4/1/2009	Purchases A/c---------------------Dr To Cash A/c (Being goods purchased for cash)		10,000	10,000
4/1/2009	Cash A/c----------------------------Dr To Sales A/c (Being goods sold for cash)		12,000	12,000
6/1/2009	Salaries A/c------------------------Dr To Cash A/c (Being Salaries paid)		5,000	5,000
9/1/2009	Machinery A/c----------------------Dr To Cash A/c (Being Machinery purchased for cash)		40,000	40,000
10/1/2009	Purchases A/c---------------------Dr To Mr. A A/c (Being goods purchased from Mr. A on credit)		12,000	12,000
11/1/2009	Mr. A's A/c-------------------------Dr To Purchase returns A/c (Being goods returned to Mr. A)		2,000	2,000

15/1/2009	Mr. A's A/c-------------------------Dr To Cash A/c To Discount A/c (Being cash paid to Mr. A in full settlement of account)		10,000	9,950 50
18/1/2009	Cash A/c----------------------------Dr To Interest A/c (Being interest received in cash)		1,000	1,000
19/1/2009	Mr. X's A/c-------------------------Dr To Sales A/c (Being goods sold to Mr. X on credit)		15,000	15,000
20/1/2009	Sales returns A/c-----------------Dr To Mr. X A/c (Being goods returned by Mr. X on account of defectiveness)		1,000	1,000
22/1/2009	Rent A/c----------------------------Dr To Bank A/c (Being rent paid by cheque)		2,500	2,500
25/1/2009	Bank A/c---------------------------Dr Discount A/c----------------------Dr To Mr. X A/c (Being cheque received from Mr. X in full settlement)		13,900 100	14,000

	Commission A/c--------------------Dr			
	To Cash A/c			
	(Being Commission paid)			
28/1/2009			800	800
	Cash A/c-----------------------------Dr			
	To Machinery A/c			
	(Being Machinery sold)			
30/1/2009			10,000	10,000

Ledger Accounts:

Cash Account

Dr. **Cr.**

Date	Particulars	F	Amount	Date	Particulars	F	Amount
1/1/2009	To ABC & Co.'s capital A/c			2/1/2009	By Bank A/c		25,000
			1,25,000	4/1/2009	By Purchases A/c		10,000
	To Sales A/c						
5/1/2009			12.000	6/1/2009	By Salaries A/c		5,000
	To Interest A/c						
18/1/2009			1,000	9/1/2009	By Machinery A/c		40,000
	To Machinery						
30/1/2009			10,000	15/1/2009	By Mr. A's A/c		9,950
				28/1/2009	By Commission A/c		
					By Balance C/d		800
				31/1/2009			57,350
			1,48,000				1,48,000
	To Balance B/d						
1/2/2009			57,350				

ABC Co. 's Capital Account

Dr. **Cr.**

Date	Particulars	F	Amount	Date	Particulars	F	Amount
31/1/2009	To Balance C/d		1,25,000	1/1/2009	By Cash A/c		1,25,000
			1,25,000				1,25,000
				1/2/2009	By Balance B/d		1,25,000

Bank Account

Dr. **Cr.**

Date	Particulars	F	Amount	Date	Particulars	F	Amount
2/1/2009	To Cash A/c		25,000	22/1/2009	By Rent A/c		2,500
25/1/2009	To Mr. X's A/c		13,900	31/1/2009	By Balance C/d		36,400
			38,900				38,900
1/2/2009	To Balance B/d		36,400				

Purchases Account

Dr. **Cr.**

Date	Particulars	F	Amount	Date	Particulars	F	Amount
4/1/2009	To Cash A/c		10,000	31/1/2009	By Balance C/d		22,000

10/1/2009	To Mr. A's A/c		12,000				
			22,000				22,000
1/2/2009	To Balance B/d		22,000				

Sales Account

Dr. **Cr.**

Date	Particulars	F	Amount	Date	Particulars	F	Amount
31/1/2009	To Balance C/d		27,000	5/1/2009	By Cash A/c		12,000
				19/1/2009	By Mr. X's A/c		15,000
			27,000				27,000
				1/2/2009	By Balance B/d		27,000

Salaries Account

Dr. **Cr.**

Date	Particulars	F	Amount	Date	Particulars	F	Amount
6/1/2009	To Cash A/c		5,000	31/1/2009	By Balance C/d		5,000
			5,000				5,000
1/2/2009	To Balance B/d		5,000				

Machinery Account

Dr. **Cr.**

Date	Particulars	F	Amount	Date	Particulars	F	Amount
9/1/2009	To Cash A/c		40,000	30/1/2009	By Cash A/c		10,000
				31/1/2009	By Balance C/d		30,000
			40,000				40,000
1/2/2009	To Balance B/d		30,000				

Mr. A's Account

Dr. **Cr.**

Date	Particulars	F	Amount	Date	Particulars	F	Amount
11/1/2009	To Purchase returns A/c		2,000	10/1/2009	By Purchases A/c		12,000
15/1/2009	To Cash A/c		9,950				
15/1/2009	To Discount A/c		50				
			12,000				12,000

Purchase Returns Account

Dr. **Cr.**

Date	Particulars	F	Amount	Date	Particulars	F	Amount
31/1/2009	To Balance C/d		2,000	11/1/2009	By Mr. A's A/c		2,000

			2,000				2,000
				1/2/2009	By Balance B/d		2,000

Discount Account

Dr. **Cr.**

Date	Particulars	F	Amount	Date	Particulars	F	Amount
25/1/2009	To Mr. X’s A/c		100	15/1/2009	By Mr. A’s A/c		50

Interest Account

Dr. **Cr.**

Date	Particulars	F	Amount	Date	Particulars	F	Amount
31/1/2009	To Balance C/d		1,000	18/1/2009	By Cash A/c		1,000
			1,000				1,000
				1/2/2009	By Balance B/d		1,000

Mr. X’s Account

Dr. **Cr.**

Date	Particulars	F	Amount	Date	Particulars	F	Amount
19/1/2009	To Sales A/c		15,000	20/1/2009	By Sales Returns A/c		
					By Bank A/c		1,000
				25/1/2009	By Discount A/c		13,900
				25/1/2009			100

			15,000				15,000

Sales Returns Account

Dr. **Cr.**

Date	Particulars	F	Amount	Date	Particulars	F	Amount
20/1/2009	To Mr. X's A/c		1,000	31/1/2009	By Balance C/d		1,000
			1,000				1,000
1/2/2009	To Balance B/d		1,000				

Rent Account

Dr. **Cr.**

Date	Particulars	F	Amount	Date	Particulars	F	Amount
22/1/2009	To Bank A/c		2,500	31/1/2009	By Balance C/d		2,500
			2,500				2,500
1/2/2009	To Balance B/d		2,500				

Commission Account

Dr. **Cr.**

Date	Particulars	F	Amount	Date	Particulars	F	Amount
28/1/2009	To Cash A/c		800	31/1/2009	By Balance C/d		800

			800				800
1/2/2009	To Balance B/d		800				

Subsidiary Books

When business transactions are very few, there is only one Journal where in all transactions are recorded. In big business concerns, recording of all transactions in one journal and then posting them into ledger will be very inconvenient and will involve a lot of clerical work. Moreover, transactions are usually of repetitive nature. To overcome this difficulty big business concerns adopt system of Subsidiary Books. Under the system of Subsidiary Books, instead of maintaining only one book of original entry called Journal for all types of transactions, several books of original entry called Subsidiary Books are maintained. Subsidiary Books are books of original as all the transactions are first recorded in these books before they are recorded in respective accounts in ledger. These special journals are called Subsidiary Books because they are subsidiary to the Principal or Main book namely Ledger. Normally the following Subsidiary Books are used in business.

1) Cash Book
2) Purchase Book
3) Sales Book
4) Purchase Returns Book
5) Sales Returns Book
6) Bills Receivable Book
7) Bills Payable Book
8) Journal Proper

Cash Book:

The Subsidiary Book maintained for recording cash transactions is called the Cash Book. Cash Book is a book of prime or first entry, bcoz all cash transactions are first recorded in the Cash Book. It is also a book of final entry (i.e. Ledger) as Cash Book itself serves as cash account and bank account. Cash Book can be of any one of the following types.

1) Simple Cash Book or Cash Book with only Cash Columns
2) Two-Column Cash Book or Cash Book with Cash and Discount or Cash Book with Discount and Bank Columns.
3) Three- Column Cash Book with Cash, Discount and Bank Columns.

In case of Simple Cash Book a record of all cash receipts and payments is made. Receipts are entered on the debit side and payments on the credit side.

The proforma of Simple Cash Book will be as follows:

Simple Cash Book:

Dr **Cr**

Date	Particulars	L.F	Amount	Date	Particulars	L.F	Amount

Example:

1/1/ 2009 Commenced business with Rs. 40,000

2/1/2009 Purchased goods for Rs. 8,000

3/1/2009 Rent paid Rs. 1,000

4/1/2009 Sold goods Rs. 10,000

5/1/2009 Machinery purchased for Rs. 12,000

6/1/2009 Interest Received Rs. 900

Simple Cash Book:

Dr **Cr**

Date	Particulars	L.F	Amount	Date	Particulars	L.F	Amount
1/1/2009	To Capital A/c		40,000	2/1/2009	By Purchases A/c		8,000
6/1/2009	To Interest A/c		900	3/1/2009	By Rent A/c		1,000
				5/1/2009	By Machinery A/c		12,000

				31/1/2009	By Balance C/d		19,900
			40,900				40,900
1/2/2009	To Balance B/d		19,900				

Two-Column Cash Book

In case of Cash Book with Discount Columns, an additional column on each side of Cash Book is provided for Discount. Discount column on the debit side represents cash discount allowed to customers and credit side indicates cash discount received from creditors. Cash columns are balanced like other ledger accounts but discount columns are not balanced but totaled.

The proforma of Two-Column Cash Book will be as follows:

Cash Book with Discount and Cash Columns

Dr **Cr**

Date	Particulars	L.F	Discount	Cash	Date	Particulars	L.F	Discount	Cash

Example:

1/4/2009 Commenced business with Rs. 50,000

3/4/2009 Purchased goods from Mr. X for Rs. 6,000

4/4/2009 Goods returned to Mr. X worth Rs. 500

5/4/2009 Sold goods worth Rs. 9,000

6/4/2009 Machinery Purchased Rs. 10,000

7/4/2009 Cash paid to Mr. X – Rs. 5,400 in full settlement of account

8/4/2009 Sold goods to Mr. A worth Rs, 7,500

9/4/2009 Paid Insurance Rs. 600

10/4/2009 Mr. A Pays Rs. 7,450 in full settlement of account

11/4/2009 Rent Received Rs. 1,500

Cash Book with Discount and Cash Columns

Dr **Cr**

Date	Particulars	F	Discount	Cash	Date	Particulars	F	Discount	Cash
1/4/09	To Capital A/c			50,000	6/4/09	By Machinery A/c			10,000
5/4/09	To Sales A/c			9,000	7/4/09	By Mr. X's A/c		100	5,400
10/4/09	To Mr. A's A/c		50	7,450	9/4/09	By Insurance A/c			600
11/4/09	To Rent A/c			1,500	30/4/09	By Balance C/d			51,950
				67,950					67,950
1/5/09	To Balance B/d			51,950					

NOTE: Transactions dated 3rd, 4rth and 8th April will not be placed in cash book, because they are credit purchases, purchases returns and credit sales made by the firm and they don't effect the cash balance.

Cash Book with Discount and Bank Columns

Dr Cr

Date	Particulars	L.F	Discount	Bank	Date	Particulars	L.F	Discount	Bank

In certain organizations cash transactions will be replaced by bank transactions, then we have to prepare a cash book with bank and discount columns. Usually to minimize the scope for manipulations or fraud transactions are carried out through bank. All receipts are received in the form of cheques. And all payments are made by issuing cheques.

Example:

In the above example assume all transactions are carried through bank, i.e.., all payments are made by issuing a cheque and all receipts are received in the form of a cheque. Then we will prepare a cash book with bank and discount columns. Cash column is replaced by Bank column.

Cash Book with Discount and Bank Columns

Dr **Cr**

Date	Particulars	F	Discount	Bank	Date	Particulars	F	Discount	Bank
1/4/09	To Capital A/c			50,000	6/4/09	By Machinery A/c			10,000
5/4/09	To Sales A/c			9,000	7/4/09	By Mr. X's A/c		100	5,400
10/4/09	To Mr. A's A/c		50	7,450	9/4/09	By Insurance A/c			600

11/4/09	To Rent A/c			1,500	30/4/09	By Balance C/d			51,950
			50	67,950				100	67,950
1/5/09	To Balance B/d			51,950					

Three-Column Cash Book

The Cash Book which contains Bank Column in addition to Discount and Cash Columns is called Three-Column Cash Book or Cash Book with Discount, Cash, Bank Columns.

Proforma of Three-Column Cash Book

Three-Column Cash Book

Date	Particulars	L.F	Discount	Cash	Bank	Date	Particulars	L.F	Discount	Cash	Bank

The following points should be noted while preparing three-column cash book.

1) The opening balance of cash in hand and cash at bank is written on the Debit side as 'To balance b/d', the amount of cash in hand is written in cash column and of cash at bank in bank column. In case of bank overdraft (credit balance) it is written on the debit side as 'By balance b/d'
2) All receipts will be written on the debit side. Cash receipts will be entered in cash column and cheques in bank column.
3) If a cheque is received and deposited in the bank on the same day, then it should be entered in the bank column on the debit side.
4) A cheque received but not deposited in bank on the same day must be first debited in cash column and when it is deposited in bank on some other day, it should be treated as deposit of cash in the bank. However, in the absence of any information cheque received may be entered

in the Bank Column on the assumption that it is deposited in bank for collection on the same day. If any discount is allowed while receiving cash or cheque then it should be entered in discount column on the debit side.

5) All payments are entered on the credit side, cash payment in cash column and payments through cheque in bank column. If any discount is received while making cash or bank payment, then it should be entered in discount column on the credit side.
6) **Contra entries:** If cash is deposited in the bank, it should be entered in the bank column on the debit side as 'To Cash' and again on the credit side in cash column as 'By Bank'. If cash is withdrawn from bank for office use, it should be entered in cash column on the debit side as 'To Bank' and again on the credit side in bank column as 'By Cash'
7) If cheque is drawn for personal use, it was to be entered in the bank column on the credit side as 'By Drawings Account'. In such a case no contra entry is involved.
8) If interest or dividend on securities is collected by the bank as per standing instructions, then it has to be entered in the bank column on the debit side as 'To Interest / Dividend on Shares'
9) If a cheque received from a customer and deposited in the bank is dishonoured, then the entry passed for receipt of cheque has to be cancelled by reversing it. Similarly, if a cheque issued to creditor is dishonoured then the entry passed for the issue of cheque has to be cancelled by reversing it.
10) **Balancing:** The discount columns are totaled but not balanced. The cash columns are balanced exactly in the same manner as in case of simple cash book. The process is similar for balancing the bank column also. It is possible that the bank may allow the firm to withdraw more than the amount deposited i.e. to have an overdraft. In such a case the total of the bank column on the credit side will be bigger than the one on the debit side. The difference is written on debit side as 'To Balance c/d'. Then the totals are written. For the next period the balance is entered on the credit side as 'By Balance b/d'.

Example:

1/1/2009	Shiv started business with cash balance of Rs. 60,000 and bank balance of Rs. 10,000
2/1/2009	Paid cash into bank Rs. 5,000
3/1/2009	Rent Paid Rs. 2,000
4/1/2009	Purchased goods for Rs. 10,000
5/1/2009	Bought Furniture for Rs. 4,000 and amount paid by cheque
6/1/2009	Purchased goods worth Rs. 9,000 from Ram
7/1/2009	Sold Goods worth Rs. 11,000
8/1/2009	Salaries Paid Rs. 3,000
9/1/2009	Interest Received Rs. 1,500
10/1/2009	Sold goods worth Rs. 14,000 to Vishnu
11/1/2009	Rs. 8,900 paid to Ram in full settlement of account

12/1/2009	Withdrew Rs. 2,000 from bank for office purpose
13/1/2009	Cheque received from Vishnu Rs. 13,920 in full settlement. **Cheque was deposited in the bank on 15th jan, 2009.**
16/1/2009	Withdrew Rs. 1,000 from bank for personal use.

Dr **Cr**

te	Particulars	F	Dis	Cash	Bank	Date	Particulars	F	Dis	Cash	Bank
1/09	To Capital A/c			60,000	10,000	2/1/09	By Bank A/c	C		5,000	
1/09	To Cash A/c	C			5,000	3/1/09	By Rent A/c			2,000	
1/09	To Sales A/c			11,000		4/1/09	By Purchases			10,000	
1/09	To Interest A/c			1,500		5/1/09	By Furniture A/c				4,000
/1/09	To Bank A/c	C		2,000		8/1/09	By Salaries A/c			3,000	
/1/09	To Vishnu A/c		80	13,950		11/1/09	By Ram's A/c		100	8,900	
/1/09	To Cash A/c				13,950	12/1/09	By Cash A/c	C			2,000
						15/1/09	By Bank A/c	C		13,950	
						16/1/09	By Drawings A/c			1,000	
						31/1/09	By Balance C/d			44,600	22,950
			80	88,450	28,950				100	88,450	28,950
2/09	To Balance B/d			44,600	22,950						

PETTY CASH BOOK

In a business where there are large number of small payments the entries are not made in Cash Book, but in Petty Cash Book. The Petty Cashier is given a certain sum of money and all small payments below a certain limit are made by him. The Petty Cash Book is maintained just like Cash Book. Generally Petty Cash Book is maintained on Imprest System. Under this system a rough estimate of the small payments for a period of month (or week) is made and the Head Cashier gives the Petty Cashier the estimates amount. Petty Cashier makes payments and records the transactions in the Petty Cash Book. At the end of the period the Petty Cashier balances his book. Then the Chief Cashier pay him the amount which he spent, so that original amount of Petty Cash with which he started is restored.

Imprest system is very useful specially if an Analytical Petty Cash book is used. Under this method a separate column is provided to record each head of petty expense along with a total column. Every payment is entered in the concerned head of petty expenses and in total column. All the payments made are analysed in the column of petty cash book itself, under the different heads of expenses. Hence it is called Analytical Petty Cash Book.

It will be on the following lines.

Petty Cash Book

Receipts Rs.	Date	Particulars	Voucher No.	Total Rs.	Analysis of Payment		
					Conveyance Rs.	Postage Rs.	Stationery Rs.

Example:

A Petty Cashier received Rs, 2,000 as the petty cash for petty cash payments on April 1st, 2009. During the month his expenses were as follows. Prepare an Analytical Petty Cash Book.

2/4/09	Paid for Postage	Rs. 100
3/4/09	Paid for Printing	Rs. 200

4/4/09	Paid for Stationery	Rs. 50
5/4/09	Paid for Carriage	Rs. 100
6/4/09	Paid for Conveyance	Rs. 50
7/4/09	Paid for Carriage	Rs. 150
8/4/09	Paid for Printing	Rs. 200
9/4/09	Paid for Carriage	Rs. 200
10/4/09	Paid for Postage	Rs. 100
15/4/09	Paid for Stationery	Rs. 50
20/4/09	Paid for Printing	Rs. 100
24/4/09	Paid for Conveyance	Rs. 100
28/4/09	Paid for Printing	Rs. 150

Petty Cash Book

Receipt	Date	Particulars	Voucher	Total	Analysis of Payments

s Rs.			No.	Rs.	Postage Rs.	Printing Rs.	Stationery Rs.	Carriage Rs.	Conveyance Rs.
2,000	Apr 1st	To Cash Received							
	Apr 2nd	By Postage		100	100				
	Apr 3rd	By Printing		200		200			
	Apr 4rt	By Stationery		50			50		
	Apr 5th	By Carriage		100				100	
	Apr 6th	By Conveyance		50					50
	Apr 7th	By Carriage		150				150	
	Apr 8th	By Printing		200		200			
	Apr 9th	By Carriage		200				200	
	Apr 10th	By Postage		100	100				
	Apr 15th	By Stationery		50			50		
	Apr 20th	By Printing		100		100			
	Apr 24rt	By Conveyance		100					100
	Apr 28th	By Printing		150		150			
				1,550	200	650	100	450	150
	Apr 31st	**By Balance C/d**		**450**					
2,000				**2,000**					
450	**May 1st**	**To Balance B/d**							
1,550	**May 1st**	**To Cash A/c**							

Note: On 1st May, 2009, the petty cashier will be given cash or a cheque of 1,550 only and when he receives it, the recording is as shown in the example.

Purchases Book:

It is used for recording all credit purchases of goods for resale. Purchase of goods for cash and purchase of other things which are not for re-sale are not recorded in the purchases book. It provides columns for the date of purchase, the invoice number, the name of the party, ledger folio and the amount of purchase. Purchases book is closed periodically. At the end of the period purchases book is totaled and postings are made. Debit purchases account with the total as 'To sundries as per purchases book'. Credit each suppliers account with the amount of purchases made from him as
'By purchases A/c'.

Example:

January 1, 2009 bought goods worth Rs.10,000 from Mr. X, his invoice No. 101

January 5, 2009 purchased goods worth Rs.15,000 from Mr. Y, his invoice No. 107

January 10, 2009 purchased goods worth Rs. 22,000 from Mr. Z, his invoice No. 111.

Record the above transactions in the purchases book and prepare the concern ledger accounts.

Purchases Book

Date	Particulars	Invoice No.	Ledger Folio	Amount
1/1/2009	Mr. X	101		10,000
5/1/2009	Mr. Y	107		15,000
10/1/2009	Mr. Z	111		22,000
31/1/2009	Total for the month			47,000

Purchases Account

Dr. **Cr.**

Date	Particulars	Folio	Amount	Date	Particulars	Folio	Amount
31/1/09	Sundries as per Purchases Book		47,000				

Mr. X Account

Dr. Cr.

Date	Particulars	F	Amount	Date	Particulars	F	Amount
31/1/09	To Balance c/d		10,000	1/1/09	By Purchases A/c		10,000
			10,000				10,000
				1/2/09	To Balance b/d		10,000

Mr. Y Account

Dr. Cr.

Date	Particulars	F	Amount	Date	Particulars	F	Amount
31/1/09	To Balance c/d		15,000	5/1/09	By Purchases A/c		15,000

			15,000				15,000
				1/2/09	To Balance b/d		15,000

Mr. Z Account

Dr. Cr.

Date	Particulars	F	Amount	Date	Particulars	F	Amount
31/1/09	To Balance c/d		22,000	10/1/09	By Purchases A/c		22,000
			22,000				22,000
				1/2/09	To Balance b/d		22,000

Sales Book:

Sales Book is used to record all credit sale of goods in which the firm deals. Sale of an asset or cash sales are not recorded in sales book. The rulings of the sales book is same as that of purchases book.

Example:

Prepare a Sales book from the following information and prepare the concern ledgers.

!/4/09 Sold goods worth Rs. 5,000 to Mr. A, invoice No.201

4/4/09 Sold goods worth Rs. 11,ooo to Mr. B, invoice No. 206

9/4/09 Sold goods worth Rs. 18,000 to Mr. C, invoice No. 208

10/4/09 Sold goods for cash Rs. 20,000

Sales Book

Date	Particulars	Invoice No.	Ledger Folio	Amount
1/4/2009	Mr. A	201		5,000
4/4/2009	Mr. B	206		11,000
9/4/2009	Mr. C	208		18,000
30//4009	Total for the month			34,000

The transaction dated 10/4/09 is not recorded in the Sales Book as it is a cash transaction. (only credit sales will be recorded in the Sales Book)

Sales Account

Dr. Cr.

Date	Particulars	F	Amount	Date	Particulars	F	Amount
				30/4/09	By Sundries as per Sales Book		34,000
							34,000

Mr. A Account

Dr. Cr.

Date	Particulars	F	Amount	Date	Particulars	F	Amount
1/4/09	To Sales		5,000	30/4/09	By Balance c/d		5,000
			5,000				5,000
1/5/09	To Balance b/d		5,000				

Mr. B Account

Dr. Cr.

Date	Particulars	F	Amount	Date	Particulars	F	Amount
4/4/09	To Sales		11,000	30/4/09	By Balance c/d		11,000
			11,000				11,000
1/5/09	To Balance b/d		11,000				

Mr. C Account

Dr. Cr.

Date	Particulars	F	Amount	Date	Particulars	F	Amount
9/4/09	To Sales		18,000	30/4/09	By Balance c/d		18,000
			18,000				18,000
1/5/09	To Balance b/d		18,000				

Purchase Returns Book:

This book keeps a record of returns outwards i.e. return of goods bought.

Goods which are defective or faulty may be returned to the supplier. The particulars of such goods are recorded in the purchases returns book. When the goods are returned, a' Debit note' is prepared and sent along with the goods returned. It is called debit note because the concerned supplier's account is debited .

Example:

Prepare Purchase Returns Book from the following details.

1/2/09 Goods worth Rs. 2,000 returned to Ram

5/2/09 Goods worth Rs. 1,000 returned to Sam

7/2/09 Goods worth Rs. 500 are returned to Hari.

Purchase Returns Book

Date	Particulars	Debit Note No.	Ledger Folio	Amount
1/2/09	Ram			2,000
5/2/09	Sam			1,000
7/2/09	Hari			500
28/2/09	Total for the month			3,500

Purchase Returns Account

Dr. Cr.

Date	Particulars	F	Amount	Date	Particulars	F	Amount
				30/4/09	By Sundries as per Purchase Returns Book		3,500

Ram Account

Dr. Cr.

Date	Particulars	F	Amount	Date	Particulars	F	Amount
1/2/09	To Purchase Returns or Returns outward A/c		2,000	29/2/09	By Balance c/d		2,000
			2,000				2,000
1/3/09	To Balance b/d		2,000				

Sam Account

Dr. Cr.

Date	Particulars	F	Amount	Date	Particulars	F	Amount
5/2/09	To Purchase Returns A/c		1,000	28/2/09	By Balance c/d		1,000
			1,000				1,000
1/3/09	To Balance b/d		1,000				

Hari Account

Dr. Cr.

Date	Particulars	F	Amount	Date	Particulars	F	Amount
7/2/09	To Purchase Returns A/c		500	28/2/09	By Balance c/d		500
			500				500
1/3/09	To Balance b/d		500				

Sales Returns Book:

This book is kept for recording returns inwards. When the customer returns defective or faulty goods, the particulars of such goods are recorded in the Sales Returns Book. The seller sends a credit note to customer informing him that he has credited the latter's account with the value of the goods returned.

Example:

From the following information prepare a Sales Returns Book or Returns inward book.

1/1/09 Suresh returned Rs. 2,500 worth of goods

10/1/09 Rajesh returned Rs. 1,200 worth of goods

20/1/09 Mahesh returned Rs. 300 worth of goods

Sales Returns Book

Date	Particulars	Credit Note No.	Ledger Folio	Amount
1/1/09	Suresh			2,500
10/1/09	Rajesh			1,200
20/1/09	Mahesh			300
31/1/09	Total for the month			4,000

Sales Returns Account

Dr. Cr.

Date	Particulars	F	Amount	Date	Particulars	F	Amount
31/1/09	To Sundries as per Sales Returns Book		4,000				

Suresh Account

Dr. Cr.

Date	Particulars	F	Amount	Date	Particulars	F	Amount
31/1/09	To Balance c/d		2,500	1/1/09	By Sales Returns A/c		2,500
			2,500				2,500
				1/2/09	To Balance b/d		2,500

Rajesh Account

Dr. Cr.

Date	Particulars	F	Amount	Date	Particulars	F	Amount
31/1/09	To Balance c/d		1,200	10/1/09	By Sales Returns A/c		1,200
			1,200				1,200

				1/2/09	To Balance b/d		1,200

Mahesh Account

Dr. Cr.

Date	Particulars	F	Amount	Date	Particulars	F	Amount
31/1/09	To Balance c/d		300	20/1/09	By Sales returns A/c		300
			300				300
				1/2/09	To Balance b/d		300

Bills Receivable Book and Bills Payable Book:

These books are used for recording the details of bills received and bills accepted. The columns provided are for the date of the bill, drawer, drawee, payee, tenure, where payable, due date etc.

Proforma of Bills Receivable Book

S. No.	Date of Receipt	From whom received	Name and Address of the acceptor	Where payable	Date of Bill	Term in months	When Due	L.F	Amount

Proforma of Bills Payable Book

S. No.	Date of Bill	Name and Address of Drawer	Name and Address of Payee	Term in months	When Due	L.F	Amount

Journal Proper:

It is used for recording only those transactions which cannot be recorded in any of the other subsidiary books.

Types of Transactions recorded in Journal Proper:

1. Opening Entries: An opening entry is passed in the Journal proper for bringing the balances of various assets, liabilities, and capital appearing in the balance sheet of the previous accounting period, in the books of current accounting period.
2. Closing Entries: Closing entries are passed in the Journal proper for closing the nominal accounts by transferring them to the trading and profit and loss account. These are needed at the end of the accounting year, when the final accounts are prepared.
3. Transfer Entries: Transfer entries are passed in the Journal proper for transferring an amount from one account to another account, i.e., transfer of total drawings from Drawings account to Capital account.
4. Adjusting Entries: Adjusting entries are passed in the Journal proper to bring into the books of accounts certain unrecorded items like closing stock, depreciation on fixed assets, outstanding and prepaid items. These are needed at the time of preparing the final accounts.
5. Rectification Entries: Rectifying entries are passed in the Journal proper to rectify the various errors committed while posting, totaling, balancing etc.

TRIAL BALANCE

We know that the fundamental principles of Double Entry System of Accounting is that for every debit, there must be a corresponding credit. Thus, for every debit or a series of debts given to one or several accounts, there is a corresponding credit or a series of credits of an equal amount given to some other account or accounts and vice versa. It follows, therefore, that the sum total of debit amounts should be equal to the credit amounts of the ledger at any

date. But if the various accounts in the ledger are balanced, then the total of all debit balance must be equal to the total of all credit balances if the books of accounts are arithmetically accurate.
Thus at the end of the financial year or at any other time, the balances of all the ledger accounts are extracted and are written up in a statement known as Trial Balance and finally totaled up to see if the total of debit balances is equal to the total of credit balances. A Trial Balance may thus be defined as a statement of debit and credit totals or balances extracted from the various accounts in the ledger with a view to test the arithmetical accuracy of the books.

Objectives of Trial Balance:

The following are the main objectives of preparing the Trial Balance:

1. To have balances of all the accounts of the ledger in order to avoid the necessity of going through the pages of the ledger.
2. To have a proof that the double entry of each transaction has been recorded because of its agreement.
3. To have arithmetic accuracy of the books of accounts because of the agreement of the trial balance.
4. To have material for preparing the profit and loss account and balance sheet of the business.

Pro forma of Trial Balance:

Trial Balance of --------------- as on -----------------

Particulars	Debit Balance	Credit Balance

Preparation of Trial Balance:

Accounts showing Debit Balances:

1. All Expenses accounts. (example: Salaries, Wages, Rent, General expenses, Advertisement expenses, Power charges, Trade Expenses etc..,)
2. All Fixed Assets Accounts (examples: Land, Buildings, Plant and Machinery, Premises, Patents, Good will, Furniture, Fixture, Fittings, Vehicles, Loose Tools etc..,)
3. All Current Assets Accounts: (example: Cash in hand, Cash at Bank, Debtors, Bills Receivables, Short term securities, Closing stock etc..,)
4. Losses accounts: (example: Discount allowed by the business, Goods destroyed in fire, depreciation etc..,)
5. Purchases Account. (Purchases made by the business)
6. Sales returns account. (goods returned by the customer due to some defectiveness)
7. Drawing Account: (amount withdrawn by the owner will be treated as expense to the business)

Accounts showing Credit Balances:

1. Long Term Liabilities account. (examples: Capital, Long term loans taken by the business)
2. Current Liabilities account. (examples: Creditors, Bills payable, Over draft, Short term loans taken by the business, Outstanding expenses etc..,)
3. All Incomes or Revenues accounts. (examples: Sales, Interest received, Dividend received, Rent received, Commission received etc..,)
4. Gains accounts: (example: Discount received and any other gains and profits)
5. Purchase returns account: (goods returned to the supplier of the goods due to some defectiveness.
6. Provisions and Reserves accounts. (example: Reserve for Bad or doubtful debts, Contingency reserve, General reserve etc..,)

Example:
From the following ledger balances, prepare a Trial Balance as on 31, Dec, 2009-10-2009

Cash at Bank	4,000	
Cash in hand		55,000
Capital	2,50,000	
Furniture		35,000
Machinery		1,45,000
Salaries		5,000
Purchases		82,000
Bills Payable	25,000	
Sales		45,000
Debtors		35,000
Wages	2,000	
Insurance		500
Stationery		1,500
Creditors		40,000
Returns outward		5,000

Trial Balance of ___________ as on 31, Dec, 2009-10-20

Particulars	Debit Balance	Credit Balance
Cash at Bank	4,000	
Cash in Hand	55,000	
Capital		2,50,000
Furniture	35,000	
Machinery	1,45,000	
Salaries	5,000	
Purchases	82,000	
Bills Payable		25,000
Sales		45,000
Debtors	35,000	
Wages	2,000	
Insurance	500	
Stationery	1,500	
Creditors		40,000

Returns outward (purchase returns) Total	 3,65,000	5,000 3,65,000

Limitations of Trial balance:

1. Trial Balance can be prepared only in those concerns where double entry system of accounting is adopted.
2. Though the Trial Balance is agreed, there are certain errors which are not disclosed by the Trial Balance. That is why Trial Balance is not a conclusive proof of the accuracy of the books of accounts.
3. If the Trial Balance is not prepared correctly, then the final accounts prepared will not reflect the true and fair view of the state of affairs of the business.

FINAL ACCOUNTS

The main objectives of maintaining accounts are to find out the profit or loss made by the business at the end of periodical intervals and to ascertain the financial position of the business on a given date. After accuracy of the books of accounts are determined by means of preparing a Trial Balance, every businessman is interested in knowing about financial performance of the business. Final accounts are prepared to ascertain profit earned or loss suffered by the firm and also to know the Assets and Liabilities of the business at the end of each financial year. Final accounts summarise all the accounting information recorded in the subsidiary books and the ledger.

TRADING ACCOUNT

This account is prepared to know the trading results of the business. The sale proceeds are compared with the amount paid for purchases together with the expenses directly related to purchases. The difference between the sales and cost of goods sold is ‘Gross Profit’ or ‘Gross Loss’. If the sale proceeds exceed the cost of manufacturing, the difference will be Gross Profit, but if the sale proceeds are less than the cost of manufacturing, the difference will be Gross Loss.

The Gross Profit or Gross Loss as revealed by the Trading Account will be transferred to the Profit and Loss Account.

The pro forma of a Trading Account is given as follows:

Trading Account of ----------------- for the year ended ------------

Dr **Cr**

Particulars	**Amount**	**Particulars**	**Amount**
To Opening Stock To Purchases xxxx	xxxx	By Sales xxxx Less: Sales returns xx	

Less: Purchase returns xx ------	xxxx	------- B y Closing stock	xxxx xxxx
To Direct Expenses	xxxx		
To Carriage Inwards	xxxx	By Gross Loss (transferred to	
To Wages	xxxx	profit and loss account)	xxxx
To Fuel and Power	xxxx		
To Manufacturing Exp.	xxxx		
To Coal, water & Gas	xxxx		
To Octroi Duty	xxxx		
To Import Duty	xxxx		
To Customs Duty	xxxx		
To Gross Profit (transferred to profit and loss account)	xxxx		

Profit and Loss Account

After preparing a Trading Account, the next step is to prepare profit and loss account. The profit and loss account is opened with gross profit transferred from the Trading account (or with gross loss which will be debited to the profit and loss account). The account is prepared to ascertain the net profit earned or net loss incurred by the business concern during an accounting period.

The Trading account simply tells about the gross profit or gross loss made by a businessman on purchasing and selling of goods. It does not take into account the other operating expenses incurred by the firm during the course of running the business. These expenses are of indirect in nature, they may be office and administrative, selling and distribution charges, extraordinary losses etc.., This account is prepared from nominal accounts and its balance is transferred to capital account as the whole profit or loss will be that of the owner and it will increase or decrease his capital.

The specimen pro forma of this account is as follows:

Profit and loss account for the year ended ------

Dr **Cr**

Particulars	Amount	Particulars	Amount
To Gross Loss b/d	xxxx	By Gross Profit b/d (from	xxxx
To Trade expenses	xxxx	Trading A/c)	
To Advertisement exp.	xxxx	By Interest Received	xxxx
To Carriage outwards	xxxx	By Dividend Received	xxxx
To Salaries	xxxx	By Commission Received	xxxx
To Rent, rates and taxes	xxxx	By Rent Received	xxxx
To Bank charges	xxxx	By Discount Received	xxxx
To Export expenses	xxxx	By Apprenticeship Premium	
To Travelling salesmen		By Income from any other	xxxx
Salaries and commission	xxxx	sources	
To Lighting charges	xxxx	By Net Loss (transferred to	xxxx
To Printing & Stationary	xxxx	Capital A/c)	xxxx
To Postage & Telegrams	xxxx		
To Telephone charges	xxxx		

To Legal charges To Insurance To Audit fee To General expenses To Repairs & Maintenance charges To Discount (allowed) To Interest on capital To Interest on loans To Dividend paid To Bad debts To Export Duty To Any other indirect expenses To Net Profit (transferred to Capital A/c)	xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx		

Balance Sheet:

Balance Sheet is prepared in order to know the financial position of business on a particular date. It is the statement and not an account. This statement is prepared from real and personal accounts left after all nominal accounts are transferred to Trading & Profit and Loss Account. The right hand side is called 'Assets side' and the left hand side is 'Liabilities side', Assets and Liabilities are shown in the Balance Sheet either in order of liquidity or permanency.

A specimen pro forma of Balance Sheet is given below:

Balance sheet
As on ….

Liabilities	Amount Rs.	Assets	Amount Rs.
Capital:		Land & Buildings	****
Opening Balance(of Capital)		Plant & Machinery	****
Add: Net Profit		Furniture, Fixtures & Fittings	****
Add: Interest on Capital		Patents & Trade Marks	****
Less: Drawings		Good will	****
Less: Loss, if any →	****	Vehicles	****
Reserves	****	Loose Tools	****
Loan on Mortgage	****	Sundry Debtors	****
Sundry Creditors	****	Bills Receivables	****
Bills payable	****	Closing Stock	****
All Outstanding Expenses	****	Cash in hand	****
Income received in Advance	****	Cash at Bank	****
Bank Loan or Over Draft	****	Investments	****
		Prepaid Expenses	****
		Outstanding Incomes	****
		Advances given	****

	*****		*****

The following points should be noted while preparing Balance Sheet:

1) The Balance Sheet is prepared as on a particular date and not for a period. While preparing Trading and profit and Loss Account the words "For the year ended…." Are used. In case of Balance Sheet the words "As on …" or "As at…" are used.
2) Balance Sheet is not an account it is a statement so it does not have "Debit" and "Credit" sides.
3) The total of Assets side must be equal to the total of Liabilities (including Capital) i.e. the two sides of a Balance Sheet should always agree (unless there are omissions and mistakes).

Adjustments:

While preparing the Profit and Loss Account for a particular period it is essential that expenses, losses, incomes and gains relating only to that period are considered. For example, if accounts are prepared for the year 2000, then no income, gain, expense or loss relating to 1999 or 2001 should be included in Profit and Loss Account for the year 2000.

For ascertaining the true Trading result of a firm it is necessary that all items of income and revenue expenditure pertaining to the period of accounting must be recorded, irrespective of the fact whether they are received or not, paid or not, received in advance or paid in advance. Apart from this there are certain other items such as depreciation, provision for bad and doubtful debts, interest on capital etc. which must be adjusted before the correct profit can be ascertained. The following are some of the Adjustments, which are to be made at the end of the accounting period.

1) Closing Stock:

The unsold stock of goods remaining at the end of the accounting period is termed as "Closing Stock". The adjustment entry is

Closing Stock A/c Dr
To Trading Account.

The two fold effect of the above adjustment will be (1) it will appear in Trading Account on the credit side and (2) on the Assets side of the Balance Sheet.

2) Outstanding Expenses:

Expenses, which have become due but not paid at the end of the finance year, are called outstanding expenses. The adjustment entry is

Expense Account Dr
To Outstanding Expenses A/c

The two fold effect is (1) it will be added to the concerned expense account, as the case may be and (2) Outstanding Expenses will be shown on the Liabilities side of the Balance Sheet.(Outstanding Expense is always a Current Liability)

3) Unexpired or Prepaid Expenses:

Expenses which have been paid in advance i.e. whose benefit will be available in future are called Unexpired or Prepaid Expenses.

Adjustment entry is

Prepaid Expenses Account Dr
To Expenses Account

The two fold effect of the adjustment is (1) it will be deducted from the concerned expense account in Trading or Profit and Loss account and (2) shown on the Assets side of the Balance Sheet as Prepaid Expenses (Prepaid Expense is treated as a Current Asset)

4) Outstanding Income or Accrued Income:

That income which is earned but not received during the current accounting year is called Accrued Income.

Adjustment entry is

Accrued Income Account Dr
To Income Account.

The two fold effect will be (1) it will be added to the concerned income account in Profit and Loss Account on the credit side and (2) show in the Balance Sheet on the Assets side as Accrued or Outstanding Income.

→ If Interest Receivable or Accrued Interest is given in Trial Balance(instead of giving it in Adjustments) then it will appear only in Balance Sheet on the Assets side.

5) Income Received in Advance:

Income received but not earned during the accounting year (income relating to future year but received during the current accounting year) is called Income received in advance.

Adjustment entry is:

Income Account Dr
To Income Received in Advance.

The two fold effect is (1) it is deducted in Profit and Loss Account on the credit side from the concerned income account and (2) shown in Balance Sheet on the Liabilities side as Income Received in Advance.

→ If any Income Received in Advance is given in Trial Balance, (instead of giving that in Adjustments) then it will appear only in Balance Sheet on the Liabilities side.

6) Depreciation:

Depreciation is the reduction in the value of an Asset due to wear and tear, lapse of time etc.

The Adjustment entry is:

Depreciation Account Dr
To Asset Account.

The two fold effect is (1) Depreciation is shown on the debit side of Profit and Loss Account and (2) it is shown as a deduction from the concerned Asset Account in Balance Sheet.

→ If Depreciation on Machinery etc., is given in Trial Balance, then it will appear only in Profit and Loss Account on the Debit side.

→ It is advisable to ignore Depreciation on addition or sale of Asset if the date of transaction is not given.

7) Interest on Capital:

Some times Interest is provided on the Capital invested by the proprietor in the business. It is treated as business expense.

Adjustment entry is:

Interest on Capital Account Dr

To Capital Account

The two fold effect is (1) it is shown on the Debit side of Profit and Loss Account and (2) the amount of Interest on Capital is added to the Capital on the Liabilities side.

8) Bad Debts:

Debts that are irrecoverable, are called Bad Debts.

Adjustment entry is:

Bad Debt Account Dr

To Debtor's Account.

The two fold effect is (1) it is shown on the Debit side of Profit and Loss Account and (2) shown on the Asset side of the Balance Sheet by way of deduction from Sundry Debtors.

9) Provision for Bad and Doubtful Debts:

The object of making Provision for Bad Debts is to bring down balance of Debtors to its true position. It is based on the Principle that all anticipated Losses should be provided before arriving at correct profit.

The amount of Doubtful Debts is calculated either by studying the position of each Debtor or by calculating it at some percentage on Sundry Debtors which is fixed on the basis of past experience.

It is to be noted that no provision for Bad Debts is created on Debtors which are definitely good or definitely bad.

Provision for Bad Debts is created by passing the following adjustment entry.

Profit and Loss Account Dr

To Provision for Doubtful Debts.

The Provision for doubtful debts given in Trial balance is the provision made during the last year. It is also called as "Old Provision" or "Existing provision".

The provision for doubtful debts given in adjustment is current year provision. It is also called as "New Provision" or "Provision required".

The treatment will be as follows:

Profit and Loss Account

Dr		Cr
To Provision for Doubtful Debts:		
Bad Debts(given in Trial Balance	***	
Add: Bad Debts (given in adjustments) (writing off during the current year, if any)	***	
Add: New Provision	***	
	***	
Less: Existing Provision (old provision)	***	
	***	

In case if the Old provision is more than the total of New provision and Bad Debts it will shown on the credit side of Profit and Loss Account.

In every case New Provision for Doubtful Debts will be deducted from Sundry Debtors.

Balance Sheet

Liabilities	Assets		
	Sundry Debtors	****	
	Less: Bad Debts (given In adjustments, if any)	***	
	Less: Provision for Doubtful Debts.(New Provision)	***	****
		→	

<u>Problems</u>

1) From the following figures prepare Trading and Profit and Loss Account for the year ended 31st December,2004 and Balance Sheet as that date:

	Rs.
Capital	30,000
Drawings	6,000
Sundry Creditors	43,000
Bills Payable	4,000
Sundry Debtors	51,000
Bills Receivable	5,000
Loan advanced to Deepak & Co.	12,000
Fixtures and Fittings	8,500
Opening Stock	47,000
Cash in hand	900
Cash at Bank	12,500
Overdraft	6,000
Purchases	50,000
Duty and Clearing Charges	3,500
Sales	1,28,000
Salaries	9,500
Returns from customers	1,000

Return to creditors	1,100
Commission and travelers expenses	4,700
General Expenses	2,500
Rent paid	2,000
Commission Received	4,000

Adjustments:

1) Closing Stock Rs. 50,000
2) Interest to be received Rs. 200
3) Outstanding salaries Rs. 500
4) Depreciate Fixtures and Fittings by 10%.
5) Allow interest on capital at 8%.
6) Commission received in advance Rs.600

Trading Account for the year ended 31st December, 2004

Dr Cr

Particulars	Amount	Particulars	Amount
To Opening Stock	47,000	By Sales 1,28,000	
To Purchases 50,000		Less Sales Returns 1,000	
Less Purchase		-----------	1,27,000
Returns 1,100		By Closing Stock	50,000
-------------	48,900		
To Duty and Clearing Charges	3,500		
To Gross Profit	77,600		
(Transferred to Profit and Loss Account)	1,77,000		1,77,000

Profit and Loss Account for the year ended 31st December, 2004

Dr **Cr**

Particulars	Amount	Particulars	Amount
To Salaries 9,500		By Gross Profit (b/d from	
Add Outstanding		Trading Account)	77,600
Salaries 500		By Commission received 4,000	
--------	10,000	Less: Received in	
To Rent Paid	2,000	Advance 600	
To Commission & traveling		-------	3,400
Expenses →	4,700	By Interest to be received	200
To General Expenses	2,500		
To Depreciation:			
Fixtures and Fittings by 10%			
(8,500*10/100) →	850		
To Interest on Capital at 8%			
(30,000*8/100) →	2,400		
To Net Profit (Transferred to	58,750		
Capital Account)	81,200		81,200

Balance Sheet as on 31st December, 2004

Liabilities	Amount	Assets	Amount
Capital 30,000		Fixtures and Fittings 8,500	
Add Net Profit 58,750		Less Depreciation - 850	
Add Interest on Capital +		(10% on 8,500) --------	7,650
(8% on 30,000) 2,400		Sundry Debtors	51,000
---------		Bills Receivables	5,000
91,100		Cash in hand	900
Less Drawings - 6,000		Cash at Bank	12,500
----------	85,150	Closing Stock	50,000
Creditors	43,000	Loan advance to Deepak & Co.	
Bills Payables	4,000	12,000	
Overdraft	6,000	Add Interest to be received 200	
Outstanding Salaries	500	-------	12,200
Commission received in advance	600		
	1,39,250		1,39,250

2) From the following Trial Balance as at 31st March, 2004, prepare Trading and Profit and Loss Account for the year ended 31st March and a Balance Sheet as on that date.

Debit Balances	**Rs.**	**Credit Balances**	**Rs.**
Stock	45,000	Capital	75,000
Plant & Machinery	75,000	Sales	4,20,750
Purchases	2,25,000	Sundry Creditors	15,000
Trade Charges	10,000	Bad Debts Provision	200
Carriage Inwards	2,500	Bills Payable	2,000
Carriage Outwards	1,500		
Factory Rent	1,500		
Discount	350		
Insurance	700		
Sundry Debtors	60,000		
Office Rent	3,000		
Printing & Stationery	600		
Traveller's salary	2,800		
Advertising	15,000		
Bills Receivables	6,000		
Drawings	6,000		
Salaries	15,000		
Wages	20,000		
Furniture	7,500		
Coal and Gas	1,000		
Cash in hand	2,000		
Cash at Bank	12,500		
	------------		-----------
	5,12,950		5,12,950

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Adjustments:

a) Closing Stock amounted to Rs. 35,000
b) Depreciate Machinery by 10% and Furniture by 5%.
c) Raise the Bad debts provision t 5% on Debtors.
d) Outstanding factory rent Rs.300 and Office rent Rs.600
e) Insurance Prepaid Rs.100

Trading Account for the year ended 31st March, 2004

Dr Cr

Particulars		Amount	Particulars	Amount
To Opening Stock		45,000	By Sales	4,20,750
To Purchases		2,25,000	By Closing Stock	35,000
To Carriage Inwards		2,500		
To Factory Rent	1,500			
Add Outstanding rent	300			
	-------	1,800		
To Wages		20,000		
To Coal and Gas		1,000		
To Gross Profit (Transferred to Profit and Loss Account)		1,60,450		
		4,55,750		4,55,750

Profit and Loss Account for the year ended 31st March, 2004

Dr Cr

Particulars		Amount	Particulars	Amount
To Trade Charges		10,000	By Gross Profit (b/d from Trading Account)	1,60,450
To Carriage Outwards		1,500		
To Discount allowed		350		
To Insurance	700			
Less Prepaid	100			
	------→	600		
To Office Rent	3,000			
Add Outstanding rent	600			
	--------	3,600		
To Printing & Stationery		600		
To Traveller's Salary		2,800		
To Advertising		15,000		
To Salaries		15,000		

To Depreciation: Machinery (10% on 75,000) Furniture (5 % on 7,500) To Bad debts Provision(on Debtors, 5% on 60,000) 3,000 Less Old Provision 200 ------- To Net Profit (Transferred to → Capital Account)	 7,500 375 2,800 1,00,325 1,60,450 ------------		 1,60,450 -------------

Balance Sheet as on 31st March, 2004

Liabilities	Amount	Assets	Amount
Capital 75,000 Add Net Profit 1,00,325 ---------- 1,75,325 Less Drawings 6,000	 1,69,325	Plant & Machinery 75,000 Less Depreciation (10% On 75,000) 7,500 -----------	 67,500
Creditors	15,000	Furniture 7,500 Less Depreciation (5% on 7,500) 375 ---------	 7,125
Bills Payables	2,000	Sundry Debtors 60,000 Less Bad debts Provision (5% on debtors i.e.60,000) 3,000 --------	 57,000
Outstanding Expenses:		Bills Receivables	6,000
Factory Rent	300	Cash in hand	2,000
Office Rent	600	Cash at Bank	12,500
		Closing Stock	35,000
		Prepaid Insurance	100
	1,81,225		1,81,225

3. On 31st March, 2000 the following figures are extracted from the books of Mr. ABC Prepare final accounts for the year after taking into account the following

Adjustments:

a) Depreciation 10% off plant and Fixtures.
b) Provide for March Rent unpaid Rs.150
c) Provide for Reserve for Bad Debts 2.5% on Debtors.
d) Outstanding wages Rs.800 and Salaries Rs.350
e) Stock on 31st March, 2000 Rs.16,580.

	Rs.		**Rs.**
Plant	55,000	Cash at Bank	2,245
Fixtures	1,720	Cash in hand	118
Capital	93,230	Sundry Debtors	48,000
Factory fuel and power	542	Sundry Creditors	22,880
Office Salaries	3,745	Purchases	83,290
Lighting (factory)	392	Wages	9,915
Sales	1,26,117	Rent and taxes	1,705
Travelling expenses	925	Office expenses	2,778
Carriage Outwards	380	Carriage Inwards	897
Discount	422	Return Outwards	3,172
Drawings	6,820	Bills Payable	6,412
Stock	21,725	Insurance prepaid	100
Manufacturing Expenses	2,940	Commission	260
Insurance	470	Returns Inwards	7,422

Trading Account of Mr. ABC for the year ended 31st March, 2000

Dr | Cr

Particulars		Amount	Particulars		Amount
To Opening Stock		21,725	By Sales	1,26,117	
To Purchases	83,290		Less Return Inwards	7,422	1,18,695
Less Return Outwards	3,172	80,118			
To Factory fuel and Power		542	By Closing Stock		16,580
To Lighting (factory)		392			
To Carriage Inwards		897			
To Manufacturing expenses		2,940			
To Wages	9,915				
Add Outstanding wages	800	10,715			
To Gross Profit (Transferred to Profit and Loss Account)		17,946			
		1,35,275			1,35,275

Profit and Loss Account of Mr. ABC for the year ended 31st March, 2000

Dr Cr

Particulars	Amount	Particulars	Amount
To Office Salaries 3,745		By Gross Profit (b/d from Trading	
Add Outstanding Salaries 350	4,095	Account)	17,946
To Travelling Expenses	925		
To Carriage Outwards	380		
To Discount allowed	422	By Net Loss (Transferred to	
To Insurance	470	Capital Account)	111
To Rent and Taxes 1,705			
Add Unpaid Rent 150	1,855		
To Office Expenses	2,778		
To Commission	260		
To Reserve for Bad Debts			
(2.5% on Debtors, i.e on 48,000)	1,200		
To Depreciation:			
Machinery (10% on 55,000)	5,500		
Fixtures (10% on 1,720)	172		
	18,057		18,057

Balance Sheet as on 31st March, 2004

Liabilities	Amount	Assets	Amount
Capital 75,000		Plant & Machinery 75,000	
Add Net Profit 1,00,325		Less Depreciation (10%	
----------		On 75,000) 7,500	
1,75,325		-----------	67,500
Less Drawings 6,000	1,69,325	Furniture 7,500	
Creditors	15,000	Less Depreciation	
Bills Payables	2,000	(5% on 7,500) 375	
Outstanding Expenses:		---------	7,125
Factory Rent	300	Sundry Debtors 60,000	
Office Rent	600	Less Bad debts Provision	
		(5% on debtors i.e.60,000) 3,000	
		--------	57,000
		Bills Receivables	6,000
		Cash in hand	2,000
		Cash at Bank	12,500
		Closing Stock	35,000
		Prepaid Insurance	100
	1,81,225		1,81,225

UNIT – V

RATIO ANALYSIS

The absolute accounting figures reported in the Financial Statements (combination of Trading, Profit and Loss Account & Balance Sheet) do not provide a meaningful understanding of the performance and financial position of a firm. An accounting figure conveys meaning when it is related to some other relevant information. Thus, the relationship between two accounting figures, expressed mathematically, is known as a financial ratio.

This ratio indicates the quantitative relationship and assists the analyst to make qualitative judgement about the firms financial position and performance.

Significance of Ratio Analysis:

1) The ability of a firm to meet its current obligations, i.e. liquidity position.
2) The extent to which the firm has used its long-term solvency for borrowing funds.
3) The efficiency of the firm in utilizing its various assets in generating sales revenue; and
4) The overall operating efficiency and performance of the firm.

Types of Ratios:

Several ratios can be calculated from the accounting data contained in the financial statements. from the financial analyst or financial manager point of view, the ratios are categorized in to 4 types.

1) Liquidity Ratios.
2) Solvency Ratios or Capital Structure Ratios or Leverage Ratios.
3) Profitability Ratios.
4) Activity or Turnover or Operating Efficiency Ratios.

I. LIQUIDITY RATIOS:

Liquidity ratios measure the ability of a firm to meet its current liabilities/obligations. The liquidity ratios, by establishing a relationship between cash and other current assets to current liabilities, provide a quick measure of liquidity. A firm should ensure that it does not suffer from lack of liquidity, or excess liquidity. The failure of a company to meet its current obligations, due to lack of sufficient liquidity, will lead to technical insolvency and loss of creditor's confidence. A very high degree of liquidity results in excess idle assets, and the consequent reduction in income.

The ratios that indicate the liquidity position of a firm are:

a) Current Ratio
b) Quick Ratio
c) Absolute Liquidity Ratio.

a). Current Ratio:

It is an important ratio establishing the relationship between the total current assets to current liabilities. It is also called working capital ratio, since it is relating to working of the firm. This ratio indicates how many rupees are invested in the current assets against a rupee of current liabilities.

Higher the current ratio, the larger will be the ability of the firm to meet its current obligations and the greater the safety of funds of short-term creditors.

It can be expressed as:

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

The standard norm of Current Ratio is 2:1, that is, two rupees of current assets are available as security to every rupee of current liabilities is considered satisfactory.

b). Quick Ratio or Acid-test Ratio or Liquid Ratio:

It is applied to test the quality of the liquidity of the company. This ratio establishes a relationship between quick or liquid assets and current liabilities. The liquid or quick assets are those current assets, which are in the form of cash and near cash and can be converted into cash within a short period through the business operations without a loss of value. The term 'short term' is a relative period refers to the period for which the firm wants to find out the liquidity position.

It can be expressed as:

$$\textbf{Quick Ratio} = \frac{\textbf{Quick Assets}}{\textbf{Current Liabilities}}$$

Quick Assets = Current Assets – (Closing Stock + Prepaid Expenses)

The standard norm of Quick Ratio is 1:1.

c). Absolute Liquidity Ratio or Super Quick Ratio:

Is yet another liquidity ratio to indicate the ability of a firm to pay off its current liabilities immediately.

If the current ratio indicates the liquidity position of the firm for a period of one year, the acid test ratio indicates the same for a shorter period and the super quick ratio indicates the same immediately.

It indicates how many paise in a rupee of current liabilities, a firm will be able to pay if all the current liabilities fall due immediately.

It can be expressed as:

$$\textbf{Super Quick Ratio} = \frac{\textbf{Absolute Liquid Assets or Super Quick Assets}}{\textbf{Current Liabilities}}$$

Absolute Liquid Assets or Super Quick Assets = Cash + Bank Balance + Short-term securities.

The standard norm of Super Quick Ratio is 0.5:1

II. CAPITAL STRUCTURE OR LEVERAGE RATIOS:

Capital Structure ratio is defined as the financial ratio, which focuses on the long-term solvency of the firm. The long-term solvency of the firm is always reflected in its ability to meet its long-term obligations or commitments such as payment of interest periodically without fail, repayment of principal as and when due etc.

The following are the most commonly used Capital Structure or Solvency Ratios:

a) Debt-Equity Ratio.
b) Interest-Coverage Ratio.
c) Dividend Coverage Ratio.

d) Ratio of Proprietors' Funds to Total Assets.
   (i) Ratio of Fixed Assets to Proprietors' Funds.
   (ii) Ratio of Current Assets to Proprietors' Funds.

a). Debt-Equity Ratio:

Debt-Equity Ratio is the ratio between outsider's funds(debt) and insider's funds (equity). This is used to measure the firm's obligations to creditors in relation to the owner's funds. It is a measure of long term solvency. The standard for this ratio is 1:1. in other words, for every rupee of debt, there should be one rupee worth internal funds.

This is also industry/sector specific ratio. Depending upon the industry, the standard for the debt-equity ratio differs. For instance, in case of capital intensive industries such as shipping or steel manufacturing companies, the D/E ratio can be as high as 20:1. so this ratio has to be interpreted considering the nature of industry and competitors D/E ratios.

A high D/E ratio implies that the creditors stake is more as compared to that of owners. In other words if the project fails financially, there is greater risk for the creditors. This may further mean that the creditors have higher degree of control in the management of the company.

On the other, a low D/E ratio is desirable which means less risk to the creditors leaving higher margin of safety for the creditors. From the firms point of view, this is also good in terms of lower commitment to pay fixed interest charges. This will deprive the company to take advantage of borrowed funds to enhance the profitability.

D/E Ratio is calculated as follows:

$$\textbf{Debt-Equity Ratio} = \frac{\textbf{Long-term Liabilities or Long-term Debt}}{\textbf{Share Holders Funds}}$$

Long-term liabilities = Debentures and long-term loans.
Share Holders Funds= Equity capital + Preference Capital + All Reserves + Retained Earnings etc.,

b). Interest Coverage Ratio:

Interest Coverage Ratio is calculated to judge the firm's capacity to pay the interest on debt it borrows. It gives an idea of the extent the firm's earnings may contract before it is unable to pay interest payments out of current earnings.

It is a very important ratio for the financial institutions to judge the ability of the borrower to service the loan from the current year's profits. The higher the ratio, better it is. In other words, a higher ratio implies that the company has no problems in paying interest.
It is calculated in the following way:

Interest Coverage Ratio = Earnings/Profit before Interest and Tax

----

Fixed Interest Charges.

For example if Interest Coverage Ratio = 10 times, it means that the net profit earnings are 10 times to the fixed interest charges payable during the year. The more the number of times the coverage, the safer is the investment.

c). Dividend Coverage Ratio:

This is another important coverage ratio indicating the number of times the dividend paid is covered by the net profit after tax

This ratio indicates how many rupees of net profit after tax is earned for every one rupee of dividend paid.

It is calculated in the following way:

$$\textbf{Dividend Coverage Ratio} = \frac{\textbf{Net Profit After Tax}}{\textbf{Preference or Equity Dividend paid}}$$

d). Ratio of Proprietors' Funds to Total Assets:

This establishes the relationship between proprietors' funds and the total assets. Here, the total assets include the Tangible assets plus current assets.

As a guideline a ratio of around 0.5:1 or 50% is considered as the minimum desirable. In other words, half of the tangible assets are owned by the ordinary shareholders or owners and half by contributors of other types of share and loan capital and by creditors.

Intangible assets such as goodwill are not considered here bcoz, if the business has to be sold off forcibly, goodwill may not be of any worth.

It is calculated as follows:

$$\textbf{Ratio of Proprietors' Funds to Total Assets} = \frac{\textbf{Proprietors Funds}}{\textbf{Total Assets}} \times 100$$

Proprietors Funds = Equity Capital + Preference Capital + All Reserve (&Funds) + Surplus(current year's Profit).

Total Assets = Current Assets + Fixed Assets (only Tangible Fixed Assets).

(i). Ratio of Fixed Assets to Proprietors' Funds:

This ratio explains whether the fixed assets have been bought from the Proprietors' funds or not. By matching the long-term investment with the long-term finance, it is possible to determine whether the borrowing has been made to finance fixed assets. It is not safe to use short-term finance to buy long-term assets because when the borrowing is to be repaid, there may be a problem, as the fixed assets cannot be readily converted into cash.

The long-term sources of finance can be used for buying current assets but no short-term sources of finance can be utilized to acquire fixed assets.

This ratio shows the percentage of proprietors' funds invested in fixed assets

Normally, for industrial establishments this can be 65% of the proprietors' funds.

It is calculated in the following way:

Ratio of Fixed Assets to Proprietors' funds = Fixed Assets

$$\frac{\quad}{\text{Proprietors' Funds.}} \times 100$$

(ii). Ratio of Current Assets to Proprietors' Funds:

A higher ratio of current assets to proprietors' funds is considered as financial strength to the firm.

It is calculated in the following way:

$$\text{Ratio of Current Assets to Proprietors' Funds} = \frac{\text{Current Assets}}{\text{Proprietors' Funds}} \times 100$$

III. PROFITABILITY RATIOS:

A Company should earn profits to survive and grow over a period of time. Therefore, the financial manager should continuously evaluate the efficiency of the company in terms of profits. The profitability ratios are calculated to measure the operating efficiency of the company. Generally, two major types of profitability ratios are calculated:

1) Profitability Ratios in relation to Sales.
2) Profitability Ratios in relation to the Investment.

The company should be able to produce adequate profits on each rupee of sales in order to cover operating expenses and interest charges, etc., and to maximize the wealth of the owners (shareholders).

The profitability of the firm should also be evaluated in terms of the firm's investment in assets and in terms of capital contributed by creditors and owners. If a company fails to earn a satisfactory return on investment, its survival is threatened.

1).Profitability Ratios in relation to Sales:

These ratios reveal the percentage of profit to the selling price or sales value. They are 3 types of ratios:

a) Gross Profit Ratio.
b) Net Profit Ratio.
c) Operating Profit Ratio.

a). Gross Profit Ratio:

The Gross Profit Ratio reflects the efficiency with which management produces each unit of product. A high gross profit ratio is a sign of good management. This may be due to high sales prices, lower cost of goods sold, favourable price fluctuations, etc.,

A low gross profit margin should be carefully investigated as it may reflect inefficient utilization of installed capacity, purchase of materials on unfavaurable terms or fall in the selling price.

It is calculated in the following way:

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

Net Sales = Total Sales – Sales Returns.

b). Net Profit Ratio:

The Net Profit Ratio indicates the efficiency of a firm in manufacturing, administering and selling products.

This ratio is the overall measure of the firm's ability to turn each rupee of sales into Net Profit.

A high net profit margin indicates the firm's ability to face market adversities like, fall in selling prices, and demand, rising cost of production etc., similarly, a low net profit margin indicates the firm's inability to face the adversities of market.

It is calculated in the following way:

$$\text{Net Profit Margin} = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100$$

c). Operating Profit Ratio:

The above ratio indicates the amount of sales represented by the profit earned exclusively out of the business operations.

It is calculated as follows:

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

Operating Profit = Sales – Operating Expenses.

Operating Expenses = Cost of goods sold + General and Administrative Expenses + Selling and Distribution Expenses + Depreciation.

Sometimes we need to calculate Operating Expenses Ratio or Operating Ratio. It is calculated in the following way.

$$\text{Operating Ratio} = \frac{\text{Cost of goods sold + General and Administrative, Selling and Distribution Expenses + Depreciation}}{\text{Net Sales.}} \times 100$$

A higher Operating Ratio is unfavourable since it will leave a small amount of operating profit or income to meet interest, dividends etc.,

There fore Operating Profit Ratio is nothing but 100 – Operating Expenses Ratio.

2). Profitability ratios in relation to Investment:

The above ratios reveal the portion of investment, that has been earned back in the form of net profit. On other words, it reveals what is the percentage of net profit to the investment made in the business. The important ratios are:

a) Return on Investment (ROI)
b) Return on Equity Share Capital (ROCE).
c) Earnings per Share (EPS).
d) Dividend per Share
e) Dividend pay-out Ratio.
f) Dividend and Earnings Yields.
g) The Price-Earnings Ratio.

a). Return on Investment (ROI).

Indicates the rate of return earned on the investment made in the business. Here the meaning of the term 'Investment' can be viewed from 3 angles. It is referred to as 'Shareholders Equity' or as 'Investment in Total Assets' or as 'Capital Employed'.

- **Return on Shareholders Equity (ROSE)** = $$\frac{\text{Profit After Tax}}{\text{Shareholders' Equity}} \times 100$$

Shareholders' Funds = Equity Capital + Preference Capital + All Reserve (&Funds)+Surplus (current year's Profit)

- **Return on Capital Employed (ROCE)** = $$\frac{\text{Profit Before Interest and Tax}}{\text{Capital Employed.}} \times 100$$

Capital Employed = Equity Capital + Preference Capital + All Reserve (&Funds) + Surplus (current year's Profit) + Long-term Liabilities.

- **Return on Total Assets (ROTA)** = $$\frac{\text{Profit Before Interest and Tax}}{\text{Total Assets}} \times 100$$

b). Return on Equity Share Capital:

Indicates the rate of return earned on equity share capital of the company.
It is calculated in the following way:

$$\text{Return on Equity Share Capital} = \frac{\text{Net Profit after tax} - \text{Preference Dividend}}{\text{Equity Share Capital}} \times 100$$

c). Earnings per Share (EPS).

EPS is the relationship between net profits and the number of shares outstanding at the end of the given period. This can be compared with previous years to provide a basis for assessing the company's performance.

It is calculated in the following way:

$$\text{Earnings per Share} = \frac{\text{Net Profit after Tax and Preference Dividend}}{\text{Number of Equity Shares.}} \times 100$$

d). Dividend per Share:

Indicates the dividend paid for each equity share. Here Dividend indicates Equity Dividend.

It is calculated in the following way:

$$\text{Dividend per Share} = \frac{\text{Equity Dividend declared}}{\text{Number of Equity Shares}}$$

e). Dividend Pay-out Ratio:

It is calculated in the following way:

$$\text{Dividend pay-out Ratio} = \frac{\text{Dividend per Share}}{\text{Earnings per Share}}$$

f). Dividend Yield ratio:

Yield refers to the amount of total return the investor will receive for a given period of time for the amount of his investment.

Dividend yield refers to the percentage return on the price paid for shares.

It is calculated as follows:

$$\text{Dividend Yield ratio} = \frac{\text{Nominal or face value of the Share}}{\text{Cost or Market price of the Share}} \times \text{\% dividend per annum}$$

Or

$$\text{Dividend Yield ratio} = \frac{\text{Dividend per Share}}{\text{Market value per Share}}$$

$$\textbf{Earnings Yield Ratio} = \frac{\textbf{Earnings per Share}}{\textbf{Market value per Share}}$$

g). The Price-Earnings Ratio:

The reciprocal of the earnings yield or the earnings price ratio is called price-earnings ratio. It is widely used by the security analysts to evaluate the performance of a firm as expected by the investors. It indicates investors' judgement or expectations about the firm's performance. Management is also interested in this market appraisal of the firm's performance and will like to find causes if the P/E ratio declines. It reflects investors' expectations about the growth in the firm's earnings. Industries differ in their growth prospects, accordingly, the P/E ratios for industries vary widely.

It is calculated in the following way:

$$\textbf{Price-Earnings Ratio} = \frac{\textbf{Market Value per Share}}{\textbf{Earnings per Share}}$$

IV: ACTIVITY OR TURNOVER RATIOS:

Activity ratios measure how efficiently the enterprise employs the resources of assets at its command. They indicate the performance of the business. The performance of an enterprise is judged with its sales(turnover). In other words, higher sales means better performance which also indicate optimum utilization of physical resources, i.e., material, machine and man. These ratios are also referred as Turnover or Efficiency Ratios. These ratios involve relating level of activity, represented by sales or cost of goods sold with the investment in various assets.

Following are the important turnover ratios:

1. Stock Turnover Ratio or Inventory Turnover Ratio:

Stock turnover ratio indicates whether inventory has been efficiently used or not. The purpose is to see that only the minimum funds have been locked up in inventory. Stock turnover ratio indicates the number of times stock has been turned over during the period and evaluates the efficiency with which a firm is able to manage its inventory. In other words, it measures how many times the average stock is sold during the year. Since stock is normally shown in the books of accounts at cost, it is expressed in relation with cost of goods sold by adjusting sales with gross profits. For computation of this ratio, stock is preferably taken as average stock, representing the mean value of opening stock and closing stock.

The ratio is calculated as follows"

$$\textbf{Stock Turnover Ratio} = \frac{\textbf{Cost of goods sold}}{\textbf{Average stock}}$$

$$\textbf{Stock conversion period} = \frac{\textbf{Number of days in a year}}{\textbf{Stock Turnover Ratio}}$$

2. Debtors Turnover Ratio:

Debtors turnover ratio, also known as Receivable turnover ratio explains the relationship of sales with the outstanding amount due from debtors to whom goods were sold on credit.

It is calculated in the following manner:

$$\textbf{Debtors Turnover Ratio} = \frac{\textbf{Credit Sales}}{\textbf{Average Debtors + Average Bills receivables}}$$

Credit Sales = Total Sales – Cash Sales – Sales Returns.

If the enterprise is having difficulty in collection of dues from debtors within the credit period, it will have large amount of debtors, and a low ratio. Conversely with prompt collection of bills, the debtors balance will be low and there will be high debtors turnover ratio

$$\textbf{Debt Collection Period} = \frac{\textbf{Number of days in a year}}{\textbf{Debtors Turnover Ratio}}$$

Debt collection period represents the average number of days for which a firm has to wait before its receivables are converted into cash. Generally the short collection period implies quick payment by debtors. Similarly a higher collection period implies an inefficient collection performance which adversely affects the liquidity position of the firm.

3. Creditors Turnover Ratio:

In the course of business operations, a firm has to make credit purchases and incur short-term liabilities. A supplier of goods, i.e.., creditor, is naturally interested in finding out how much time the firm is likely to take in repaying its creditors, this can be known by calculating creditors turnover ratio.
This ratio is calculated as:

$$\textbf{Creditors Turnover Ratio} = \frac{\textbf{Credit Purchases}}{\textbf{Average Creditors + Average Bills payable}}$$

$$\textbf{Debt Payment Period} = \frac{\textbf{Number of days in a year}}{\textbf{Creditors Turnover Ratio}}$$

. **4. Capital Turnover Ratio:**

This ratio relates sales to capital employed and is a measure of efficiency of the capital employed in the firm.

It is calculated by the following formula.

$$\textbf{Capital Turnover Ratio} = \frac{\textbf{Sales}}{\textbf{Capital employed}}$$

Capital employed is total of owner's funds and long term debts.

A low capital turnover ratio, other things remaining the same, indicates that the enterprise is capital intensive or the assets are not properly utilized, or there exists idle assets. On the other hand, a high ratio would indicate that capital resources are being stretched to realize sales. One can test the managerial efficiency with the help of this ratio.

5. Fixed Assets Turnover Ratio:

The ratio of sales to fixed assets measure the turnover of fixed assets. This ratio is a measure of efficiency or use of fixed assets.

The ratio would be calculated as:

$$\textbf{Fixed Assets Turnover Ratio} = \frac{\textbf{Sales}}{\textbf{Fixed Assets}}$$

Higher turnover ratio reflects better utilization of funds deployed in fixed assets.

6. Working Capital Turnover Ratio:

Working capital is closely related to sales. It measures how efficiently the working capital is utilized. Net working capital is the excess of current assets over current liabilities. This ratio indicates number of times the net working capital is converted into sales. The higher ratio reflects the efficiency in the management of working capital.
It is calculated by using the following formula:

$$\textbf{Working Capital Turnover Ratio} = \frac{\textbf{Sales}}{\textbf{Net Working Capita}}$$

Net Working Capital = Current Assets – Current Liabilities

1. XYZ Company limited submitted the following particulars to you:

Gross profit = 20%, stock velocity = 5 months, Debtors velocity = 3 months, creditors velocity = 4 months, Gross profit for the year is Rs.2,50,000.

The closing stock is more than opening stock by Rs.2,00,000.

Find out (1) Sales (2) Opening stock (3) Closing stock (4) Debtors (5) Creditors.

Solution:

(1) Finding out Sales:

$$\text{Gross profit} = \frac{\text{Gross profit}}{\text{Net Sales}} \times 100 = 20\% \text{ (given in the problem)}$$

If Gross profit is 20 then sales are 100

If Gross profit is 2,50,000 then sales are ?

$$\frac{2,50,000}{20} \times 100 = 12,50,000.$$

There fore Sales = Rs.12,50,000.

(2) Finding out opening stock and closing stock:

$$\text{Stock conversion period} = \frac{\text{No. of Days 0r months in a year}}{\text{Stock Turnover ratio.}}$$

No. of days or months in a year.

(or) Stock turnover ratio = ---

Stock conversion period

By substituting the given values in the above formula, we get,

12 months

5 months = --------------------

Stock Turnover ratio

12 months

Stock turnover ratio = --------------- = 2.4 times

5 months

Therefore Stock turnover ratio = 2.4 times.

Cost of Goods sold

Stock Velocity (Turnover ratio) = --------------------------

Average Stock

Cost of goods sold

(or) Average stock = ------------------------

Stock turnover ratio

Sales – Gross profit = Cost of goods sold

12,50,000 – 2,50,000 = 10,00,000

Cost of goods sold = Rs.10,00,000

By substituting the available values in the above formula we get,

$$\text{Average Stock} = \frac{10,00,000}{2.4} = 4,16,667$$

Average stock = Rs.4,16,667

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

If opening stock is ‘ a ‘

Then closing stock is a + 2,00,000 (bcoz it is given that closing stock is more than opening stock by Rs.2,00,000)

$$\frac{a + (a + 2,00,000)}{2} = 4,16,667$$

2a + 2,00,000 = 4,16,667 x 2

2a + 2,00,000 = 8,33,333

2a = 8,33,333 – 2,00,000

2a = 6,33,333

$$a = \frac{6,33,333}{2}$$

a = 3,16,667

‘ a ‘ is opening stock

closing stock is a + 2,00,000

closing stock = 3,16,667 + 2,00,000

closing stock = 5,16,667.

There fore Opening stock = Rs.3,16,667 and Closing stock = Rs.5,16,667 and Average stock = Rs.4,16,667.

(3) Finding Debtors:

No. of days or months in a year

Debt collection period = --

Debtors velocity or turnover ratio

No. of days or months in a year

(or) Debtors turnover ratio = --

Debt collection period

12 months

Debtors turnover ratio = --------------

3 months (given in the problem)

Debtors turnover ratio or Debtors velocity = 4 times.

but

Credit Sales

Debtors Velocity (turnover ratio) = ----------------

Average Debtors

Credit Sales

Average debtors = **--------------------------**

Debtors turnover ratio

Entire amount of sales are assumed to be credit sales.

Substitute the available values in the above formula

12,50,000

Average debtors = -------------

4 times

Average debtors = 3,12,500

In absence of opening balance of debtors information, the calculated value will be assumed to be only closing balance of debtors or Total debtors.

There fore Debtors for the year = Rs.3,12,500

(4) Finding Creditors.

Cost of goods sold = opening stock + purchases – closing stock

Purchases = cost of goods sold +closing stock – opening stock

Purchases = 10,00,000 + 5,16,667 – 3,16,667

There fore Purchases for the year are Rs.12,00,000

No. of days or months in a year

Debt payment period = --

Creditors turnover ratio

No. of days or months in a year

(or) Creditors turnover ratio = --

Debt payment period

Creditors turnover ratio = 12 months

----

4 months (given in the problem)

Creditors turnover ratio = 3 times.

Credit purchases

Creditors velocity or Turnover ratio = ------------------------

Average Creditors

Credit purchases

Average creditors = ----------------------------

Creditors turnover ratio

12,00,00

Average creditors = -------------

3 times

Average creditors = 4,00,000

In absence of opening balance of creditors information, the calculated value i.e. Rs.4,00,000 will be assumed to be only closing balance of Creditors or other wise to be Total Creditors.

There fore Total Creditors = Rs.4,00,000

2) From the following particulars, calculate (1) Current Assets (2) Current Liabilities (3) Quick Assets (4) Stock.

Current Ratio = 4:1

Quick Ratio = 3.2:1

Working Capital = Rs.75,000

Solution:

Current Ratio = Current Assets

--------------------- = 4:1 (given in the problem)

Current Liabilities

If Current Liabilities are x

Then Current Assets will be 4x

But working capital = Current Assets – Current Liabilities.

75,000 = 4x – x

75,000 = 3x

$$x = \frac{75{,}000}{3}$$

x = 25,000

There fore Current liabilities = Rs.25,000

And Current Assets = 4x i.e. 4 x 25,000

Current Assets = Rs.1,00,000

$$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Current Liabilities}} = 3.2:1 \text{ (given in the problem)}$$

If Current liabilities are x

Then Quick assets will be 3.2x

We know that x = 25,000

There fore Quick Assets = 3.2 x 25,000

Quick Assets = Rs.80,000

But Stock = Current Assets – Quick Assets (in absence of Prepaid Expenses)

{Bcoz Quick Assets = All Current Assets – (Stock + Prepaid Expenses)}

Stock = 1,00,000 – 80,000

There fore Stock or Inventory value = Rs.20,000.

3) The following is the Balance Sheet of ABC Co.Ltd, as on 31st March, 2007. Calculate the Liquidity Ratios and comment upon the same:

Liabilities	Amount	Assets	Amount
Equity Share Capital	10,00,000	Land & Buildings	7,00,000
Profit & Loss A/c	1,50,000	Plant & Machinery	17,50,000
General Reserve	3,00,000	Stock	10,00,000
Bank Overdraft	20,00,000	Sundry Debtors	5,00,000
Sundry Creditors	5,00,000	Bills Receivables	50,000
Bills Payables	2,50,000	Cash at Bank	2,00,000
	42,00,000		42,00,000

Solution:

Liquidity Ratios are three. 1) Current Ratio 2) Quick Ratio 3) Absolute Liquidity Ratio.

1)Finding Current Ratio.

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

Current Assets (= Stock + Debtors + Bills Receivables (B/R) + Cash in hand + Cash at bank + Marketable securities or short term investments + Prepaid Expenses + Outstanding Incomes.

Current Liabilities = Creditors + Bills Payable (B/P) + Bank Overdraft + Outstanding Expenses + Prepaid Incomes + Provision for Taxation + Proposed Dividend + Short term loans.

$$\text{As per the given details Current Ratio} = \frac{\text{Stock + Debtors + B/R + Cash at bank}}{\text{Creditors + B/P + Bank Overdraft.}}$$

$$\text{Current Ratio} = \frac{10{,}00{,}000 + 5{,}00{,}000 + 50{,}000 + 2{,}00{,}000}{5{,}00{,}000 + 2{,}50{,}000 + 20{,}00{,}000} = \frac{17{,}50{,}000}{27{,}50{,}000} = 0.636$$

Therefore Current Ratio = 0.636:1

2) Finding Quick Ratio or Acid test or Liquid Ratio.

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

Quick Assets=All Current Assets except Closing Stock and Prepaid Expenses.i.e.

All Current Assets – (Closing Stock or Inventory – Prepaid Expenses)

Quick Assets = Debtors + B/R + Cash at Bank (as per the given problem)

$$\text{Quick Ratio} = \frac{5,00,000 + 50,000 + 2,00,000}{5,00,000 + 2,50,000 + 20,00,000} = \frac{7,50,000}{27,50,000} = 0.2727$$

There fore Quick Ratio = 0.2727:1

3) Absolute Liquidity Ratio:

$$\text{Absolute Liquidity ratio} = \frac{\text{Absolute Liquid Assets}}{\text{Current Liabilities}}$$

Absolute Liquid Assets = Cash in hand + Cash at bank + Short term investment or Marketable securities.

$$\text{Absolute Liquidity Ratio} = \frac{2,00,000}{5,00,000 + 2,50,000 + 20,00,000} = \frac{2,00,000}{27,50,000} = 0.0727.$$

Therefore Absolute Liquidity Ratio = 0.0727:1

Analysis: The Liquidity position of the company is not satisfactory.

The Current Ratio is 0.636:1, which means it is much below than the standard ratio 2:1.

The Quick Ratio is 0.2727:1 and the standard ratio is 1:1, so quick assets position is not satisfactory and the firm need to improve their quick assets.

The Absolute Liquid Ratio is 0.0727:1 and the standard ratio is 0.5:1, which means the Absolute liquid assets are not maintained in the required level and the firm got to improve them.

4) From the following information calculate (1) Stock or Inventory turnover ratio and (2) Debtors turnover ratio.

Cash Sales = 6,00,000 ; Credit Sales = 4,50,000 ; Sales Returns = 80,000 ; Opening Stock = 42,000 ; Closing Stock = 56,000 ; Gross profit rate is 20%; Debtors at the beginning of the year = 1,00,000 and Debtors at the end of the year = 75,000.

Solution :

1) Finding Stock Turnover Ratio:

$$\text{Stock or Inventory Turnover Ratio} = \frac{\text{Cost of goods sold}}{\text{Average stock}}$$

Cost of goods sold = Net Sales – Gross Profit

Net Sales = Total Sales (Cash Sales + Credit Sales) – Sales Returns

Net Sales = 6,00,000 + 4,50,000 – 80,000 = 9,70,000

Given that Gross Profit = 20%

The above percentage will be taken up on Sales. i.e sales is taken to be100%

Gross profit = Sales x 20% = 9,70,000 x 20% = 1,94,000

Therefore Gross profit = 1,94,000

Cost of goods sold = Sales - Gross profit

9,70,000 – 1,94,000 = 7,76,000

Therefore cost of goods sold = Rs.7,76,000

$$\text{Average stock} = \frac{\text{Opening Stock + Closing Stock}}{2} = \frac{42{,}000 + 56{,}000}{2} = 49{,}000$$

Cost of goods sold   7,76,000

Stock Turnover Ratio = -------------------------- = ----------- = 15.83 times

Average Stock 49,000

Therefore Stock Turnover Ratio = 15.83 times.

2) Finding Debtors Turnover Ratio:

Net Credit Sales

Debtors Turnover Ratio = ------------------------

Average Debtors + B/R

Net Credit Sales = Total Sales – Cash Sales - Sales Returns

In the above problem Credit Sales amount is directly been given as = 4,50,000

Average Debtors = Opening Debtors + Closing Debtors / 2

1,00,000 + 75,000 1,75,000

= ------------------------ = ----------- = 87,500

2 2

4,50,000

Debtors Turnover Ratio = ----------- = 5.143 times.

87,500

Therefore Debtors Turnover Ratio = 5.143 times.

5) Equity Share Capital (Rs. 10/- per share)	Rs. 8,00,000
5% Preference Share Capital	Rs. 5,40,000
10% Debenture Capital	Rs. 2,00,000
Profit after tax at 60%	Rs. 2,70,000
Equity Dividend	20%
Market Price of Equity Share	Rs. 40

Calculate 1) Dividend Coverage on Equity Share 2) Dividend Yield Ratio 3) Earnings per share 4) Price Earnings Ratio

Solution:

<u>Net Income Statement:</u>

Earnings or profit before interest and tax (EBIT or PBIT)

(Minus) __

Interest (Paid to denenture holders)

--

Earnings before tax (EBT or PBT)

(Minus) __

Tax (tax paid to Government)

--

Earnings after tax (EAT or PAD)

(Minus) __

Preference Dividend (Preference dividend paid to preference share holders)

--

Net Income available to Equity Shareholders

1) Dividend Coverage Ratio:

$$\frac{\text{Dividend per equity share}}{\text{Market price per equity share}} \times 100$$

Dividend per share = 20% on Rs. 10 (face value of equity share) = Rs. 2/-

$$\frac{2}{40} \times 100 = 5\%$$

Dividend Coverage Ratio = 5%.

2) Dividend Yield on Equity Share:

$$\frac{\text{Net Profit after Taxes}}{\text{Dividend on Preference Shares}}$$

$$\frac{2,70,000}{\text{5\% on 5,40,000 (Preference dividend paid to Pref. share holders)}}$$

$$\frac{2,70,000}{27,000} = \text{10 times.}$$

Dividend Yield on Equity Share = 10 times

3) Earnings Per Share:

$$\frac{\text{Net Profit Available for Equity Shareholders}}{\text{Number of Equity Shares}}$$

2,70,000 – 27,000

80,000(Rs. 8,00,000 / Rs. 10)

2,43,000

----------- = Rs. 3.04

80,000

Earnings per share = Rs. 3.04

4) Price Earnings Ratio:

Market price per Equity Share

Earnings per share

40

------ = 13.15

3.04

<u>Limitations of Ratios:</u>

The Ratio Analysis is one of the most powerful tools to analyse the financial statements. Though ratios are simple to calculate and easy to understand, they suffer from some limitations also.

1. Limited use of a single ratio: A single ratio, usually does not convey much of a sense. To make a better analysis, a number of ratios have to be calculated which is likely to confuse the analyst than help him in making any meaningful conclusion.

2. Lack of Adequate Standards: There are no well accepted standards or rules of thumb for all ratios which can be accepted as norms. Then it will be difficult for us to analyze the situation while depending on ratios.

3. Inherent limitations of Accounting: Like financial statements ratios also suffer from the inherent limitations of accounting records such as their historical nature, omission of errors etc.., Ratios of the past are not necessarily true indicators of the future.
4. Change in Accounting procedure: Change in Accounting procedure by a firm often makes ratio analysis misleading. E.g.., change in the valuation of methods of inventories from FIFO (First in first out) to LIFO (Last in first out) increases the cost of sales and reduces considerably the value of closing stocks which makes stock turnover ratio to be lucrative and an unfavourable gross profit.
5. Window Dressing: Financial statement can easily be window-dressed or manipulated to present a better picture of its financial and profitability position to outsiders. Hence, one has to be very careful in making a decision from ratios calculated from such financial statements. But it may be very difficult for an outsider to know about the manipulations made by the firm.
6. Personal Bias: Ratios are only means of financial analysis and not an end in itself. Ratios have to be interpreted and different people may interpret the same ratio in different ways.
7. Qualitative factors cannot be considered: Factors like Satisfaction levels, character or managerial abilities cannot be considered because ratio analysis is purely quantitative analytical tool.
8. Other Limitations: factors like inflation, business cycles, economic crisis, lack of uniform data, identifying the right type of ratio for analysis and interpretation are considered to be few limiting factors that weakens the utility of ratio analysis.

Funds Flow Statement

Funds Flow Statement is a statement prepared to analyze the reasons for changes in the Financial Position of a Company between 2 Balance Sheets. It shows the inflow and outflow of funds i.e. Sources and Applications of funds for a particular period. In other words, a Funds Flow Statement is prepared to explain the changes in the Working Capital position of a Company.

Significance and Importance of Funds Flow Statement:

Since traditional reports (i.e. Income Statement/Profit and Loss Account, and Balance Sheet) are not very informative, a financial analyst has to depend on some other report—Funds Flow Statement. In other words, along with the traditional sources of information, some other sources of information are absolutely required in order to take the challenge offered by modern business.

Funds Flow Statement, no doubt, caters to the needs of management. This is because a Funds Flow Statement not only presents the Balance Sheet values for consecutive two years, it also ascertains the changes of working capital—which is a very important indicator.

It not only reveals the source from which additional working capital has been financed but also, at the same time, the use of such funds. Moreover, from a projected funds flow statement the management can easily ascertain the adequacy or inadequacy of working capital, i.e., it helps in decision-making in a number of ways.

The significance and importance of Funds Flow Statements may be summarized as:

(a) Analysis of Financial Statement:

The traditional financial statements, viz. Profit and Loss Account and Balance Sheet, exhibit the result of the operation and financial position of a firm. Balance Sheet presents a static view about the resources and how the said resources have been utilized at a particular date with recording the changes in financial activities. But Funds Flow Statement can do so, i.e., it explains the causes of changes so made and effect of such change in the firm accordingly.

(b) Highlighting Answers to Various Perplexing Questions:

Funds Flow Statement highlights answers of the following questions:

(i) Causes of changes in Working Capital;

(ii) Whether the firm sells any Non-Current Asset; if sold, how were the proceeds utilized?

(iii) Why smaller amount of dividend is paid in spite of sufficient profit?

(iv) Where did the net profit go?

(v) Was it possible to pay more dividend than the present one?

(vi) Did the firm pay-off its scheduled debts? If so, how, and from what sources?

(vii) Sources of increased Working Capital, etc.

(c) Realistic Dividend Policy:

Sometimes it may so happen that a firm, instead of having sufficient profit, cannot pay dividend due to lack of liquid sources, viz. cash. In such a circumstance, Funds Flow Statement helps the firm to take decision about a sound dividend policy which is very helpful to the management.

(d) Proper Allocation of Resources:

Resources are always limited. So, it is the duty of the management to make its proper use. A projected Funds Flow Statement helps the management to take proper decision about the proper allocation of business resources in a best possible manner since it highlights the future.

(e) As a Future Guide:

A projected Funds Flow Statement acts as a business guide. It helps the management to make provision for the future for the necessary funds to be required on the basis of the problem faced. In other words, the future needs of the fund for various purposes can be known well in advance which is a very helpful guide to the management. In short, a firm may arrange funds on the basis of this statement in order to avoid the financial problem that may arise in future.

(f) Appraising of the Working Capital:

A projected Funds Flow Statement, no doubt, helps the management to know about how the working capital has been efficiently used and, at the same time, also suggests how to improve the working capital position for the future on the basis of the present problem faced by it, if any.

Preparation of Funds Flow Statement

Step 1: Prepare Statement of changes in Working Capital

This is prepared while taking into account Current Assets and Current Liabilities of a Company.

Rule 1: There is a direct relationship between Current Assets and Working Capital.

> **If Current Assets ↑ - then Working Capital ↑** (an increase in Current Assets leads to increase in Working Capital)
>
> **If Current Assets ↓- then Working Capital ↓** (decrease in Currents Assets leads to decrease in Working Capital)

Rule 2: There is an indirect relationship between Current Liabilities and Working Capital

> **If Current Liabilities ↑ - then Working Capital ↓** (an increase in Current Liabilities lead to decrease in Working Capital)
>
> **If Current Liabilities ↓ - then Working Capital ↑** (decrease in Current Liabilities leads to increase in Working Capital)

Step 2: Prepare Statement showing Funds from Operations

The next step is to prepare the Funds generated only from the Operating Activities of the Business and not from the Investing/Financing Activities of the business.

Pro forma of Funds from Operations

Net Profit/Closing balance of Profit & Loss A/c ***

Add: Non Fund and Non-Operating Expenses

1. Depreciation/Provision for depreciation on Fixed Assets ***
2. Loss on Sale of Fixed Assets & Investments ***
3. Loss on revaluation of Fixed Assets ***
4. Intangible Assets Written off ***
   (Goodwill/patents/trademarks/copyrights)
5. Fictitious Assets written off ***
   (Preliminary Expenses/discount on issue of shares etc)
6. Transfer to Reserves ***

(to General reserve/Sinking fund reserve/contingency reserve)

7. Dividends (interim dividend/proposed dividend if any) ***
8. Provision for Taxation ***
9. Loss on redemption of Debentures *** ***

***

Less: Non Fund and Non-Operating Incomes

1. Dividend received
   (Not an income from our own business so should be deducted)
2. Interest received
3. Rent received
4. Commission received
5. Profit on sale of fixed assets & investments
6. Profit on revaluation of fixed assets
7. Excess provisions transferred to P&L a/c
   (Any written back reserve & provision
8. Refund of income tax
9. Opening balance of Profit & Loss a/c ***
   Funds from Operations / Funds lost in Operations ***

Step 3: Preparation of Funds Flow Statement

While preparing the Funds Flow Statement, the sources and applications of funds are to be disclosed clearly so as to highlight the sources from where the Funds have been generated the uses/applications to which these Funds have been applied. This statement is also sometimes referred to as the sources and applications of funds statement or statement of changes in financial position.

Pro forma of Funds Flow Statement

Sources of Funds:	
1. Issue of Shares (including premium)	***
2. Issue of Debentures / bonds	***
3. Long term borrowings (Loans)	***
4. Sale of fixed assets	***
5. Sale of investments	***
6. Funds from Operations (balance that we got from Step 2)	***
7. Decrease in Working Capital (balance that we got from Statement of Changes in Working Capital)	***
Total Sources (a)	***
Application of Funds:	
1. Redemption of Preference shares	***
2. Redemption of Debentures	***
3. Repayment of Long-term loans	***
4. Purchase of fixed assets	***
5. Purchase of investments	***
6. Payment of dividend	***
7. Payment of tax	***
8. Funds lost in Operations (balance that we got from Step 2)	***
9. Increase in Working Capital (balance that we got from Statement of Changes in Working Capital)	***
Total Applications (b)	****

Meaning of Cash Flow Statements:

Cash Flow Statement is a statement which describes the inflows (sources) and outflows (uses) of cash and cash equivalents in an enterprise during a specified period of time. Such a statement enumerates net effects of various business transactions on cash and its equivalents and takes into account receipts and disbursements of cash.

A cash flow statement summarizes the causes of changes in cash position of a business enterprise between dates of two balance sheets. An enterprise should prepare a cash flow Statement and should present it for each period for which financial statements are prepared.

Classification of Cash Flows:

1. Cash flows from operating activities.

2. Cash flows from investing activities.

3. Cash flows from financing activities.

1. Cash Flows from Operating Activities:

Operating activities are the principal revenue-producing activities of the enterprise and other activities that are not investing or financing activities. 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.

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 of 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.

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.

2. Cash Flows from Investing Activities:

Investing activities are the acquisition and disposal of long-term assets and other investments not included in cash equivalents. 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 capitalized research & 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 venture (other than receipts from those instruments considered to be cash equivalents[1] 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.

3. Cash Flows from Financing Activities:

Financing activities are activities that result in changes in the size and composition of the owners' capital (including preference share capita! in the case of a company) and borrowings of the enterprise. 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 such as redemption of debentures, bonds, preference shares.

Limitations of Cash Flow Statement:

Despite a number of uses, cash flow statements suffer from the following limitations:

(i) As cash flow statement is based on cash basis of accounting, it ignores the basic accounting concept of accrual basis.

(ii) Some people feel that as working capital is a wider concept of funds, a funds flow statement provides a more complete picture than cash flow statement.

(iii) Cash flow statement is not suitable for judging the profitability of a firm as non-cash charges are ignored while calculating cash flows from operating activities.

(iv) A cash flow statement is not a substitute of an income statement it is complementary to an income statement. Net cash flow does not mean the net income of a firm.

(v) A cash flow statement is also not a substitute of funds flow statement which provides information relating to the causes that lead to increase or decrease in working capital.

(vi) A comparative study of cash flow statements may give misleading results.

Difference between Cash Flow and Fund Flow :

S.No.	CASH FLOW	FUND FLOW
01.	Cash flow refers to the concept of inflow and outflow of cash and cash equivalents during a particular period.	Fund flow refers to the concept of financial changes in working capital over a period of time.
02.	In cash flow cash from the operations is calculated.	In fund flow fund from the operations is calculated.
03.	Cash flow shows the position of the business in the short term position.	Fund flow shows the position of the business in the long term position.
04.	Cash flow changes is mainly analyzed in periodic like monthly, quarterly or as required by the business.	Fund flow changes is mainly analyzed in between the previous year and the current year.
05.	The basis of the statement in accounting is based on cash.	The basis of the statement in accounting is based on accrual.
06.	It is a part of financial statement.	Where as fund flow is not a part of

		financial statement.
07.	It is used for cash budgeting.	It is used for capital budgeting.
08.	It has three sections i.e. Cash flow from Operating, Financing activities and Investing.	It has two sections i.e. application of fund and sources of fund.
09.	Cash flow reporting is mandatory for companies to report as per GAAP.	Fund flow reporting is not mandatory, but can be made internally.

Format of Cash Flow Statement:

A widely used format of cash flow statement (Direct Method) is given below:

Cash Flow Statement *(for the year ended ....)*		
	₹	₹
Cash Flows From Operating Activities		
Either		
Cash receipts from customers	xxx	
Cash paid to suppliers and employees	(xxx)	
Cash generated from operations	xxx	
Income-tax paid	(xxx)	
Cash flow before extraordinary items	xxx	
Extraordinary items	xxx	
Net cash from (used in) Operating activities		xxx
Or		
Net profit before tax and extraordinary items	xxx	
Adjustments for non-cash and non-operating items		
(List of individual items such as depreciation, foreign exchange loss, loss on sale of fixed assets, interest income, dividend income, interest expense etc.)	xxx	
Operating profit before working capital changes	xxx	
Adjustments for changes in current assets and current liabilities (List of individual items)	xxx	
Cash generated from (used in) operations before tax	xxx	
Income tax paid	xxx	
Cash flow before extraordinary items	xxx	
Extraordinary items (such as refund of tax)	xxx	
Net cash from (used in) operating activities		xxx
Cash Flows From Investing Activities		
Individual Items of cash inflows and outflows from financing activities	xxx	
(such as purchase/sale of fixed assets, purchase or sale of investments, interest received, dividend received etc.	xxx	
Net Cash from (used in) investing activities		xxx
Cash Flows From Financing Activities		
Individual items of cash inflows and outflows from financing activities	xxx	
(such as) proceeds from issue of shares, long-term borrowings, repayments of long-term borrowings, interest paid, dividend paid etc.)	xxx	
Net cash from (used in) financing activities		xxx
Net Increase (Decrease) in cash and cash equivalents		xxx
Cash and cash equivalents at the beginning of the period		xxx
Cash and cash equivalents at the end of the period		xxx

Format of Cash Flow Statement (Indirect Method) :

Cash Flow Statement *(for the year ended ....)*	
XYZ Ltd.	₹
A. Cash Flow From Operating Activities	
Net Profit/Loss before tax and extraordinary items	
Adjustments for :	
Depreciation	
Gain/Loss on sale of fixed assets	
Foreign exchange	
Miscellaneous expenditure written off	
Investment income	
Interest	
Dividend	
Operating profit before working capital changes	
Adjustments for :	
Trade and other receivables	

Inventories	
Trade Payables	
Cash generated from operations	
Interest paid	
Direct taxes paid	
Cash flow before items	
Extraordinary items	
Net Cash from Operating Activities	
B. Cash Flow From Investing Activities	
Purchase of fixed assets	
Sales of fixed assets	
Purchase of investments	
Sale of investments	
Interest received	
Dividend received	
Net Cash from/used in investing activities	
C. Cash Flow From Financing Activities	
Proceeds from issue of share capital	
Proceeds from long-term borrowings/banks	
Payment of long-term borrowings	
Dividend paid	
Net Cash from /used in financing activities	
Net Increase/Decrease in Cash and Cash Equivalents	
Cash and Cash Equivalents as at .... (Opening Balance)	
Cash and Cash Equivalents as at .... (Closing Balance)	

Problem 1

The following information is available from the books of Exclusive Ltd. for the year ended 31st March, 2016:

(a) Cash sales for the year were Rs.10,00,000 and sales on account Rs.12,00,000.

(b) Payments on accounts payable for inventory totalled Rs.7,80,000.

(c) Collection against accounts receivable were Rs.7,60,000.

d) Rent paid in cash Rs.2,20,000, outstanding rent being Rs.20,000.

(e) 4,00,000 Equity shares of Rs.10 par value were issued for Rs.48,00,000.

(f) Equipment was purchased for cash Rs.16,80,000.

(g) Dividend amounting to Rs.10,00,000 was declared, but yet to be paid.

(h) Rs.4,00,000 of dividends declared in the previous year were paid.

(i) An equipment having a book value of Rs.1,60,000 was sold for Rs.2,40,000.

(j) The cash account was increased by Rs.37,20,000.

Prepare a cash flow statement using direct method.

Solution:

Cash flow Statement of Exclusive Limited for the year ended 31st March, 2016 (Direct Method)		(₹)
Cash flows from Operating Activities		
Cash receipts from customers (10,00,000 + 7,60,000)	17,60,000	
Cash paid to suppliers and for rent	(10,00,000)	
Net cash flows from Operating Activities (A)		7,60,000
Cash flows from Investing Activities		
Sale of equipment	2,40,000	
Purchase of equipment	(16,80,000)	
Net cash used in Investing Activities (B)		(14,40,000)
Cash flows from Financing Activities		
Issue of equity shares (including premium)	48,00,000	
Dividends paid	(4,00,000)	
Net cash flows from Financing Activities (B)		44,00,000
Net increase in cash and cash equivalents (A) + (B) + (C)		37,20,000

Problem 2:

Madhuri Ltd. gives you the following information for the year ended 31st March, 2016:

(a) Sales for the year totalled Rs.96,00,000. The company sells goods for cash only.

(b) Cost of goods sold was 60% of sales.

(c) Closing inventory was higher than opening inventory by Rs.43,000.

(d) Trade creditors on 31st March, 2016 exceeded those on 31st March, 2015 by Rs.23,000.

(e) Tax paid amounted to Rs.7,00,000.

(f) Depreciation on fixed assets for the year was Rs.3,15,000 whereas other expenses totalled Rs.21,45,000. Outstanding expenses on 31st March, 2015 and 31st March, 2016 totalled Rs.82,000 and Rs.91,000 respectively.

(g) New machinery and furniture costing Rs.10,27,500 in all were purchased.

(h) A rights issue was made of 50,000 equity shares of Rs.10 each at a premium of Rs.3 per share. The entire money was received with applications.

(i) Dividends totalling Rs. 4,00,000 were distributed among shareholders.

(j) Cash in hand and at bank as at 31st March, 2015 totalled Rs.2,13,800.

You are required to prepare a cash flow statement using direct method.

Solution:

Calculation of Cash paid to Suppliers and Employees		(₹)
Cost of sales (60% of ₹ 96,00,000)		57,60,000
Add: Expenses incurred		21,45,000
Outstanding expenses on 31st March, 2015		82,000
Excess of closing inventory		43,000
		80,30,000
Less: Excess of closing creditors over opening creditors	23,000	
Outstanding expenses on 31st March, 2016	91,000	1,14,000
		79,16,000

Proceeds from issue of share capital:

Issue price of one share =Rs. 10 + Rs.3 = Rs.13

Proceeds from issue of 50,000 shares = Rs. 13 x 50,000 = Rs. 6,50,000

Cash flow Statement of Madhuri Ltd. for the year ended 31st March, 2016		(₹)
(A) Cash flow from Operating Activities		
Cash receipts from customers	96,00,000	
Cash paid to suppliers and employees	(79,16,000)	
Cash inflow from operations	16,84,000	
Tax paid	(7,00,000)	
Net cash from Operating Activities		9,84,000
(B) Cash flow from Investing Activities		
Purchase of fixed assets	(10,27,500)	
Net cash used in Investing Activities		(10,27,500)
(C) Cash flow from Financing Activities		
Proceeds from issue of share capital	6,50,000	
Dividends paid	(4,00,000)	
Net cash from Financing Activities		2,50,000
Net increase in cash and cash equivalents (A + B + C)		2,06,500
Cash and cash equivalents as on 31st March, 2015 (opening balance)		2,13,800
Cash and cash equivalents as on 31st March, 2016 (closing balance)		4,20,300

Problem 3:

From the following calculate cash from operations:

Profit and Loss Account for the year ended 31st March, 2016

Particulars	₹ '000	Particulars	₹ '000
To Salaries	5,000	By Gross profit	25,000
To Rent	1,000	By Profit on sale of land	5,000
To Depreciation	2,000	By Income-tax refund	3,000
To Loss on sale of plant	1,000		
ToGoodwill written off	4,000		
To Proposed dividend	5,000		
To Provision for tax	5,000		
To Net profit	10,000		
	33,000		33,000

Solution:

Statement Showing Cash Generated From Operations		(₹ '000)
Net Profit		10,000
Add: Noncash Items:		
Depreciation	2,000	
Loss on sale of plant	1,000	
Goodwill written off	4,000	
Proposed dividend	5,000	
Provision for tax	5,000	17,000
		27,000
Less: Nonoperating Income:		
Profit on sale of land	5,000	
Income-tax refund	3,000	8,000
Funds from Operations		19,000
Add: Decrease in current assets		Nil
Increase in current liabilities		
Less: Increase in current assets		Nil
Decrease in current liabilities		
Cash generated from Operations		19,000