"Some Tips/Dos For Exams"

✓ Every day before starting study its good if we make a small prayer it will ensures our trust which will motivate to work harder.

✓ Don't underestimate theory subjects as they are more important during last 2 months since these have been ignored earlier.

✓ Do plan your studies, take regular breaks.

✓ Take proper sleep of at least 6 hrs.

✓ Avoid Junk food and eat more and more fruits during breaks.

✓ Make Weekly Targets and try to achieve them.

✓ Always keep saying to Yourself that You are going to definitely pass since positive attitude is your biggest wealth in exams preparations.

✓ Success =Hard Work + Positive Attitude + Blessings of God & our parents so ensure this also.

All the Very Best...

My Wishes !!

CA PARAG GUPTA

LET'S BEGIN THE BATTLE!

CHAPTER 1
NATURE AND SCOPE OF BUSINESS ECONOMICS

Introduction

1. The word 'Economics' is derived from the Greek word '**Oikonomia**' which means household management.

2. Till 19th century, economics was known as 'Political Economy'. In 1776, Adam Smith published his book entitled "**An Inquiry into the Nature and Causes of the Wealth of Nations**" which is considered as the first modern work of Economics

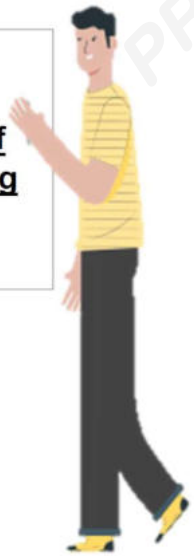
• Every individual, every society and every country in this world faces the problem of making **CHOICE**

Why?

Human wants are unlimited	The means (resources) to satisfy unlimited wants are relatively scarce and these scarce resources have alternative uses.

As a result we are confronted with the problem of making choice of wants to be satisfied or the choice among the uses of resources. Thus, we are faced with the problem of allocation of resources to various uses.

Economics is, thus, the study of how we work together to transform the scarce resources into goods and services to satisfy the most pressing of our infinite wants and how we distribute these goods and services among ourselves



Business Economics: Business economics may be defined as the use of economics analysis to make business decisions involving the best use of an organization's scarce resources.

Economics has been broadly divided into **two major parts**

Micro economics

1. Microeconomics examines how the individual units (consumers or firms) make decisions as to how to efficiently allocate their scarce resources.

2. Here, the focus is on a small number of or group of units rather than all the units combined, and therefore, it does not explain what is happening in the wider economic environment.

3. We mainly study the following in Micro Economics:

   a) Product pricing;
   b) Consumer behavior;
   c) Factor pricing;
   d) The economic conditions of a section of people;
   e) Behavior of firms; and
   f) Location of industry.

Macro economics

1. Macro Economics is the study of the overall economic phenomena or the economy as a whole, rather than its individual parts.

2. Accordingly, in Macro-Economics, we study the behavior of the large economic aggregates, such as, the overall levels of output, total consumption, total saving and total investment and also how these aggregates shift over time. It analyses the overall economic environment in which the firms, governments and households make decisions.

3. A few areas that come under Macro Economics are:

   (a) National Income and National Output;
   (b) The general price level and interest rates;
   (c) Balance of trade and balance of payments;
   (d) External value of currency;
   (e) The overall level of savings and investment; and
   (f) The level of employment and rate of economic growth.

Nature of Business Economics

1. **Business Economics is a Science:**
   Science is a systematized body of knowledge which establishes cause and effect relationships.
   Business Economics integrates the tools of decision sciences such as Mathematics, Statistics and Econometrics with Economic Theory to arrive at appropriate strategies for achieving the goals of the business enterprises.
   It follows scientific methods and empirically tests the validity of the results.

2. **Based on Micro Economics:**
   Business Economics is based **largely** on Micro-Economics.
   A business manager is usually concerned about achievement of the predetermined objectives of his organization so as to ensure the long-term survival and profitable functioning of the organization.
   Since Business Economics is concerned more with the decision making problems of individual establishments, it relies heavily on the techniques of Microeconomics.

3. **Incorporates elements of Macro Analysis:**

   A business unit does not operate in a vacuum.
   It is affected by the external environment of the economy in which it operates such as, the general price level, income and employment levels in the economy and government policies with respect to taxation, distribution, wages and regulation of monopolies.

All these are components of Macroeconomics.
A business manager must be acquainted with these and other macroeconomic variables, present as well as future, which may influence his business environment.

4. **Business Economics is an art**
   It involves practical application of rules and principles for the attainment of set objectives.

5. **Use of Theory of Markets and Private Enterprises**
   It uses the theory of the firm and resource allocation in the backdrop of a private enterprise economy.

6. **Pragmatic in Approach**
   Micro-Economics is abstract and purely theoretical and analyses economic phenomena under unrealistic assumptions. In contrast, Business Economics is pragmatic in its approach as it tackles practical problems which the firms face in the real world.

7. **Interdisciplinary in nature**
   Business Economics is interdisciplinary in nature as it incorporates tools from other disciplines such as Mathematics, Operations Research, Management Theory, Accounting, marketing, Finance, Statistics and Econometrics.

8. **Normative in Nature**
   Economic theory has developed along two lines

A positive or pure science analyses cause and effect relationship between variables in an objective and scientific manner, but it does not involve any value judgement.
it states 'what is' of the state of affairs and not what 'ought to be'. It is descriptive in nature in the sense that it describes the economic behavior of individuals or society without prescriptions about the desirability or otherwise.

A normative science involves value judgements. It is prescriptive in nature and suggests 'what should be' a particular course of action under given circumstances. Welfare considerations are embedded in normative science.

The scope of Business Economics is quite wide.
It covers most of the practical problems a manager or a firm faces. There are two categories of business issues to which economic theories can be directly applied, namely:

Operational or internal Issues (Solved using Micro Economics)

Operational issues include all those issues that arise within the organization and fall within the purview and control of the management. These issues are internal in nature.

1. **Demand analysis and forecasting**: Demand analysis pertains to the behavior of consumers in the market.
   It studies the nature of consumer preferences and the effect of changes in the determinants of demand such as, price of the commodity, consumers' income, prices of related commodities, consumer tastes and preferences etc.
   Demand forecasting is the technique of predicting future demand for goods and services on the basis of the past behavior of factors which affect demand.
2. **Production and Cost Analysis:** Production theory explains the relationship between inputs and output. A business economist has to decide on the optimum size of output, given the objectives of the firm. He has also to ensure that the firm is not incurring undue costs. Production analysis enables the firm to decide on the choice of appropriate technology and selection of least – cost input-mix to achieve technically efficient way of producing output, given the inputs. Cost analysis enables the firm to recognize the behavior of costs when variables such as output, time period and size of plant change. The firm will be able to identify ways to maximize profits by producing the desired level of output at the minimum possible cost.
3. **Inventory Management:** Inventory management theories pertain to rules that firms can use to minimize the costs associated with maintaining inventory in the form of 'work-in-process,' 'raw materials', and 'finished goods'. Inventory policies affect the profitability of the firm. Business economists use methods such as ABC analysis, simple simulation exercises and mathematical models to help the firm maintain optimum stock of inventories.

4. **Market Structure and Pricing Policies :** Analysis of the structure of the market provides information about the nature and extent of competition which the firms have to face.
   This helps in determining the degree of market power (ability to determine prices) which the firm commands and the strategies to be followed in market management under the given competitive conditions such as, product design and marketing.
   Price theory explains how prices are determined under different kinds of market conditions and assists the firm in framing suitable price policies.
5. **Resource Allocation**: Business Economics, with the help of advanced tools such as linear programming, enables the firm to arrive at the best course of action for optimum utilization of available resources. For maximizing its profits, the firm has to carefully evaluate its investment decisions and carry out a sensible policy of capital allocation.
6. **Profit Analysis:** Profits are, most often, uncertain due to changing prices and market conditions. Profit theory guides the firm in the measurement and management of profits under conditions of uncertainty. Profit analysis is also immensely useful in future profit planning.
7. **Risk and Uncertainty Analysis:** Business firms generally operate under conditions of risk and uncertainty. Analysis of risks and uncertainties helps the business firm in arriving at efficient decisions and in formulating plans on the basis of past data, current information and future prediction.

Environmental or external issues (Solved using Macro Economics)

The major macro-economic factors relate to:-

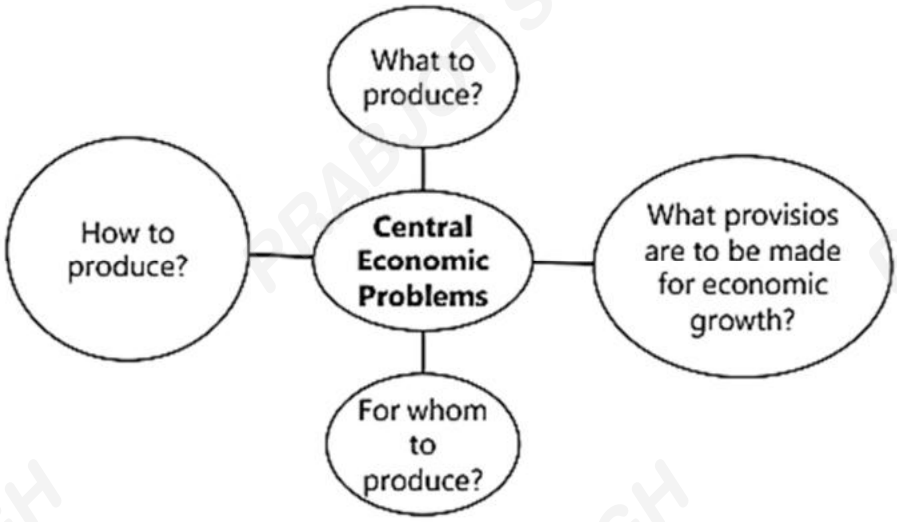
1. The type of economic system
2. Stage of business cycle
3. The general trends in national income, employment, prices, saving and investment.
4. Government's economic policies like industrial policy, competition policy, monetary and social policy, price policy, foreign trade policy and globalization policies
5. Working of financial sector and capital market
6. Socio-economic organizations like trade unions, producer and consumer unions and cooperatives.
7. Social and political environment.

Difference between Economics & Business Economics

Basis of Difference	Economics	Business Economics
Meaning	It involves the framing of economic principles to solve economic problems.	It involves the application of economic principles to solve economic problems.
Character	It is microeconomic as well as macroeconomic in character.	It is microeconomic in character.
Main Task	The fulfilment of needs of individuals as well as entities.	Proper decision making in a particular business entity.
Nature	It is positive as well as normative in nature.	It is only normative in nature.
Scope	It has a wider scope.	It has a comparatively narrow scope.
Branches	It has business economics as its applied branch.	It is an applied branch of economics.

Concerned with	All the theories from production to consumption including distribution.	It is concerned with only profit theory ignoring other theories.
Analysis Involved	It includes the analysis of macro level issues like growth, inflation and employment, etc.	It includes the analysis of micro level issues like demand, supply and profit etc.
Concentration	It concentrates only on the economic aspects of any business problem.	It concentrates on both economic as well as non-economic aspects of any business problem.
Validity of Assumptions	It is based on certain assumptions.	Some assumptions become invalid when applied.

Unit 2
BASIC PROBLEMS OF AN ECONOMY AND ROLE OF PRICE MECHANISM



What to produce and how much to produce

- Since the resources are limited, every society has to decide which goods and services should be produced and how many units of each good (or service) should be produced.
- An economy has to decide whether more capital goods like machines, equipment's, dams etc., will be produced or more consumer goods such as, cell phones will be produced.
- Here, the guiding principle is to allocate the resources in the production of goods in such a way that **maximizes aggregate utility**

How to produce

- There are many alternative techniques to produce a commodity.
- Choice has to be made between capital intensive technique or labour intensive technique of production.
- The choice of technique will depend upon—

  1. Availability of various factors of production,

  2. The prices of factors of production.

- Such techniques of production has to be adopted that makes best use of available resources

For whom to produce

- Another important decision which a society has to take is 'for whom' it should produce.
- A society cannot satisfy each and every want of all the people. Therefore, it has to decide on who should get how much of the total output of goods and services.
- How the goods (and services) should be distributed among the members of the society. In other words, it has to decide about the shares of different people in the national cake of goods and services.

What provision should be made for economic growth?

- A society cannot afford to use all its scarce resources for current consumption only.
- It has to provide for the future as well so that high economic growth can be achieved.
- Therefore, an economy has to take decisions about rate of savings, investment, capital formation, etc.

An economic system refers to the sum total of arrangements for the production and distribution of goods and services in a society

1. Capitalist Economy

- Capitalism is an economic system in which all means of production are owned and **controlled by private individuals for profit**.
- In short, private property is the mainstay of capitalism and profit motive is its driving force.
- Decisions of consumers and businesses determine economic activity. Ideally, the government has a limited role in the management of the economic affairs under this system.
- Some examples of a capitalist economy may include U.S., U.K., Germany, Japan, Mexico, Singapore, etc.
- A capitalist economy is also called a free market economy or laissez-faire economy

Features:

1. Right to private property

The right to private property means that productive factors such as land, factories, machinery, mines etc. can be under private ownership. The owners of these factors are free to use them in any manner in which they like and bequeath it as they desire. The government may, however, put some restrictions for the benefit of the society in general

2. Freedom of enterprise

Each individual, whether consumer, producer or resource owner, is free to engage in any type of economic activity. For example, a producer is free to set up any type of firm and produce goods and services of his choice

3. Freedom of economic choice

All individuals are free to make their economic choices regarding consumption, work, production, exchange etc.

4. Profit motive

Profit motive is the driving force in a free enterprise economy and directs all economic activities. Desire for profits induces entrepreneurs to organize production so as to earn maximum profits

5. Consumer Sovereignty

Consumer is the king under capitalism. Consumer sovereignty means that buyers ultimately determine which goods and services will be produced and in what quantities. Consumers have ultimate freedom to choose the goods and services which they would consume. Therefore, producers have to produce goods and services which are preferred by the consumers. In other words, based on the purchases they make, consumers decide how the economy's limited resources are allocated

6. Competition

Competition is the most important feature of the capitalist economy. Competition brings out the best among buyers and sellers and results in efficient use of resources

7. Absence of govt. interference

A purely capitalist economy is not centrally planned, controlled or regulated by the government. In this system, all economic decisions and activities are guided by self-interest and price mechanism which operates automatically without any direction and control by the governmental authorities

Merits **vs** **Demerits**

- Capitalism is self-regulating and works automatically through price mechanism.
- The existence of private property and the driving force of profit motive result in greater efficiency and incentive to work.
- The process of economic growth is likely to be faster under capitalism. This is because the investors try to invest in only those projects which are economically feasible.
- Resources are used in activities in which they are most productive.
- Cost of production is minimized as every producer tries to maximize his profit by employing methods of production which are cost-effective.
- Consumers are benefitted as competition forces producers to bring in a large variety of good quality products at reasonable prices. This, along with freedom of choice, ensures maximum satisfaction to consumers. This also results in higher standard of living.

- There is vast economic inequality & social injustice under capitalism.
- There is precedence of property rights over human rights
- Economic inequalities lead to wide differences in economic opportunities and perpetuate unfairness in the society.
- The capitalist system ignores human welfare because the aim is profit
- Exploitation of labor is common under capitalism.
- Consumer sovereignty is a myth as consumers often become victims of exploitation. Excessive competition and profit motive work against consumer welfare
- There is misallocation of resources as resources will move into the production of luxury goods.

2. Socialist Economy

- The concept of socialist economy was propounded by Karl Marx and Frederic Engels in their work 'The Communist Manifesto' published in 1848.
- In this economy, the material means of production i.e. factories, capital, mines etc. are owned by the whole community represented by the State. All members are entitled to get benefit from the fruits of such socialised planned production on the basis of equal rights.
- A socialist economy is also called as **"Command Economy"** or a **"Centrally Planned Economy".**

Features:

1. Collective Ownership

There is collective ownership of all means of production except small farms, workshops and trading firms which may remain in private hands. As a result of social ownership, profit- motive and self- interest are not the driving forces of economic activity as it is in the case of a market economy. The resources are used to achieve certain socio-economic objectives

2. Economic planning

There is a Central Planning Authority to set and accomplish socio-economic goals; that is why it is called a centrally planned economy. The major economic decisions, such as what to produce, when and how much to produce, etc., are taken by the central planning authority

3. Absence of Consumer Choice

Freedom from hunger is guaranteed, but consumers' sovereignty gets restricted by selective production of goods. The range of choice is limited by planned production. However, within that range, an individual is free to choose what he likes most. The right to work is guaranteed, but the choice of occupation gets restricted because these are determined by the central planning authority on the basis of certain socio-economic goals before the nation

4. Relatively Equal Income Distribution

A relative equality of income is an important feature of Socialism. Among other things, differences in income and wealth are narrowed down by lack of opportunities to accumulate private capital. Educational and other facilities are enjoyed more or less equally; thus the basic causes of inequalities are removed

5. Minimum role of Price Mechanism or Market forces

Price mechanism exists in a socialist economy; but it has only a secondary role, e.g., to secure the disposal of accumulated stocks. Since allocation of productive resources is done according to a predetermined plan, the price mechanism as such does not influence these decisions. In the absence of the profit motive, price mechanism loses its predominant role in economic decisions. The prices prevailing under socialism are 'administered prices' which are set by the central planning authority on the basis of socio-economic objectives

6. Absence of Competition

Since the state is the sole entrepreneur, there is absence of competition under socialism.

Merits	vs	Demerits
• Equitable distribution of wealth and income and provision of equal opportunities for all help to maintain economic and social justice. • Rapid and balanced economic development is possible in a socialist economy • There is better utilization of resources & it ensures maximum production. Wastes of all kinds are avoided through strict economic planning. Since competition is absent, there is no wastage of resources on advertisement and sales promotion. • Unemployment is minimized, business fluctuations are eliminated & stability is brought about and maintained. • The laborers and consumers are protected from exploitation • There is provision of comprehensive social security under socialism and this makes citizens feel secure.		• Socialism involves the predominance of bureaucracy and the resulting inefficiency and delays. Moreover, there may also be corruption, red tapism, favoritism, etc. • It restricts the freedom of individuals as there is state ownership of the material • Socialism takes away the basic rights such as the right of private property. • It will not provide necessary incentives to hard work in the form of profit. • Administered prices are not determined by the forces of the market • State monopolies created by socialism will sometimes become uncontrollable. This will be more dangerous than the private monopolies under capitalism. • The extreme form of socialism is not at all practicable

3. Mixed Economy

- The mixed economic system depends on both markets and governments for allocation of resources. In fact, every economy in the real world makes use of both markets and governments and therefore is mixed economy in its nature.
- In a mixed economy, the aim is to develop a system which tries to include the best features of both the controlled economy and the market economy while excluding the demerits of both. It appreciates the advantages of private enterprise and private property with their emphasis on self-interest and profit motive.

Different Sectors in Mixed economy

- Private Sector
- Public Sector
- Combined Sector

Merits	vs	Demerits
• Economic freedom and existence of private property which ensures incentive to work and capital formation. • Price mechanism & competition forces operating in the private sector promote efficient decisions and better resource allocation. • Consumers are benefitted through consumers' sovereignty and freedom of choice • Appropriate incentives for innovation and technological progress. • Encourages enterprise and risk taking. • Comparatively greater economic , social equality & freedom from exploitation • Disadvantages of cut-throat competition averted		• It suffers from substantial uncertainties. • Mixed economy is characterized by excessive controls by the state resulting in 1. Reduced incentives and constrained growth of the private sector, 2. Poor implementation of planning, 3. Higher rates of taxation, 4. Lack of efficiency, 5. Corruption, 6. Wastage of resources, 7. Undue delays in economic decisions 8. Poor performance of the public sector • Moreover, it is very difficult to maintain a proper balance between the public and private sectors. The system would then resemble capitalism with all its disadvantage.

Chapter 2

Theory of demand and supply

By demand, we mean the various quantities of a given commodity or service which consumers would buy in one market during a given period of time, at various prices, or at various incomes, or at various prices of related goods

What determines demand?

- **Price of the commodity:** Ceteris paribus i.e. other things being equal, the demand for a commodity is inversely related to its price. This happens because of income and substitution effects.

- **Price of related commodities:** Related commodities are of two types:

  - Complementary goods: These are those goods which are consumed together or simultaneously. For example; tea and sugar, automobile and petrol and pen and ink. **When two commodities are complements, a fall in the price of one (other things being equal) will cause the demand for the other to rise.**

  - Substitute Goods: Two commodities are called competing goods or substitutes when they satisfy the same want and can be used with ease in place of one another. For example, tea and coffee, ink pen and ball pen, are substitutes for each other and can be used in place of one another easily. **When goods are substitutes, a fall in the price of one (ceteris paribus) leads to a fall in the quantity demanded of its substitutes.**

- **Income of the consumer:** Other things being equal, the demand for a commodity depends upon the money income of the consumer. The purchasing power of the consumer is determined by the level of his income.

  - Normal Goods: Most of the consumption goods fall under the category of normal goods. These are demanded in increasing quantities as consumers' income increases. Household furniture, clothing, automobiles, consumer durables and semi durables etc. fall in this category

Note: Essential consumer goods such as food grains, fuel, cooking oil, necessary clothing etc., satisfy the basic necessities of life and are consumed by all individuals in a society. A change in consumers' income, although will cause an increase in demand for these necessities, but this increase will be less than proportionate to the increase in income. This is because as people become richer, there is a relative decline in the importance of food and other non-durable goods in the overall consumption basket and a rise in the importance of durable goods such as a TV, car, house etc.

- Inferior Goods: There are some commodities for which the quantity demanded rises only up to a certain level of income and decreases with an increase in money income beyond this level. These goods are called inferior goods.

How to differentiate between normal goods and inferior goods?

A same good may be normal for one condition and may be inferior in another. For example Bajra may become an inferior good for a person when his income increases above a certain level and he can now afford better substitutes such as wheat.

- **Tastes and preferences of consumers**: Goods which are modern or more in fashion command higher demand than goods which are of old design and out of fashion. For example, there is greater demand for LCD/LED televisions and more and more people are discarding their ordinary television sets even though they could have used it for some more years.

    - Demonstration effect' or 'bandwagon effect': It plays an important role in determining the demand for a product. An individual's demand for LCD/LED television may be affected by his seeing one in his neighbor's or friend's house, either because he likes what he sees or because he figures out that if his neighbor or friend can afford it, he too can.

    - Snob Effect or Veblen Effect: On the contrary, when a product becomes common among all, some people decrease or altogether stop its consumption. This is called 'snob effect'. Highly priced goods are consumed by status seeking rich people to satisfy their need for conspicuous consumption. This is called 'Veblen effect'.

- **Consumers' Expectations:** Consumers' expectations regarding future prices, income, supply conditions etc. influence current demand. If the consumers expect increase in future prices, increase in income and shortages in supply, more quantities will be demanded. If they expect a fall in price, they will postpone their purchases of nonessential commodities and therefore, the current demand for them will fall

Some Other Factors

1. **Size of population:** Generally, larger the size of population of a country or a region, greater is the demand for commodities in general
2. **Composition of population:** If there are more old people in a region, the demand for spectacles, walking sticks, etc. will be high. Similarly, if the population consists of more of children, demand for toys, baby foods, toffees, etc. will be more.
3. **The level of National Income and its Distribution:** The level of national income is a crucial determinant of market demand. Higher the national income, higher will be the demand for all normal goods and services.
4. **Consumer credit facility and interest rates:** Availability of credit facilities induces people to purchase more than what their current incomes permit them. Credit facilities mostly determine the demand for durable goods which are expensive and require bulk payments at the time of purchase. Low rates of interest encourage people to borrow and therefore demand will be more. Apart from above, factors such as government policy in respect of taxes and subsidies, business conditions, wealth, socioeconomic class, group, level of education, marital status, weather conditions, salesmanship and advertisements, habits, customs and conventions also play an important role in influencing demand.

Demand Function : Dx = f (PX, M, PY, PC, T)

Where Dx is the quantity demanded of product
PX is the price of the commodity
M is the money income of the consumer
PY is the price of its substitutes
PC is the price of its complementary goods
T is consumer tastes, and preferences

Law of Demand : According to the law of demand, other things being equal, if the price of a commodity falls, the quantity demanded of it will rise and if the price of a commodity rises, its quantity demanded will decline.

Thus, there is an inverse relationship between price and quantity demanded, ceteris paribus.

Demand Schedule: A demand schedule is a table which presents the different prices of a good and the corresponding quantity demanded per unit of time.

Individual demand schedule: It shows the quantity of the commodities that one consumer will buy at selected prices

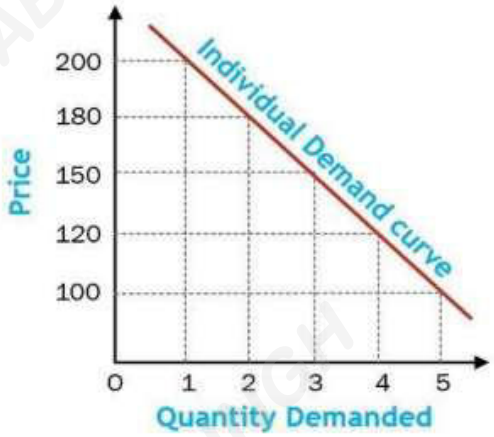
	Price	Quantity demanded
A	5	10
B	4	15
C	3	20
D	2	35
E	1	60

Market demand schedule: It is a table showing different quantities of a commodity that **ALL THE CONSUMERS** are willing to buy at different prices, during a given period of time when we add the individual demands for various schedules we get market demand schedule.

Price of sugar per kg	Qty demanded		Market demand A + B
	Consumer A	Consumer B	
1	5	6	11
2	4	5	9
3	3	4	7
4	2	3	5

Demand curve (graphical representation of a demand schedule or demand function.)

Individual demand curve



Market demand curve

Remember: Market Demand Curve is flatter than individual Demand Curve

Rationale of Law of Demand

1) Law of diminishing marginal utility: A consumer is in equilibrium (i.e. maximizes his satisfaction) when the marginal utility of the commodity and its price equalize. According to Marshall, the consumer has diminishing utility for each additional unit of a commodity and therefore, he will be willing to pay only less for each additional unit. A rational consumer will not pay more for lesser satisfaction. He is induced to buy additional units only when the prices are lower. The operation of diminishing marginal utility and the act of the consumer to equalize the utility of the commodity with its price result in a downward sloping demand curve.

2) Price effect: The total fall in quantity demanded due to an increase in price is termed as Price effect. **The law of demand can be dubbed as "Negative Price Effect" with some exceptions.**

Substitution Effect

When the price of a commodity falls, it becomes relatively cheaper than other commodities. Assuming that the prices of all other commodities remain constant, it induces consumers to substitute the commodity whose price has fallen for other commodities which have now become relatively expensive. The result is that the total demand for the commodity whose price has fallen increases.

Income Effect

When the price of a commodity falls, the consumer can buy the same quantity of the commodity with lesser money or he can buy more of the same commodity with the same amount of money. In other words, as a result of fall in the price of the commodity, consumer's real income or purchasing power increases. This increase in the real income induces him to buy more of that commodity. Thus, the demand for that commodity (whose price has fallen) increases

3) Arrival of new consumers: When the price of a commodity falls, more consumers start buying it because some of those who could not afford to buy it earlier may now be able to buy it. This raises the number of consumers of a commodity at a lower price and hence the demand for the commodity in question rises.

4) Different uses certain commodities have multiple uses: If their prices fall, they will be used for varied purposes and therefore their demand for such commodities will increase. When the price of such commodities are high (or rises) they will be put to limited uses only. Thus, different uses of a commodity make the demand curve slope downwards reacting to changes in price. **For example Olive oil can be used for cooking as well as for cosmetic purposes. So if the price of olive oil rises we can limit our usage and thus the demand will fall**

Rationale of Law of Demand

1) Conspicuous goods: Veblen effect takes place as some consumers measure the utility of a commodity by its price i.e., if the commodity is expensive they think that it has got more utility. As such, they buy less of this commodity at low price and more of it at high price. Eg. Diamonds. Higher the price of diamonds, higher is the prestige value attached to them and hence higher is the demand for them.

2) Giffen Goods: Such goods which exhibit direct price-demand relationship.
Generally those goods which are inferior, with no close substitutes easily available and which occupy a substantial place in consumer's budget are called 'Giffen goods'.
All Giffen goods are inferior goods; but all inferior goods are not Giffen goods.
Inferior goods ought to have a close substitute. The quantity demanded of an inferior good falls as income rises. Examples of Giffen goods are coarse grains like bajra, low quality rice and wheat etc.

3) Conspicuous necessities: The demand for certain goods is affected by the demonstration effect of the consumption pattern of a social group to which an individual belongs. These goods, due to their constant usage, become necessities of life. For example, in spite of the fact that the prices of television sets, refrigerators, coolers, cooking gas etc. have been continuously rising, their demand does not show any tendency to fall.

4) Future expectations about prices: It has been observed that when the prices are rising, households expecting that the prices in the future will be still higher, tend to buy larger quantities of such commodities. For example, when there is wide-spread drought, people expect that prices of food grains would rise in future. They demand greater quantities of food grains as their price rise.

5) Irrational behavior of Consumers: The law has been derived assuming consumers to be rational and knowledgeable about market conditions. However, at times, consumers tend to be irrational and make impulsive purchases without any rational calculations about the price and usefulness of the product and in such contexts the law of demand fails.

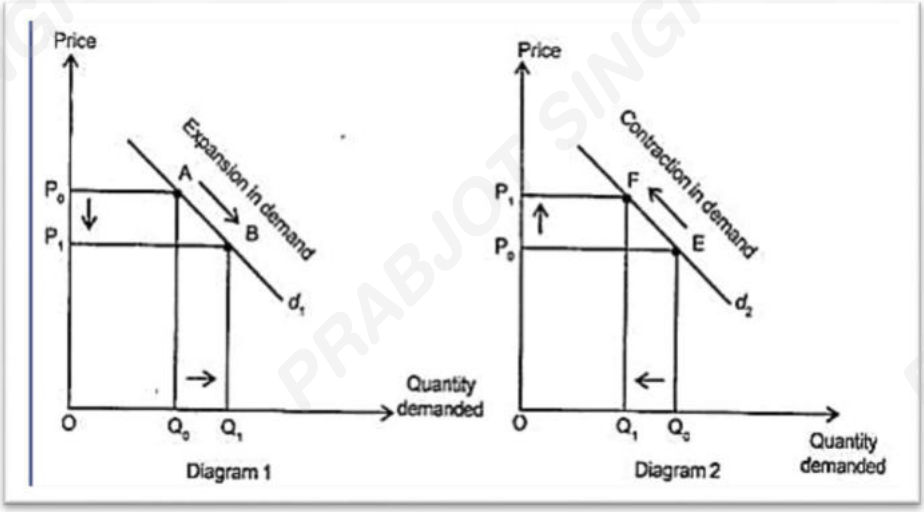
6) Demand for necessaries: The law of demand does not apply much in the case of necessaries of life. Irrespective of price changes, people have to consume the minimum quantities of necessary commodities For example Food, power, water, gas

7) Speculative goods: In the speculative market, particularly in the market for stocks and shares, more will be demanded when the prices are rising and less will be demanded when prices decline.

Expansion & Contraction of Demand
(changes in quantity demanded / movement along a demand curve)

Expansion and contraction of demand means changes in quantity demanded due to change in the price of the commodity other determinants like income, tastes, etc. remaining constant.

- When price of a commodity falls, its quantity demanded rises. This is called expansion of demand.
- When price of a commodity rises, its quantity demanded falls. This is called contraction of demand.



Increase & Decrease in demand
(changes in demand / shift in demand curve)

When there is change in demand due to change in **factors other than price of the commodity**, it is called increase or decrease in demand.

- Thus, price remaining the same when demand rises due to change in factors other than price, it is called increase in demand. Here, more quantity is purchased at same price or same quantity is purchased at higher price.
- Likewise price remaining the same when demand falls due to change in factors other than price, it is called decrease in demand. Here, less quantity is purchased at same price or same quantity is purchased at lower price

In above cases demand curve shifts from its original position to rightward when demand increases and to leftward when demand decreases. Thus, change in demand curve as a result of increase or decrease in demand, is technically called shift in demand curve

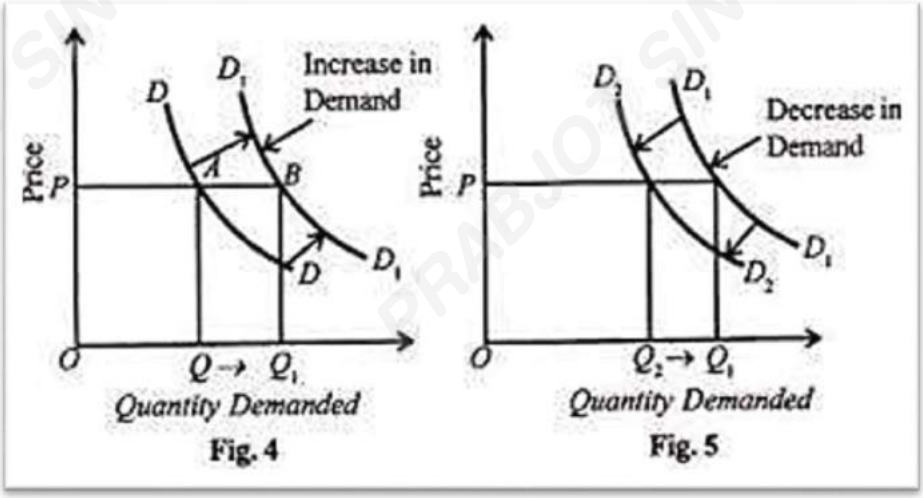


Fig. 4 Fig. 5

Elasticity of Demand

It is defined as the responsiveness of the quantity demanded of a good to changes in one of the variables on which demand depends.

Note: It is to be noted that when we talk of elasticity of demand, unless and until otherwise mentioned, we talk of price elasticity of demand.

1) **Price Elasticity: It reflects how sensitive buyers are to change in price.**

$$\text{Price Elasticity Of Demand} = \frac{\text{Percentage Change In Quantity Demanded}}{\text{Percentage Change In Price}}$$

Remember: Since price and quantity demanded are inversely related, the value of price elasticity coefficient will always be negative. But for the value of elasticity coefficients we ignore the negative sign and consider the numerical value only

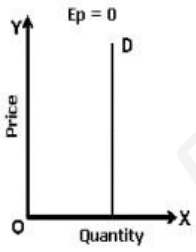


Fig. 8(a)
Demand curve of zero elasticity

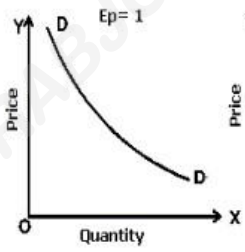


Fig. 8(b)
Demand curve of unitary elasticity

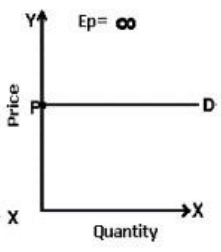


Fig. 8(c)
Demand curve of infinite elasticity

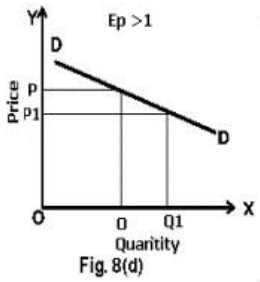


Fig. 8(d)
Demand curve of elasticity greater than one

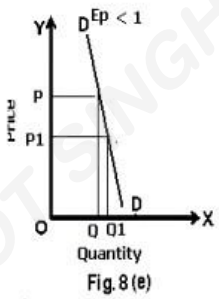
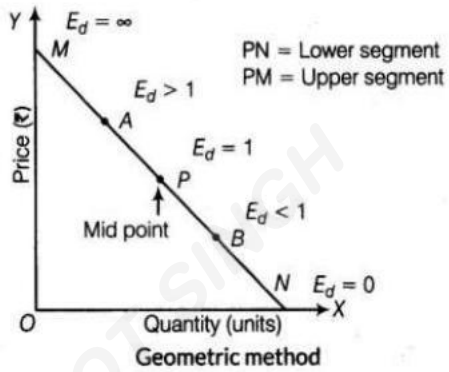


Fig. 8 (e)
Demand curve of Elasticity less than one

Perfectly Inelastic Demand: (Ep = 0):	Perfectly Elastic Demand: (Ep = ∞):	Unit Elastic Demand: (E = 1):	Relatively Elastic Demand: (Ep >1):	Relatively Inelastic Demand: (EP < 1)
When change in price has no effect on quantity demanded, then demand is perfectly inelastic E.g. - If price falls by 20% and the quantity demanded remains unchanged then	When with no change in price or with very little change in price, the demand for a commodity expands or contracts to any extent, the demand is said to be perfectly elastic.	When the percentage or proportionate change in price is equal to the percentage or proportionate change in quantity demanded, then the demand is said to be unit elastic E.g. If price falls by 10% and the demand rises by 10%	When a small change in price leads to more than proportionate change in quantity demanded then the demand is said to be relatively elastic E.g. If price falls by 10% and demand rises by 30%	When a big change in price leads to less than proportionate change in quantity demanded, then the demand is said to be relatively inelastic. E.g. If price falls by 20% and demand rises by 5%
the demand curve is a vertical straight line curve parallel to y-axis	the demand curve is a horizontal and parallel to X-axis	Demand Curve DD is a rectangular hyperbola curve suggesting unitary elastic demand	The coefficient of price elasticity would be somewhere between ONE and INFINITY. The elastic demand curve is flatter	The coefficient of price elasticity is somewhere between ZERO and ONE. The demand curve in this case has steep slope.

The Point Method or Geometric Method

The point elasticity method, we measure elasticity at a given point on a demand curve. This method is useful when changes in price and quantity demanded are very small (infinitesimal) so that they can be considered one and the same point only



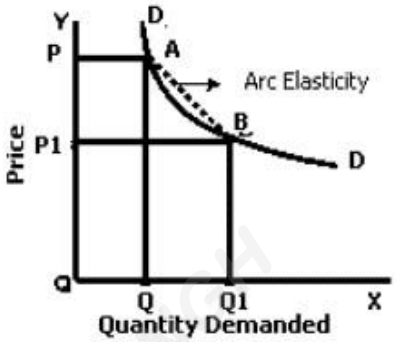
Geometric method

Lower Segment of the Demand Curve

Upper Segment of the Demand Curve

The Arc Elasticity Method

- When there is large change in the price or we have to measure elasticity over an arc of the demand curve.
- The arc elasticity is a measure of the "average elasticity" i.e. elasticity at MID-POINT that connects the two points on the demand curve.
- Thus, an arc is a portion of a curved line, hence a portion of a demand curve. Here instead of using original or new data as the basis of measurement, we use average of the two.



$$Ep = \frac{\frac{Q_2 - Q_1}{(Q_2 + Q_1)/2}}{\frac{P_2 - P_1}{(P_2 + P_1)/2}}$$

$$Ep = \frac{Q_2 - Q_1}{Q_2 + Q_1} \times \frac{P_2 + P_1}{P_2 - P_1}$$

The Total Outlay method

The total outlay refers to the total expenditure done by a consumer on the purchase of a commodity. It is obtained by multiplying the price with the quantity demanded

TO = Price (P) x Quantity (Q)

Remember:-However, total outlay method of measuring price elasticity is less exact. This method only classifies elasticity into elastic, inelastic and unit elastic

The Relationship between Price elasticity and Total Revenue (TR)

	Demand		
	Elastic	**Unitary Elastic**	**Inelastic**
Price increase	TR Decreases	TR remains same	TR Increases
Price decrease	TR Increases	TR remains same	TR Decreases

Determinants of Price Elasticity of Demand

1. **Availability of substitutes:** Goods which typically have close or perfect substitutes have highly elastic demand curves. Moreover, wider the range of substitutes available, the greater will be the elasticity.
   For eg : In case of commodities like butter, cabbage, Maruti Car, Coca Cola, etc. having close substitutes, a change in the price of these commodities, the prices of the substitutes remaining constant, can be expected to cause quite substantial substitution. However, Commodities such as salt, housing, and all vegetables taken together, have few, if any, satisfactory substitutes and a rise in their prices may cause a smaller fall in their quantity demanded

Imp point: It should be noted that while as a group, a good or service may have inelastic demand, but when we consider its various brands, we say that a particular brand has elastic demand. Thus, while the demand for a generic good like petrol is inelastic, the demand for Indian Oil's petrol is elastic.

2. **Position of a commodity in a consumer's budget:** The greater the proportion of income spent on a commodity; generally the greater will be its elasticity of demand and vice- versa.
   Eg. The demand for goods like common salt, matches, buttons, etc. tend to be highly inelastic because a household spends only a fraction of their income on each of them. On the other hand, demand for goods like clothing, tends to be elastic since households generally spend a good part of their income on clothing

3. **Nature of the need that a commodity satisfies:** Luxury goods are price elastic while necessities are price inelastic.
   Eg. Television, the demand for food and housing, in general, is inelastic. If it is possible to postpone the consumption of a particular good, such good will have elastic demand.

4. **Number of uses to which a commodity can be put:** The more the possible uses of a commodity, the greater will be its price elasticity and vice versa.
   Eg. milk has several uses. If its price falls, it can be used for a variety of purposes like preparation of curd, cream, ghee and sweets. But, if its price increases, its use will be restricted only to essential purposes like feeding the children and sick persons.

5. **Time period:** The longer the time-period one has, the more completely one can adjust.
   Eg. In response to a higher petrol price, one can, in the short run, make fewer trips by car. In the longer run, not only can one make fewer trips, but he can purchase a car with a smaller

engine capacity when the time comes for replacing the existing one. Hence one's demand for petrol falls by more when one has made long term adjustment to higher prices

6. **Consumer habits:** If a consumer is a habitual consumer of a commodity, no matter how much its price change, the demand for the commodity will be inelastic.

7. **Tied demand:** The demand for those goods which are tied to others is normally inelastic as against those whose demand is of autonomous nature. Eg. Printers and ink cartridges.

8. **Price range:** Goods which are in very high price range or in very low price range have inelastic demand, but those in the middle range have elastic demand

2) **Income Elasticity**

The income elasticity is defined as a ratio of percentage change in the quantity demanded to the percentage change in income

$$E_i = \frac{\text{Percentge change in demand}}{\text{Percentge change in income}}$$

This can be given mathematically as follows:

$$E_i = \frac{\Delta Q}{Q} \div \frac{\Delta Y}{Y}$$

$$= \frac{\Delta Q}{Q} \times \frac{Y}{\Delta Y}$$

$$E_i = \frac{\Delta Q}{\Delta Y} \times \frac{Y}{Q}$$

The income elasticity of demand is **POSITIVE** for all normal or luxury goods and the income elasticity of demand is **NEGATIVE** for inferior goods.

Zero Income Elasticity (E = 0)	Negative Income Elasticity: (Ey = 0):	Unitary Income Elasticity: (Es = 1):	Income Elasticity Greater Than Unity: (Ey >1):	Income Elasticity Less Than Unity: (Ey < 1)
It means that a given increase in income does not at all lead to any increase in quantity demanded of the commodity. In other words, demand for the commodity is completely income inelastic. *Commodities having zero income elasticity are called NEUTRAL GOODS.*	It means that an increase in income results in fall in the quantity demanded of the commodity. *Commodities having negative income elasticity are called* INFERIOR GOODS.	It means that the proportion of consumer's income spent on the commodity remains unchanged before and after the increase in income. This represents a useful dividing line.	It refers to a situation where the consumers spends GREATER proportion of his income on a commodity when he becomes richer	It refers to a situation where the consumer spends a SMALLER proportion of his income on a commodity when he becomes richer.
E.g. - Demand in case of SALT, MATCH BOX, KEROSENE OIL, POST CARDS, etc.	E.g. - Jawar, Bajra, etc.	-	E.g. In the case of LUXURIES like cars, TV. sets, music system, etc.	E.g. In the case of NECESSITIES like rice, wheat, etc

Knowledge of income elasticity of demand helps firms predict the outcome of a business cycle on its market demand.

3) **Cross Elasticity of Demand**

The ratio of percentage change in quantity demanded of commodity X to a given percentage change in the price of the related commodity Y.

Many times demand for two goods are related to each other, therefore, when the price of a particular commodity changes, the demand for other commodities changes, even though their own prices have not changed. We measures this change under cross elasticity.

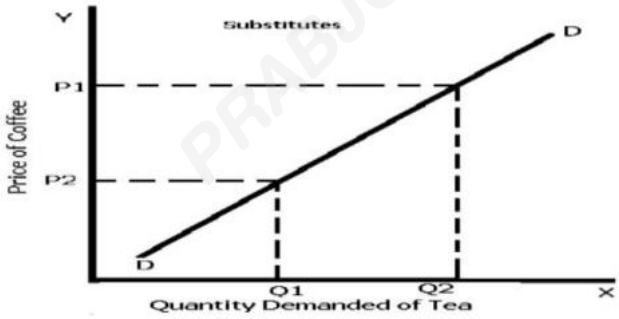
$$Ec = \frac{\text{Percentage change in quantity demanded of good X}}{\text{Percentage chagne in price of good Y}}$$

Symbolically, (mathematically)

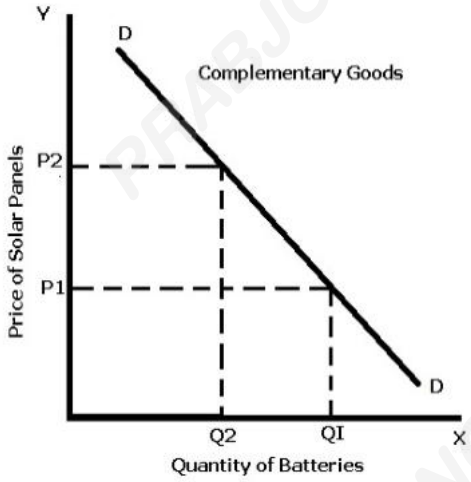
$$E_c = \frac{\Delta q_x}{q_x} \div \frac{\Delta p_y}{p_y}$$

$$E_c = \frac{\Delta q_x}{\Delta p_y} \div \frac{p_y}{q_x}$$

Substitute Goods: Eg. Tea and Coffee The cross elasticity between two substitutes is always POSITIVE. In the case of substitute commodities, the cross demand curve slopes upwards (i.e. positively) showing that more quantities of a commodity, will be demanded whenever there is a rise in the price of a substitute commodity. If cross elasticity is infinite, the two goods are perfect substitute and if it is greater than zero but less than infinity, the goods are substitutes.



Complementary Goods: Eg. Petrol and Car If the price of petrol rise, its demand falls and along with it demand for cars also falls. The cross elasticity in such cases is NEGATIVE. In the case of complementary goods, a change in the price of a good will have an opposite reaction on the demand for the other commodity which is closely related or complementary. Higher the negative cross elasticity, higher will be the extent of complementarity



With proper knowledge of cross elasticity, the firm can plan policies to safeguard against fluctuating prices of substitutes and complements

4) **Advertisement Elasticity**

- It helps a firm to know the effectiveness of its advertisement campaign.

$$Ea = \frac{\%\text{ Change in quantity demanded}}{\%\text{ change in spending on advertising}}$$

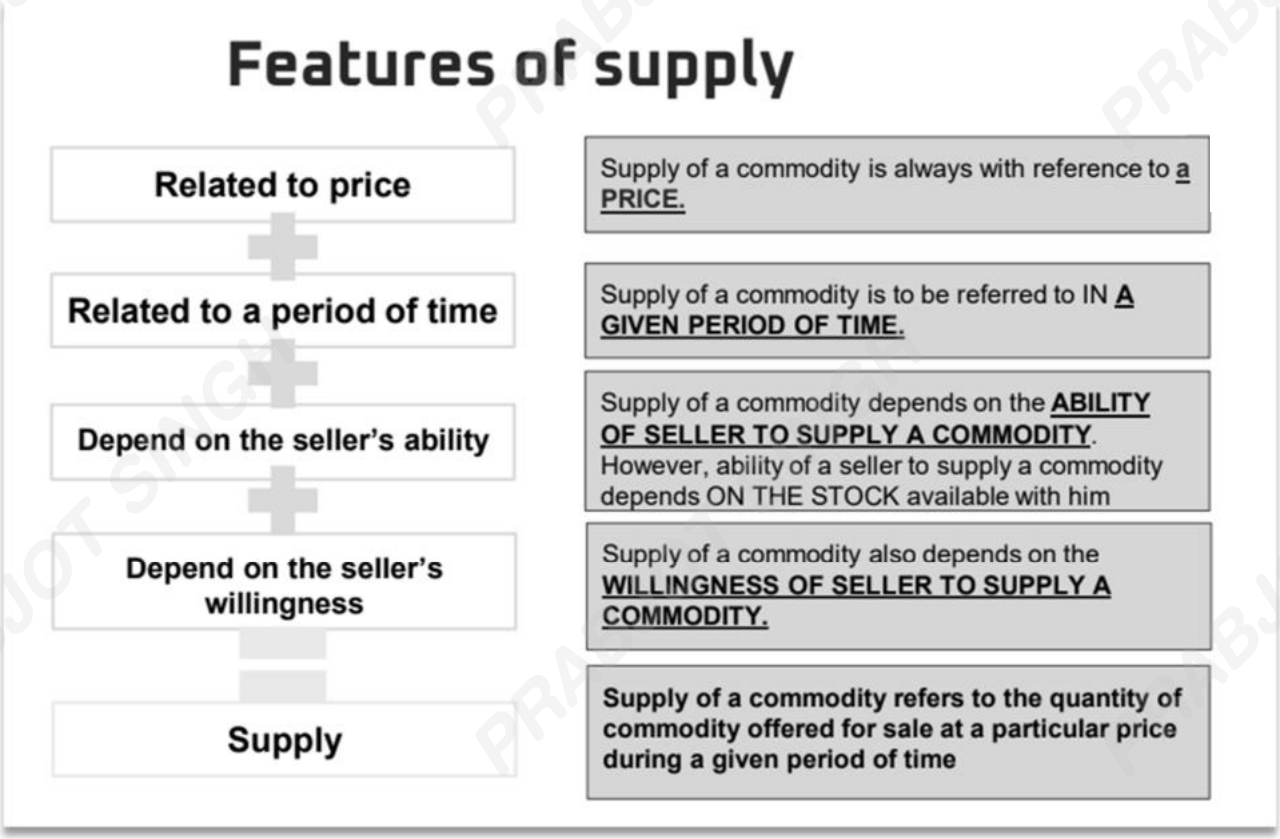
$$Ea = \frac{\Delta Qd / Qd}{\Delta A / A}$$

- Advertisement elasticity of demand is POSITIVE. Higher the value, higher is change in demand to change in advertisement expenditure.

Elasticity	Interpretation
Ea = 0	Demand does not respond at all to increase in advertisement expenditure
Ea>0 but < 1	Increase in demand is less than proportionate to the increase in advertisement expenditure
Ea = 1	Demand increase in the same proportion in which advertisement expenditure increase
Ea> 1	Demand increase at a higher rate than increase in advertisement expenditure

UNIT 2
Theory of Supply

The supply of a commodity may be defined as the amount of commodity which the sellers or producers are able and willing to offer for sale at a particular price, during a given period of time



What determines supply?

1) Price of the commodity: Other things being equal; the supply of a commodity is directly related with its price. The higher the relative price of a good, the greater quantity of it that will be supplied. This is because the profits of the firm increases if the price of its product increases.

2) Price of related commodities: If the prices of other goods rise, they become relatively more profitable to the firm to produce and sell than the good in question. Eg, if price of wheat rises,

the farmers may shift their land to wheat production away from corn and soya beans.

3) Prices of factors of production: Supply of a commodity depends on the cost of production. The cost of production itself depends upon the prices of various factors of production. So, if the price of any factor of production rises, the production costs would be higher for the same level of output (and vice versa), Hence the supply will tend to decrease & vice versa.

4) State of technology: A technological progress and improvement in the methods of production increases productivity, reduce the cost of production and increases the profits.

5) Government Policy: The Government may impose taxes on commodities in the form of excise duty, sales tax and import duties or may give subsidies. Any increase in such taxes will raise the cost of production and so the quantity supplied will fall. Under such conditions supply will increase only when its price in the market rises. Subsidies reduce the cost of production & thus encourages firms to produce and sell more

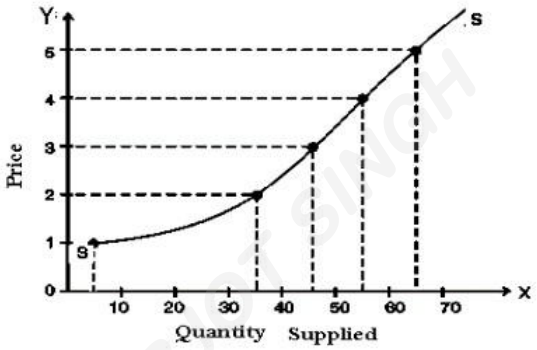
6) Nature of competition and size of industry: Under competitive conditions, supply will be more than that under monopolized conditions. If there are large number of firms in the market, supply will be more.

7) Other factors: The quantity supplied of a good also depends upon government's industrial and foreign policies, goals of the firm, infrastructural facilities, natural factors such as weather, floods, earthquake and man-made factors such as war, labor strikes, communal riots and etc.

Law of Supply: The Law of Supply states that the higher the price, the greater the quantity supplied or the lower the price the smaller the quantity supplied, other things remaining the same.

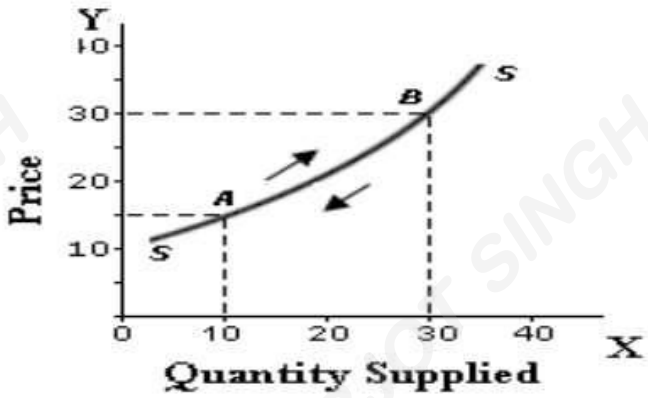
The law of supply is based on the following main assumptions

- Cost of production remains unchanged even though the price of the commodity changes.
- The technique of production remains unchanged.
- Government policies like taxation policy, trade policy, etc. remains unchanged.
- The prices of related goods remains unchanged.
- The scale of production remains unchanged etc.



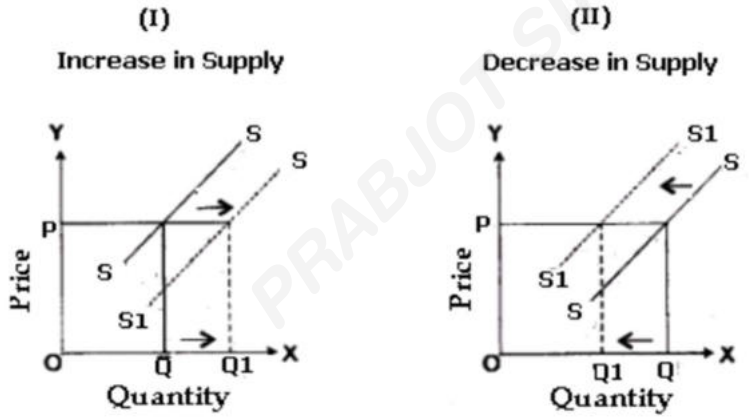
Price (₹) (per kg)	Quantity supplied (kg)
1	5
2	35
3	45
4	55
5	65

Increase/ Decrease in Quantity Supplied
(Movement along a supply curve)



- When supply of a commodity changes only due to change in the price of commodity other determinants remaining unchanged, it is called changes in quantity supplied.
- When price of a commodity rises, quantity supplied also rises. This is called expansion of supply.
- When price of a commodity falls, quantity supplied also falls. This is called contraction of supply

Increase/ Decrease in Supply
(Shifts in supply curve)



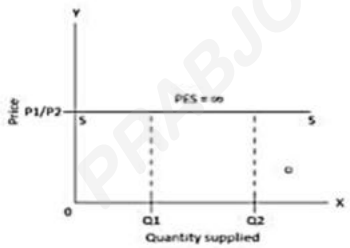
- When there is change in supply due to change in factors other than price of the commodity, it is called changes in supply. It is the result of change in technology, govt, policies, prices of related goods etc.
- Price remaining the same when supply rises due to change in factors other than price, it is called increase in supply
- Likewise, price remaining the same when supply falls due to change in factors other than price, it is called decrease in supply

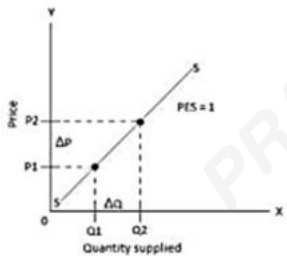
Elasticity of supply

Elasticity of supply can be defined “as a ratio of the percentage change in the quantity supplied of a commodity to the percentage change in its own price".

$$\frac{\%\,\Delta\,[\text{Change in}]\ \text{quantity supplied}}{\%\,\Delta\,[\text{Change in}]\ \text{price}} \quad \text{or} \quad \left(\frac{\%\Delta qs}{\%\Delta p}\right)$$

Since the law of supply establishes positive relationship between price and quantity supplied, the elasticity of supply would be **positive.** The value of elasticity co-efficient will vary from zero to infinity





01

Perfectly Inelastic Supply: Es = 0:

- When a change in the price of a commodity has no effect on its quantity supplied, then supply is perfectly inelastic
- the supply curve is a vertical straight line curve parallel to Y-axis

02

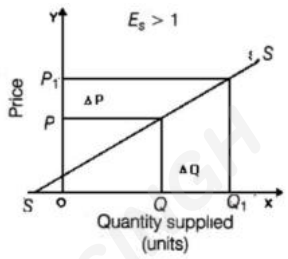
Perfectly Elastic Supply: (Es = ∞):

- When with no change in price or with very little change in price, the supply of a commodity expands or contracts to any extent, the supply is said to be perfectly elastic
- the supply is a horizontal straight line parallel to X-axis.

03

Unit Elastic Supply : (Es = 1):

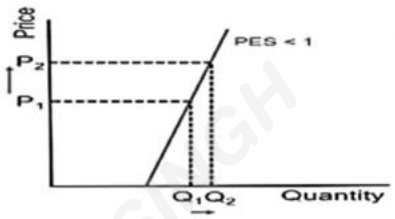
- When the percentage change in price is equal to percentage change in quantity supplied, then the supply is said to be unit elastic.



04

More Elastic Supply:
(ES>1):

- When a small change in price leads to big change in quantity supplied, then the supply is said to be relatively or more elastic
- The coefficient of elasticity would be somewhere between ONE and INFINITY
- supply curve is flat suggesting that the supply is more elastic



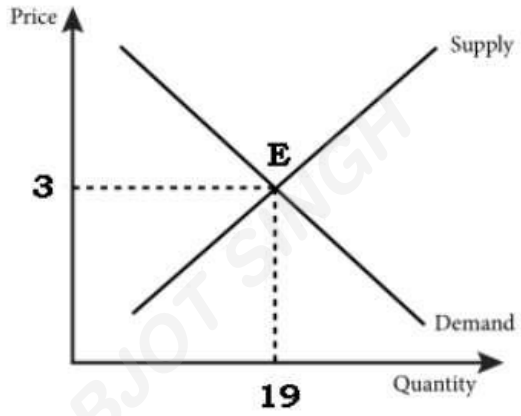
05

Less Elastic Supply:
(ES <1)

- When a big change in price leads to small change in quantity supplied, then supply is said to relatively inelastic or less elastic.
- The coefficient of elasticity would be somewhere between ZERO and ONE.
- Supply curve is steeply sloped suggesting that supply is less elastic

Equilibrium Price:

- Equilibrium means a market situation where the quantity demanded is equal to quantity supplied.
- Equilibrium price is the price at which the sellers of a good are willing to sell the quantity which buyers want to buy.
- Thus, equilibrium price (also called market clearing price) is the price at which demand and supply are equal.
- At equilibrium price there is neither nor shortage nor surplus.



Price	Quantity Demanded	Qty supplied	Impact on price
5	6	31	Downward
4	12	25	Downward
3	19	19	equilibrium
2	25	12	Upward
1	31	6	Upward

Unit 3
Consumer Behavior

- All desires, tastes and motives of human beings are called wants in Economics.
- Since the resources are limited, we have to choose between the urgent wants and the not so urgent wants.

Nature of wants

1. Wants are **unlimited** in number. They are never completely satisfied.
2. Wants **differ in intensity**. Some are urgent, others are felt less intensely.
3. Wants are competitive. **They compete each other** for satisfaction because resources are scarce to satisfy all wants.
4. Wants are **subjective and relative**.
5. Wants are **affected by income, taste, fashion, advertisements and social customs**.
6. Some wants **recur again whereas others do not occur again and again**.

Necessaries are those which are essential for living.

1. Necessaries for life: necessary to meet the minimum physiological needs for the maintenance of life such as minimum amount of food, clothing and shelter.
2. Necessaries for Efficiency: Man requires something more than the necessities of life to maintain longevity, energy and efficiency of work, such as nourishing food, adequate clothing, clean water etc.
3. Conventional Necessaries: Arise either due to pressure of habit or due to compelling social customs and conventions.

Comforts: Comforts make life comfortable and satisfying.
Comforts are less urgent than necessaries. Eg. Tasty and wholesome food, good house

Luxuries: Luxuries are those wants which are superfluous and expensive. They are not essential for living. Items such as expensive clothing, exclusive motor cars etc.

Concept of Utility

1) Utility is the want satisfying power of a commodity. It is the expected satisfaction to a consumer when he is willing to spend money on a commodity which has the capacity to satisfy his want .
2) It is a subjective entity and varies from person to person.
3) A commodity has different utility for the same person at different places or at different points of time.
4) From time to time, different theories have been advanced to explain consumer behavior and thus to explain his demand for the product. Two of such theories are below

Marginal Utility Analysis propounded by Marshall

Indifference Curve Analysis by Hicks and Allen

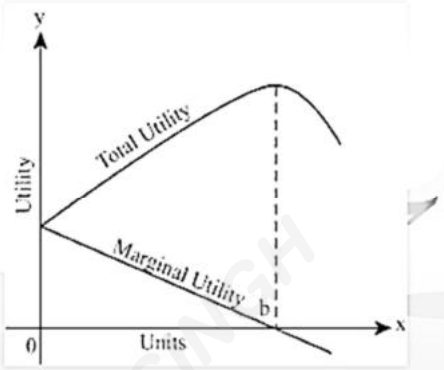
1. Marginal Utility Analysis

Important Concepts:

Total Utility: Total utility is the sum of marginal utilities derived from the consumption of different units.

Marginal Utility: It is the addition made to total utility by the consumption of an additional unit of a commodity.

Qty consumed	Total utility	Marginal utility
1	30	30
2	50	20
3	65	15
4	75	10
5	83	8



Relationship between TU and MU

1. Total utility rises as long as MU is positive, but at a diminishing rate because MU is diminishing.
2. Marginal utility diminishes throughout.
3. When marginal utility is zero, total utility is maximum. **It is a saturation point.**
4. When marginal utility is negative, total utility is diminishing.
5. MU is the rate of change of TU or **the slope of TU**.
6. MU can be positive, zero or negative.

Law of Diminishing Marginal Utility: The additional benefit which a person derives from a given increase in the stock of a thing diminishes with every increase in the stock that he already has.
In simple words: , as a consumer consumes more and more units of a good, the intensity of his want for the good goes on decreasing and a point is reached where the consumer no longer wants it.

Remember: It is the marginal utility and not the total utility which declines with the increase in the consumption of a good.

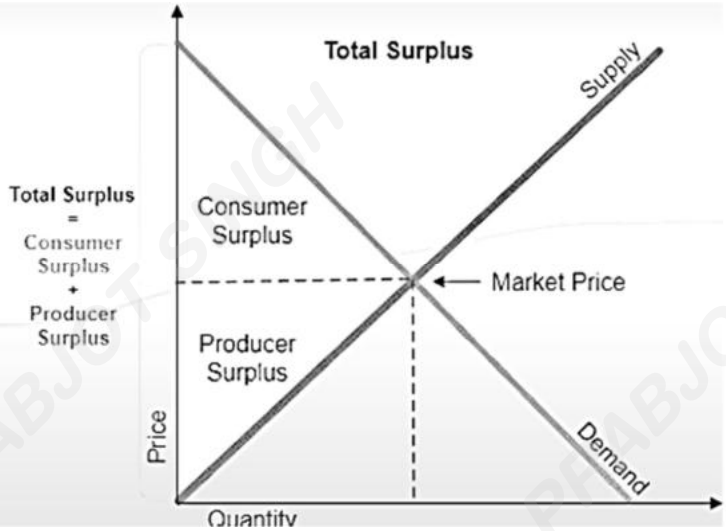
Assumptions:

a) The different units consumed should be identical in all respects. The habit, taste, treatment and income of the consumer also remain unchanged.
b) The different units consumed should consist of standard units. If a thirsty man is given water by successive spoonful, the utility of second spoonful may conceivably be greater than the utility of the first.
c) There should be no time gap or interval between the consumption of one unit and another unit i.e. there should be continuous consumption.
d) The law may not apply to articles like gold, cash where a greater quantity may increase the lust for it.
e) The shape of the utility curve may be affected by the presence or absence of articles which are substitutes or complements.

Consumer Surplus: Excess of the price which a consumer would be willing to pay rather than go without a thing over that which he actually does pay, is called consumers surplus.

Thus, consumer surplus = what a consumer is ready to pay - what he actually pays.
= Sum of Marginal Utilities - (Price × Units Purchased)
= Total Utility - Total amount spent

No. of units	Marginal utility	Price	Consumer's surplus
1	30	20	10
2	28	20	8
3	26	20	6
4	24	20	4
5	22	20	2
6	20	20	0
7	18	20	-



- Limitations:

1. The concept of consumer's surplus is quite imaginary idea.
2. Consumer's surplus cannot be measured precisely
3. Ignores the interdependence between goods: Substitutes and complementary goods have an impact on the consumption of a particular commodity.
4. Marshall assumed that the marginal utility of money to be constant: The marginal utility of money changes as purchases are made and the consumer's stock of money diminishes and thus it cannot be measured in terms of money
5. It does not apply to the necessaries of life: **Consumer surplus is infinite because a consumer will stake whole of his income rather than go without food and water.**
6. Not applicable to prestige: Fall in their prices lead to a fall in consumer's surplus.

- Applicability

1. Helpful in Price Discrimination
2. Useful in deciding Taxation Policy
3. Useful in Investment decisions
4. Study of Consumer behavior to ensure repeated purchases

2. Indifference Curve Analysis

Important Assumptions:

1. Consumer is rational;
2. The consumer knows his own tastes and preferences and possesses full information about all the relevant aspects of economic environment in which he lives.
3. The indifference curve analysis assumes that utility is only ordinally expressible.
4. Consumers spend a small part of their income.
5. Consumer choices are assumed to be transitive. If the consumer prefers combination A to B, and B to C, then he must prefer combination A to C. In other words, he has a consistent consumption pattern.
6. If combination A has more commodities than combination B, then A must be preferred to B. This is sometimes referred to as the "more is better" assumption or the assumption of non-satiation.

Combination	Food	Clothing	MRS
A	1	12	
B	2	6	6
C	3	4	2
D	4	3	1

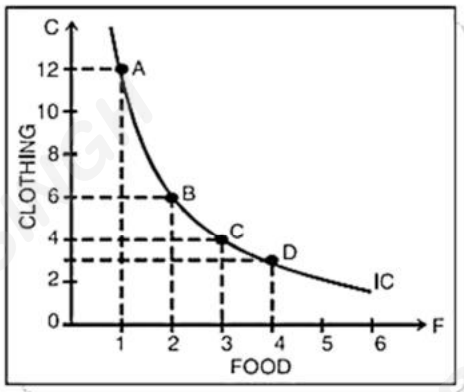
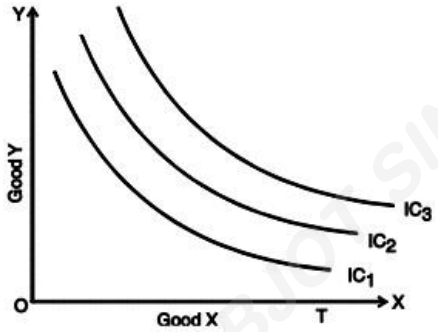


Fig. 1 : A Consumer's Indifference Curve

Indifference curve Map: Collection of indifference curves in which each curve corresponds to a different level of satisfaction.

Refer below figure: All combinations of IC_1 give him the same satisfaction, all combinations lying on IC_2 give him greater satisfaction than those lying on IC_1.

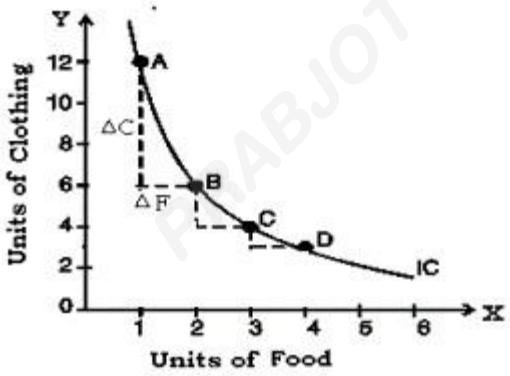


Marginal Rate of Substitution : Marginal Rate of Substitution (MRS) is the rate at which a consumer is prepared to exchange goods X and Y.

The marginal rate of substitution of X for Y (MRS_{xy}) is equal to MU_x/ MU_y

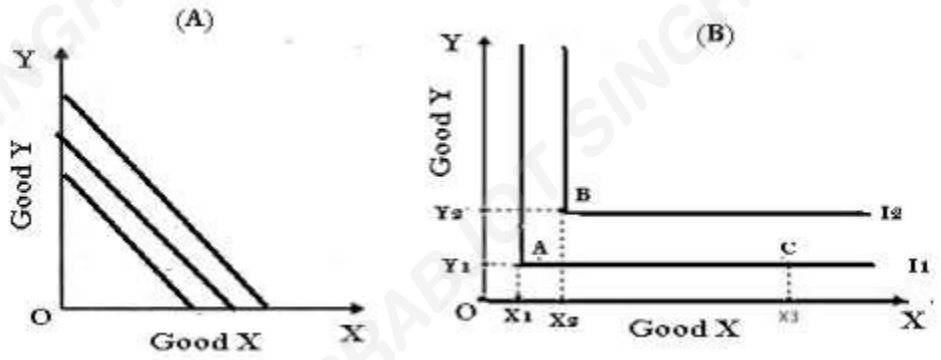
Why is MRS falling?

1. The want for a particular good is satiable so that when a consumer has more of it, his intensity of want for it decreases
2. Most goods are imperfect substitutes of one another. MRS would remain constant if they could substitute one another perfectly



Properties of indifference curve

1. Indifference curves can never intersect each other : Although it is not necessary that they are parallel to each other
2. Higher Indifference Curves Represents Higher Level of Satisfaction
3. Indifference curves slope downward to the right: When the two commodities can be substituted for each other and when the amount of one good in the combination is increased, the amount of the other good is reduced. This is essential if the level of satisfaction is to remain the same on an indifference curve
4. Indifference curves are always convex to the origin: It has been observed that as more and more of one commodity (X) is substituted for another (Y), the consumer is willing to part with less and less of the commodity being substituted (i.e. Y). This is called diminishing marginal rate of substitution.
5. Indifference curve will not touch either X-axis or Y-axis: If IC touches either of the axis, it would mean that consumer is interested in one commodity only.
6. Two Extremes: (A) Perfect Substitutes (B) Perfect Complimentary Goods



(A) Perfect Substitutes: When two goods are perfect substitutes of each other, the consumer is completely indifferent as to which to consume and is willing to exchange one unit of X for one unit of Y. **MRS is constant**.

(B) Perfect Complimentary Goods: Goods are perfect complements when a consumer is interested in consuming these only in fixed proportions. **The MRS is undefined** because an individual's preferences do not allow any substitution between goods.

3. Budget Line

Background

A higher indifference curve shows a higher level of satisfaction than lower one. Therefore, to maximize satisfaction consumer will try to reach the highest possible indifference curve. He will try to buy more and more goods to get more and more satisfaction.

But, what and how much a consumer can actually buy depends on –

1. The money income of consumer
2. Prices of goods he wants to buy

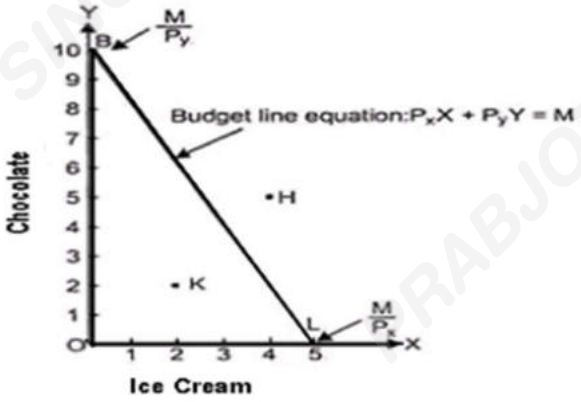
The budgetary position of the consumer can be graphically shown by **BUDGET LIN**E.

A budget line or price line shows maximum quantity of the different combinations of **TWO GOODS** that the consumer can purchase with his given money income and given market prices of goods.

$$P_x*X + P_y* Y = M$$

Consumption Possibilities

	Ice Cream	Chocolate
A	0	10
B	1	8
C	2	6
D	3	4
E	4	2
F	5	0



The budget line will shift when there is:

1. A change in the prices of one or both products with the nominal income of the buyer (budget) remaining the same.
2. A change in the level of nominal income of the consumer with the relative prices of the two goods remaining the same.
3. A change in both income and relative prices

Important Concepts:

1. Attainable combinations: All points on the budget line represent those combinations of goods that can be purchased with the given amount of budget and at which complete budget is spent. Points inside budget line represents those combinations at which entire budget is not spent

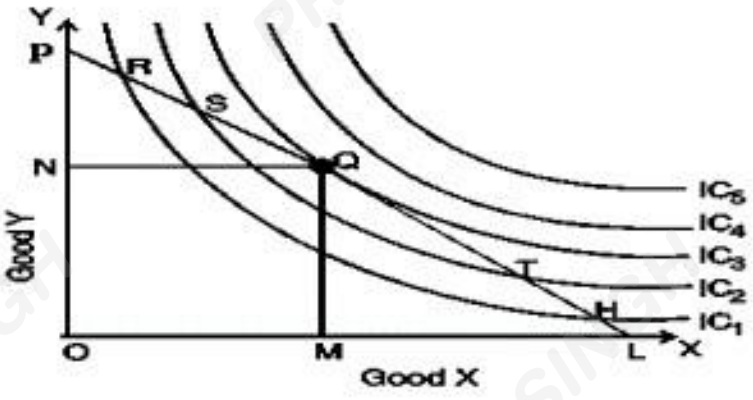
2. Un -Attainable combinations: Any point outside Budget line represents unattainable combination. These can become attainable only in following scenarios:-
    1. When prices of goods decrease
    2. When budget of the customer increases
3. Slope: Ratio of the prices of X to the price of Y. P_x / P_y

4. Consumer Equilibrium

The consumer is said to be in equilibrium when he maximizes his satisfaction {i.e. utility), given the constraint of his limited budget.

Assumptions:

1. The consumer has a fixed amount of money income to spend.
2. The consumer intends to buy two goods.
3. The Consumer is rational and tries to maximize his satisfaction.
4. The prices of two goods are given and are constant. Therefore, budget line has constant slope.
5. Goods are homogenous and divisible.
6. The scale of preference of consumer i.e. his taste & preferences remains unchanged. Scale of preference is expressed through indifference map



Chapter 3

Theory of production and cost

Introduction:

Production can also be defined as **creation or addition of utility.**

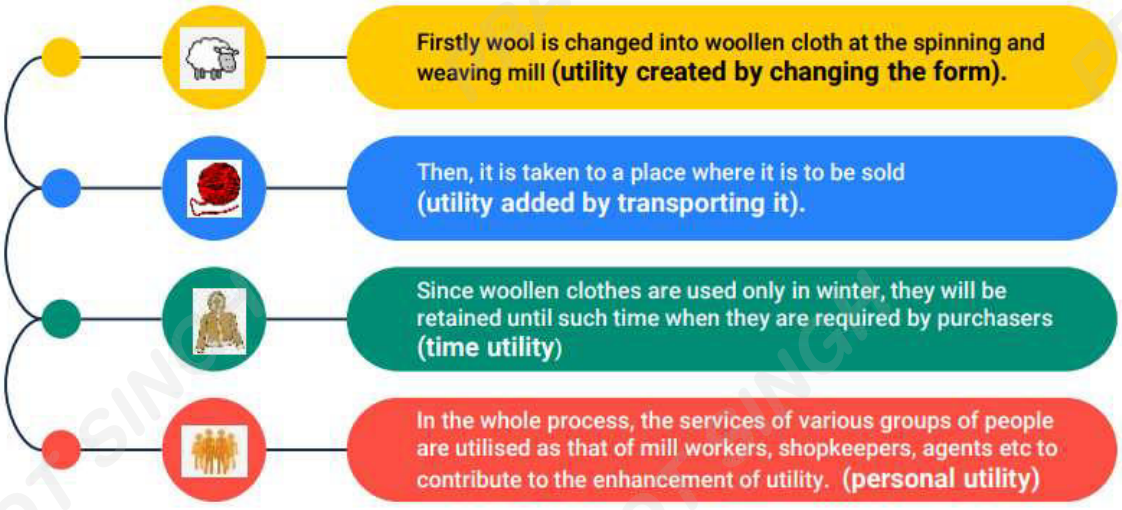
For example, when a carpenter produces a table, he does not create the matter of which the wood is composed of; he only transforms wood into a table. By doing so, he adds utility to wood which did not have utility before.

Various processes of production to add utility

1. **Changing the form of natural resources**. e.g., changing the form of a log of wood into a table or changing the form of iron into a machine. This may be called conferring utility of form
2. **Changing the place of the resources** from a place where they are of little or no use to another place where they are of greater use. This can be obtained by (a) Extraction from the earth Eg. removal of coal (b) Transferring goods
3. Canning of seasonal fruits is undertaken to make them available during off-season. This may be called conferring of utility of time
4. **Making use of personal skills in the form of services**, e.g., those of organizers, merchants, transport workers etc.

Illustration :

How Production Creates Utilities



Factors Of Production

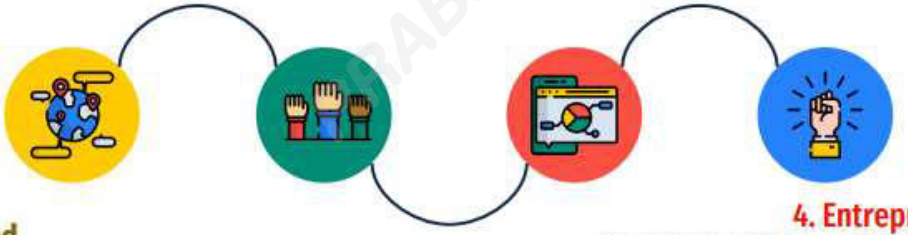
Factors of production refer to inputs. An input is a good or service which a frm buys for use in its production process. Production process requires a wide variety of inputs, depending on the nature of output

2. Labour

The term 'labor', means any mental or physical exertion directed to produce goods or services. All human efforts of body or mind undergone partly or wholly with a view to secure an income apart from the pleasure derived directly from the work is termed as labor.

3. Capital

Capital as that part of wealth of an individual or community which is used for further production of wealth.



1. Land

It does not mean soil or earth's surface alone, but refers to all free gifts of nature which would include besides land in common parlance, natural resources, fertility of soil, water, air, light, heat natural vegetation etc.

4. Entrepreneur

An entrepreneur is a person or group of persons who bring together the different factors of production i.e. land, labour and capital at one place; combine them in right proportions; initiate the process of production by making them work together and bear the risks and uncertainty involved in it.

Features of Land:

1. Free Gift of nature
2. Supply is fixed
3. Land is indestructible
4. Land is not an active factor. Unless human effort is exercised on land, it does not produce anything on its own, hence it is a passive factor
5. Immobile and Heterogeneous (No two pieces of land are alike. They differ in fertility and situation)
6. Land can be used for varied purposes, though its suitability in all the uses is not the same

Features of Labor: Any work done for the sake of pleasure or love does not represent labor in Economics.

Services of a house-wife are not treated as labour,

Services of a maid servant are treated as labour.

If a person sings just for the sake of pleasure, it is not considered as labour

if a person sings against payment of some fee, then this activity signifies labour.

1. It is connected with human efforts. As a result, there are certain human and psychological considerations which may come up .Therefore, leisure, fair treatment, favorable work environment etc. are essential for laborers.
2. Without the active participation of labor, land and capital may not produce anything.
3. When a laborer sells his service, he has to be physically present where they are delivered. The laborer sells his labor against wages, but retains the capacity to work
4. Labor is heterogeneous in the sense that labor power differs from person to person
5. Labor is highly 'perishable' in the sense that a day's labor's lost cannot be completely recovered by extra work on any other day. In other words, a laborer cannot store his labor.
6. All efforts are not productive. productivity of different labor is something that is the prime factor for determining its role in the production process
7. Labor is a mobile factor. Apparently, workers can move from one job to another or from one place to another.
8. The total supply of labor cannot be increased or decreased instantly. Supply of labor at any given point of time depends on the population of immediate territory, their education level, etc.
9. Labor has a weak bargaining power. Labor has no reserve price. Since labor cannot be stored, the laborer is compelled to work at the wages offered by the employers. For this reason, when compared to employers, laborers have poor bargaining power and can be exploited and forced to accept lower wages

10. A laborer can make a choice between the hours of labor and the hours of leisure. This feature gives rise to a peculiar backward bending shape to the supply curve of labor.
- The supply of labor and wage rate is directly related. It implies that, as the wage rate increases the laborer tends to increase the supply of labor by reducing the hours of leisure.
- However, beyond a desired level of income, the laborer reduces the supply of labor and increases the hours of leisure in response to further rise in the wage rate. That is, he prefers to have more of rest and leisure than earning more money.

Types of capital:

Fixed and circulating: **based on time period**

Fixed capital is that which exists in a durable shape and renders a series of services over a period of time. For example tools, machines, etc.

Circulating capital is another form of capital which performs its function in production in a single use and is not available for further use. For example, seeds, fuel, raw materials

Based on nature

Real capital refers to physical goods such as building, plant, machines, etc.

Social capital is what belongs to the society as a whole in the form of roads, bridges, etc

Human capital refers to human skill and ability. This is called human capital because a good deal of investment has gone into creation of these abilities in humans.

Tangible capital can be perceived by senses whereas intangible capital is in the form of certain rights and benefits which cannot be perceived by senses. For example, patents, goodwill, patent rights, etc.

Individual capital is personal property owned by an individual or a group of individuals

Capital Formation

Capital Formation involves production of more capital goods like, machines, tools, factories, transport equipments, electricity etc. which are used for further production of goods. Capital formation is also known as investment.

The need for capital formation or investment is realized for two reasons:-

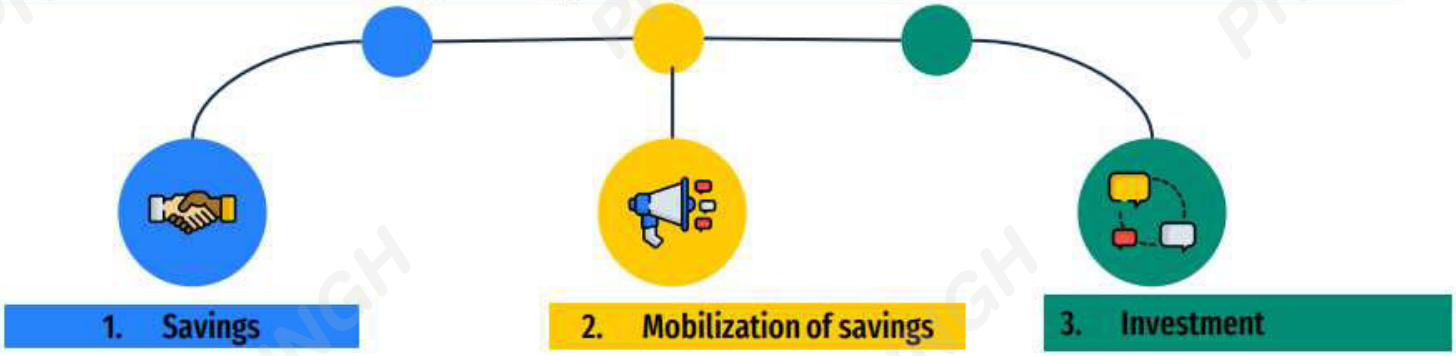
- Replacement
- Renovation
- Creating additional productive capacity

Consumption v/s Saving

- In order to accumulate capital goods, some current consumption has to be sacrificed and savings of current income are to be made. Savings are also to be channelised into productive investment.
- If a society consumes all what it produces and saves nothing, the future productive capacity of the economy will fall when the present capital equipment wears out.

Stages Of Capital Formation

There are mainly three stages of capital formation which are as follows:



1. **Savings**: The ability to save depends upon the **income** of an individual. Higher incomes are generally followed by higher savings. This is because, with an increase in income, **the propensity to consume comes down and the propensity to save increases.**

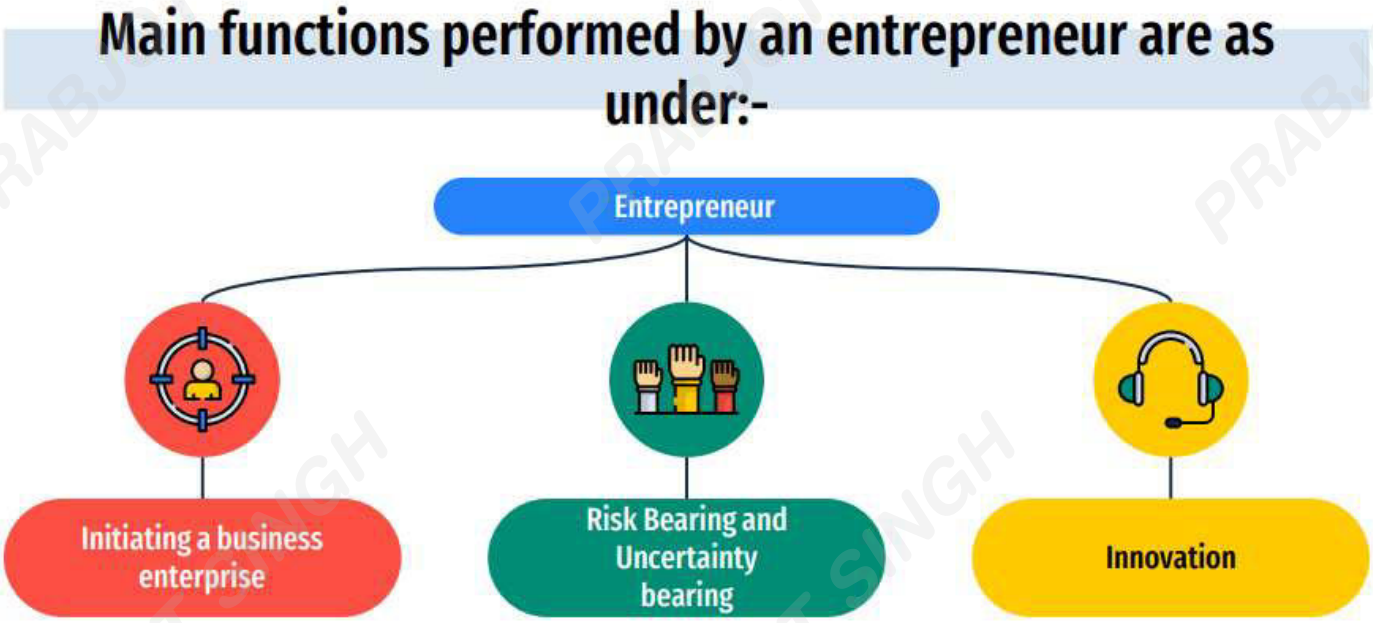
- Willingness to save also counts a great deal. It depends upon the individual's **concern about his future**. If an individual is far sighted and wants to make his future secure, he will save more.
- Moreover, **the government can enforce compulsory savings** on employed people by making insurance and provident fund compulsory. Government can also encourage saving by allowing tax deductions on income saved.

2. **Mobilization of savings**: It is not enough that people save money; the saved money should enter into circulation and facilitate the process of capital formation.

- Availability of appropriate financial products and institutions is a necessary precondition for mobilization of savings.
- There should be a wide spread network of banks and other financial institutions to collect public savings and to take them to prospective investors.

3. **Investment**: The process of capital formation gets completed only when the real savings get converted into real capital assets.

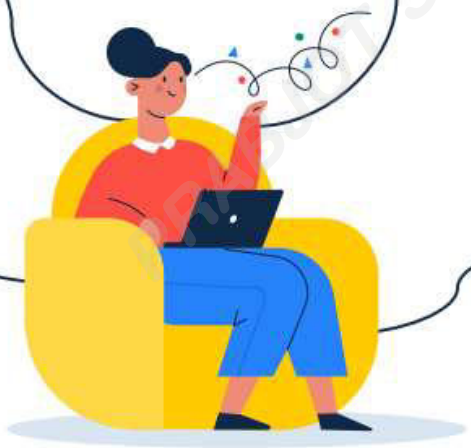
- An economy should have an **entrepreneurial class** which is prepared to bear the risk of business and invest savings in productive avenues so as to create new capital assets.



1. Initiating a business enterprise.

1
An entrepreneur senses business opportunities, conceives project ideas, decides on scale of operation, products and processes and builds up, owns and manages his own enterprise.

2
An entrepreneur hires the services of various other factors of production and pays them fixed contractual rewards: labour is hired at predetermined rate of wages, land or factory building at a fixed rent for its use and capital at a fixed rate of interest



3
The surplus, if any, after paying for all factors of production hired by him, accrues to the entrepreneur as his reward for his efforts and risk-taking.

4
Thus, the reward for an entrepreneur, that is a profit, is not certain or fixed. He may earn profits, or incur losses.

2. Risk Bearing and Uncertainty bearing

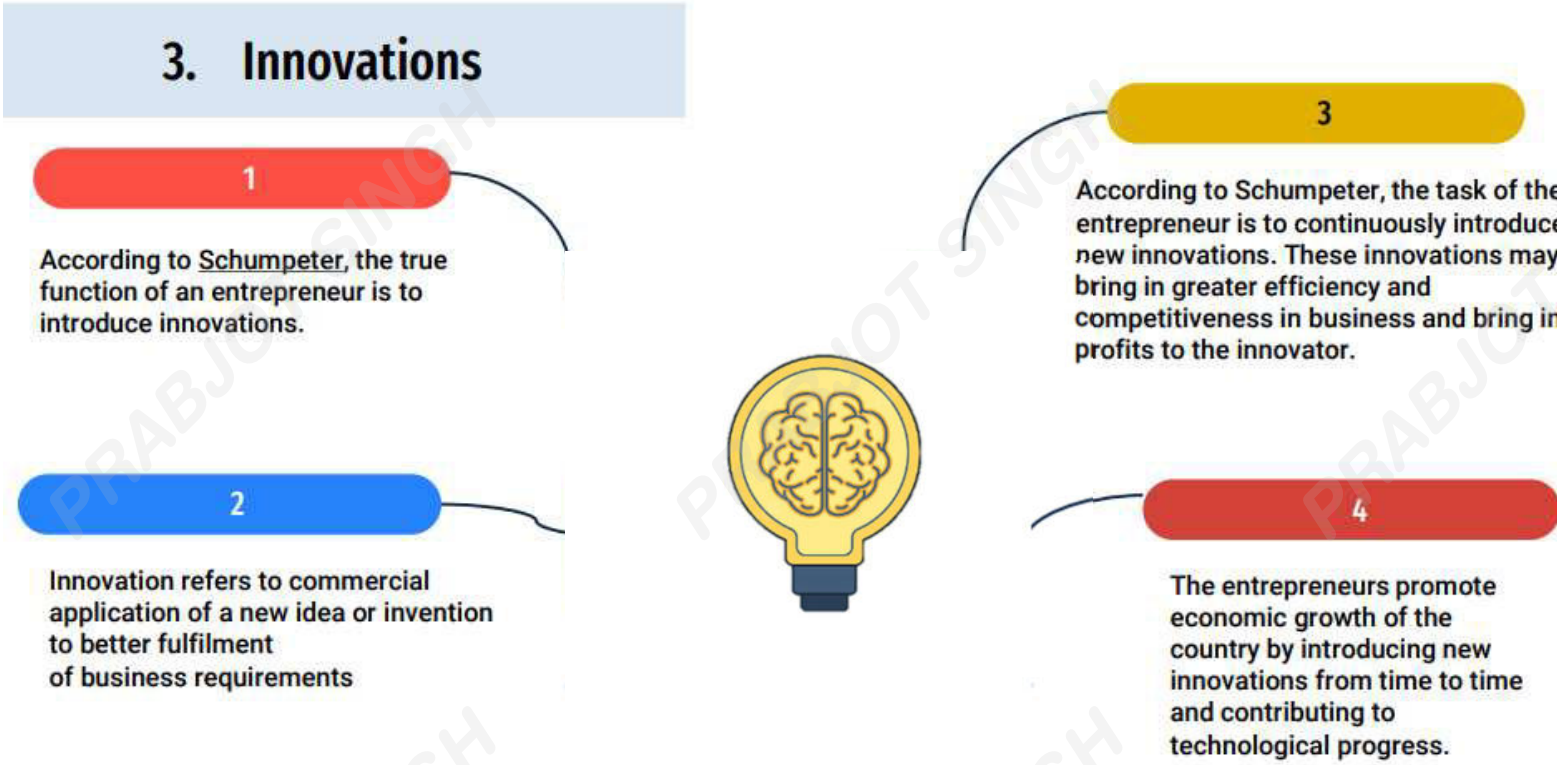
1
The ultimate responsibility for the success and survival of business lies with the entrepreneur. It may happen that as a result of certain broad changes which were not anticipated by the entrepreneur, the firm has to incur losses.

2
While nearly all functions of an entrepreneur can be delegated or entrusted with paid managers, risk bearing cannot be delegated to anyone. Therefore, risk bearing is the most important function of an Entrepreneur.

There are two types risks borne by entrepreneur

1
Financial Risks : The risk that operations of the enterprise may not go on in the planned manner and ultimately entrepreneur may have to incur losses is called financial risk

2
Technological Risk : the entrepreneur also faces technological risks which arise due to the inventions and improvement in techniques of production, making the existing techniques and machines obsolete.



Enterprise's Objectives:

1. **Organic Objectives:** The basic minimum objective of all kinds of enterprises is to survive or to stay alive.
- An enterprise can survive only if it is able to produce and distribute products or services at a price which enables it to recover its costs
- Once the enterprise is assured of its survival, it will aim at growth and expansion.
- R.L. Marris's theory of firm assumes that the goal that managers of a corporate firm set for themselves is to maximize the firm's balanced growth rate subject to managerial and financial constraints

2. **Economic Objectives:** The firm determines the price and output policy in such a way as to maximize profits within the constraints imposed upon it such as technology, finance etc. Profit, in the accounting sense, is the difference between total revenue and total costs of the firm. Economic profit is the difference between total revenue and total costs, but total costs here costs include both explicit and implicit costs.
- Since economic profit includes these opportunity costs associated with self-owned factors, it is generally lower than the accounting profit.

Normal profits include normal rate of return on capital invested by the entrepreneur, It is the minimum necessary profit to continue in the business
Supernormal profit, also called economic profit or abnormal profit is over and above normal profits. It is earned when total revenue is greater than the total costs
Profit maximization objective has been criticized because all firms do not aim to maximize profits. Eg. Some firm try to achieve security, maximize sales, etc.
Profit maximization objective has been criticized because all firms do not aim to maximize profits. Eg. Some firm try to achieve security , maximize sales ,etc.

3. **Human Objectives:** To provide fair deal to the employees at different levels.
- To develop new skills and abilities and provide a work climate in which they will grow as mature and productive individuals.
- To provide the employees an opportunity to participate in decision-making in matters affecting them.
- To make the job contents interesting and challenging. If the enterprise is conscious of its duties towards its employees, it will be able to secure their loyalty and support

4. **Social Objectives:** Since an enterprise lives in a society, it cannot grow unless it meets the needs of the society.
- To maintain a continuous and sufficient supply of unadulterated goods and articles of standard quality
- To avoid profiteering and anti-social practices.
- To create opportunities for gainful employment for the people in the society.
- To ensure that the enterprise's output does not cause any type of pollution - air, water or noise

5. **National Objectives:** An enterprise should endeavor for fulfilment of national needs and aspirations and work towards implementation of national plans and policies.
- To remove inequality of opportunities and provide fair opportunity to all to work and to progress.
- To produce according to national priorities.
- To help the country become self-reliant and avoid dependence on other nations.
- To train young men as apprentices and thus contribute in skill formation for economic growth and development.

Enterprise's Constraints:

In the pursuit of the objectives explained in the previous slides an enterprise's actions may get constrained in following ways:

1. Lack of knowledge and information about many variables that affect business.
2. Constraints due to governments' restrictions on the production, price and movement of factors
3. There may be infrastructural bottleneck.
4. Changes in business and economic conditions; change in government policies about location, prices, taxes, etc. natural calamities like fire, flood, famine, etc.
5. Constraints are also faced due to inflation, rising interest rates, unfavorable exchange rate etc.

Enterprise's Constraints:

1. **Problems relating to objectives:** Objectives are multifarious and very often conflict with one another.
   For example, the objective of maximising profits is in conflict with the objective of increasing the market share which generally involves improving the quality, slashing the prices etc.
   Thus, the enterprise faces the problem of not only choosing its objectives but also striking a balance among them.

2. **Problems relating to location and size of the plant:** An enterprise has to decide about the location of its plant whether the plant should be located near the source of raw material or near the market.
   Another problem relates to the size of the firm; whether it is to be a small scale unit or large scale unit. Due consideration will have to be given to technical, managerial, marketing and financial aspects of the proposed business before deciding on the scale of operations.

3. **Problems relating to selecting and organizing physical facilities:** A firm has to make decision on the nature of production process to be employed and the type of equipment to be installed. The choice of the process and equipment's will depend upon the design chosen , the required volume of production and the relative cost and efficiency.

4. **Problems relating to Finance:** it involves the below
   (i) Determination of the amount of funds required for the enterprise with reference to the physical plans already prepared
   (ii) Assessment of demand and cost of its products

(iii) Estimation of profits on investment and comparison with the profits of comparable existing concerns to find out whether the proposed investment will be profitable
(iv) Determining capital structure and the appropriate time for financing the enterprise

5. **Problems relating to organization structure:** It has to divide the total work of the enterprise into major specialized functions and then constitute proper departments for each of its specialized functions.
   Not only this, the functions of all the positions and levels would have to be clearly laid down and their inter-relationship (in terms of span of control, authority, responsibility, etc) should be properly defined

6. **Problems relating to legal formalities:** A number of legal formalities have to be carried out during the time of launching of the enterprise as well as during its life time and its closure.

7. **Problems relating to marketing:** For this, the enterprise has to discover its target market by identifying its actual and potential customers, and determine tactical marketing tools it can use to produce desired responses from its target market.
   After identifying the market, the enterprise has to make decision regarding 4 P's namely,
   • Product: variety, quality, design, features, brand name, packaging, associated services, utility etc.
   • Promotion: Methods of communicating with consumers through personal selling, social contacts, advertising, publicity etc.
   • Price: Policies regarding pricing, discounts, allowance, credit terms, concessions, etc.
   • Place: Policy regarding coverage, outlets for sales, channels of distribution, location and layout of stores, inventory, logistics etc.

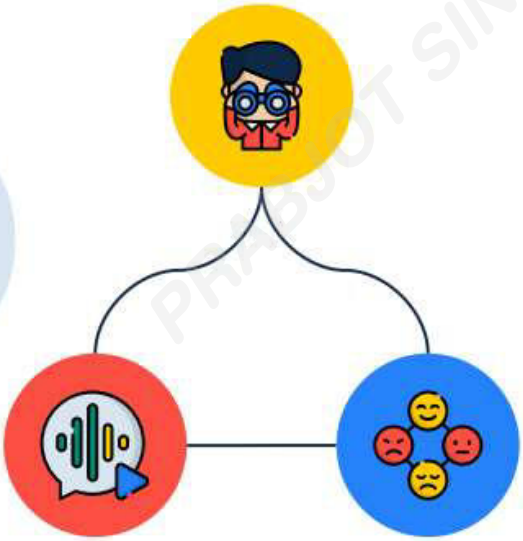
8. **Problems relating to industrial relations:** Various problems which an enterprise faces with regard to industrial relations are –
   • the problem of winning workers' cooperation,
   • the problem of enforcing proper discipline among workers, etc.

PRODUCTION FUNCTION

The functional relationship between physical inputs and physical output, per unit of time under a given state of technology is called *production function.*

$$Q = f(a, b, c\ n)$$
Or
$$Q = f(L, K)$$

Q denotes quantity of output of a commodity per unit of time
f stands for function of i.e. depends on a, b, c,... n denotes quantity of various inputs
L= Labor
K= Capital



Assumption 1

It is specified with reference to a specified period of time.

Assumption 2

It is assumed that the state of technology remains the same, during the period of time.

Assumption 3

Whatever input combinations are included in a particular function, the output resulting from their utilization is at the maximum level

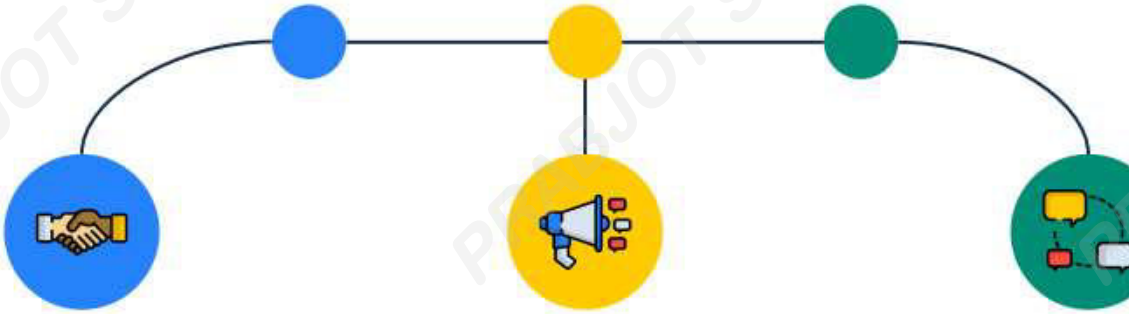
Short run v/s Long run Production function

Depends on : The extent to which a firm can vary the amounts of the inputs in the production process .

	Short Run Production Function	Long Run Production Function
1	A period will be considered short-run period if the amount of at least one of the inputs used remains unchanged during that period	The long run is a period of time (or planning horizon) in which all factors of production are variable
2	Short-run production function shows the maximum amount of a good or service that can be produced by a set of inputs, assuming that the amount of at least one of the inputs used remains unchanged	A long- run production function shows the maximum quantity of a good or service that can be produced by a set of inputs, assuming that the firm is free to vary the amount of all the inputs being used.
3	the production function is studied by holding the quantities of capital fixed, while varying the amount of other factors (labour, raw material etc.) This is done when the law of variable proportion is studied.	The behaviour of production when all factors are varied is the subject matter of the law of returns to scale

Cobb- Douglas Production Function

Paul H. Douglas and C.W. Cobb of the U.S.A



In its original form, this production function applies not to an individual firm but to the whole of manufacturing in the United States .

$$Q = KL^{a} C^{(1-a)}$$

where
'Q' is output,
'L' the quantity of labor
'C' the quantity of capital.
'K' and 'a' are positive constants

The conclusion drawn from this famous statistical study is that labor contributed about 3/4th and capital about 1/4th of the increase in the manufacturing production

Law of Variable Proportions / Law Of Diminishing Returns : Law Of Diminishing Returns examines the production function with one factor variable, keeping quantities of other factors fixed

Assumptions

1. The state of technology is assumed to be given and unchanged. (why?) If there is any improvement in technology, then marginal product and average product may rise instead of falling
2. There must be some inputs whose quantity is kept fixed.
3. The law does not apply to those cases where the factors must be used in fixed proportions to yield output, because marginal product of the variable factor will then be zero and not diminishing.
4. We consider only physical inputs & outputs and not economic profitability in monetary terms.

A few important definations :-

Total Product ; Marginal Product ; Average Product

Quantity Of Labor	Total Product (TP)	Average Product (AP)	Marginal Product (MP)
(1)	(2)	(3)	(4)
1	100	100.0	100
2	210	105.0	110
3	330	110.0	120
4	440	110.0	110
5	520	100.4	80
6	600	100.0	80
7	670	95.7	70
8	720	90.0	50
9	750	83.3	30
10	750	75.0	0
11	740	67.3	-10

Total Product: The total output produced by all the factors per unit of time is called total product. (Total product increases with an increase in the variable factor input.)

Average Product: The average product means the total product per unit of a variable factor.

$$AP = \frac{\text{Total Product}}{\text{No. of units of Variable Factors}}$$

Marginal Product: The marginal product means addition made to total product by the use of an extra unit of variable factor.

$$MP_n = TP_n - TP_{n-1}$$

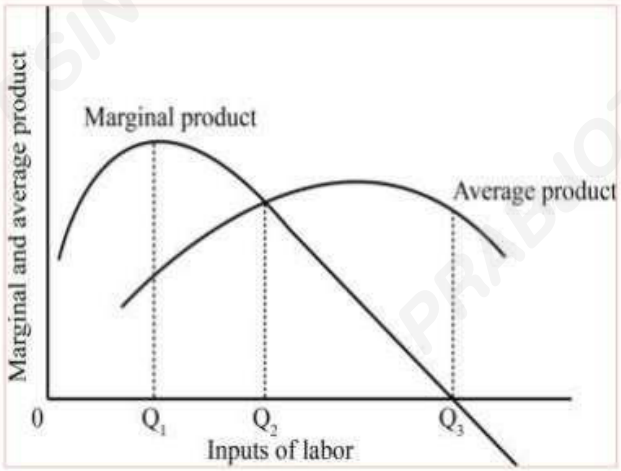
Relationship between AP and MP

When AP rises then MP also rises but MP >AP

When AP is maximum then MP =AP or say MP curve cuts the AP curve at its maximum point

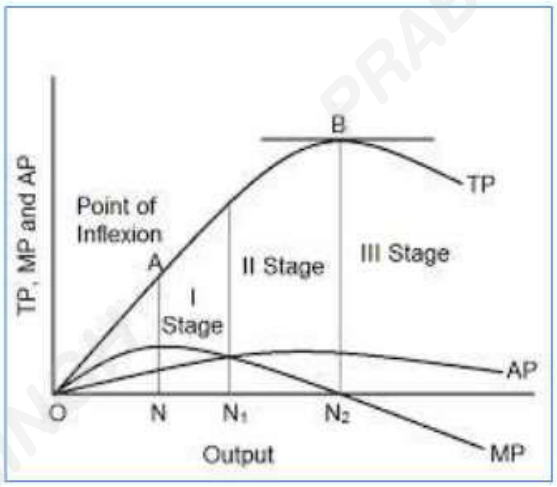
When AP falls then MP also falls but MP <AP

There may be a situation when MP decreases and AP increases but opposite never happened.



Three Stages of Production :-

Stage	TP	MP	AP
1	Increases at an increasing rate	Increases and reaches at maximum point	Increases and reaches its maximum point
2	Increases at a diminishing rate and reaches its maximum point	Decreases and becomes 0	After reaching its maximum point ; begins to decreases
3	Begins to fall	Becomes negative	Continues to diminish



Reasons for stages:

Stage 1: → Increasing returns to Factor

a) Indivisibility of fixed factors
b) Division of Labor & Specialization: With sufficient quantity of variable factor, introduction of division of labor and specialization becomes possible, which results in higher productivity

Stage 2: → Diminishing Returns to Factor (Equilibrium is always achieved in Stage 2)
(Rational producer will always produce in stage 2; as both AP & MP are diminishing)

a) Inadequate relative of fixed factors: Once the point is reached at which the amount of variable factor is sufficient to ensure the efficient utilization of the fixed factor, then further increases in the variable factor will cause marginal and average product to decline because the fixed factor then becomes inadequate relative to the quantity of variable factors.
b) Imperfect substitutability: Another reason offered for the operation of the diminishing returns is the imperfect substitutability of factors for one another.

Stage 3: → Negative Returns to Factor

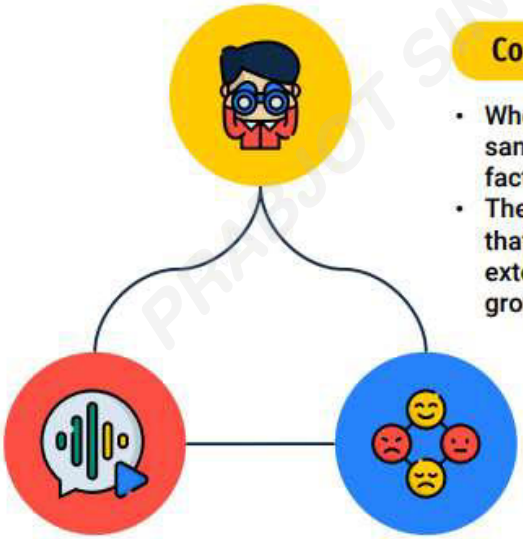
a) Too much quantity of variable factor: In this stage the quantity of variable factor becomes too excessive relative to the fixed factor so that they get in each other's way with a result that the total output falls instead of rising. In such a situation a reduction in the units of the variable factor will increase the total output.

Returns to Scale

The Law of Returns to Scale examines the production function i.e. the input - output relation in long run where increase in output can be achieved by varying the units of all factors in the same proportion

Increasing Returns to Scale

- When the output increases by a greater proportion than the proportion increases in all the factor inputs, it is increasing returns to scale.
- The reasons of increasing returns to scale are - internal and external economies of scale; indivisibility of fixed factors; improved organisation; division of labor and specialization; better supervision and control; adequate supply of productive factors, etc.



Constant Returns to Scale

- When the output increases exactly in the same proportion as that of increase in all factor inputs, it is constant returns to scale.
- The reason of constant returns to scale is that beyond a certain point, internal and external economies are NEUTRALISED by growing internal and external diseconomies

Diminishing Returns to Scale

- When the output increases by a lesser proportion than the proportion increase in all the factor inputs, it is diminishing returns to scale
- The reason of diminishing returns to scale is increased internal and external diseconomies of production

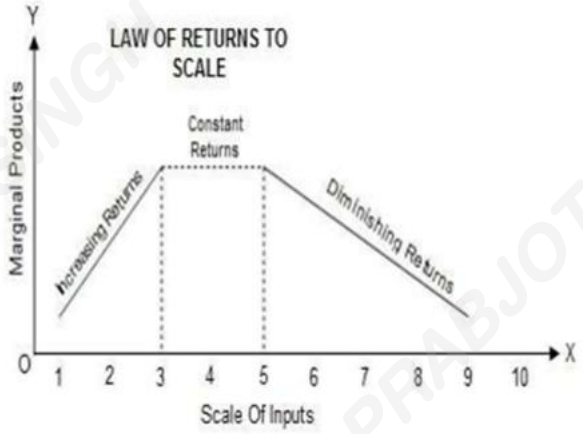
Understanding Returns to Scale through Cobb-Douglas Production Function

$$Q = K L^a C^b$$

Where 'Q' is output, 'L' the quantity of labor and 'C' the quantity of capital, 'K' and 'a' and 'b' are positive constants

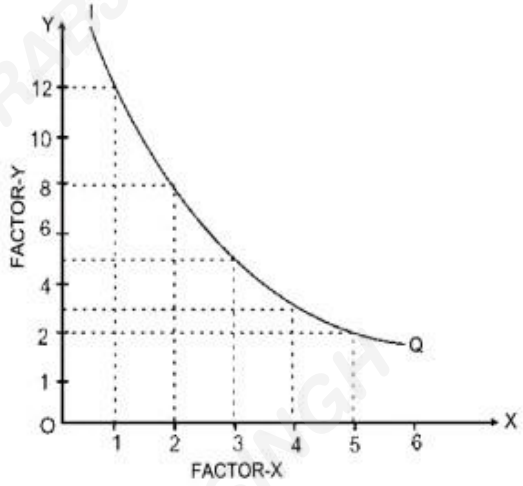
- If $a + b > 1$ Increasing returns to scale result i.e. increase in output is more than the proportionate increase in the use of factors (labour and capital).
- If $a + b = 1$ Constant returns to scale result i.e. the output increases in the same proportion in which factors are increased.
- If $a + b < 1$ decreasing returns to scale result i.e. the output increases less than the proportionate increase in the labour and capital.

Units of labor and capital	Marginal Product	Total Product	Remarks
1	200	200	Stage I Increasing Returns
2	300	500	
3	400	900	Stage II Constant Returns
4	400	1300	
5	400	1700	
6	300	2000	Stage III Diminishing Returns.
7	200	2200	
8	100	2300	



Concept of Isoquants

An iso-product curve or isoquant is a curve, which represents the various combinations of two variable inputs that give the same level of output. As all combinations on the iso-product curve give the same level of output, the producer becomes indifferent to these combinations. *That is why iso-product curve are also called 'production indifference curve' or 'equal product curve'*



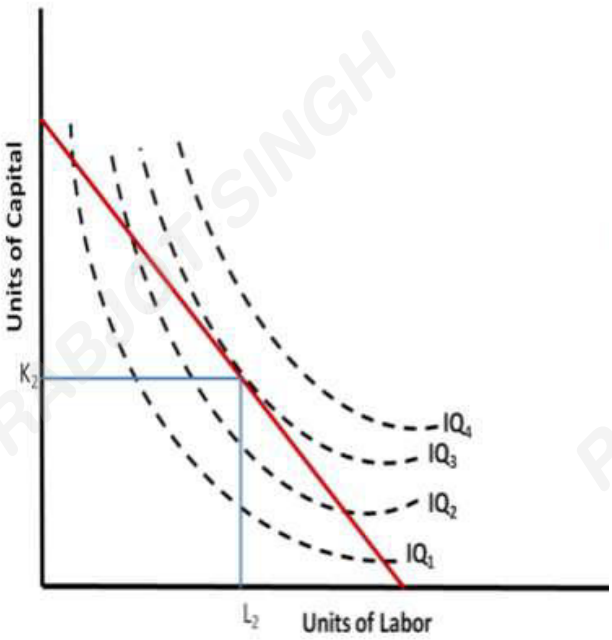
Factor combination	Factor X	Factor Y	MRTS
A	1	12	
B	2	08	4
C	3	05	3
D	4	03	2
E	5	02	1

Marginal Rate of Technical Substitution: The rate at which one factor of production is substituted in place of the other factor without any change in the level of output is called as **the marginal rate of technical substitution.**

'Iso-Cost Line' OR 'Equal Cost Lines': Iso-cost line shows the various combinations of two factor inputs which the firm can purchase with a given outlay (i.e. budget) and at given prices of two inputs.

Example. A firm has with itself Rs. 1,000 which it would like to spend on factor 'X' and factor 'Y'. Price of factor 'X' is Rs. 20 per unit .Price of factor 'Y' is Rs. 10 per unit. Therefore, if the firm spends the whole amount on factor X, it can buy 50 units of X and if the whole amount is spent on factor Y, it can buy 100 units of Y. However, in between these two extreme limits, it can have many combinations of X and Y for the outlay of Rs. 1,000.

Producer's Equilibrium OR Production Optimization.



- A firm always try to produce a given level of output at minimum cost.
- For this it has to use that combination of inputs which minimizes the cost of production. This ensures maximization of profits and produce a given level of output with least cost combination of inputs.
- The least-cost combination of inputs or factors is called producer's equilibrium or production optimization. This is determined with the help of (a) isoquants, & (b) iso-cost line

Slope of iso-quant = Slope of iso-cost line

$MRS_{xy} = P_X / P_y$

Unit 2
Theory of cost

	Accounting Costs	Economic Costs
1. Meaning	These are those cash payments which firms make to outsiders for purchasing or hiring the services of various productive factors which do not belong to the entrepreneur.	Economic Costs = Explicit costs (or accounting costs) + Implicit costs (or imputed costs / opportunity cost) **(Implicit costs are costs of self-owned & self-supplied resources by an entrepreneur)**
2. Record	These costs are recorded in firm's account book.	These costs are not recorded in firm's account book.
3. Contractual payments	The accounting costs are in the nature of contractual payments to the factor suppliers. Eg. Wages, rent on hired land, interest on borrowed capital, cost of power and fuel, purchase of raw-materials, insurance premium, transportation, advertising, taxes, etc.	There is no contractual obligation for payment to anybody else. Eg.An entrepreneur may utilize his own building or his own capital or may act as a manager of his firm himself. For these productive services, he does not pay rent or interest or salary to himself although the payments accrue to him

Outlay Cost	Opportunity Cost
Outlay costs involve actual outlay of funds on wages, material, rent, interest etc. Outlay costs involve financial expenditure at some time and thus are recorded in the books of account.	• **The sacrifice or loss of alternative use of a given resource is termed as opportunity cost.** • The use of a resource in producing a commodity always involves the loss of opportunity of production of some other commodity • Thus, the opportunity cost is measured in terms of the foregone benefits from the next best alternative use of a given resource • The concept of opportunity cost is useful in the determination of relative prices of goods, normal remuneration to a factor, in decision making and in analysing optimum allocation of resources.

	Direct Costs	Indirect Costs
1. Meaning	A direct or traceable cost is one which can be identified easily and indisputably with a unit of operation, i.e. a product, a department, a plant or a process.	Indirect Costs are those costs that are not traceable to plant, department and operation as well as those that are not traceable to individual final products but are charged to jobs or products in standard accounting practice.
2. Example	In the production of shoes, the cost of leather is a direct cost	Electric Power. Such common costs which are incurred for general operation of business and benefits all products jointly are called indirect cost.

Incremental Costs	Marginal Costs	Sunk Costs
Marginal cost refer to additional cost of producing an extra unit of output	Incremental cost refers to the total additional cost when business decisions are taken like-to expand the production, hire more workers, materials, machinery, equipment, replace old plant and machinery, etc.	• Sunk costs refer to the costs which has been already incurred in the past and cannot be recovered. It also includes an expenditure that has to be made in future under past commitments or contractual agreements • Sunk costs are irrelevant for decision making as it cannot be recovered • Sunk costs do not vary with the changes in business activity. • Such costs also act as an important barrier to entry of firms into business • Eg.- expenses on advertising, R&D, special equipment's, etc.

Historical costs	Replacement costs
Historical costs are those costs on purchase of assets in the past.	Replacement costs refer to the expenditure to be made for replacing old assets.

Private costs	Social costs
Private costs refer to direct costs to the producer for producing the good or service	Social costs refer to the total cost to the society due to business activity. It includes resources for which the firm is not required to pay the price like - atmosphere, rivers, lakes, roads, etc. and the cost in terms of disutility created like pollution of all types.

	Fixed Cost	Variable Cost
1. **Meaning**	Fixed costs are incurred on the use of the fixed inputs.	Variable costs are incurred on the use of the variable inputs.
2. **Variability in the short run**	Fixed inputs **cannot be varied in the short run**. Thus, fixed costs do not change with changes in output in short run.	Variable inputs **can be varied in the short run**. Thus, variable costs changes with the changes in output.
3. **Dependence on the output**	**Independent** of the output.	**Depends** on the output.
4. **Can it be 0 ?**	Fixed cost **can never be zero**. Even if the level of output falls to ZERO, fixed costs are still to be incurred in the short run	Variable cost **can become zero**. If the level of output falls to zero, variable costs also falls to zero.
5. **Examples**	Contractual **rent**, maintenance cost, property taxes, interest on capital invested, wages of permanent staff, depreciation, etc.	Wages of labor employed, **cost of raw materials**, power and fuel, expenses on transport, etc.

Cost Function: Cost function is the functional relation between costs and output.

The cost function refers to the relation between cost of a product and the various determinants of its cost.

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

O is the level of output

S is the size of plant

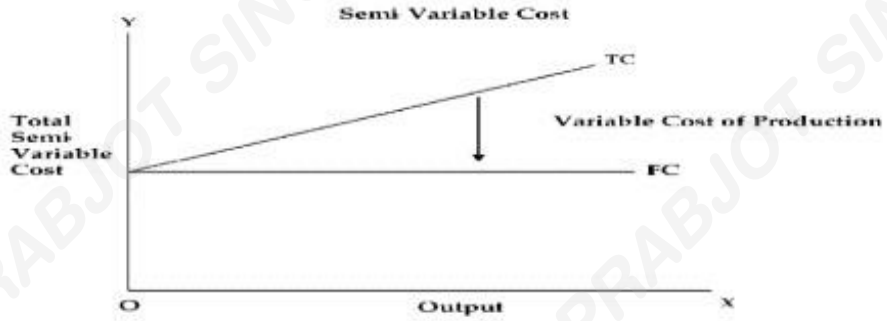
T is time under consideration

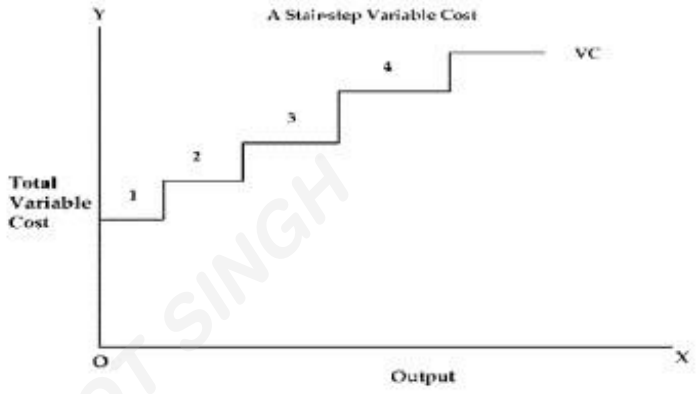
P is the prices of factors of production

The law of returns to factor determine the shapes of short - period cost curves while **the law of returns to scale** determine the shapes of long - period cost curves.

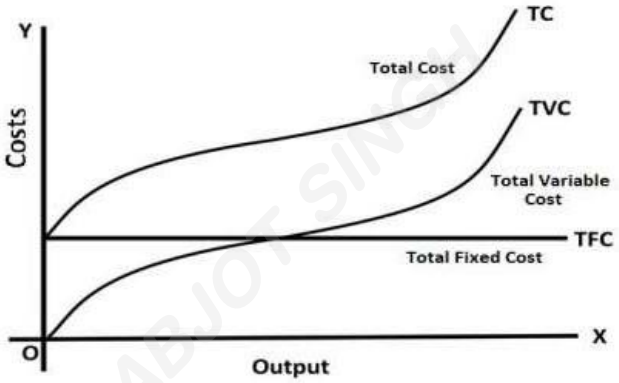
Concept of semi variable cost:

- There are some costs which are neither perfectly variable, nor absolutely fixed in relation to the changes in the size of output. They are known as semi-variable costs
- Example: Electricity charges include both a fixed charge and a charge based on consumption.
- There are some costs which may increase in a stair-step fashion, i.e., they remain fixed over certain range of output; but suddenly jump to a new higher level when output goes beyond a given limit.
- E.g. Costs incurred towards the salary of foremen will have a sudden jump if another foreman is appointed when the output crosses a particular limit as seen in the previous slide





TFC	TVC	TC
• the TFC curve is a horizontal straight line parallel to X- axis. It indicates that fixed cost remains unchanged at all levels • TFC curve originates from F on Y- axis indicating that • Fixed cost is to be borne even at zero level of output. • At zero output TC is not zero. It equals TFC	• The TVC curve is positively sloped. It indicates that variable cost increases with the increase in output. • TVC curve originates from 0 i.e. origin indicating that Variable cost is zero at zero level of output.	• TC reflect the behavior of TVC. Hence, the shape of TC resembles TVC • TC cost starts from Y axis because even when the output is Nil, TC is equal to TFC at that point • TC curve remains parallel to TVC Curve since their distance (TFC Curve) remains constant throughout



Short run average cost: For the purpose of making decisions about operations, unit cost functions or average costs are more useful than the total cost functions.

Average- fixed cost: Average Fixed Cost is the fixed cost per unit of output

AFC = Total Fixed Cost /Total Output

- The AFC curve slopes downwards from left to right throughout its length.
- The AFC curve comes closer and closer to the X - axis but not touch the X-axis as TFC can never be zero. AFC curve will not touch Y-axis also because at zero level of output, TFC is a POSITIVE VALUE. Any positive value divided by zero will provide infinite value
- The AFC curve is a **RECTANGULAR HYPERBOLA** because mathematically it shows the same level of TFC at all its points and geometrically the area of every rectangle on this curve at all points will be equal to the area of every other rectangle.

Average- variable cost: Average variable Cost is the variable cost per unit of output.

AVC = Total Variable Cost / Total Output

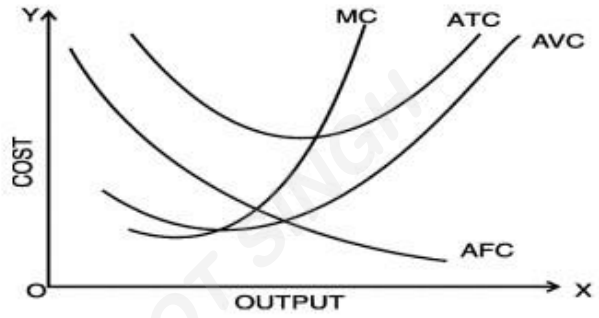
- As the output expands, average variable cost falls initially due to increasing returns to the variable factor.
- It is minimum at the optimum capacity output.
- Beyond optimum capacity average variable cost rises very sharply due to diminishing returns to variable factor.
- AVC curve is U-shaped indicating three phases decreasing phase, constant phase and increasing phase corresponding to the three phases of average product of variable factor in the law of Variable Proportions.

Average total cost: Average Total Cost is the cost per unit of output.

Average cost = Total Cost /Total Output

ATC or AC = AFC + AVC

- As output increases, ATC falls initially, reach its minimum and then rises due to the Law of variable proportions.
- Since, ATC = AFC + AVC, it follows that the behavior and shape of the ATC curve depends upon the behavior of AVC curve and AFC curve.
- In the beginning, the ATC curve falls sharply when output expands. REASON being, initially both AVC and AFC curves fall.
- When AVC curve starts rising, but AFC curve continue to fall steeply, the ATC will continue to fall. REASON being, fall in AFC curve is MORE than the RISE in AVC curve.
- As output further increases, ATC curve rises. REASON being, there is sharp rise in AVC which offsets the, fall in AFC. Thus, ATC curve first fall, reach its minimum and then rise.



Marginal Cost: Marginal cost is the cost of the additional unit of output

It is independent of fixed cost . The only change in total cost when output changes is change in variable cost. Hence, marginal cost is affected only by the variable cost

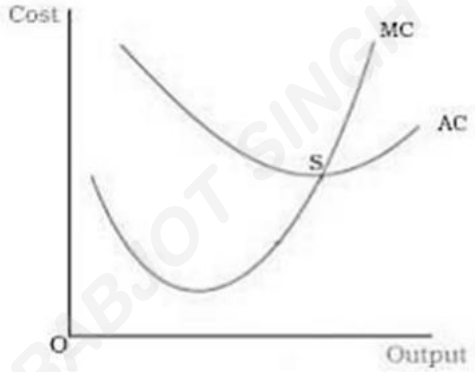
MC = ∆TC / ∆Q

$MC_n = TC_n – TC_{n-1}$ or $MC = TVC_n – TVC_{n-1}$

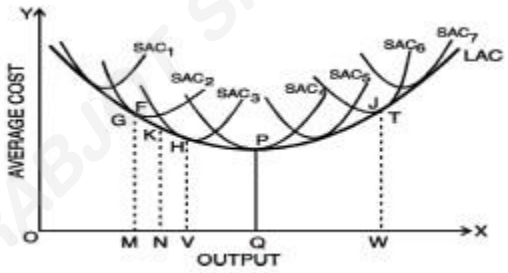
- MC initially falls due to increasing returns to factor but finally MC rises due to diminishing returns to factor.
- The MC curve first declines, reaches minimum and then goes on rising as output increases.
- MC curve is U - shaped, this is due to the operation of the law of returns to factor
- MC curve passes through the minimum points of AVC and ATC curves
- **MC curve reaches its minimum point earlier to the minimum points of AVC and ATC curves.**

Relationship between Average Cost and Marginal Cost

- When average cost falls with increase in output, marginal cost also falls and is less than average cost.
- MC curve reaches minimum point earlier then AC curve
- MC curve cuts the AC curve at its minimum point
- Where the MC curve cuts the AC curve i.e. At point of optimum capacity, MC = AC
- When AC rises, with increase in output, MC also rises and is higher than AC.
- When AC curve is rising, MC curve will be above the AC curve as MC rises faster.



Long run average cost: Long run is a period of time during which the firm can vary all inputs. The long run average cost curve shows the minimum possible average cost for producing various levels of output.



1. LAC curve is not tangent to the minimum points of the SAC curves
2. LAC curve is also called planning curve.
3. LAC Curve is also called Envelope Curve
4. The shape of LAC curve depends on the Law of Returns to Scale, hence it is U shaped.

How is LAC derived?

- The LAC curve envelopes infinite short run average cost curves each representing a plant. Hence, SACs are also called plant curves.
- The LAC curve is derived as a tangent to all the short run average cost curve from SAC, to SAC7. Thus, it is U- shaped.
- In the long run, a firm can produce a particular output by building a relevant size of plant and operate on the corresponding SAC.
- It selects that size of plant i.e. SAC which gives the lowest cost of producing the given output.

Economies of scale are of two kinds (a) External economies of scale & (b) Internal economies of scale.

External economies of scale accrue to a firm due to factors which are external to a firm.

Internal economies of scale accrue to a firm when it engages in large scale production.

Increase in scale, beyond the optimum level, results in diseconomies of scale.

Modern Day LAC

Empirical evidence shows modern firms face 'L-shaped' cost curve over a considerable quantity of output.

The L-shaped long run cost curve implies that initially when the output is increased due to increase in the size of plant (and associated variable factors), per unit cost falls rapidly due to economies of scale.

The long-run average cost curve does not increase even after a sufficiently large scale of output as it continues to enjoy economies of scale

Chapter 4
Price Determination in Different Markets

Meaning of the term "market"

In economics, however, the term "Market" refers to a market for a commodity. Eg. Cloth market; furniture market; etc.

Features of "market"

- A market does not refer to a fixed place. It covers a region, which may be a town, state, country or even world.
- The exchange transactions between the buyers and sellers can take place only when there is a commodity or service to buy and sell.
- Buyers and sellers are aware of the prices offered or accepted by other buyers and sellers through any means of communication i.e. knowledge about the market conditions.
- Market refers to the network of potential buyers and sellers who may be at different places.
- There is bargaining for a price between potential buyers and sellers.
- One price for a commodity or service at a given time.

Classification of Markets

1. On The Basis Of Geographical Area

Local Markets	When buyers and sellers are limited to a local area or region, the market is called a local market. Generally, highly perishable goods and bulky articles, the transport of which over a long distance is uneconomical are sold
Regional Markets	Regional markets cover a wider area such as a few adjacent cities, parts of states, or cluster of states. The nature of buyers may vary in their demand characteristics.
National Markets	When the demand for a commodity or service is limited to the national boundaries of a country, we say that the product has a national market. The trade policy of the government may restrict the trading of a commodity to within the country. Eg Hindi books
International markets	A commodity is said to have international market when it is exchanged internationally. Usually, high value and small bulk commodities are demanded and traded internationally. Eg. Gold and silver

2. On The Basis Of Time

Very short period market	It refers to a period of time in which supply is fixed and cannot be increased or decreased in the very short period come under this category. Commodities like vegetables, flower, fish, eggs, fruits, milk, etc., which are perishable.
Short period market	The supply of output may be increased by increasing the employment of variable factors with the given fixed factors and state of technology.
Long-period Market	All factors become variable and the supply of commodities may be changed by altering the scale of production. As such, supply may be fully adjusted to changes in demand conditions. The interaction between long run supply and demand determines long run equilibrium price or 'normal price'.
Very long-period or secular period	When secular movements are recorded in certain factors over a period of time. The period is very long. The factors include the size of the population, capital supply, supply of raw materials etc.

3. On The Basis Of Nature of Transactions

Spot or cash Market	Spot transactions or spot markets refer to those markets where goods are exchanged for money payable either immediately or within a short span of time.
Forward or Future Market	In this market, transactions involve contracts with a promise to pay and deliver goods at some future date.

4. On The Basis Of Regulation

Regulated Market	In this market, transactions are statutorily regulated so as to put an end to unfair practices. Such markets may be established for specific products or for a group of products. Eg. Stock exchange.
Unregulated Market	It is also called a free market as there are no stipulations on the transactions

5. On The Basis Of Volume of business

Wholesale Market	The wholesale market is the market where the commodities are bought and sold in bulk or large quantities. Transactions generally take place between traders.

Retail Market	When the commodities are sold in small quantities, it is called retail market. This is the market for ultimate consumers.

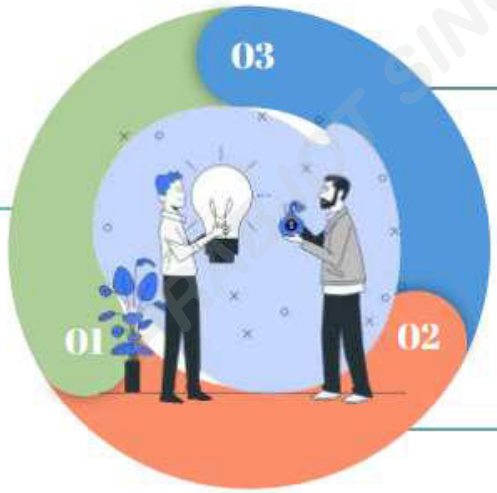
6. On the basis of competition

Points	Market types			
	Perfect Competition	**Monopoly**	**Monopolistic Competition**	**Oligopoly**
1. Number of sellers	Many	One	Many	Few
2. Product	Homogeneous	Unique having no substitutes	Differentiated	Homogeneous or Differentiated
3. Selling Cost	No	Negligible	High	High
4. Degree of control over price	No Control. Price taker .	Full control. Price maker	Limited due to product differentiation.	Limited
5. Demand (or AR) Curve	Horizontal straight line parallel to x axis	Downward sloping	Downward sloping	Indeterminate
6. Price elasticity of demand	Infinite	Small	Large	Small

CONCEPTS OF TOTAL REVENUE, AVERAGE REVENUE AND MARGINAL REVENUE.

Total Revenue : (TR)

- Total revenue may be defined as the total amount of money received by the firm by selling a certain units of a commodity.
- TR = P × Q



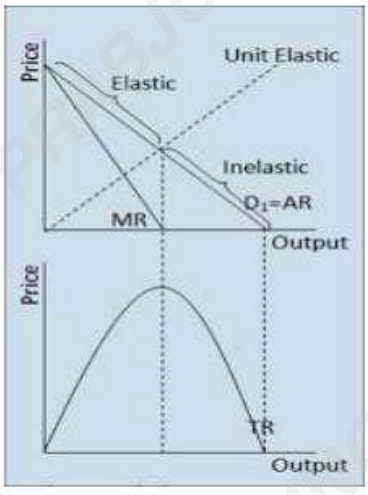
Average Revenue : (AR)

- Average revenue is the revenue per unit of the commodity sold.
- AR = TR / Q
  or
- AR = P

Marginal Revenue : (MR)

- Marginal revenue refers to the addition to total revenue by selling one more unit of a commodity.
- MR = Δ TR / Δ Q

The relationship between AR, MR, TR & elasticity of demand.



$$MR = AR \times \frac{e-1}{e}$$

Where, e = price elasticity of demand.

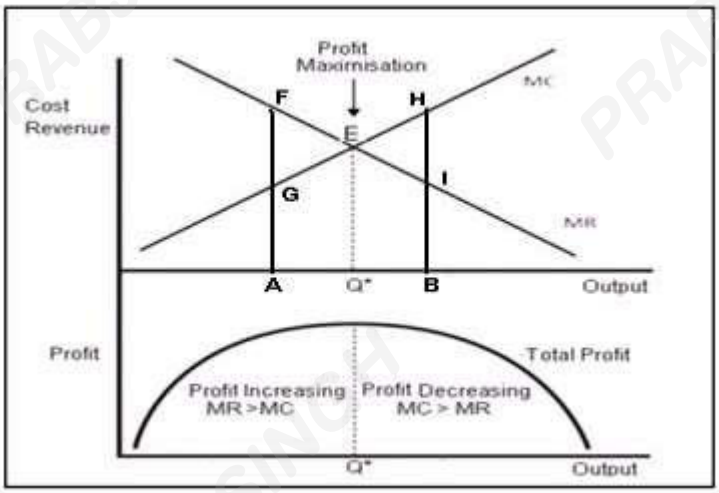
1. When e > 1, marginal revenue is positive and therefore total revenue is rising,
2. When e=l, marginal revenue is zero and therefore total revenue is maximum, and
3. When e<l, marginal revenue is negative and therefore total revenue is falling.

Behavioral Principals:

1. A firm should not produce at all if its total revenue is either equal to or less than its total variable cost.

2. It will be profitable for the firm to expand output so long as marginal revenue is more than marginal cost till the point where marginal revenue equals marginal cost.

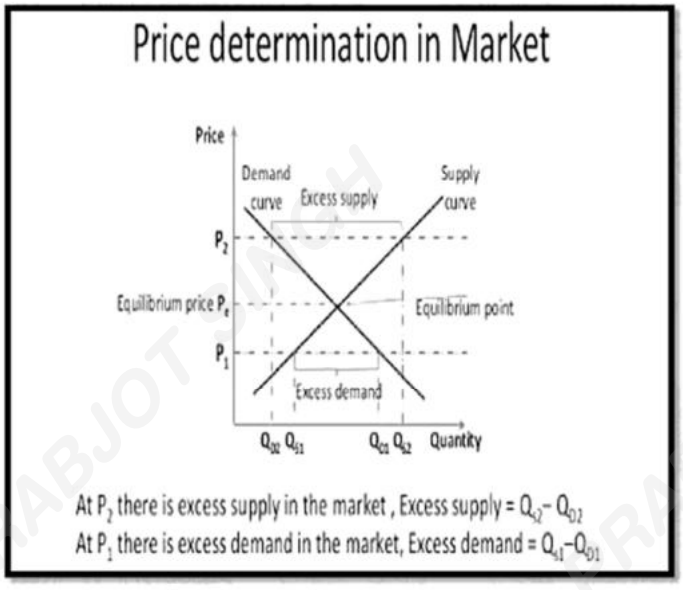
3. Also the marginal cost curve should cut its marginal revenue curve from below.



Unit 2: Determination of prices

The price of a commodity is determined by the inter-action of the forces of demand and supply.

The price that will come to prevail in the market is one at which **quantity demanded equals quantity supplied.**

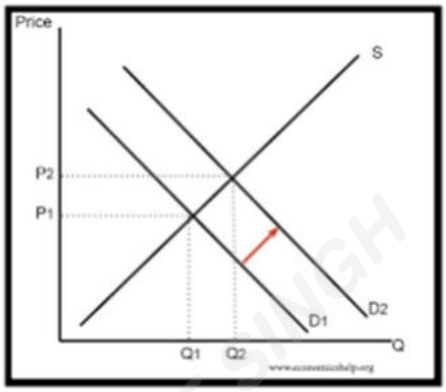
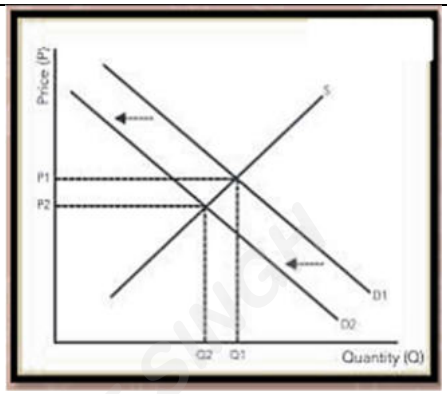


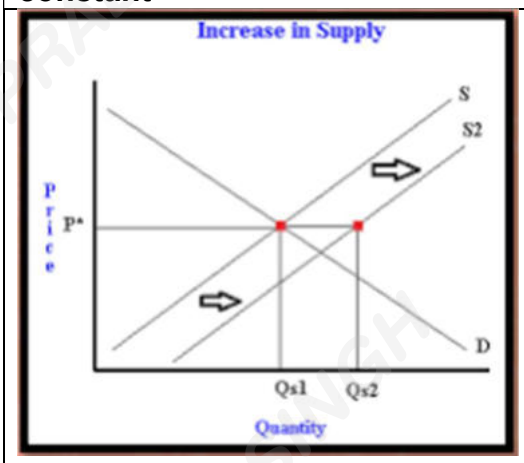
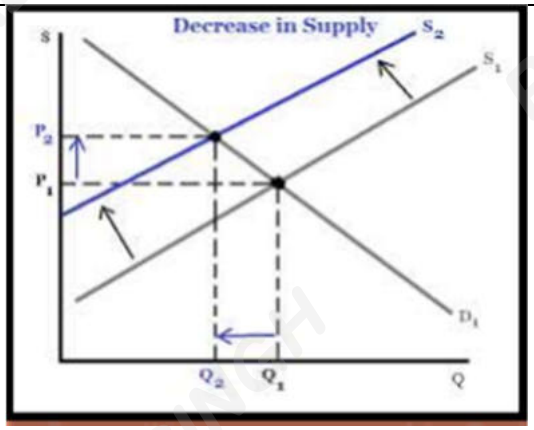
Price	Demand	Supply	Trend
5	100	500	Excess Supply
4	200	400	
3	300	300	Equilibrium
2	400	200	Excess Demand
1	500	100	

EFFECTS OF SHIFTS IN DEMAND AND SUPPLY ON EQUILIBRIUM PRICE

- While determining the equilibrium price, it was assumed that demand and supply conditions were constant. In reality however, the condition of demand and supply change continuously.
- Thus, changes in income, taste and preferences, changes in the availability and prices of related goods, etc. brings changes in demand conditions and cause demand curve to shift either to right or left.
- In the same way, changes in the technology, changes price of labor, raw materials, etc., changes in the number of firms, etc. brings changes in supply conditions and cause supply curve to shift either to right or left.

Changes in Demand & Supply

Increase in Demand & Supply remaining constant	Decrease in Demand & Supply remaining constant
	

Increase in Supply & Demand remaining constant	Decrease in Supply & Demand remaining constant
	

Simultaneous Changes in Demand & Supply

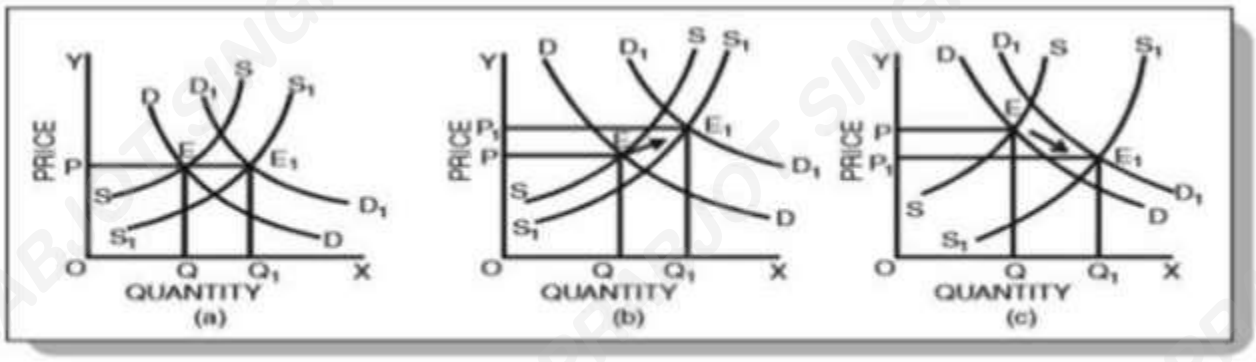


Fig. 1 : Simultaneous Change in Demand and Supply

Opposite Changes In Demand & Supply

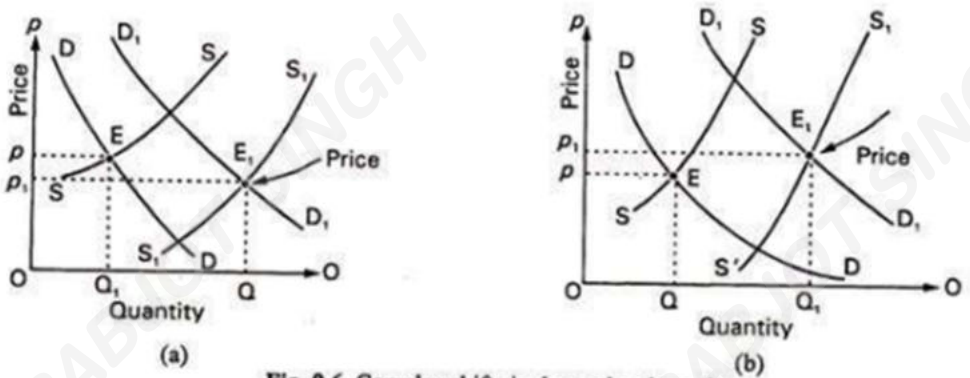


Fig. 9.6. Complex shifts in demand and supply

Unit 2: PRICE-OUTPUT DETERMINATION UNDER DIFFERENT MARKET FORMS

1. **Perfect Competition:** Perfect competition is a market structure where there are large number of firms (seller) which produce and sell homogeneous product. Individual firm produces only a small portion of the total market supply

Important Features of perfect competition:

1. **Perfect knowledge of the market** All sellers and buyers have perfect knowledge about prices at which commodities can be sold and bought.
2. **No transport cost** Transport cost is ignored as all the firms have equal access to the market.
3. **Perfect mobility** The factors of production can move freely from one occupation to another and from one place to another
4. **No selling cost** Commodities traded are homogeneous and have uniform price. Therefore, firm need not make any expenditure on publicity and advertisement.

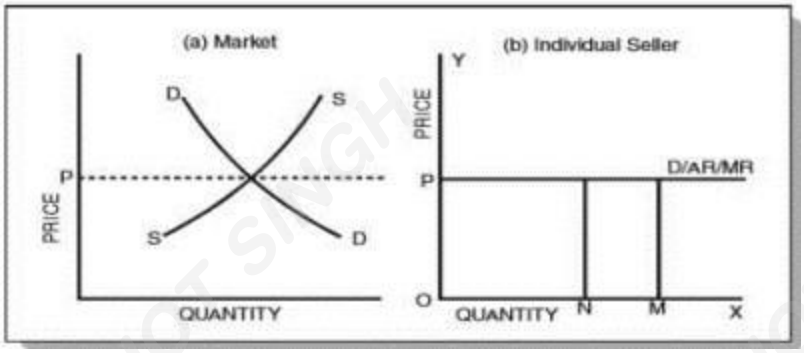
Equilibrium for a competitive industry

Price	Demand	Supply
1	60	5
2	35	35
3	20	45
4	15	55
5	10	65

- Equilibrium price is determined at a point where demand for and supply of the whole industry are equal to each other.
- The firm is said to be price taker and industry, the price maker , hence refer Equilibrium of a firm below:

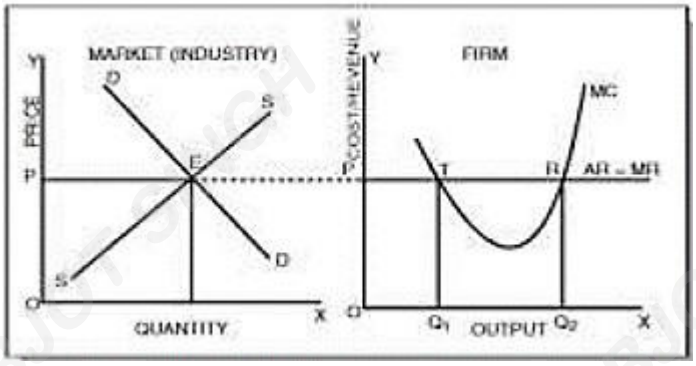
Price	Demand	Supply
1	60	5
2	35	35
3	20	45
4	15	55
5	10	65

Price	Qty sold	Total revenue	Average revenue	Marginal revenue
2	8	16	2	2
2	9	18	2	2
2	10	20	2	2
2	11	22	2	2
2	12	24	2	2



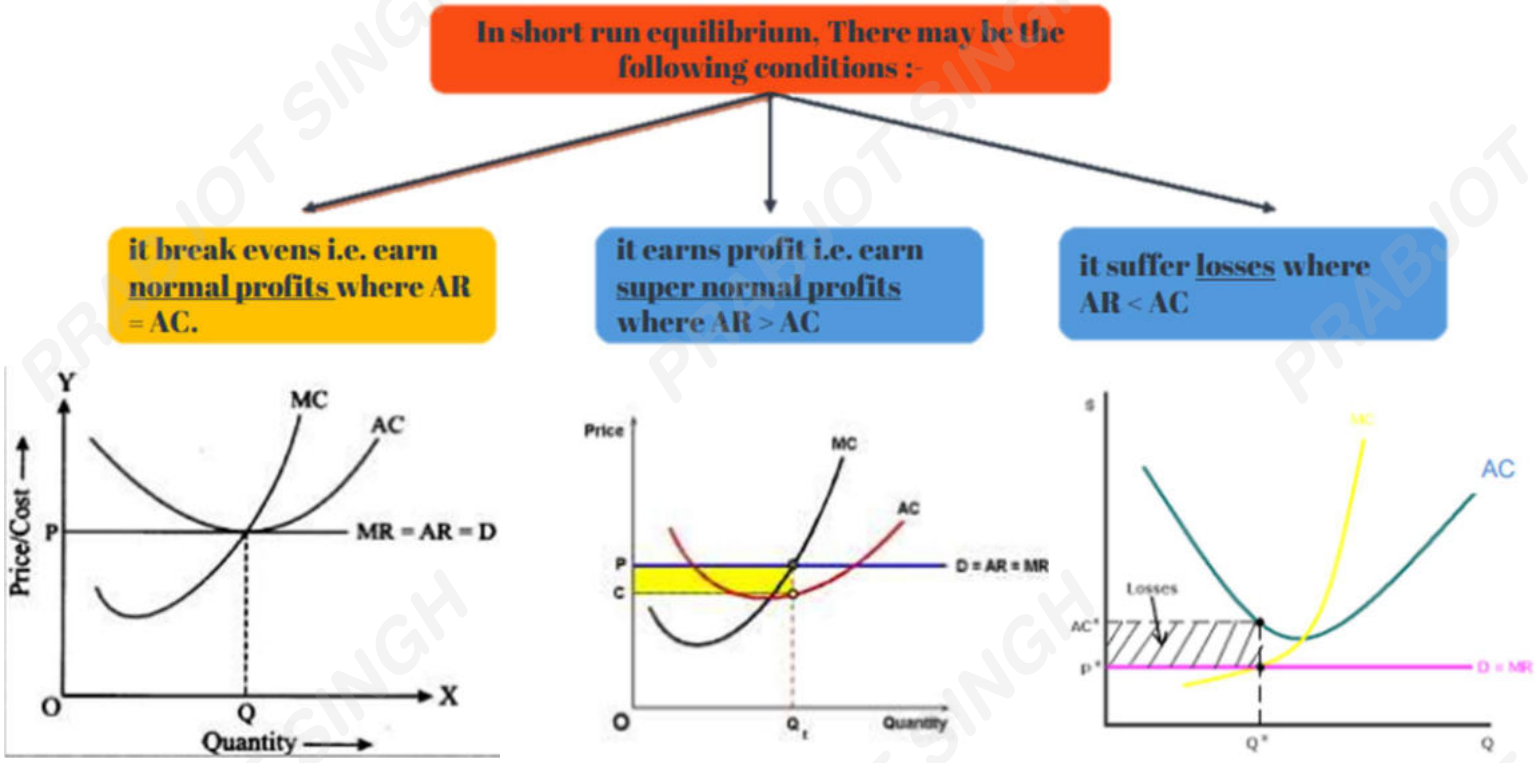
2 Conditions for equilibrium of the firm:

1. Marginal Revenue should be equal to the marginal cost i.e. **MR = MC**
2. **Firm's marginal cost curve should cut its marginal revenue curve from below** i.e. marginal cost curve should have positive slope at the point of equilibrium



MC curve of a firm in perfect competitive industry is that it depicts the firm's supply curve

Short Run Equilibrium of a Competitive Firm



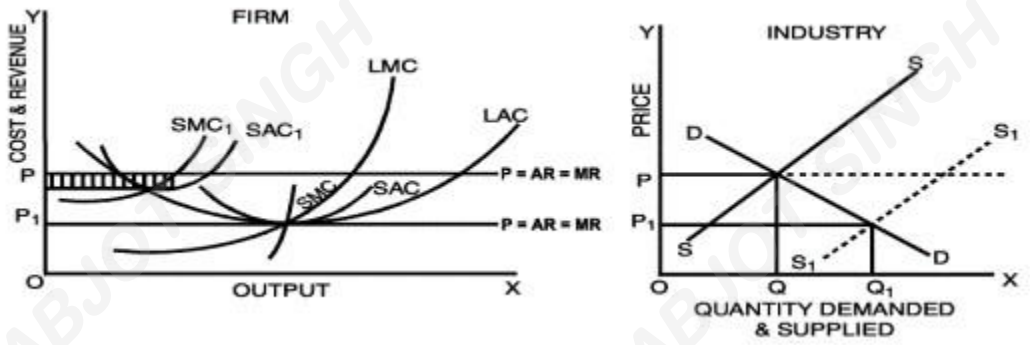
Therefore, whether to shut down or not depends on variable costs alone.

Long Run Equilibrium of a Competitive Firm

1) Long-term is the period in which the firm can vary all of its inputs. **There are no fixed costs and therefore, the AFC or Average Fixed Cost curve vanishes.**
2) In the long-run, new firms can also enter the industry. This is the free entry and exit feature which has two implications
3) There is no compulsion on the firm to operate under losses and it can leave the industry.
4) No firm can earn super-normal profits. This is because when a firm earns super-normal profits, it attracts new firms to the industry. This leads to an increase in the supply which results in lowering the prices and normalizing of profits.

In long run firms earn only normal profits.

LMC=LAC=P



Long Run Equilibrium of the Industry: There are 3 conditions

a) All firms in the industry are in equilibrium i.e. all firms are maximizing profit.
b) No firm has an incentive either to enter or exit the industry because all firms are earning zero economic profit or normal profit.
c) The price of the product is such that the quantity supplied by the industry is equal to the quantity demanded by consumers.

There is optimum allocation of resources in the long run

2. **Monopoly:** Monopoly refers to that market structure where there is a single firm producing and selling a commodity which has no close substitute.

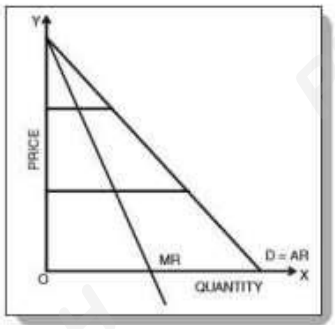
SOURCES OF MONOPOLY

a) Control of raw materials If one firm acquires the sole ownership or control of essential raw materials, then the other firms cannot compete.
b) Government control on entry Eg : In defense production; public utility services like water, transportation, electricity, etc
c) Patents, copyrights and trademarks Legal support provided by the government to promote inventions, to produce a particular commodity, etc. by granting patents, copyrights, trademarks, etc. creates monopoly.
d) Economies of large scale The monopoly firm may be very big and enjoy economies of large scale of production, hence it may supply goods at low prices.
e) Monopolies are created by forming cartels, pools, syndicates, etc. by the firms producing the same goods to control price and output.

Average Revenue and Marginal Revenue Curves under Monopoly

Qty sold	AR = P	TR	MR
0	10	0	
1	9.5	9.5	9.5
2	9	18	8.5
3	8.5	25.5	7.5
4	8	32	6.5
5	7.5	37.5	5.5
6	7	42	4.5
7	6.5	45.5	3.5
8	6	48	2.5
9	5.5	49.5	1.5
10	5	50	.5
11	4.5	49.5	(-).50

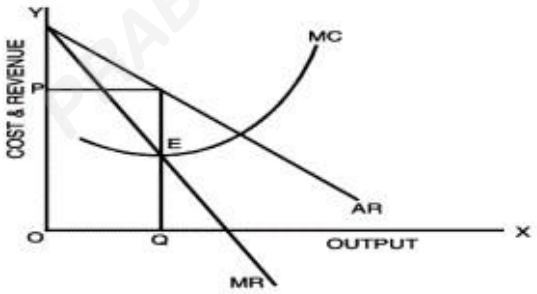
- Monopoly firm constitutes industry.
- The demand curve of a monopoly is also his average revenue curve. Thus, average revenue curve of the monopolist slopes downwards

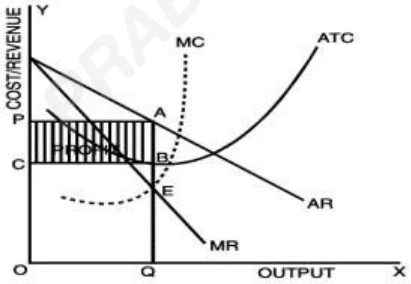


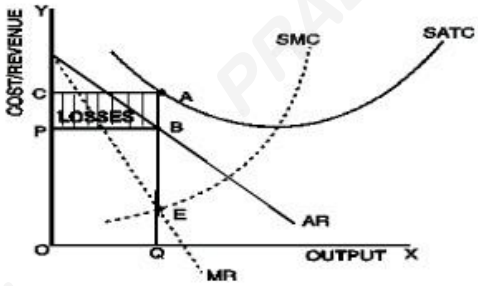
- **AR and MR are both negatively sloped curves,**
- **MR curve lies half way between the AR curve and the Y-axis,**
- **AR cannot be zero i.e. AR curve cannot touch X-axis,**
- **MR can be zero or even negative i.e. MR curve can touch or cut the X-axis**

In short run equilibrium, There may be the following conditions :-

- **it break evens i.e. earn normal profits where AR = AC.**
- **it earns profit i.e. earn super normal profits where AR > AC**
- **it suffer losses where AR < AC**

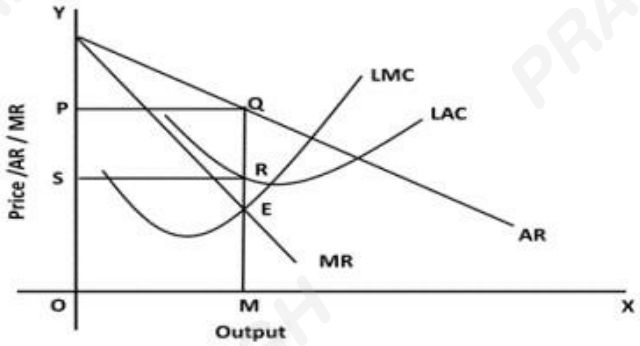






Long Run Equilibrium of a Monopolistic Firm.

a) The long run equilibrium of the monopoly firm is attained where its MARGINAL COST = MARGINAL REVENUE i.e. MC = MR
b) Entry to the market for new firms is blocked. All costs are variable costs in the long run and these must be recovered. This means that monopoly firm does not suffer loss in the long run.
c) **Thus, The monopoly firm can continue to earn super normal profits even in the long run.**



Price Discrimination: When the firm charge different prices to different customers for the same commodity, it is engaged in price discrimination.

Conditions:

a) The monopolist should be able to divide the total market for his commodity into two or more submarkets. E.g. on the basis of income, a doctor may charge high fees from rich patients than from poor.
b) The supply should be in full control of the monopolist.
c) Difference in price elasticity of demand in different markets enables the monopolist to discriminate among customers. He can charge higher price in inelastic market and lower price in elastic market.
d) It should not be possible for buyers to purchase the commodity from a cheaper market and sell it in the costlier markets.

Objectives:

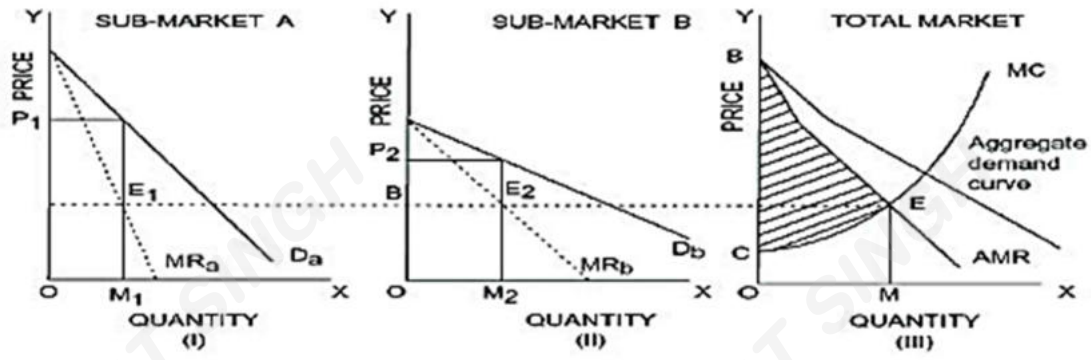
a) To earn maximum profit
b) To dispose off surplus stock
c) To enjoy economies of scale
d) To capture foreign markets
e) To secure equity through pricing

Equilibrium Under Price Discrimination

Suppose a discriminating monopolist sell his output in market 'A' and market 'B' Market 'A' has less elastic demand and market 'B' has more elastic demand. The condition for equilibrium are:

1. MC = MR_a = MR_b. It means that MC must be equal to MR in individual markets separately

2. MC = AMR (aggregate marginal revenue). It means that the monopolist must be in equilibrium not only in individual markets but also when the two markets are treated as one.



Suppose the single monopoly price is Rs. 40 and elasticity of demand in market A and B is 2 and 4 respectively.

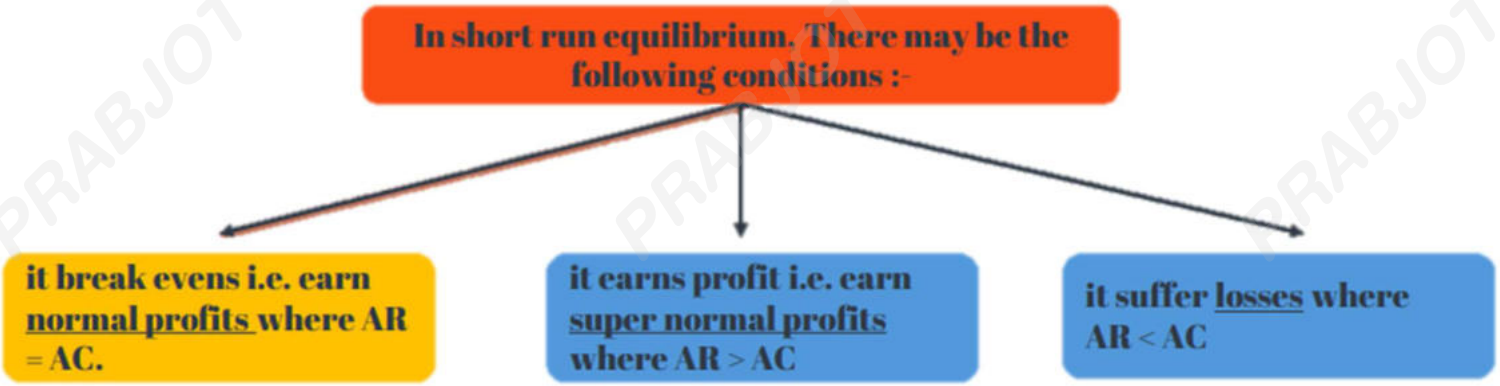
MR in market A = AR_a (e − 1 / e) = 40 (2 − 1 / 2) = **Rs. 20**

MR in market B = AR_b (e – 1 / e) = 40 (4− 1 / 4) = **Rs. 30**

It is clear from the above example that the marginal revenue is different in different markets when elasticity of demand at the single price is different.

- MR is higher in the market having high elasticity and vice versa
- In the above example, since marginal revenue in market 'B' is more, it will be profitable for monopolist to transfer some units of the commodity from market 'A' to 'B'
- When monopolist transfers the commodity from market A to B, he is practicing price discrimination.
- As a result, the price of commodity will increase in market A and will decrease in market B.
- Ultimately the marginal revenue in the two market will become equal.
- When marginal revenue becomes equal in the two markets, it will no longer be profitable to transfer the units of commodity from market A to B.

3. **MONOPOLISTIC COMPETITION:** It is a blend of competitive market and monopoly elements.



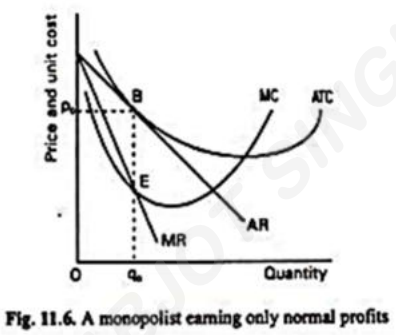
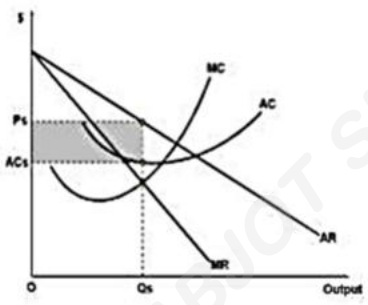
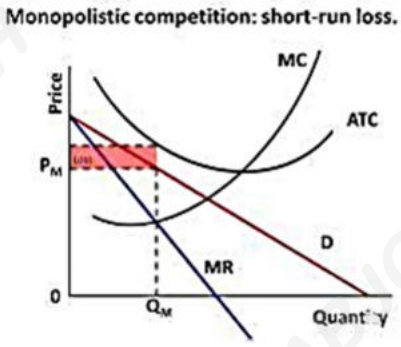


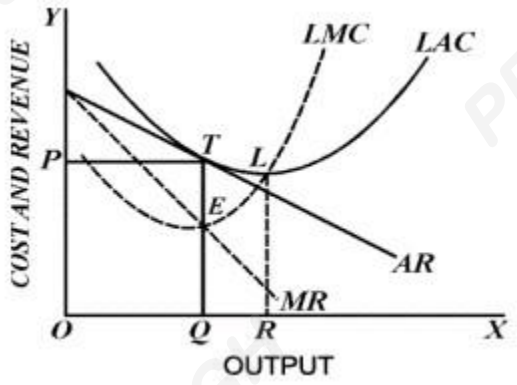
Fig. 11.6. A monopolist earning only normal profits





Long Run Equilibrium of a Firm in Monopolistic Competition.

a) If the firms in a monopolistic competitive market earn super normal profits, it attracts new firms to enter the industry.
b) With the entry of new firms market will be shared by more firms.
c) As a result, profits per firm will go on falling.
d) **This will go on till super normal profits are wiped out and all the firms earn only normal profits**.



Perfect Competition	Monopoly	Monopolistic Competition
Large number of buyers and large number of firms in the industry	Single seller, no difference between firm and industry	Large number of buyers and large number of firms in the industry
Homogenous products which are perfect substitutes	No close substitutes	Differentiated products which are close substitutes, but not perfect substitutes
Insignificant market share	Command over the whole market	Each firm is small relative to the market
Competition among firms is perfect	Absence of competition	Imperfect competition
Complete absence of monopoly	High degree of monopoly power prevails	Some degree of monopoly power due to product differentiation
Free entry and exit	Strong barriers to entry	Free entry and exit
Price-taker	Price maker	Some control over price
Price is equal to marginal cost	Price is higher than marginal cost	Price is higher than marginal cost
Price less than other market forms	High equilibrium price	Price is high compared to perfect competition
Demand curve is infinitely elastic	Downward sloping and highly inelastic demand curve	Downward sloping and more elastic demand curve

MR and AR represented by the same curve	MR starts at the same point as AR, and is twice steep when compared to AR	MR starts at the same point as AR, and is twice steep when compared to AR
TR straight line positively sloping through the origin	TR inverted U shaped	TR inverted U shaped
No price discrimination-same price for all units	Can practice price discrimination by selling a product at different prices	Depends on the extent of monopoly power the firm has
No supernormal profits in the long run	Supernormal profits both in the short run and long run	No supernormal profits in the long run
No selling costs	Generally low selling costs, only for informing the consumers	Due to severe competition, selling costs are vital to persuade buyers
Price being given, decides only quantity of output	Decides on both price and output	Decides on both price and output
Product is produced at the minimum average cost	Produced at the declining portion of average cost curve	Produced at the declining portion of average cost curve
Equilibrium quantity is highest and produced at least cost	Equilibrium quantity less than other market forms	Equilibrium quantity less than optimal, there is excess capacity
No consumer exploitation	Consumers can be exploited by charging high prices	Consumers are influenced through price and non price competition
Efficient allocation of resources	Inefficient allocation of resource	Inefficient allocation of resource
No wastage of resources	Wastage of resource	Huge wastage of resources for advertisements

4. **OLIGOPOLY:** Oligopoly refers to the market structure where there are few sellers or firms. They produce and sell such goods which are either differentiated or homogeneous products.

Types of oligopoly

1. Pure or perfect oligopoly occurs when the product is homogeneous in nature, e.g. Aluminum industry.
2. Differentiated or imperfect oligopoly where products are differentiated. E.g. toilet products.
3. Open oligopoly where new firms can enter the market and compete with already existing firm.
4. Closed oligopoly where entry of new firm is restricted.

5. Collusive oligopoly when some firms come together with some common understanding and act in collusion with each other in fixing price and output.
6. Competitive oligopoly where there is no understanding or collusion among the firms.
7. Partial oligopoly where the industry is dominated by one large firm which is looked upon by other firms as the leader of the group. The dominating firm will be the price leader.
8. Full oligopoly where there is absence of price leadership.
9. Syndicated oligopoly where the firms sell their products through a centralized syndicate.
10. Organized oligopoly where the firms organize themselves into a central association for fixing prices, output, quotas, etc

Important oligopoly models

1. Some economists assume that oligopolistic firms make their decisions independently. Therefore, the demand curve becomes definite and hence equilibrium level of output is found out by equating **MC and MR**
2. Some believe that oligopolistic can **predict the reaction of rivals** on the basis of which he makes decisions about price and quantity
3. Cornet considers output is the firm's controlled variable and not price.
4. In a model given by **Stackelberg,** the leader firm commits to an output before all other firms. The rest of firms follow it and choose their own level of output.
5. **Bertrand model states PRICE is the control variable for firms and therefore each firm sets the price independently.**
6. In order to pursue common interests, oligopolistic enter into enter into agreement and jointly act as monopoly to fix quantity and price.

Price Leadership: A large or dominant firm may be surrounded by many small firms. The dominant firm takes the lead to set the price taking into account of the small firms. Dominant firm may adopt any one of the following strategies —

1. **'Live and let live'** strategy where dominant firm accepts the presence of small firms and set the price. This is called price-leadership.

2. In another strategy, the price leader sets the price in such a way that it allows some profits to the follower firms.

3. **Barometric price leadership** where an old, experienced, respectful, largest acts as a leader and sets the price. It makes changes in price which are beneficial from all firm's and industry's view point. Price charged by leader is accepted by follower firms.

Kinked Demand Curve

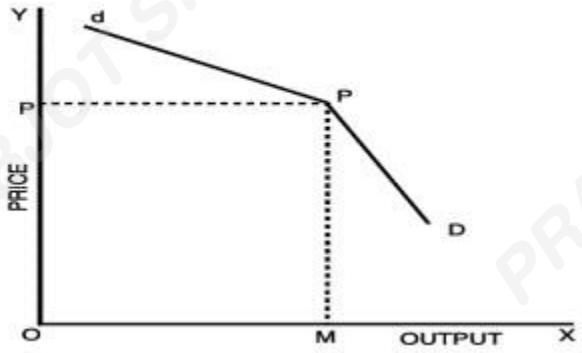
A kink is formed at the prevailing price because —

- The portion of the demand curve above the prevailing price is elastic, and
- The portion of the demand curve below the prevailing price is inelastic

The assumed reaction pattern are –

1. If the oligopolist raises the price above the prevailing price OP, he fears that none of his rivals will follow him. Therefore, he will lose customers to them and there will be substantial fall in his sales. Thus, the demand with respect to price rise above the prevailing price is highly elastic as indicated by the upper portion of demand curve DP. **The oligopolist will therefore, stick to the prevailing prices.**

2. If the oligopolist reduces the price below the prevailing price OP to increase his sales, his rivals too will quickly reduce the price. This is because the rivals fear that their customers will get diverted to price cutting oligopolist's product. Thus, the price cutting oligopolist will not be able to increase his sales very much. Hence, the demand with respect to price reduction below the prevailing price is inelastic as indicated by the lower portion of demand curve KD. **The oligopolist will therefore, stick to the prevailing prices**



Chapter 5
Business Cycles

Example 1

In US ,there were three recessions between 1973 and 1982, but, then the 1982 trough was followed by eight years of uninterrupted expansion. The 1980 recession lasted just six months, while the 1981 recession lasted sixteen months.

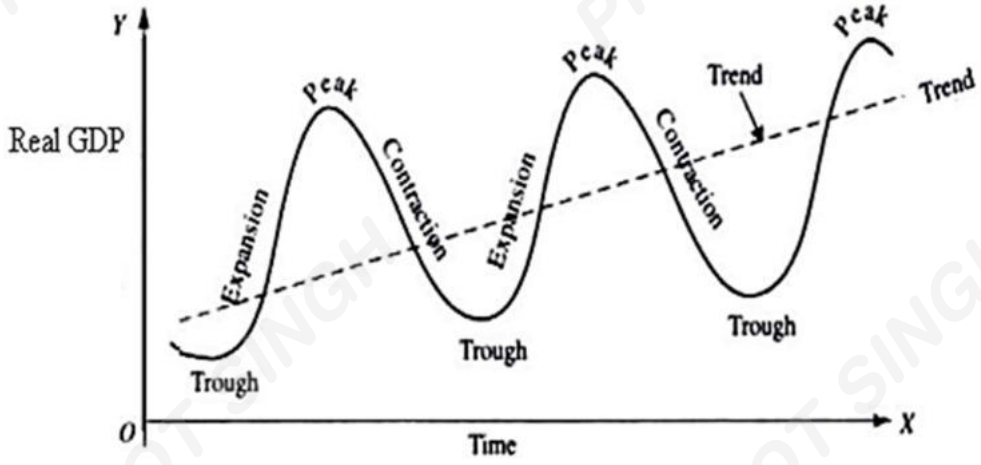
Example 2

UK saw rapid growth in GDP , production levels and living standards . The growth was fuelled by new technologies and productio processes such as the assembly line. This also caused a rise in the stock market values.

Example 3

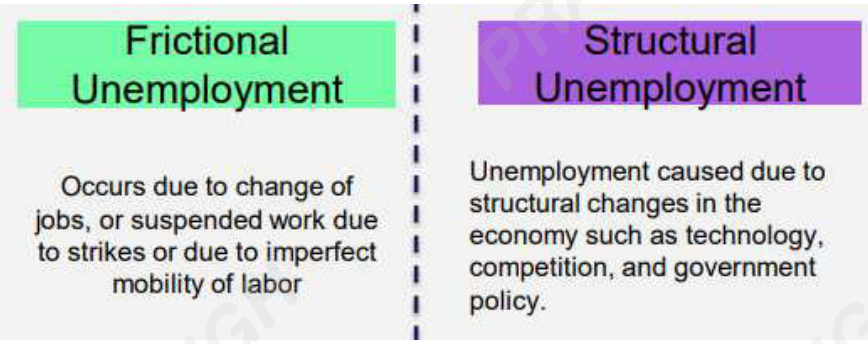
China's recent economic slowdown and financial mayhem are fostering a cycle of decline and panic across much of the world .

The rhythmic fluctuations in aggregate economic activity that an economy experiences over a period of time are called business cycles or trade cycles



Phase 1: Expansion

- It is characterized by increase in national output, employment, aggregate demand, capital and consumer expenditure, increase in sales, profits of business entities resulting to rising stock prices, increased credit availability from banks
- This continues till there is full employment of resources and production is at its maximum possible level using the available productive resources.
- Involuntary unemployment is almost 0.
- Unemployment, if any, in the economy would be because of following reasons:- • Frictional unemployment • Structural unemployment



- Prices and costs tend to rise faster. Good amount of investment is happening and hence **demand for goods and services is also rises.**
- Increasing prosperity and people enjoy high standard of living due to high levels of consumer spending, business confidence, production, factor incomes, profits and investment
- **The growth rate eventually slows down and reaches its peak.**

Phase 2: Peak

- The term peak refers to the top or the highest point of the business cycle.
- In the later stages of expansion, inputs are difficult to find as they are short of their demand and therefore input prices increase.
- Output prices also rise rapidly leading to increased cost of living and greater strain on fixed income earners. Consumers begin to review their consumption expenditure on housing, durable goods etc. Consequently, actual demand stagnates.
- **After this point, stage of expansion ends and stage of contraction starts.**

Phase 3: Contraction

- The economy cannot continue to grow endlessly , once the peak is reached : increase in demand is halted and starts decreasing in certain sectors
- During contraction , **There is a fall in the levels of investment and employment**
- Producers do not instantaneously recognize the pulse of the economy and continue anticipating higher levels of demand. Therefore, they maintain their existing levels of investment and production
- The consequence is a discrepancy or mismatch between demand and supply. Supply far exceeds demand.
- **Producers now realize that that they have indulged in excessive investment and over production**. Hence, they respond by holding back future investment plans, cancellation and stoppage of orders for equipment and all types of inputs including labor.
- There is a chain of reactions in the input markets as well producers of capital goods and raw materials in turn respond by cancelling and curtailing their orders. **This is the turning point and the beginning of recession.**
- Incomes of wage and interest earners gradually decline resulting in decreased demand for goods and services. Producers lower their prices in order to dispose off their inventories and for meeting their financial obligations.
- Consumers expect further decreases in prices and postpone their purchases. **As a result aggregate demand falls**, causing fall in prices. The discrepancy between demand and supply gets widened further.
- Recession becomes severe , investments start declining; production and employment decline resulting in further decline in incomes, demand and consumption of both capital goods and consumer goods
- Business firms become pessimistic about the future state of the economy and there is a fall in profit expectations which induces them to reduce investments.

Phase 4: Trough and Depression

1. Depression is the **severe form of recession** and is characterized by extremely sluggish economic activities.

2. **Growth rate becomes negative** and the level of national income and expenditure declines rapidly.

3. Demand for products and services decreases, prices are at their lowest and decline rapidly **forcing firms to shutdown**

4. **Companies are unable to sustain their work force**, This leads to mounting unemployment and the consumers are left with **very little disposable income.**

Eg: The great depression of 1929-33 caused enormous misery and human suffering

Depression

There is fall in the interest rate due to which people's demand for holding liquid money increases. Despite lower interest rates, the demand for credit declines because **investors' confidence has fallen.**

Industries, especially capital and consumer durable goods industry, **suffer from excess capacity.**

Large number of bankruptcies reduce the magnitude of trade and commerce. At the depth of depression, **all economic activities touch the bottom and the phase of trough is reached.**

Phase 5: Recovery

1

The economy cannot continue to contract endlessly. It reaches the lowest level of economic activity called trough and then starts recovering

2

The process of reversal is first felt in the **labor market .** Pervasive unemployment forces the workers to **accept wages lower than the prevailing rates.**

3

Due to this, the producers anticipate lower costs and better business environment. As **business confidence gets better,** they start to invest again and to build stocks

4

The banking system starts expanding credit; technological advancements require fresh investments into new types of machines and capital goods;

5

Employment increases, **aggregate demand picks up and prices gradually rise.** Price mechanism acts as a **self – correcting process** in a free enterprise economy .

6

- The spurring **investments** causes a recovery of the economy . This acts as a **turning point from depression to expansion .**

Concept of Indicators: It is very difficult to predict the turning points of business cycles. Economists use changes in a variety of activities to measure the business cycle and to predict where the economy is headed towards.

	Leading Indicators	Lagging indicators	Coincident indicator
Meaning	Those variables that change **before** the real output changes are called Leading Indicators .	Variables that change **after** the real output changes are called 'Lagging indicators'.	Coincident economic indicators, also called concurrent indicators, coincide or **occur simultaneously** with the business-cycle movements.
Examples	• Changes in stock prices, • Profit margins and profits, • Indices such as housing, interest rates and prices • Value of new orders for consumer goods, new orders for plant and equipment, building permits for private houses, • Index of consumer confidence and money growth rate	• Unemployment, • Corporate profits, • Labor cost per unit of output, • Interest rates, • The consumer price index and • Commercial lending activity	• Gross domestic product, • Industrial production, inflation, • Personal income, • Retail sales and • Financial market trends such as stock market prices.
Significance	• Leading indicators, though **widely used to predict changes in the economy**, are not always accurate. Even experts disagree on the timing of these so-called leading indicators.	If leading indicators signal the onset of business cycles, lagging indicators **confirm these trends**	These indicators give information about the **rate of change** of the expansion or contraction of an economy more or less at the same point of time it happens

Features of Business Cycles:

1) **Irregularity:** Business cycles occur periodically although they do not exhibit the same regularity. The duration & intensity of these cycles vary.
2) **Phases:** All business cycles have distinct phases of expansion, peak, contraction and trough. the length of each phase is also not definite .
3) **Pervasive:** Business cycles typically generally originate in free market economies. Disturbances in one or more sectors get easily transmitted to all other sectors.
4) **Disproportionate effect:** Although all sectors are adversely affected by business cycles, some sectors such as capital goods industries, durable consumer goods industry etc., are disproportionately affected.
5) **Complex:** This is because of the reason that they do not have uniform characteristics and causes and they are caused by varying factors. Therefore, it is difficult to make an accurate prediction.
6) **Repercussions of business cycles** get simultaneously felt on nearly all economic variables viz. output, employment, investment, consumption, interest, trade and price levels

7) **Contagious:** They begin in one country and mostly spread to other countries through trade relations
8) **Social well-being:** The period of recession is a very agonizing period causing lots of distress for all.

Causes of business cycles

1. **Internal Causes:**

a) Fluctuations in Effective Demand: Effective demand refers to the willingness & ability of consumers to purchase goods at different prices.

- In a free market economy, where maximization of profits is the aim of businesses, a higher level of aggregate demand will induce businessmen to produce more as a result, there will be more output, income and employment. However, if aggregate demand outstrips aggregate supply, it causes inflation
  If the aggregate demand is low, there will be lesser output, income and employment
  Investors sell stocks, and buy safe-haven investments. As companies lay off workers, consumers lose their jobs and stop buying anything but necessities. This causes a downward spiral

b) Fluctuations in Investment: Why it happens?

- Changes in the profit expectations of entrepreneurs.
- New inventions may cause entrepreneurs to increase investments in projects which are cost-efficient
- When the rate of interest is low in the economy.
  Effects?
- Investment spending is considered to be the most volatile component of the aggregate demand
- Increases in investment shift the aggregate demand to the right, leading to an economic expansion
- Decreases in investment have the opposite effect

c) Macroeconomic policies such as monetary and fiscal policies of the government.

- Expansionary policies: such as increased government spending, and /or tax cuts, are the most common method of boosting aggregate demand. This results in booms.
  Softening of interest rates, often motivated by political motives, leads to inflationary effects and decline in unemployment rates.

- Anti-Inflationary policies: Anti-Inflationary policies such as reduction in govt. spending, increase in taxes and interest rates cause a downward pressure on the aggregate demand and the economy slows down.

d) **Money Supply:**

- Increase in supply of money causes expansion in aggregate and in economic activities. However, excessive increase of credit and money also set off inflation in the economy
- Decrease in money supply and/or contraction of credit creation by banks leads to lesser investible funds for businessmen and lesser disposable funds for consumers and initiates recession in the economy

e) **Variations in government spending** : Fluctuations in government spending with its impact on aggregate economic activity result in business fluctuations

f) **Psychological factors:**

- Anticipation theory by Pigou : If entrepreneurs are optimistic about future market conditions, they make investments, and as a result, the expansionary phase may begin & vice versa
- Schumpeter's innovation theory : trade cycles occur as a result of innovations which take place in the system from time to time

2) **External Causes:**

a) Wars: During war times, production of war goods, like weapons and arms etc., increases and most of the resources of the country are diverted for their production. This affects the production of other goods - capital and consumer goods. Fall in production causes fall in income, profits and employment. This creates contraction in economic activity and may trigger downturn in business cycle

b) Post War Reconstruction: After war, when the country begins to reconstruct itself, expenditure is incurred for building houses, roads, bridges etc. due to which economic activity begins to pick up. All these activities push up effective demand due to which output, employment and income go up

c) Technology shocks: Growing technology enables production of new and better products and services, however these products generally require huge investments for new technology adoption. This leads to expansion of employment, income and profits etc. And give a boost to the economy .

d) Natural Factors: Weather cycles cause fluctuations in agricultural output. This leads to instability in the economies, especially those economies which are mainly agrarian. When

there are draughts or excessive floods, agricultural output is badly affected. With reduced agricultural output, incomes of farmers fall and therefore they reduce their demand for industrial goods. Reduced demand for industrial products may cause industrial recession

e) Population growth: The rate of savings in the economy directly depends on population growth. Where the population growth rate outpaces the economic growth rate, the result is lesser overall savings in the economy. Fewer saving will reduce investment and as a result, income and employment will also be less. With lesser employment and income, the effective demand will be less, and overall, there will be slowdown in economic activities

f) Other reasons: In the world of globalization, it is natural that business fluctuations occurring in one part of the world get easily transmitted to other parts. Changes in laws related to taxes, trade regulations, government expenditure, transfer of capital and production to other countries, shifts in tastes and preferences of consumers are also potential sources of disruption in the economy

Relevance of business cycle in business decision making

1. Understanding the business cycle is important for businesses of all types as they affect the demand for their products & in turn their **profits** which ultimately determines whether a business is **successful or not.**

2. Knowledge regarding business cycles is important for a businessmen to frame **appropriate policies.**

3. Business cycles have tremendous influence on business decisions. The stage of business cycle is crucial while making managerial decisions regarding **expansion or downsizing.**

4. Businesses whose fortunes are closely linked to the rate of economic growth are referred to as **"cyclical" businesses.** These include fashion retailers, electrical goods, house-builders, restaurants, advertising, overseas tour operators, construction and other infrastructure firms. During a boom, such businesses see a strong demand for their products but during a slump, they usually suffer a sharp drop in demand

5. It may also happen that **some businesses actually benefit from an economic down turn**. This happens when their products are perceived by customers as representing good value for money, or a cheaper alternative compared to more expensive products.

6. Understanding what phase of the business cycle an economy is in helps businesses to better **anticipate the market and to respond with greater alertness, also in new product launches.**

Chapter 6
Determination of National Income
Unit 1: National Income Accounting

Usefulness and significance of National Income (NI) estimates:

- Helps businesses to forecast the future demand for their products.
- The estimates of NI show the composition and structure of NI in terms of different sectors of the economy, the periodical variations in them and the broad sectoral shifts in an economy over time.
- Sectoral contribution to NI information is used by the government to decide various sector-specific development policies to increase growth rates.
- NI statistics also provide a quantitative basis for macroeconomic modelling and analysis, for assessing and choosing economic policies and for objective statements as well as evaluation of governments' economic policies.
- NI estimates throw light on income distribution and the possible inequality in the distribution among different income categories.
- International comparisons in respect of incomes and living standards assist in determining eligibility for loans, and/or other funds or conditions under which such loans, and/ or funds are made available.
- Combined with financial and monetary data, national income data provides a guide to make policies for growth and inflation.

National Income is defined as the net value of all economic goods and services produced within the domestic territory of a country in an accounting year plus the net factor income from abroad.

Nominal GDP	Real GDP
GDP in terms of **current market prices** is termed as 'Nominal GDP' or 'GDP at current prices'.	GDP in terms of constant prices of a chosen base year is termed as 'real GDP' or 'GDP at **constant prices'**.
Nominal GDP is sensitive to changes in the average price level & quantity.	Real GDP changes only when production changes.
One cannot easily analyze the economic growth of a country with its Nominal GDP.	One can easily analyze the economic growth of a country using its Real GDP, as it is a good indicator of economic growth.

GDP Deflator: The calculation of real GDP gives us a useful measure of inflation known as GDP deflator.

$$\text{GDP Deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$$

Inflation rate between two consecutive years can be calculated using:

$$\text{Inflation rate in year 2} = \frac{\text{GDP deflator in year 2} - \text{GDP deflator in year 1}}{\text{GDP deflator in year 1}} \times 100$$

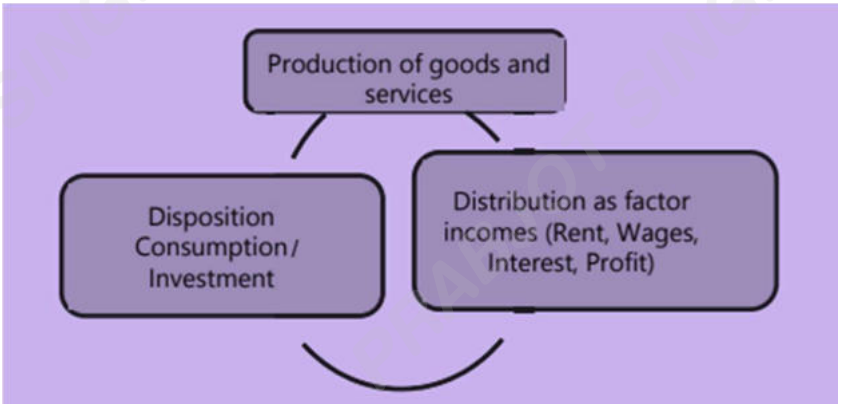
GDP/GVA	The term 'gross' implies that GDP is measured 'gross' of depreciation. 'Domestic' means domestic territory or resident production units. Value added means the difference between value of output and purchase of intermediate goods. It represents the contribution of labor and capital to the production process. Definition: GDP is a measure of the market value of all final economic goods and services, gross of depreciation, produced within the domestic territory of a country during a given time period. In other words, GDP is the sum total of 'value added' by all producing units in the domestic territory and includes value added by current production by foreign residents or foreign-owned firms.
GDP_{MP}	Gross Domestic Product at market prices (GDP_{MP}) because the value of goods and services is determined by the common measuring unit of money or it is evaluated at market prices. **GDP_{MP} = Value of Output in the Domestic Territory - Value of Intermediate Consumption** **= ∑ Value Added**
GDP_{FC}	The production and income approach measure the domestic product as the cost paid to the factors of production. Therefore, it is known as 'domestic product at factor cost'. The basis of distinction between market price and factor cost is net indirect taxes (i.e., Indirect taxes - Subsidies). Indirect taxes are product taxes (excise duties, customs, sales tax, service tax etc.,) and taxes on production (factory license fee, taxes to be paid to the local authorities, pollution tax etc.)

	Market Price = Factor Cost + Net Indirect Taxes = Factor Cost + Indirect Taxes-Subsidies Factor Cost= Market Price - Net Indirect Taxes GDP_{FC} = GDP_{MP} - Indirect Taxes + Subsidies = Compensation of employees + Operating Surplus (rent + interest + profit) + Mixed Income of Self-employed
GNP	It is a measure of the of all final economic goods and services, gross of depreciation, produced within the domestic territory of a country by normal residents during an accounting year including net factor incomes from abroad. GNP_{MP} = GDP_{MP} + Net Factor Income from Abroad GDP_{MP} = GNP_{MP} - Net Factor Income from Abroad The distinction between 'national' and 'domestic' is net factor income from abroad (NFIA). National = Domestic + Net Factor Income from Abroad (NFIA) NFIA (The aggregate amount that a country's citizens and companies earn abroad) - (The aggregate amount that foreign citizens and overseas companies earn in that country). If NFIA is positive, then GNP_{MP} > GDP_{MP}.
NDP_{MP}	It is a measure of the market value of all final economic goods and services, produced with in the domestic territory of a country by its normal residents and non-residents during an accounting year less depreciation. NDP_{MP} = GDP_{MP} - Depreciation = NNP_{MP} – NFIA The basis of distinction between 'gross' and 'net' is depreciation or consumption of fixed capital. Gross = Net + Depreciation Net = Gross - Depreciation
NDP_{FC}	• It is defined as the total factor incomes earned by the factors of production. • It is sum of domestic factor incomes or domestic income net of depreciation. NDP_{FC} = NDP_{MP} - Net Indirect Taxes.

	= Compensation of employees + Operating Surplus (rent + interest + profit) + Mixed Income of Self-employed
NNP_{MP}	It is a measure of the market value of all final economic goods and services, produced by normal residents with in the domestic territory of a country including NFIA during an accounting year excluding depreciation. NNP_{MP} = GNP_{MP} - Depreciation = NDP_{MP} + Net Factor Income from Abroad =GDP_{MP} + Net Factor Income from Abroad - Depreciation
NNP_{FC} or NI	It is defined as the factor income accruing to the normal residents of the country during a year. It is the sum of domestic factor income and net factor income from abroad. National income is the value of factor income generated within the country plus factor income from abroad in an accounting year NNP_{FC} = National Income = FID (Factor income earned in domestic territory) + NFIA If NFIA is positive, then national income will be greater than domestic factor incomes.
Personal Income	It is the income received by the household sector including Non-Profit Institutions serving households. It forms the basis for consumption expenditures and is derived from national income as follows: PI=NI + income received but not earned - income earned but not received. Examples of income received but not earned: Transfer payments such as social security benefits (pensions), unemployment compensation, welfare payments etc. Examples of income earned but not received: Undistributed corporate profits and the contribution of employers to social security. NI is not the sum of personal incomes because personal income includes transfer payments which are excluded from NI.
Disposable Personal Income	It is a measure of amount of the money in the hands of the individuals that is available for their consumption or savings. DPI is derived from personal income by subtracting the direct taxes paid by individuals and other compulsory payments made to the government.

	DPI = PI - Personal Income Taxes = Consumption + Savings The Individual purchasing power in a country mainly depends upon his DPI.
Per Capita Income	The GDP per capita is a measure of a country's economic output per person. It is obtained by dividing the country's gross domestic product, adjusted by inflation, by the total population. It serves as an indicator of the standard of living of a country.
Private Income	Private income is a measure of the income (both factor income and transfer income) which accrues to private sector from all sources within and outside the country. Private Income = Factor income from net domestic product accruing to the private sector + Net factor income from abroad + National debt interest + Current transfers from government + Other net transfers from the rest of the world.

Circular flow of income refers to the continuous circulation of production, income generation and expenditure involving different sectors of the economy.



i. In the production phase, firms produce goods and services with the help of factor services.
ii. In the income or distribution phase, the flow of factor incomes in the form of rent, wages, interest and profits from firms to the households occurs
iii. In the expenditure or disposition phase, the income received by different factors of production is spent on consumption goods and services and investment goods. This expenditure leads to further production of goods and services and sustains the circular flow.

Method	Data required	What is measured
Phase of Output: Value added method (Product Method)	The sum of net values added by all the producing enterprises of the country	Contribution of production units
Phase of income: Income Method	Total factor incomes generated in the production of goods and services	Relative contribution of factor owners
Phase of disposition: Expenditure method	Sum of expenditures of the three spending units in the economy, namely, government, consumer households, and producing enterprises	Flow of consumption and investment expenditures

Product Method or Value Added Method is also called Industrial Origin Method or Net Output Method and entails the consolidation of the production of each industry less intermediate purchases from all other industries.

Gross value added (GVA_{MP}) = Value of output - Intermediate consumption
= (Sales + change in stock) - Intermediate consumption
= $\sum(GVA_{MP})$

$\sum$ (GVA_{MP}) – Depreciation = Net value added (NVA_{MP})

Net value added (NVA_{MP}) – Net Indirect taxes = Net Domestic Product (NVA_{FC})

Net Domestic Product (NVA_{FC}) + (NFIA) = National Income (NNP_{FC})

The values of the following items are also included:

i. Imputed value of production of goods for self- consumption,
ii. Own account production of fixed assets by government, enterprises and households.
iii. Imputed rent of owner occupied houses
iv. Change in stock (inventory)

Income method National income is calculated by summation of factor incomes paid out by all production units within the domestic territory of a country as wages and salaries, rent, interest, and profit. Transfer incomes are excluded.

NDP_{FC} = Sum of factor incomes paid out by all production units within the domestic territory of a country

NNP_{FC} or National Income= Compensation of employees
+ Operating Surplus (rent + interest+ profit)
+ Mixed Income of Self- employed
+ Net Factor Income from Abroad

Expenditure approach, also called Income Disposal Approach, national income is the aggregate final expenditure in an economy during an accounting year composed of final consumption expenditure (private & government), gross domestic capital formation and net exports.

$GDP_{MP} = \sum$ Final Expenditure

GDP_{MP} = C+ GDFC + NX

GNP_{MP} =GDP_{MP} + NFIA

GNP_{FC} =GNP_{MP}-NIT

NNP_{FC} = GNP_{FC} - Depreciation

LIMITATIONS AND CHALLENGES OF NATIONAL INCOME COMPUTATION

(a) lack of an agreed definition of national income,
(b) accurate distinction between final goods and intermediate goods,
(c) issue of transfer payments,
(d) services of durable goods,
(e) difficulty of incorporating distribution of income,
(f) valuation of a new good at constant prices, and
(g) valuation of government services.

(h) Inadequacy of data and lack of reliability of available data,
(i) presence of non-monetized sector,
(j) production for self-consumption,
(k) absence of recording of incomes due to illiteracy and ignorance,
(l) lack of proper occupational classification, and
(m)accurate estimation of consumption of fixed capital

Why GDP of a country cannot be taken as an index of the welfare of people in that country?

GDP excludes the below:

(a) **Quality improvements in systems and processes** due to technological as well as managerial innovations which reflect true growth in output from year to year
(b) **Productions hidden from government authorities**, either because those engaged in it are evading taxes or because it is illegal (drugs, gambling etc.).
(c) Nonmarket production (with a few exceptions) and Non-economic contributors to well-being for example: health of a country's citizens, education levels, political participation, or other social and political factors that may significantly affect well-being levels.
(d) The **disutility of loss of leisure time**. We know that, other things remaining the same, a country's GDP rises if the total hours of work increase.
(e) **Economic 'bads'** for example: crime, pollution, traffic congestion etc which make us worse off.
(f) The **volunteer work and services** rendered without remuneration undertaken in the economy, even though such work can contribute to social well-being as much as paid work.

Unit 2: The Keynesian Theory

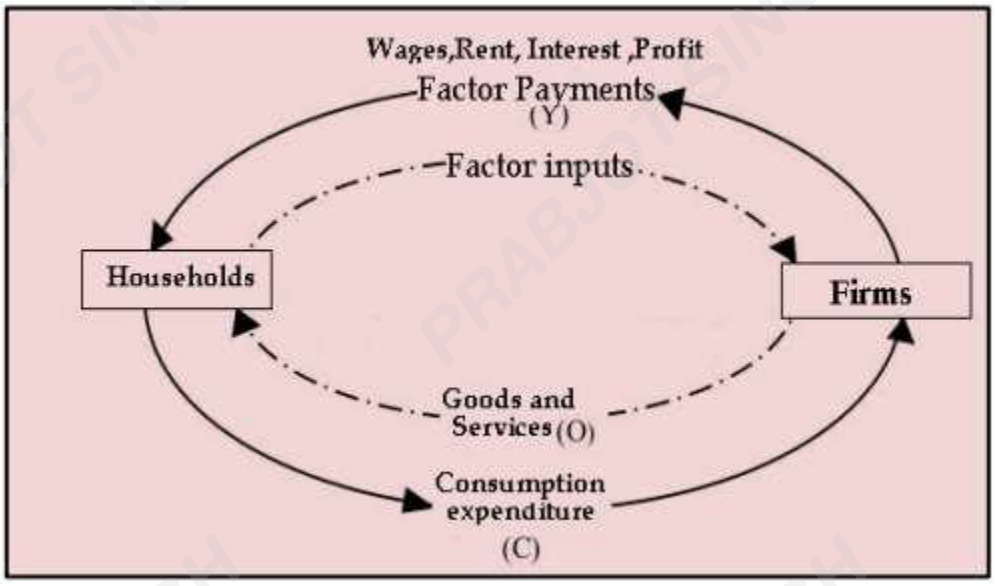
KEYNESIAN THEORY OF NATIONAL INCOME DETERMINATION

(a) The two-sector model
(b) The three-sector model
(c) The four-sector model

TWO SECTOR MODEL

Two sector model assume that:

(a) Only two sector in the economy viz household and firms
(b) No government sector: No tax, No govt. expenditure, No transfer payment
(c) No foreign trade
(d) Factor price, product price, supply of capital and technology, all are constant
(e) No retained earning
(f) No any injection into or leakage from the system
(g) High rate of unemployment Circular flow of income and expenditure is as follows



The circular broken lines with arrows show factor and product flows and continuous line with arrows show money flows. Household owns all factor of production and supply all these factors to firm and get factor income. Whatever income they received from firms again paid to firms on purchase of goods and services. Business firms received all factors of production from household and pay factor

income to household. Whatever amount they paid to household again received by them on sale of goods and services.

Factor payment = Household income = Household expenditure = Total receipt of firms = Value of output

An economy can be said to be in equilibrium when the production plans of the firms and the expenditure plans of the households match.

National income = Net National Product

AGGREGATE DEMAND FUNCTION

AD = C + I

C = Ex Ante Aggregate demand of consumer goods

I = Ex Ante Aggregate demand for investment goods

CONSUMPTION FUNCTION

C = a + bY

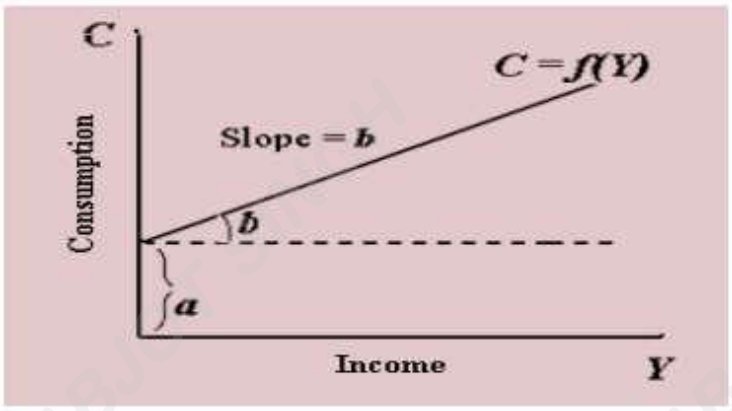
C = Aggregate consumption expenditure

a = Constant term which denotes the value of consumption at zero level of disposable income

b = Marginal propensity to consume

Y = Total disposable income

The Keynesian Consumption Function: The Keynesian assumption is that consumption increases with an increase in disposable income. But increase in consumption will be less than the increase in disposable income i.e. 0 < b < 1. This fundamental relationship between income and consumption plays a crucial role in the Keynesian theory of income determination.



Important concepts:

Marginal propensity to consume

The value of the increment to consumer expenditure per unit of increment to income is termed the Marginal Propensity to Consume (MPC).

MPC = b = $\Delta C / \Delta Y$

ΔC = Change in consumption

ΔY = Change in income

Although the MPC is not necessarily constant for all changes in income (in fact, the **MPC tends to decline at higher income levels**), most analysis of consumption generally works with a constant MPC.

Average propensity to consume

The ratio of total consumption to total income is known as the average propensity to consume (APC).

APC=C/Y

The proportion of income spent on consumption decreases as income increases.

The Saving Function

National income Y = C + S which shows that disposable income is, by definition, consumption plus saving. Therefore, S = Y – C.

Marginal propensity to save This increment to saving per unit increase in disposable income (1 - b) is called the marginal propensity to save (MPS).

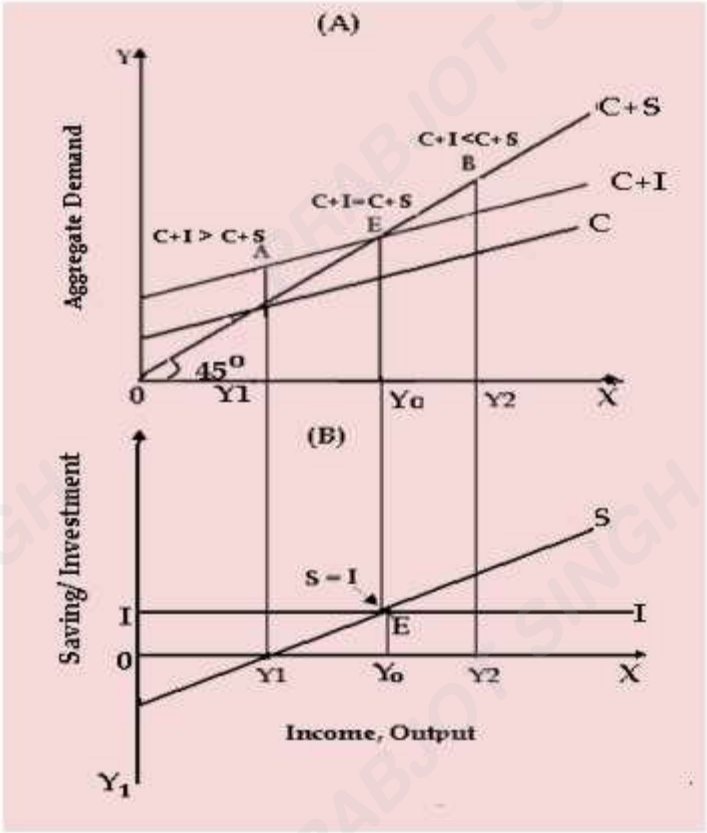
MPS= $\Delta S / \Delta Y$ or 1-b

Saving is an increasing function of the level of income i.e. saving increase as income increases.

Average propensity to save: The ratio of total saving to total income is called average propensity to save (APS).

Two Sector Model of National Income Determination (Equilibrium)

The equilibrium level of national income is a situation in which aggregate demand (C+ I) is equal to aggregate supply (C + S) or Investments equal to Savings (I = S).



At equilibrium point:

(a) Aggregate demand (C+I) = Aggregate supply (C+S)

(b) S = I

(c) Consumer plan = Producer pan

(d) Saver plan = Investor plan

(e) No tendency for output to change

If C+I > C+S

If actual demand is more than equilibrium, excess demand makes business to sell more than what they currently produce, unexpected sales would decrease inventories investment, rising production by hiring extra workers, which will increase aggregate income and again demand and supply will be equal. It means an increase in aggregate spending makes the aggregate demand schedule shift upward. As a result, the equilibrium point would shift upward causing an increase in the national income.

If C+I < C+S

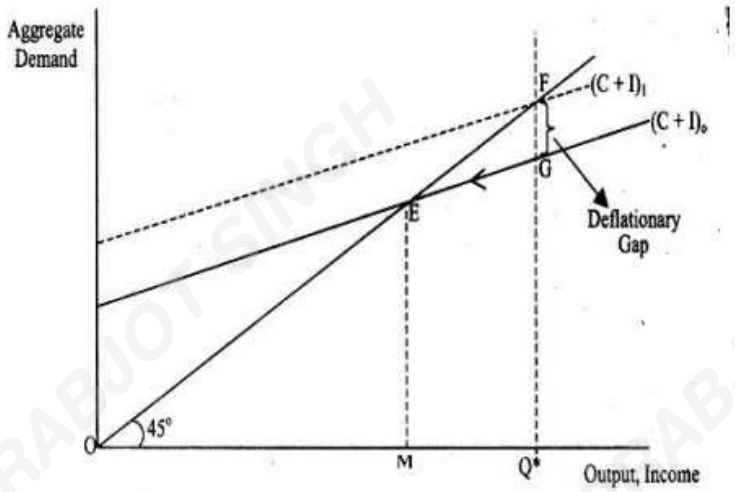
If actual demand is less than equilibrium, supply exceeds demand, business firms would be unable to sell output, increase large inventory investment, tendency for output to fall, which will decrease aggregate income and again demand and supply will be equal. It means an decrease in aggregate spending makes the aggregate demand schedule shift downward. As a result, the equilibrium point would shift downward causing an decrease in the national income.

Therefore, it may be inferred that a change in aggregate spending will shift the equilibrium from one point to another and a shift in the equilibrium will change the level of national income.

The proposition put forth above tells us only the direction of change in the national income but it does not quantify the magnitude of change in national income due to a given change in aggregate spending.

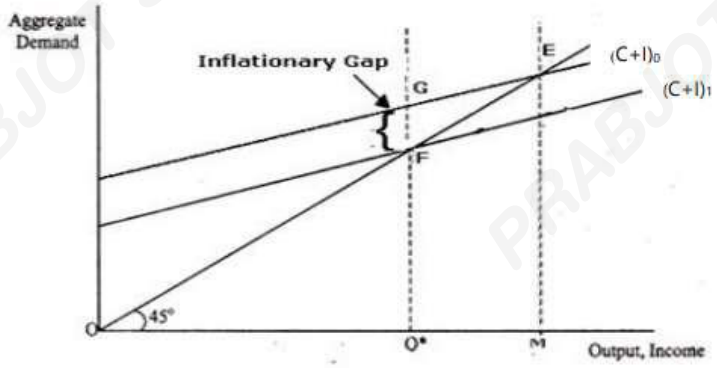
An important point to remember is that Keynesian equilibrium with equality of planned aggregate expenditures and output need not take place at full employment.

I. If the aggregate demand is for an amount of output less than the full employment level of output, then we say there is deficient demand. Deficient demand gives rise to a **'deflationary gap' or 'recessionary gap'**. It arises when the equilibrium level of aggregate production achieved in the short-run falls short of what could be produced at full employment



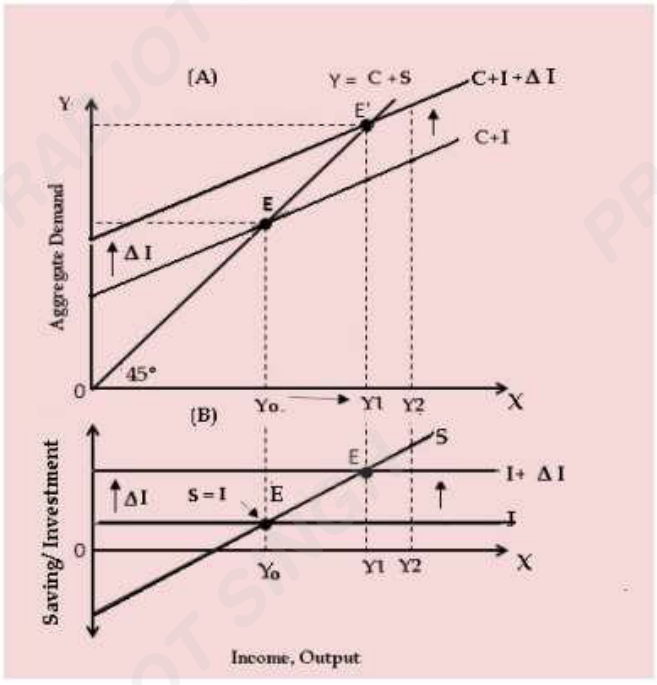
(C+I)

II. If the aggregate demand is for an amount of output greater than the full employment level of output, then we say there is excess demand. Excess demand gives rise to **'inflationary gap'** which is the amount by which actual aggregate demand exceeds the level of aggregate demand required to establish the full employment equilibrium



Investment Multiplier: Investment multiplier explains how many times the aggregate income increases as a result of an increase in investment. When the level of investment increases by an amount say ΔI, the equilibrium level of income will increase by some multiple amounts, Δ Y

Investment multiplier = k = ΔY/ΔI



In the diagram, an increase in autonomous investment shifts the aggregate demand schedule from C+I to C+I+ ΔI.

Correspondingly, the equilibrium shifts from E to E1 and the equilibrium income increases more than proportionately from Yo to Y1.

Change is income more than change in investment.

As per investment multiplier, when there is an increase in investment, change in income is more than change in investment. It is due to **MPC**. Higher the marginal propensity to consume, higher the investment multiplier and vice versa.

Investment multiplier can be calculated as follows: **k = 1/1-MPC or 1/MPS**

If MPC is one, investment multiplier is infinite

If MPC is zero, investment multiplier is one

If MPC is low, investment multiplier is low

If MPC is high, investment multiplier is high

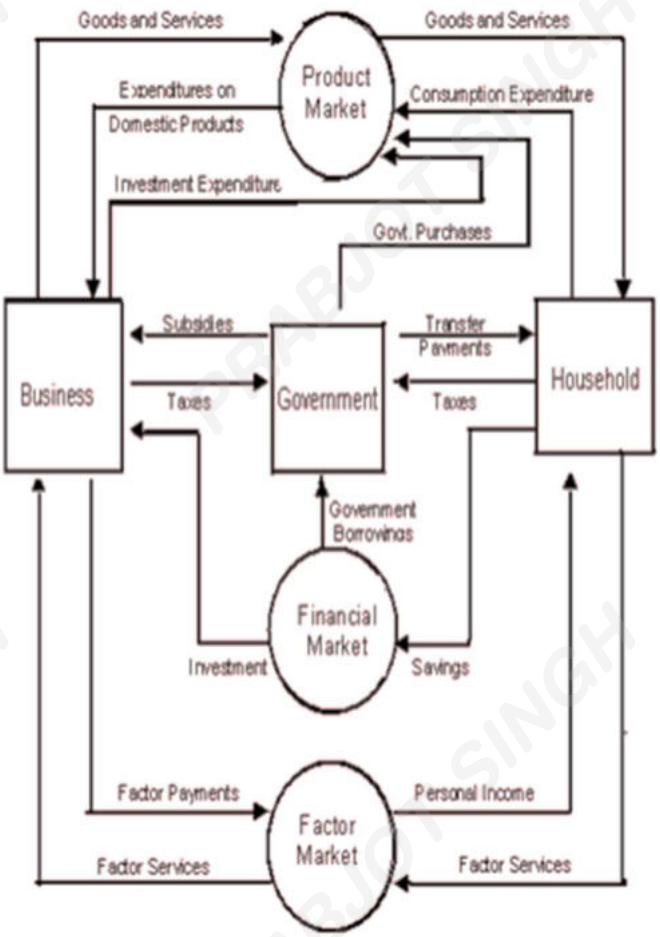
Investment multiplier is affected by leakages. Higher the leakage, lower the investment multiplier and vice versa. These leakages are as follows:

1. progressive rates of taxation which result in no appreciable increase in consumption despite increase in income
2. high liquidity preference and idle saving or holding of cash balances and an equivalent fall in marginal propensity to consume
3. increased demand for consumer goods being met out of the existing stocks or through imports
4. additional income spent on purchasing existing wealth or purchase of government securities and shares from shareholders or bondholders
5. undistributed profits of corporations
6. part of increment in income used for payment of debts
7. case of full employment additional investment will only lead to inflation, and
8. scarcity of goods and services despite having high MPC

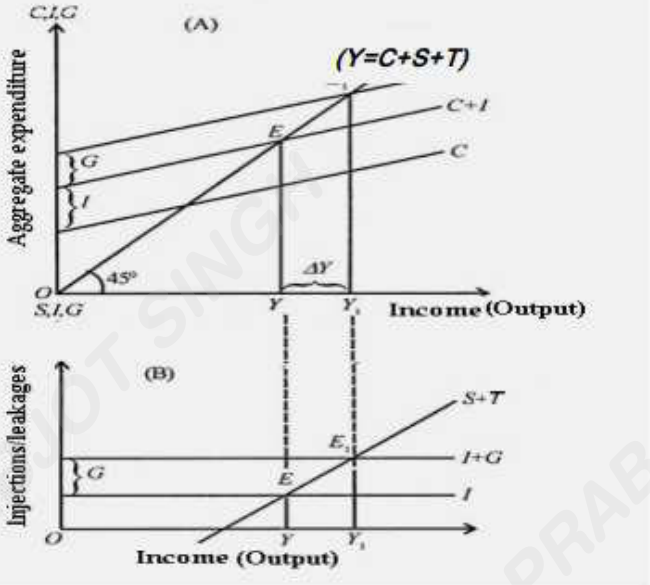
Three sector model: Circular Flow in a Three Sector Economy is below

There are three sectors viz. **household, business firm, and the government.**

(a) Taxes flow to government from household and business firm
(b) Transfer payments to household sector
(c) Subsidy payments to the business sector
(d) Government purchases goods and services from business sector
(e) Government borrowing in financial markets to finance the deficits occurring when taxes fall short of government purchases



Determination of Equilibrium Income: Three Sector Model



The aggregate demand function = C+I+G

The supply function = C + S + T

G= Government expenditure

T = Tax

Equilibrium is identified as the intersection between the C+I+G line and the 45- degree line.

The equilibrium income is Y1.

At equilibrium point, I+G equal to S+T.

If C+I+ G > C+S+T

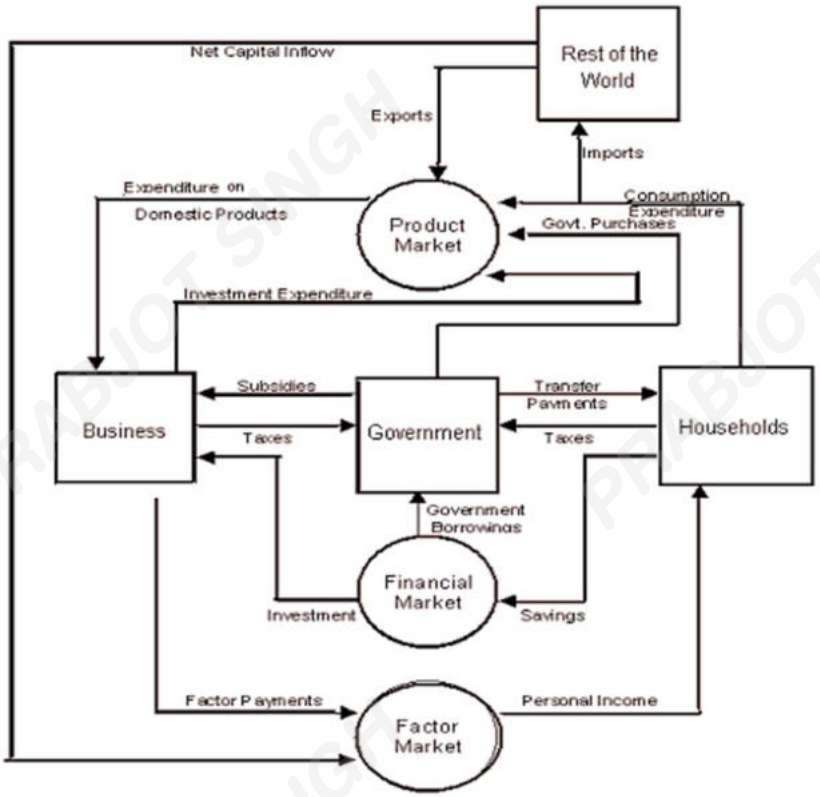
If actual demand is more than equilibrium, excess demand makes business to sell more than what they currently produce, unexpected sales would decrease inventories investment, rising production by hiring extra workers, which will increase aggregate income and again demand and supply will be equal. It means an increase in aggregate spending makes the aggregate demand schedule shift upward. As a result, the equilibrium point would shift upward causing an increase in the national income.

If C+I+G < C+S+T

If actual demand is less than equilibrium, supply exceeds demand, business firms would be unable to sell output, increase large inventory investment, tendency for output to fall, which will decrease aggregate income and again demand and supply will be equal. It means an decrease in aggregate spending makes the aggregate demand schedule shift downward. As a result, the equilibrium point would shift downward **causing a decrease in the national income.**

Four Sector Model The four sector model includes all four macroeconomic sectors, the household sector, the business sector, the government sector, and the foreign sector.

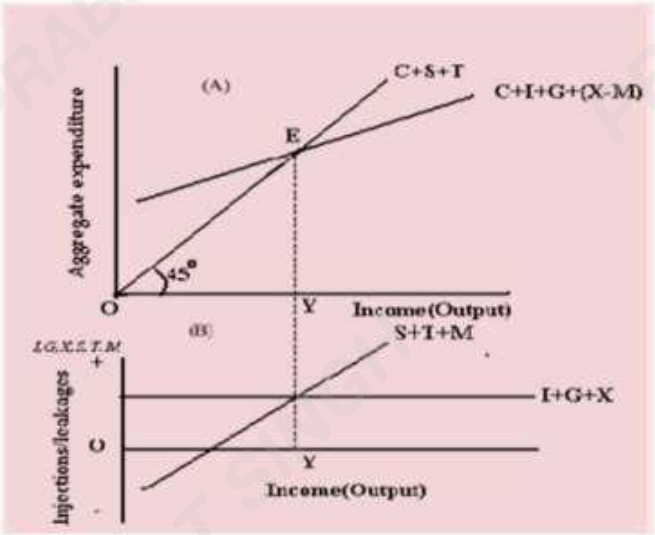
The foreign sector includes households, businesses, and governments that reside in other countries.



Determination of Equilibrium Income: Four Sector Model

Total Aggregate demand = C+I+G+(X-M) ; Total Aggregate supply = C+S+T

X = Export ; M = Import



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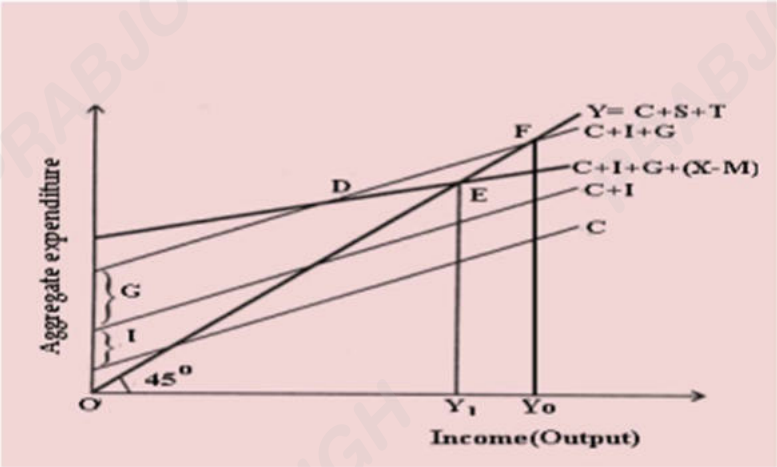
Equilibrium is identified as the intersection between the C + I + G + (X - M) line and the 45-degree line.

The equilibrium income is Y. At equilibrium point, I+G+X equal to S+T+M.

If import is more than export, demand function decrease, and equilibrium point shift downwards as follows



Chapter 7
Public Finance
Unit 1: Fiscal function: An overview

Role of government in an economic system:

The functions of government are separated into three:

a) Resources allocation (to ensure efficiency) – Microeconomic function
b) Income distribution (to guarantee fairness) – Microeconomic function
c) Macroeconomic stabilization (to ensure price stability)– Macroeconomic function

1) **Resource Allocation Function**
Resource allocation refers to optimal and efficient allocation of available resources to their various uses so that resources are put to their best use and no wastages are there.

Allocation of resources is based on demand and supply in market. In the absence of govt. intervention, market failure may occur. It means resources are misallocated by too much production of certain goods and too little production of certain other goods.

The main purpose of allocation function is maximizing social welfare.

Reasons for market failure in proper allocation

1. Imperfect competition and presence of monopoly in the market which reduce welfare of consumers
2. Failure of market to provide collective goods which is consumed commonly by all the people.
3. Externalities exist eg pollution
4. Factor immobility which causes unemployment and inefficiency
5. Imperfect information
6. Inequalities in the distribution of income and wealth.

Instruments for allocation function

1. Government can directly produce goods
2. Government may influence allocation through legislation and force.
3. Government may influence private allocation through incentives and disincentives (tax concessions and subsidies may be given for the production of goods that promote social welfare and higher taxes may be imposed on goods such as cigarettes and alcohol so that their prices are higher)

4. Competition policies, merger policies which affect the structure of industry and commerce
5. Regulatory activities such as licensing, control, minimum wages, and directives on location of industry
6. Government sets legal and administrative frameworks.

Sometimes government may contribute to market distortions, reasons are:

1. Inadequate information,
2. Conflicting objectives
3. Administrative costs involved in government intervention etc.

2) **Redistribution Function (For whom an economy should produce goods & services?)**

It is concerned with the distribution of income and wealth so as to ensure distributive justice, equity & wealth. When there is high inequality in distribution of income and wealth, government intervene.

Objectives

1. Achieve an equitable distribution of social output among household ensuring increased social welfare
2. Advancing the well-being of those member of the society who suffer from deprivations of different type
3. Providing equality in income, wealth and opportunities
4. Provide security for people who had hardship ; Ensuring that everyone enjoy a minimal standard living

How is it be done?

1. Taxation policies ; Progressive taxation of rich & subsidies to poor hoseholds
2. Financing public services for the benefits of low income households
3. Employment reservation and preferences to protect certain segments of the population ; Minimum wages & Minimum support prices to farmers
4. Unemployment benefits. Transfer payments & monetary aid to families in need
5. Regulation of the manufacture and sale of certain products to ensure the health and well-being of consumers
6. Special schemes for backwards regions etc.

This function should be accomplished with minimal costs by carefully balancing between equity and efficiency objectives.

3) **Stabilization Function**

Macroeconomic stability is said to exist when:

- an economy's output matches its production capacity,
- the economy's total spending matches its total output
- the economy's labour resources are fully employed, and
- Inflation is low and stable.

Instability in economy mainly arises due to business cycle. The market mechanism is limited in its capacity to prevent or to resolve the disruptions caused by the fluctuations in economic activity. In the absence of appropriate corrective intervention by the government, the instabilities that occur in the economy in the form of recessions, inflation etc. may be prolonged for longer periods causing enormous hardships to people especially the poorer sections of society. It is also possible that a situation of stagflation (a state of affairs in which inflation and unemployment exist side by side) may set in and make the high problem.

The stabilization issue also becomes more complex as the increased international interdependence causes forces of instability to get easily transmitted from one country to other countries this is also known as "contagion effect".

The stabilization function is one of the key functions of fiscal policy and aims at eliminating macroeconomic fluctuations arising from suboptimal allocation. Areas covered in stabilization function.

The stabilization function is concerned with the performance of the aggregate economy in terms of:

1. Labour employment and capital utilization
2. Overall output and income
3. General price level
4. Balance of international payments
5. The rate of economic growth

Stabilization function implemented through monetary policy or Fiscal policy.

Monetary policy: Increase or decrease in money supply or interest rate to affect inflation, output, consumption, investment etc.

Fiscal policy: Government expenditure policy and taxation policy to affect economic activities like production, investment, saving, inflation, income, demand etc. government expenditure injects more money into the economy and stimulates demand. On the other hand, taxes reduce the disposable

income of people and therefore, reduce effective demand. Expansionary fiscal policy is adopted to end recession and contractionary fiscal policy is resorted to for controlling inflation.

Unit 2

Market Failure/ Government intervention to correct Market Failure

Market failure is a situation in which the free market leads to misallocation of society's scarce resources in the sense that there is either overproduction or underproduction of particular goods and services leading to a less than optimal outcome. Market failures are situations in which a particular market, left to itself, is inefficient.

There are two aspects of market failures namely, demand-side market failures and supply side market failures. Demand-side market failures are said to occur when the demand curves do not take into account the full willingness of consumers to pay for a product. Supply-side market failures happen when supply curves do not incorporate the full cost of producing the product.

Why do markets fail?

1. **Market Power**

Market power is also known as monopoly power.

In case of monopoly, producer produces less and charged high price from the consumer. Market power or monopoly power is the ability of a firm to profitably raise the market price of a good or service over its marginal cost.

Firms that have market power are price makers. Market power can cause markets to be inefficient because it keeps price higher and output lower than the outcome of equilibrium of supply and demand.

Government intervention to minimize market power

Establishment of rules and regulations: Government can establish rules and regulation to prohibit actions which are likely to restrain competition. These legislations differ from country to country. Such legislations generally aim at prohibiting contracts, combinations and collusions among producers or traders which are in restraint of trade and other anticompetitive actions.

Price regulation: Price regulation in the form of setting maximum prices that firms can charge. Price regulation is most often used for natural monopolies that can produce the entire output of the market at a cost that is lower than what it would be if there were several firms. In some cases, the

government‘s regulatory agency determines an acceptable price, so as to ensure a competitive or fair rate of return. This practice is called rate -of -return regulation.

Other measures include:

- Controls on mergers and acquisitions if there is possible market domination
- Patronage to consumer associations
- Tough investigations into cartelization and unfair practices such as collusion and predatory pricing
- Restrictions on monopsony power of firms
- Reduction in import controls and
- Nationalization

2. Externalities

When consumption or production activity of one has an indirect effect on other’s consumption or production activities and such effects are not reflected directly in market prices, it is called externalities.

The unique feature of an externality is that it is initiated and experienced not through the operation of the price system, but outside the market.

The cost (benefit) of it is **not** borne (paid) by the parties. Externalities are also referred to as 'spillover effects', 'neighborhood effects' 'third party effects' or 'side-effects', as the originator of the externality imposes costs or benefits on others who are not responsible for initiating the effect.

When one creates externality which affect another and another create externality at the same time which affect the first, it is called reciprocal externalities.

But if one create externality which affect another and no externality is created by the another person on the first person, it is called unidirectional externalities.

Externalities can be positive or negative.

Negative externalities occur when the action of one party imposes costs on another party.

Positive externalities occur when the action of one party confers benefits on another party.

The four possible types of externalities are:

(a) Negative production externalities A negative externality initiated in production which imposes an external cost on others may be received by another in consumption or in production.

(b) Positive production externalities A positive production externality initiated in production that confers external benefits on others may be received in production or in consumption

(c) Negative consumption externalities Negative consumption externalities initiated in consumption which produce external costs on others may be received in consumption or in production..

(d) Positive consumption externalities A positive consumption externality initiated in consumption that confers external benefits on others may be received in consumption or in production.

Market Failure by Negative externalities

Private cost: It is the total cost of production which is to be incurred by producer i.e. raw material, labor, overhead etc.

Social costs: Social cost are private cost borne by individuals directly involved in a transaction together with the external cost borne by the third parties not directly involved in the transaction.

Social cost = Private cost + External cost

External cost is the damages from externalities.

Market failure: Price charged by producer is only private cost. It does not includes external cost. No consideration of externalities in the price of goods and services. Price is less than social cost so there is **over production of goods.** As a result of over production of goods, there is lass of social welfare which is equal to difference between social cost and social benefit. It is the situation of market failure.

Externalities cause market inefficiencies because they hinder the ability of market prices to convey accurate information about how much to produce and how much to consume. It is serious problem but does not usually float up much because:

(1) The society does not know precisely who are the producers of harmful externalities

(2) Even if the society knows it, the cause-effect linkages are so unclear that the negative externality cannot be unquestionably traced to its producer.

Government Intervention to correct externalities- (a)Rules and regulation (Direct control)

(1) Ban on production or consumption of some goods
(2) Establish environmental standards
(3) Limiting emissions
(4) Fix emissions standards (limit)
(5) Install pollution-abatement mechanism
(6) Charge emission fee
(7) Establish special bodies/boards

(b) 'Market-based' policies that would provide economic incentives as below

1) One method of ensuring internalization of negative externalities is imposing **pollution taxes.** The size of the tax depends on the amount of pollution a firm produces.

More precisely, the tax is placed on the externality itself (the amount of pollution emissions) rather than on output (say, amount of steel). For each unit of pollution, the polluter must choose either to pay the tax or to reduce pollution through any means at its disposal. Tax increases the private cost of production or consumption as the case may be, and would decrease the quantity demanded and therefore the output of the good which creates negative externality. The proceeds from the tax can be specifically earmarked for projects that protect or enhance environment.

However, there are problems in administering an efficient pollution tax.

- Pollution taxes are difficult to determine and administer because it involves the use of complex and costly administrative procedures for monitoring the polluters.
- If the demand for the good is inelastic, the tax may have only an insignificant effect in reducing demand. In such cases, the producers will be able to easily shift the tax burden in the form of higher product prices.
- Pollution taxes also have potential negative consequences on employment and investments because high pollution taxes in one country may encourage producers to shift their production facilities to those countries with lower taxes.

2) The second approach to establishing prices is **tradable emissions permits (also known as cap-and trade)**

These are marketable licenses to emit limited quantities of pollutants and can be bought and sold by polluters. Under this method, each firm has permits specifying the number of units of emissions that the firm is allowed to generate. A firm that generates emissions above what is allowed by the permit is penalized with substantial monetary sanctions.

These permits are transferable, and therefore different pollution levels are possible across the regulated entities.

By allocating fewer permits than the free pollution level, the regulatory agency creates a shortage of permits which then leads to a positive price for permits. This establishes a price for pollution, just as in the tax case.

The high polluters have to buy more permits, which increases their costs, and makes them less competitive and less profitable. The low polluters receive extra revenue from selling their surplus

permits, which makes them more competitive and more profitable. Therefore, firms will have an incentive not to pollute.

3) Production of goods which have positive externality, **Government provide subsidy**. Subsidies involve government paying part of the cost to the firms in order to promote the production of goods having positive externalities.

A subsidy on a goods which has substantial positive externalities would reduce its cost and consequently price, shift the supply curve to the right and increase its output. A higher output that would equate marginal social benefit and marginal social cost is socially optimal.

Government intervention in case of Merit Goods: Merit goods are goods which are deemed to be socially desirable. The government deems that its consumption should be encouraged. Examples of merit goods include education, health care etc. Merit goods are rival, excludable, limited in supply, reject able by those unwilling to pay, and involve positive marginal cost for supplying to extra users. Merit goods can be provided through the market, but are likely to be under-produced and under consumed through the market mechanism so that social welfare will not be maximized.

Government can intervene in the followings ways:

1) Subsidies
2) Direct government provision of the goods
3) Regulations
4) Combination of government provision and market provision.
5) Prohibition on some type of goods and activities, set standards and issue mandates making others oblige.
6) Government could also use legislation to enforce the consumption of a good which generates positive externalities
7) A variety of regulatory mechanisms may also be set up by government to enhance consumption of merit goods and to ensure their quality.

Government intervention in case of Demerit Goods: Unlike Merit Goods, the marginal social cost will exceed the market price and overproduction and over-consumption will occur, causing misallocation of society's scarce resources. The generally held argument is that consumers overvalue demerit goods because of imperfect information and they are not the best judges of welfare with respect to such goods.

1) Government may enforce complete ban on a demerit good.
2) Negative advertising campaigns which emphasize the dangers associated with consumption of demerit goods.
3) Through legislations that prohibit the advertising or promotion of demerit goods in whatsoever manner.

4) Strict regulations of the market for the good may be put in place so as to limit access to the good.
5) Regulatory controls in the form of spatial restrictions.
6) Imposing unusually high taxes
7) Fix minimum price

3) **Public Goods**

A public good (also referred to as collective consumption good or social good) is defined as one which all enjoy in common in the sense that each individual's consumption of such a good leads to no subtraction from any other individuals' consumption of that good

1) Public good is non-rival in consumption. That is, your consumption of a public good in no way interferes with its consumption by other people.
2) Public goods are non-excludable. Consumers cannot be excluded from consumption benefits. If the good is provided, one individual cannot deny other individuals' consumption.
3) Public goods are characterized by indivisibility. The total amount consumed is the same for each individual.
4) Public goods are generally more vulnerable to issues such as externalities, inadequate property rights, and free rider problems.
5) Once a public good is provided, the additional resource cost of another person consuming the goods is 'zero'. A few examples of public goods are: national defense, highways, public education, scientific research which benefits everyone, law enforcement, lighthouses, fire protection, disease prevention and public sanitation etc.

Public goods are extremely valuable for the well- being of the society, left to the market, they will not be produced at all or will be grossly under-produced. Thus, there is market failure in the case of public goods.

Private Goods

1) It yields utility to people. Anyone who wants to consume them must purchase them.
2) Owners of private goods can exercise private property rights.
3) Its consumption is 'rivalrous' that is consumption by one prevent consumption by other.
4) These are 'excludable' i.e. it exclude or prevent consumers who have not paid for them from consuming them or having access to them.
5) Private goods do not have the free rider problem.
6) It can be rejected by consumers if their needs, preferences or budget change.
7) Additional production and supply require additional resource costs.
8) Whenever there is inequality in income distribution in an economy, issues of fairness and justice tend to arise with respect to private goods.

9) Normally, the market will efficiently allocate resources for its production. A few examples of private goods are food item, clothing, television, car, house etc.

The Free rider problem

The incentive to let other people pay for a good or service, the benefits of which are enjoyed by an individual is known as the free rider problem. A free rider is a consumer or producer who does not pay for a nonexclusive good in the expectation that others will pay. Public goods provide a very important example of market failure, in which the self-interested behavior of individuals does not produce efficient results

Government intervention in case of public goods:

1) Direct provision of a public good by government can help overcome free-rider problem which leads to market failure. Direct provision by governments through the use of general government tax revenues is the good option.
2) Charge entry fee for use of public goods
3) Excludable public goods can be provided by government and the same can be financed through entry fees.
4) Grant licenses to private firms to build a public good facility and maintain strict control on the price charged by the private firms
5) Certain goods are produced and consumed as public goods and services despite the fact that they can be produced or consumed as private goods. This is because, left to the markets and profit motives, these may prove dangerous to the society. Examples are scientific approval of drugs, production of strategic products such as atomic energy, provision of security at airports etc.

4) **Incomplete information**

Incomplete information arises due to the followings:

(1) Complex nature of product and services

(2) High cost of acquiring information and time consuming.

(3) Ignorance of people etc.

Information failure is widespread in numerous market exchanges. When this happens misallocation of scarce resources takes place and equilibrium price and quantity is not established through price mechanism. This results in market failure.

Asymmetric information

It occurs when there is an imbalance in information between buyer and seller. This can distort choices.

These are situations in which one party to a transaction knows a material fact that the other party does not. This phenomenon, which is sometimes referred to as the 'lemons problem', is an important source of market failure.

With asymmetric information, low quality goods can drive high quality goods out of the market.

Adverse selection

Adverse selection is a situation in which asymmetric information about quality eliminates high - quality goods from a market. For example health insurance.

Moral hazard

Moral hazard is opportunism characterized by an informed person's taking advantage of a less - informed person through an unobserved action. It arises from lack of information about someone's future behavior. Moral hazard occurs when an individual knows more about his or her own actions than other people do. This leads to a distortion of incentives to take care or to exert effort when someone else bears the costs of the lack of care or effort. For example car insurance; a driver who has a comprehensive insurance tends to be less careful while driving and may increase the probability of insurance claims. When someone is protected from paying the full costs of their harmful actions, they tend to act irresponsibly, making the harmful consequences more likely.

Asymmetric information, adverse selection and moral hazard affect the ability of markets to efficiently allocate resources and therefore lead to market failure because the party with better information has a competitive advantage.

Government intervention for correcting information failure:

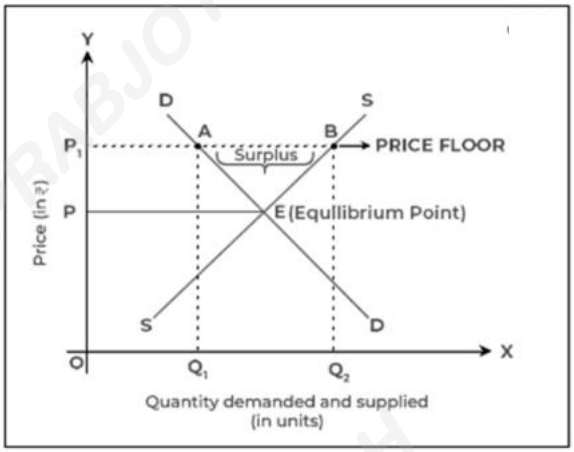
(1) Makes it mandatory to have accurate labeling and content disclosures by producers.

(2) Public dissemination of information.

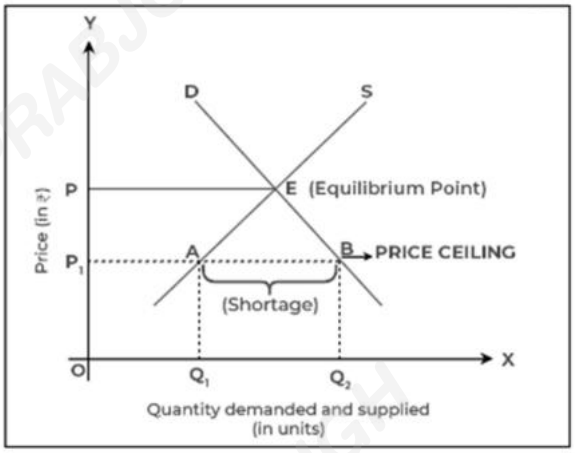
(3) Regulation of advertising and setting of advertising standards.

Price Intervention: Non Market Pricing

Minimum Support Price (Price Floor) : Government usually intervenes in many primary markets which are subject to extreme as well as unpredictable fluctuations in price. For example in India, in the case of many. The objective is to guarantee fixed and assured incomes to farmers. In case the market price falls below the MSP, then the guaranteed MSP will prevail.



Maximum Price (Price Ceiling): When prices of certain essential commodities rise excessively, government may resort to controls in the form of price ceilings (also called maximum price) for making a resource or commodity available to all at reasonable prices. For example: maximum prices of food grains and essential items are set by government during times of scarcity.



Important Budget Concepts

Balanced budget: A balanced budget is a budget in which revenues are equal to expenditures.

Unbalanced budget: The budget may either be surplus or deficit.

A surplus budget: when estimated government receipts are more than the estimated government expenditure.

A deficit budget: when estimated government receipts are less than the government expenditure.

Capital receipts are those receipts that lead to a reduction in the assets or an increase in the liabilities of the government. Examples include recoveries of loans, earnings from disinvestment and debt.

Revenue receipts can be defined as those receipts which neither create any liability nor cause any reduction in the assets of the government.

Revenue expenditure is expenditure incurred for purposes other than creation of physical or financial assets of the central government.

Capital Expenditure: There are expenditures of the government which result in creation of physical or financial assets or reduction in financial liabilities. Eg acquisition of land, building, machinery and equipment, investment in shares.

Budgetary Deficit is defined as the excess of total estimated expenditure over total estimated revenue

Revenue deficit = Revenue expenditure - Revenue receipts

When the government's non-borrowed receipts fall short of its entire expenditure, it has to borrow money from the public to meet the shortfall. The excess of total expenditure over total receipts excluding borrowings during a given fiscal year is called the fiscal deficit. In other words, fiscal deficit is the difference between the government's total expenditure and its total receipts excluding borrowing. It is often presented as a percentage of the gross domestic product (GDP).

Primary deficit is defined as fiscal deficit of current year minus interest payments on previous borrowings. Primary deficit = Fiscal deficit - Net Interest liabilities

Finance Bill is the bill produced immediately after the presentation of the union budget detailing the Imposition, abolition, alteration or regulation of taxes proposed in the budget.

The outcome budget is a progress card on what various ministries and departments have done with the outlays in the previous annual budget

All revenues received, loans raised and all moneys received by the government in repayment of loans are credited to the **Consolidated Fund of India** and all expenditures of the government are incurred from this fund

Contingency Fund of India: A fund placed at the disposal of the President to enable him/her to make advances to the executive/Government to meet urgent unforeseen expenditure.

Unit 3

Fiscal Policy

Fiscal policy involves the use of government spending, taxation and borrowing to influence both the pattern of economic activity and level of growth of aggregate demand, output and employment. Fiscal policy is in the nature of a demand-side policy

Objectives of Fiscal Policy

1) Achievement and maintenance of full employment,
2) Maintenance of price stability,
3) Acceleration of the rate of economic development,
4) Equitable distribution of income and wealth

Priorities of these objectives may vary from country to country. Stability and equality may be the priorities of developed countries while economic growth and equity may get higher priorities in developing countries

Fiscal policies are of two types namely Expansionary and Contractionary.

Expansionary fiscal policy: It is designed to stimulate the economy during the recession phase of a business cycle. This is accomplished by increasing aggregate expenditures and aggregate demand through an increase in all types of government spending and or decrease in taxes.
An expansionary fiscal policy is used to close a 'recessionary gap'. A recessionary gap, also known as a contractionary gap, is said to exist if the existing levels of aggregate production is less than what would be produced with full employment of resources. It represents the difference between the actual aggregate demand and the aggregate demand which is required to establish the equilibrium at full employment level of income.

This is done through:

- The government may cut all types of taxes, direct and indirect, leaving the taxpayers with extra money to spend so that there is more purchasing power and more demand for goods and services. Consequently aggregate demand, output and employment increase.

- An increase in government expenditure will pump money into the economy and increase aggregate demand. This in turn will increase output and employment.

- A combination of increase in government spending and decrease in personal income taxes and/or business taxes

Contractionary fiscal policy: It is designed to restrain economic activity during inflation phase. This is carried out by decreasing the aggregate expenditures and aggregate demand through a decrease in all types of government spending and/ or an increase in taxes. When aggregate demand rises beyond what the economy can potentially produce by fully employing it's given resources, it gives rise to inflationary pressures in the economy. Due to increase in consumption expenditure, inflationary gap occur. Under such circumstances, a contractionary fiscal policy will have to be used.

This can be achieved either by:

- Decrease in government spending
- Increase in personal income taxes and/or business taxes
- A combination of both

Tools of fiscal policy are of four types

1) Government expenditure
2) Tax
3) Public debt
4) Government budget

Government Expenditure

Govt. expenditure are of three types:

(1) Current expenditures to meet the day to day running of the government,

(2) Capital expenditures which are in the form of investments made by the government in capital equipment's and infrastructure, and

(3) Transfer payments

In case of recession

High govt. expenditure – Increase employment directly and indirectly – Increase income – Increase demand – Increase output – Industrial growth

In case of Inflation

Low govt. expenditure – Decrease employment directly and indirectly – Decrease income – Decrease demand – Decrease price level

Taxes

In case of recession

Low tax – High business and personal disposal income – Increase demand – Increase output – Industrial growth due to high demand and low corporate tax

In case of inflation

High tax and new tax – Decrease purchasing power – Decrease demand – Decrease price level
However, excessive taxation usually decrease new investments and therefore the government has to be cautious about a policy of tax increase.

Public Debt

When the government borrows from its own people in the country, it is called internal debt.

When the government borrows from outside sources, the debt is called external debt.

Market loan and small saving: In the case of market loan, the government issues treasury bills and government securities of varying denominations and duration which are traded in debt markets. The small savings represent public borrowings, which are not negotiable and are not bought and sold in the debt market e.g., NSC, NDC etc.

In case of recession

Repayment of loan – Supply of money increase in market – Demand increase – Production increase – Industrial growth increase

In case of inflation

Borrowing – Supply of money decrease – demand decrease – Price level decrease

Budget

The budget is simply a statement of revenues earned from taxes and other sources and expenditures made by a nation's government in a year.

Balanced budget: When expenditures in a year equal its revenues for that year. No effect on demand.

Surplus budget: When the government collects more than what it spends. It reduces demand and control inflation. It decreases nation's debt.

Deficit budget: When the government expenditure in a year is greater than the tax revenue it collects. It increases demand, output, employment and industrial growth. But it increase nation's debt.But it reduces Industrial growth.

Fiscal Policy Mechanism For Reduction In Inequalities

1. Income tax differentiation. High tax on rich people and low tax on poor people
2. Indirect taxes differentiation. High tax on luxuries goods and low tax on goods which is largely used by low income group.
3. Government spending on welfare programme for poor people such as:
   (a) Poverty alleviation programmes
   (b) Free or subsidized medical care, education, housing, essential commodities etc. to improve the quality of living of poor
   (c) Infrastructure provision on a selective basis
   (d) Various social security schemes under which people are entitled to old age pensions, unemployment relief, sickness allowance etc.
   (e) Subsidized production of products of mass consumption
   (f) Public production and/ or grant of subsidies to ensure sufficient supply of essential goods, and
   (g) Strengthening of human capital for enhancing employability etc.

Limitation of Fiscal Policy

1. Problem of lag (delay). There are significant lags are:

   a. Recognition lag: There may be delay on the part of the government to recognize the need for a policy change
   b. Decision lag: Delays are likely to occur to make a decision on the most appropriate policy.
   c. Implementation lag: there are possible delays in bringing in legislation and implementing them on account of bureaucracy
   d. Impact lag: impact lag occurs when the outcomes of a policy are not visible for some time.

2. Government spending and tax policy cannot be change immediately.

3. Difficult to reduce some govt. spending such as defence, social security etc.

4. Public works cannot be adjusted easily along with movements of the trade cycle.

5. Due to uncertainties, there are difficulties of forecasting the situation and in determining the accurate policy to be undertaken.

6. Conflicts between different objectives of fiscal policy such that a policy designed to achieve one goal may adversely affect another.

7. Certain fiscal measures will cause disincentives for business.

8. Deficit financing increases the purchasing power of people which increaseprices.

9. Increase in government borrowing creates perpetual burden.

10. Government borrowings increase interest rate. Interest rate increase is negative for business investment.

11. Due to various lags, it is possible that when fiscal policy is implemented, already situation is on a path of recovery.

Crowding Out: When spending of government increase during recession, sometimes it decreases private spending which is known as Crowding Out. In other words, when spending by government in an economy replaces private spending, the latter is said to be crowded out.

Chapter 8

Money Market

Money can be anything that can serve as a

1. Store of value, which means people can save it and use it later-smoothing their purchases over time;
2. Unit of account, that is, provide a common base for prices; or
3. Medium of exchange, something that people can use to buy and sell from one another.

Theories of demand for money

1. The Quantity Theory of Money (Fisher Method)

It is also known as cash transaction approach. As per this approach, people demand money for transaction purpose. It means demand of money is depends on price level and number of transaction.

MV + M'V'= PT

Where: M = The amount of money in circulation in an economy (average)

V = Transaction velocity of circulation

M' = The total quantity of credit money

V' = Velocity of circulation of credit money

P = Average price level

T = Total amount of goods and services exchanged for money

The total volume of transactions (T) multiplied by the price level (P) represents the demand for money. The demand for money (PT) is equal to the supply of money (MV + M'V)'.

In any given period, the total value of transactions made is equal to PT and the value of money flow is equal to MV+ M'V'. Thus, there is an aggregate demand for money for transactions purpose and more the number of transactions people want, greater will be the demand for money. As per Fisher 'Other things remaining same, quantity of money is the main determinant of price level or the value of money'. If the quantity of money is doubled, the price level will also double and the value of money will be one half. If the quantity of money is reduced by one half, the price level will also be reduced by one half and the value of money will be twice.

2. **Cambridge Theory** Cash balance approach considers the demand for money not as a medium of exchange but as a store of value. The demand for money is the demand to hold cash for two purposes:
   (a) Transaction purpose (b) Precautionary purpose
   Demand of money depends partly on income and partly on other factors of which important ones are wealth and interest rates. The Cambridge equation is stated as:

$$M_d = k\,PY$$

Where M_d = demand for money
PY = National income
K = proportion of nominal income that people wants to hold as cash balance

The Cambridge equation shows that given the supply of money at a point of time, the value of money is determined by the demand for cash balance. When the demand for money increases, people will reduce their expenditure on goods and services in order to have larger cash holding, reduced demand for goods and services will bring down the price level and raise the value of money. On the contrary, fall in the demand for money will raise the price level and lower the value of money.

3. **Keynesian Theory of demand of money**
   According to Keynes, people hold money (M) in cash for three motives:
   (a) Transactions motive, (b) Precautionary motive, and (c) Speculative motive.

The sum of the transaction, precautionary, and the speculative demand, is the **total demand for money.**
An increase in income increases the transaction and precautionary demand for money & a decrease in the rate of interest increases the speculative demand of money.

The transactions motive for holding cash relates to the need for cash for current transactions for personal and business exchange. It is directly related to the level of income.

$$Lr = kY$$

Lr = Transaction demand for money
k = ratio of earning which is kept for transaction purposes
Y = earning

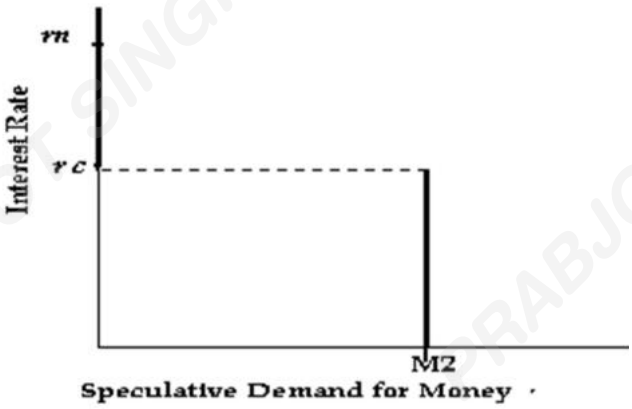
The precautionary motive Individuals as well as businesses keep a portion of their income to finance unanticipated expenditures. It depends on the size of income, prevailing economic as well as political conditions and personal characteristics of the individual etc.

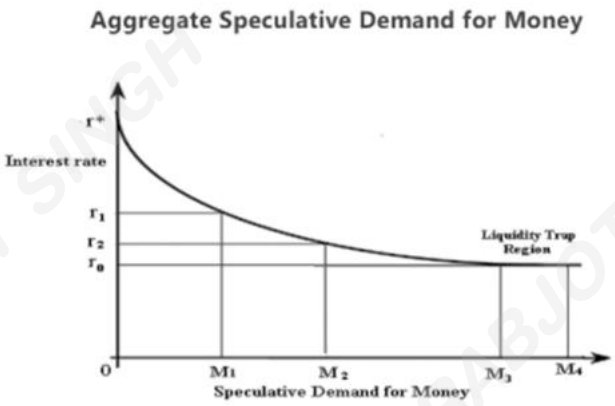
The speculative motive reflects people's desire to hold cash in order to be equipped to exploit any attractive investment opportunity requiring cash.

Investment gives two two type of income viz. interest and capital gain.

If current rate of interest is higher than the critical rate of interest, bond price is expected to increase. Person will invest in bond to earn high interest and capital gain, so demand of money decrease.
If the current rate of interest is lower than the critical rate of interest, bond price is expected to decrease. Person will hold cash to avoid capital loss and low interest, so demand of money increase. The speculative demand for money and interest are inversely related

Individual's Speculative Demand For Money





Liquidity trap is a situation when expansionary monetary policy (increase in money supply) does not increase the interest rate, income and hence does not stimulate economic growth. Liquidity trap is the extreme effect of monetary policy.

4. **Inventory Approach to Transaction Balances**

Baumol used business inventory approach to analyze the behavior of individuals.

Demand of money depends on two factors viz. Interest rate and Transaction cost.

If people hold money, there is loss of interest. To earn interest, they have to invest money into bonds. But conversion of money into bonds or bonds into money involves some expenditure which is transaction cost.

If rate of interest is high and transaction cost is low, people convert maximum money into bond and hold minimum cash which decrease demand of money.

If rate of interest is low and transaction cost is high, people hold maximum amount in cash rather than bond which increase demand of money.

The individual will choose the number of times the transfer between money and bonds takes place in such a way that the net profits from bond transactions (Interest – Transaction cost) are maximized. **Therefore, they hold an optimum combination of bonds and cash balance, i.e., an amount that minimizes the opportunity cost and transfer cost.**

5. **Friedman's Restatement of the Quantity Theory**

Friedman states that demand for money is more general theory of demand for capital assets. Demand for money is affected by the same factors as demand for any other assets namely

Permanent Income and relative return (risk).

There are four determinants of demand of money which is as follows:

(a) Wealth: Demand of money is a function of total wealth. People demand money to create wealth. They require money to earn money.

Wealth = Permanent income/discount rate

Permanent income is expected future income, which can be earn from five assets namely money, bonds, equity, physical assets, and human capital

(b) Price level: Price level rise, demand of money rise and vice versa
(c) Interest rate: Inversely related
(d) Inflation: Inversely related

The Demand for Money as Behavior toward Risk (Tobin)

A person can hold money or he can invest his money.

There are two factors which determine how much he should invest and what amount he should held with him. First factor is return and second factor is risk.

Unit 3

Monetary Policy

Reserve Bank of India uses monetary policy to manage economic fluctuations and achieve price stability, which means that inflation is low and stable.

Reserve Bank of India conducts monetary policy by adjusting the supply of money, usually through buying or selling securities in the open market.

Open market operations affect short-term interest rates, which in turn influence longer-term rates and economic activity. When central banks lower interest rates, monetary policy is easing. When it raises interest rates, monetary policy is tightening, & vice versa.

Objectives:

i. **maintenance the economic growth,**
ii. **ensuring an adequate flow of credit to the productive sectors,**
iii. **sustaining a moderate structure of interest rates to encourage investments, and**
iv. **Creation of an efficient market for government securities.**

Important Definitions:

1. **Quantitative Tools:**

Reserve Ratio

Banks are required to keep aside a set percentage of cash reserves or RBI approved assets. Reserve ratio is of two types:

Cash Reserve Ratio (CRR) - Banks are required to set aside this portion in cash with the RBI.

The bank can neither lend it to anyone nor can it earn any interest rate or profit on CRR.

Statutory Liquidity Ratio (SLR) - Banks are required to set aside this portion in liquid assets such as gold or RBI approved securities such as government securities. Banks are allowed to earn interest on these securities, however it is very low.

2. **Qualitative tools:**

Unlike quantitative tools which have a direct effect on the entire economy's money supply, qualitative tools are selective tools that have an effect in the money supply of a specific sector of the economy.

Margin requirements - The RBI prescribes a certain margin against collateral, which in turn impacts the borrowing habit of customers. When the margin requirements are raised by the RBI, customers will be able to borrow less.

Moral suasion - By way of persuasion, the RBI convinces banks to keep money in government securities, rather than certain sectors.

Selective credit control- Controlling credit by not lending to selective industries or speculative businesses.

3. **Liquidity Adjustment Facility (LAF)** RBI uses LAF as an instrument to adjust liquidity and money supply. The following types of LAF are:

Repo rate: Repo rate is the rate at which banks borrow from RBI on a short-term basis against a repurchase agreement. Under this policy, banks are required to provide government securities as collateral and later buy them back after a pre-defined time.

Reverse Repo Rate = Repo Rate - 1

Marginal Standing Facility (MSF) Rate: MSF Rate is the penal rate at which the Central Bank lends money to banks, over the rate available under the rep policy. Banks availing MSF Rate can use a maximum of 1% of SLR securities.

MSF Rate = Repo Rate + 1MSF Rate = Repo Rate + 1

Chapter 9

International Trade

International trade is the exchange of goods and services as well as resources between countries.

Internationally trade involves transaction in multiple currencies whereas domestic trade place only using domestic currency.

Compared to internal trade, international trade has greater complexity as it involves heterogeneity of customers and currencies, differences in legal systems, more elaborate documentation, and diverse restrictions in the form of taxes, regulations, duties, tariffs, quotas, trade barriers, standards, and restraints to movement of specified goods and services and issues related to shipping and transportation.

For international trade certain general rules of trade are followed by the countries which are made my international bodies like the WTO.

Benefits:

- It is powerful stimulus to economic efficiency and contributes to economic growth and rising incomes.
- It includes companies to reap the quantitative and qualitative benefits of extended division of labor.
- Manufacturing capabilities and benefits from economics of large scale production.
- Reduction in domestic price due to increased competition thereby increasing the living standard of citizens.
- International trade provides access to new market and new material and enables sourcing of inputs and components internationally at competitive prices.
- Exports stimulate economic growth by creating jobs, which could potentially reduce poverty.

Demerits:

- Possible negative labor market outcomes in terms of labor- saving technological change that depress demand for unskilled workers, loss of laborers bargaining power.
- Economic exploitation is a likely outcome when underprivileged countries become vulnerable to the growing political power of corporations operating globally.
- Excessive stress on exports and profit-driven exhaustion of natural resources due to unsustainable production and consumption.
- It may have adverse effect on the development of domestic industries and may even threaten the survival of infant industries.

- Risky dependence of underdeveloped countries on foreign nation impairs economic autonomy and endangers their political sovereignty.
- Instead of cooperation among nation, trade may breed rivalry on account of severe competition.

Important Theories of International Trade

1. **The Theory of Absolute Advantage**

According to Adam Smith theory, two countries would be mutually beneficial if one country could produce one commodity at absolute advantage (over the other commodity) and the other countries could, in turn, produce another commodity at an absolute advantage over the first.

Assumptions of the Absolute Advantage Theory:

- Trade between the two countries.
- He took into consideration a two-country and two-commodity framework for his analysis.
- There is no transportation cost.
- Smith assumed that the costs of the commodities were computed by the relative amounts of labor required in their respective production processes.

2. **The Theory of Comparative Advantage**

David Ricardo observed that trade was driven by comparative rather than absolute costs (of producing a good). One country may be more productive than others in all goods, in the sense that it can produce any good using fewer inputs (such as capital and labor) than other countries require to produce the same good.

3. **Heckscher-Ohlin theory**

The Heckscher-Ohlin theory of trade, also referred to as Factor-Endowment Theory of Trade or Modern Theory of Trade, states that comparative advantage in cost of production is explained exclusively by the differences in factor endowments.

This model is to evaluate trade and, more specifically, the equilibrium of trade between two countries that have varying specialties and natural resources. Emphasis is placed on the exportation of goods requiring factors of production that a country has in abundance and the importation of goods that a nation cannot produce as effectively.

Different regions have different factor endowments, that is, some regions have abundance of labour, but scarcity of capital; whereas other regions have abundance of capital, but scarcity of labour.

Therefore, difference in factor endowment is the main cause of international trade as well as interregional trade. According to Ohlin, the immediate cause of inter-regional trade is that goods can be bought cheaper in terms of money than they can be produced at home and this is the case of

international trade as well. The cause of difference in the relative prices of goods is the difference the amount of factor endowments, like capital and labor, between two countries.

Thus, it can be concluded that this theory states that labor-abundant countries have comparative cost advantage in the production of goods which require labor-intensive technology and by the same reasoning, capital – abundant countries have comparative cost advantage in the production of goods that needs capital – intensive technology.

Theory of Comparative Costs	Modern Theory
The basis is the difference between countries is comparative costs	Explains the causes of differences in comparative costs as differences in factor endowments
Based on labour theory of value	Based on money cost which is more realistic.
Considered labour as the sole factor of production and presents a one-factor (labour) model	Widened the scope to include labour and capital as important factors of production. This is 2-factor model and can be extended to more factors.
Treats international trade as quite distinct from domestic trade	International trade is only a special case of inter-regional trade.
Studies only comparative costs of the goods concerned	Considers the relative prices of the factors which influence the comparative costs of the goods
Attributes the differences in comparative advantage to differences in productive efficiency of workers	Attributes the differences in comparative advantage to the differences in factor endowments.
Does not take into account the factor price differences	Considers factor price differences as the main cause of commodity price differences
Does not provide the cause of differences in comparative advantage.	Explains the differences in comparative advantage in terms of differences in factor endowments.
Normative; tries to demonstrate the gains from international trade	Positive; concentrates on the basis of trade

Unit 2
Instruments of international trade

1. **<u>Tariff barriers</u>** create obstacles to trade, decrease the volume of imports and exports and therefore of international trade.

   Producers in the importing country experience an increase on imposition of tariff. The price increase of their product in the domestic market increases producer surplus in the industry. The price increase also induces an increase in the exiting firms and possibly addition of new firms due to entry into industry to take advantage of the new high profits and consequently an increase in employment in the industry.

   Tariffs create trade distortions by disregarding comparative advantage and prevent countries from enjoying gains from trade arising from comparative advantage.

   Tariffs increase government revenues of the importing country by the value of the tariff it charges.

Types of Tariff

- **Specific Tariff:** A specific tariff is an import duty that assigns a fixed monetary tax per physical unit of the good imported. It is calculated on the basis of unit measure, such as weight, volume, etc., of the imported good.
- **Ad valorem tariff:** An ad valorem tariff is levied as a constant percentage of the monetary value of one unit of the imported good.
- **Mixed Tariffs:** Mixed tariffs are expressed either on the basis of the value of the imported goods (an ad valorem rate) or on the basis of a unit of measure of the imported goods (a specific duty) depending on which generates the most income.
- **Compound Tariff or a Compound Duty: It** is a combination of an ad valorem and a specific tariff. That is, the tariff is calculated on the basis of both the value of the imported goods (an ad valorem duty) and a unit of measure of the imported goods (a specific duty).
- **Technical/Other Tariff:** These are calculated on the basis of the specific contents of the imported goods i.e. the duties are payable by its components or related items.
- **Tariff Rate Quotas:** Tariff rate quotas (TRQs) combine two policy instrument: quotas and tariffs. Imports entering under the specified quota portion are usually subject to a lower (sometimes Zero), tariff rate. Imports above the quantitative threshold of the quota face a much higher tariff.
- **Most-Favored Nation Tariffs:** A country grants this clause to another nation if it is interested in increasing trade with that country.
- **Variable Tariff:** A duty typically fixed to bring the price of an imported commodity up to domestic support price for the commodity.
- **Preferential Tariff:** A lower tariff is charged from goods imported from a country which is given preferential treatment. Examples are preferential duties in the EU region under which a good coming into one EU country from another is charged Zero tariffs.
- **Bound Tariff:** A bound tariff is which a WTO member blinds itself with a legal commitment not to raise it above a certain level. The bound rates are specific to individual products and represent the maximum level of import duty that can be levied on a product imported by that member.
- **Applied Tariffs:** It is charged on imports on a Most Favoured Nation (MFN) basis. A WTO member can have an applied tariff for product that differ from the bound tariff for that product as long as the applied level is not higher than the bound level.
- **Escalated Tariff** structure refers to the system wherein the nominal tariff rates on imports of manufactured goods are higher than the nominal tariff rates on intermediate inputs and raw materials

- **Prohibitive tariff:** A prohibitive tariff is one that is set so high that no imports can enter.
- **Import subsidies:** Import subsidies also exist in some countries. An import subsidy is simply a payment per unit or as a percent of value for the importation of a good (i.e., a negative import tariff).
- **Tariffs as Response to Trade Distortions:** Sometimes countries engage in 'unfair' foreign-trade practices which are trade distorting in nature and adverse to the interests of the domestic firms. The affected importing countries, upon confirmation of the distortion, respond quickly by measures in the form of tariff responses to offset the distortion. These policies are often referred to as "trigger-price" mechanisms.

(A) Anti dumping Duties: An anti-dumping duty is a protectionist tariff that a domestic government imposes on foreign imports that it believes are priced below fair market value. Dumping is process where a company exports a product at a price lower than the price normally charges in its own home market. To protect local business and markets, many countries impose stiff duties on products they believed are being dumped in their national market. **Dumping may be persistent, seasonal, or cyclical.**

(B)**Countervailing Duties:** It is levied on imported goods to offset subsidies made to producers of these goods in the exporting country. Countervailing duties (CVD) are meant to level the playing field between domestic producers of a product and foreign producers of the same product who can afford to sell it at a lower price because of the subsidy they receive from their government. If left unchecked, such subsidized imports can have a severe effect on domestic industry, forcing factory closures and causing huge job losses.

Benefits

a. Tariff barriers create obstacles to trade, decrease the volume of imports and exports
b. Protects domestic industries as tariffs encourage consumption and production of the domestically produced import substitutes Producers in the importing country experience an increase in well – being as a imposition of tariff. The price increase of their product in the domestic market increases producer surplus in the industry. The price increase also induces an increase in the exiting firms and possibly addition of mew firms due to entry into industry to take advantage of the new high profits and consequently an increase in employment in the industry.
c. Tariffs create trade distortions by disregarding comparative advantage and prevent countries from enjoying gains from trade arising from comparative advantage.
d. Tariffs increase government revenues of the importing country by the value of the tariff it charges.

2. Non-tariff measures (NTMs) are policy measures that can be potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both.

(A) Technical Measures:

1. Sanitary and Phytosanitary (SPS) Measures: SPS measures are applied to product human, animal or plant life from risks arising from additives, pests, contaminants, toxins or disease – causing organisms and to protect biodiversity. These include ban or prohibition of import of certain goods, all measures governing quality and hygienic requirement, production processes, and associated compliance assessments. For example; prohibition of import of poultry from countries affected by avian flu, meat and poultry processing standards to reduce pathogens, residue limits for pesticides in foods etc.

2. Technical Barriers To Trade (TBT): Technical Barriers to Trade (TBT) which cover both food and non-food traded products refer to mandatory 'Standards and Technical Regulation' that define the specific characteristic that a product should have, such as its size, shape, design, labelling / marketing / packaging, functionally or performance and production methods, excluding measures covered by the SPS Agreement.

(B) Non- Technical Measures

- Imported Quotas: An imported quota is a direct restriction which specifies that only a certain physical amount of the good will be allowed into country during a given time period, usually one year. Import quotas are typically set below the free trade level of imports and usually enforced by issuing licenses.
- Price Control Measures: Price control measures (including additional taxes and charges) are steps taken to control or influence the prices of imported goods in order to support the domestic price of certain products when the import prices of these goods are lower.
- Non-automatic Licensing and Prohibition: These measures are normally aimed at limiting the quantity of goods that can be imported, regardless of whether they originate from different sources or from one particular supplier.
- Financial Measures: The objective of financial measures is to increase import costs by regulating the access to and cost of foreign exchange for imports and to define the terms of payment. It includes measures such as advance payment requirements and foreign exchange controls denying the use of foreign exchange for certain types of imports or for goods imported from certain countries.
- Measures Affecting Competition: These measures are aimed at granting exclusive or special preference or privileges to one or a few limited group of economic operators. It may include government imposed special channel or enterprises, and compulsory use of national services.

- Trade-Related Investment Measures: These measures include rules on local content requirements that mandate a specified fraction of a final good should be produced domestically.
- Distribution restrictions: Distribution restrictions are limitations imposed on the distribution of goods in the importing country involving additional license or certification requirements. These may relate to geographical restrictions or restrictions as to the type of agents who may resell.
- Restriction on Post-sales Services: Producers may be restricted from providing aftersales services for exported goods in the importing country. Such services may be reserved to local service companies of the importing country.
- Administrative Procedures: Another potential obstruction to free trade is the costly and time-consuming administrative procedures which are mandatory for import of foreign goods.
- Rules of origin: Country of origin means the country in which a good was produced, or in the case of a traded service, the home country of the service provider.
- Safeguard Measures are initiated by countries to restrict imports of a product temporarily if its domestic industry is injured or threatened with serious injury caused by a surge in imports.
- **Embargos: An embargo is a total ban imposes by government on import or export of some or all commodities to particular country or regions for a specified or indefinite period.**

3. Export- Related Restrictions

Export Taxes: An export tax is a tax collected on exported goods and may be either specific or ad valorem.

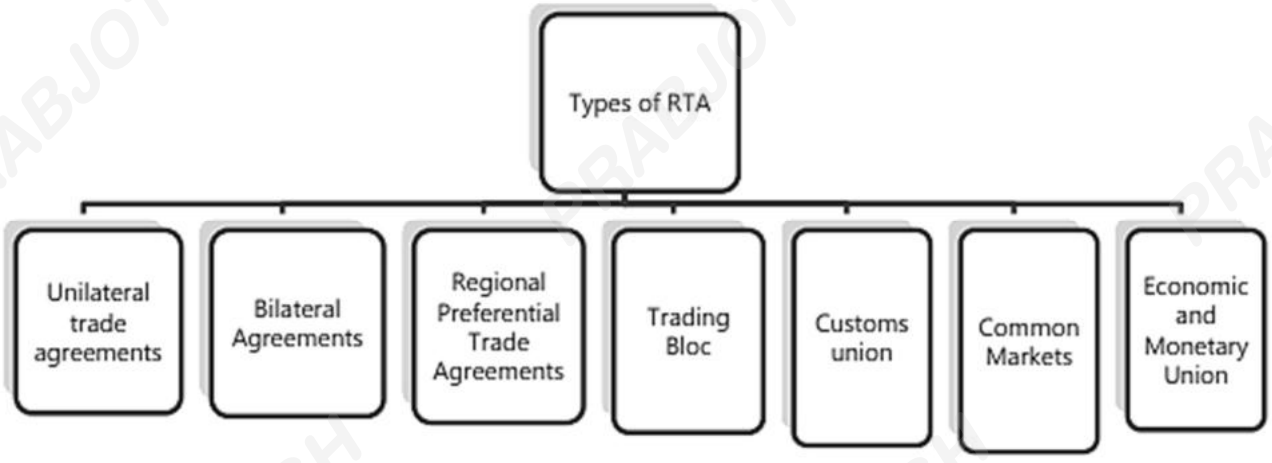
Export Subsidies and Incentives

Voluntary Export Restraints: Voluntary Export Restraints (VERs) refer to a type of informal quota administered by an exporting country voluntarily restraining the quantity of goods that can be exported out of that country during a specified period of time. Such restraints originate primarily from political considerations and are imposed based on negotiations of the importer with the exporter.

Unit 3

Trade Negotiations

1. **Regional Trade Agreements (RTAs)** are defined as groupings of countries (not necessarily belonging to the same geographical region), which are formed with the objective of reducing barriers to trade between member countries.
   As of 1 February 2021, 339 RTAs were in force



1. Unilateral trade agreements under which an importing country offers trade incentives in order to encourage the exporting country, to engage in international economic activities that will improve the exporting country's economy. E.g. Generalized System of Preferences.

2. Bilateral Agreements are agreements that set rules of trade between two countries, two blocs or a bloc and a country. These may be limited to certain goods and services or certain types of market entry barriers. E.g. EU-South Africa Free Trade Agreement; ASEAN-India Free Trade Area.

3. Regional Preferential Trade Agreements among a group of countries reduce trade barriers on a reciprocal and preferential basis for only the members of the group. E.g. Global System of Trade Preferences among Developing Countries (GSTP)

4.Trading Bloc has a group of countries that have a free trade agreement between themselves and may apply a common external tariff to other countries. Example: Arab League (AL), European Free Trade Association (EFTA)

5. Free-trade area is a group of countries that eliminate all tariff and quota barriers on trade with the objective of increasing exchange of goods with each other. The trade among the member states flows tariff free, but the member states maintain their own distinct external tariff with respect to imports from the rest of the world. Example: The ASEAN-India Free Trade Area (AIFTA) is a free trade area among the ten member states of the Association of Southeast Asian Nations (ASEAN) and India. it came into force on 1 August 2005.

6. A customs union is a group of countries that eliminate all tariffs on trade among themselves but maintain a common external tariff on trade with countries outside the union (thus, technically violating MFN). The common external tariff which distinguishes a customs union from a free trade area implies that, generally, the same tariff is charged wherever a member imports goods from outside the customs union.

7. A Common Market deepens a customs union by providing for the free flow of output and of factors of production (labor, capital and other productive resources) by reducing or eliminating internal tariffs on goods and by creating a common set of external tariffs. The member countries attempt to harmonize some institutional arrangements and commercial and financial laws and regulations among themselves. There are also common barriers against non-members (e.g., EU, ASEAN)

8. In an Economic and Monetary Union, the members share a common currency. Adoption of common currency also makes it necessary to have a strong convergence in macroeconomic policies. For example, the European Union countries implement and adopt a single currency.

The General Agreement on Tariffs and Trade (GATT) covers international trade in goods.

The GATT lost its relevance by the 1980s because

- it was obsolete to the fast-evolving contemporary complex world trade scenario characterized by emerging globalization
- international investments had expanded substantially
- intellectual property rights and trade in services were not covered by GATT
- World merchandise trade increased by leaps and bounds and was beyond its scope.
- the ambiguities in the multilateral system could be heavily exploited
- efforts at liberalizing agricultural trade were not successful
- There were inadequacies in institutional structure and dispute settlement system it was not a treaty and therefore terms of GATT were binding only insofar as they are not incoherent with a nation's domestic rules.

WTO followed GATT

The World Trade Organization (WTO) is the only global international organization dealing with the rules of trade between nations.

The WTO activities are supported by a Secretariat located in Geneva, headed by a Director General. It has a three-tier system of decision making.

The WTO's top level decision-making body is the Ministerial Conference which can take decision on all matters under any of the multilateral trade agreements. The Ministerial Conference meets at least once every two years. The next level, the Goods Council, services Council and Intellectual Property (TRIPS) Council report to the General Council.

These councils are responsible for overseeing the implementation of the WTO agreements in their respective areas of specialization. Right from its inception, the WTO has been driven by a number of fundamental principle which are the foundations of the multilateral trading system.

The WTO has **six** key objectives:

a) to set and enforce rules for international trade,
b) to provide a forum for negotiating and monitoring further trade liberalization,
c) to resolve trade disputes,
d) to increase the transparency of decision-making processes,
e) to cooperate with other major international economic institutions involved in global economic management, and
f) to help developing countries benefit fully from the global trading system.

Major guiding principles of WTO

- Trade without discrimination: Under the agreements, countries cannot normally discriminate between their trading partners. If a country lowers a trade barrier or opens up a market, it has to do so for the same goods or services from all other members.
- The National Treatment Principle (NTP): Any country should not discriminate between its own and foreign products, services or nationals. For instance, once imported apples reach Indian market, that cannot be discriminated against and should be treated at par in respect of marketing opportunities, product visibility or any other aspect with locally produced apples.
- Free trade: Lowering trade barriers for opening up markets is one of the most obvious means of encouraging trade as dictated by the WTO.
- Predictability: Foreign companies, investors and governments should be confident that the trade barriers will not be raised arbitrarily. This is achieved through 'binding' tariff rates, discouraging the use of quotas and other measures used to set limits on quantities of imports, establishing market-opening commitments and other measures to ensure transparency.
- Greater competitiveness: This is to be achieved by discouraging "unfair" practices such as export subsidies, dumping etc.
- Tariffs as legitimate measures for the protection of domestic industries: The imposition of tariffs should be the only method of protection, and tariff rates for individual items should be gradually reduced through negotiation 'on a reciprocal and mutually advantageous' basis.
- Transparency in Decision Making: The WTO insists that any decision by members in the sphere of trade or in respect of matter affecting trade should be transparent verifiable.
- Progressive Liberalization: Many trade issues of a controversial nature similar to labour standards, non-agricultural market access, etc. be liberalization after discussion.
- Special privileges to less developed countries: With majority of WTO members being developing countries and countries in transition to market economics, the WTO deliberations favour less developed countries by giving them greater them greater flexibility, special privileges and permission to phase out the transition period.
- Protection of Health & Environment: The WTO's agreements support measures to protect not only the environment but also human, animal as well as plant health.

- A transparent, effective and verifiable dispute settlement mechanism: Trade relations frequently involve conflicting interests. Any dispute arising out of violation of trade rules leading to infringement of right under the agreement or misunderstanding arising as regards the interpretation of rules are to be settled through consultation.

Unit 4

Exchange Rate & its economic effects

Book Definition: A foreign currency transaction is a transaction that is denominated in or requires settlement in a foreign currency, including transactions arising when an enterprise either:

(a) Buys or sells goods or services whose price is denominated in a foreign currency.
(b) Borrows or lends funds when the amounts payable or receivable are denominated in a foreign currency.
(c) Becomes a party to an unperformed forward exchange contract; or
(d) Otherwise acquires or disposes of assets, or incurs or settles liabilities, denominated in a foreign currency.

An exchange rate regime is the method by which the value of the domestic currency in terms of foreign currencies is determined. There are two major types of exchange rate regimes at the extreme ends; namely:

(i) floating exchange rate regime (also called a flexible exchange rate), and

(ii) fixed exchange rate regime

In a free-floating exchange rate system, governments and central banks do not participate

in the market for foreign exchange.(self-regulating)

The primary difficulty with free-floating exchange rates lies in their unpredictability

Managed Float Systems

Governments and central banks often seek to increase or decrease their exchange rates by buying or selling their own currencies. Exchange rates are still free to float, but governments try to influence their values. Government or central bank participation in a floating exchange rate system is called a managed float.

Advantages of a floating rate regime are:

(i)A floating exchange rate has the greatest advantage of allowing a Central bank and/or government to pursue its own independent monetary policy.

(ii) Floating exchange rate regime allows exchange rate to be used as a policy tool: for example, policy-makers can adjust the nominal exchange rate to influence the competitiveness of the tradable goods sector.

(iii) As there is no obligation or necessity to intervene in the currency markets, the central bank is not required to maintain a huge foreign exchange reserves.

In a fixed exchange rate system, the exchange rate between two currencies is set by government policy.

Advantages of a fixed rate regime are:

(i) A fixed exchange rate avoids currency fluctuations and eliminates exchange rate risks and transaction costs that can impede international flow of trade and investments.

(ii)International trade and investment are less risky under fixed rate regime as profits are not affected by the exchange rate fluctuations.

(iii) A reduction in speculation on exchange rate movements if everyone believes that exchange rates will not change.

(iv) A fixed exchange rate system imposes discipline on a country's monetary authority and therefore is more likely to generate lower levels of inflation.

(v) The government can encourage greater trade and investment as stability encourages investment.

(vi) Exchange rate peg can also enhance the credibility of the country's monetary-policy.

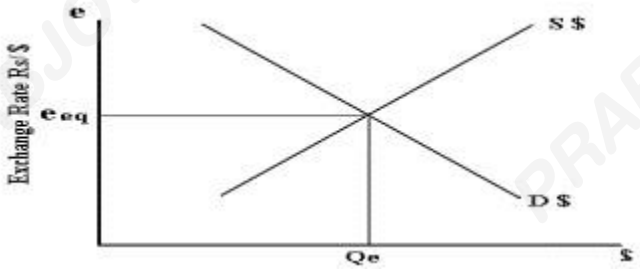
Nominal vs Real Exchange Rate

Nominal exchange rate which refers to the rate at which a person can trade the currency of one country for the currency of another country. Nominal Exchange Rates can be used to find the domestic price of foreign goods

The real exchange rate is the rate at which a person can trade the goods and services of one country for the goods and services of another. It describes 'how many' of a good or service in one country can be traded for 'one' of that good or service in a foreign country

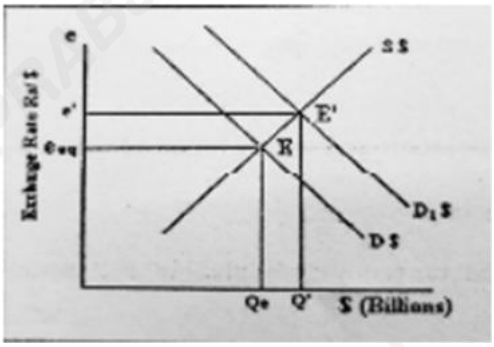
$$\text{Real exchange rate} = \text{Nominal exchange rate} \times \frac{\text{Domestic Price}}{\text{Foreign price}}$$

The supply of and demand for foreign exchange in the domestic foreign exchange market determine a country's **exchange rate.**

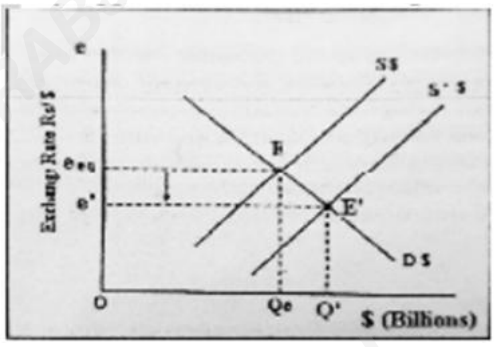


Changes in exchange rates: portray depreciation or appreciation of one currency.

- Currency appreciation is an increase in the value of one currency in terms of another. Currencies appreciate against each other for various reasons, including government policy, interest rates, trade balance and business cycles. Currencies are quoted and traded in pairs.
- Currency depreciation is a fall in the value of a currency in a floating exchange rate system. Currency depreciation can occur due to any number reasons- economic fundamental, interest rate differentials, political instability, risk aversion among investors and so on.



Depreciation



Appreciation

An increase in the supply of foreign shifts the supply curve to the right to 'S1 $' and as a consequence, the exchanges rate declines to E'. It means, that lesser units of domestic currency (here Indian Rupees) are required to buy a unit of foreign exchange (dollar), and that the domestic currency (the Rupees) has appreciated

The market reaches equilibrium at point 'E' with equilibrium exchange rate EQ. An increase in domestic demand for the foreign currency, with supply of dollars remaining constant, is represented by a rightward shift of the demand curve to 'D1$". The equilibrium exchange rate rises to E'. It means that more units of domestic currency (here Indian Rupees) are required to buy a unit of foreign exchange (dollar) and that the domestic currency (the Rupee) has depreciated

Effects of appreciation

- Exports become more expensive. The price Exports will increase making exports more expensive. Therefore with a higher price, we would expect to see a fall in the quantity exports.
- Imports become cheaper: Domestic consumers will find that more goods can be purchased with the same amount of money. Therefore, with cheaper imports, we would expect to see an increase in the quantity of imports.
- Lower (X-M) with lower export demand and greater spending on imports, we would expect fall in domestic Aggregate Demand (AD), causing lower growth.
- Lower inflation. An appreciation tends to cause lower inflation because import prices are cheaper. The cost of imported goods and raw materials will fall after an appreciation, e.g. imported oil will decrease, leading to cheaper petrol prices

Effects of depreciation

- Exports will become cheaper: A depreciation of the domestic currency will make exports more competitive and appear cheaper to foreigners. This will increase demand for exports
- Imports will become more expensive. A depreciation means imports, such as petrol, food and raw materials will become more expensive. This will reduce demand for imports.
- Increased aggregate demand (AD). A depreciation could cause higher economic growth. Part of AD is (X-M) therefore higher exports and lower imports should increase AD.
- Inflation is likely to occur following a depreciation because Imports are more expensive – causing cost push inflation.

Foreign capital" is a comprehensive term which takes into consideration any inflow of capital into the home country from abroad. Foreign capital may flow into an economy in different ways. Some of the important components of foreign capital flows are:

1. Foreign aid or assistance which may be:

a) Bilateral or direct inter-government grants

b) Multilateral aid from many governments who pool funds to international organization like the World Bank

c) Tied aid with strict mandates regarding the use of money or united aid where there are no such stipulations

d) Foreign grant which are voluntary transfer of resources by governments, institutions, agencies or organizations

2. Borrowings which may take different forms such as:

a) Direct inter-government loans

b) Loans from international institutions (e.g. world bank, IMF, ADB)

c) Soft loans for e.g. from affiliates of World Bank such as IDA

d) External commercial borrowing, and

e) Trade credit facilities

3. Deposits from non-resident Indians (NRI)

NRI deposits refers to funds deposited by a Non-Resident Indian or NRI with a financial institution authorized by the Reserve Bank of India to provide such services. A Non-Resident Indian citizen who primarily resides outside of India.

4. Investment in the form of:

1. Foreign portfolio investment (FDI) in bonds, stocks and securities, and

2. Foreign direct investment (FDI) in industrial, commercial and similar other enterprises.

Foreign Direct Investment (FDI)	Foreign Portfolio Investment (FPI)
Investment involves creation of physical assets	Investment is only in financial assets
Has a long term interest and therefore remain invested for long	Only short term interest and generally remain invested for short periods
Relatively difficult to withdraw	Relatively easy to withdraw
Not inclined to be speculative	Speculative in nature
Often accompanied by technology transfer	Not accompanied by technology transfer
Direct impact on employment of labour and wages	No direct impact on employment of labour and wages
Enduring interest in management and control	No abiding interest in management and control
Securities are held with significant degree of influence by the investor on the management of the enterprise	Securities are held purely as a financial investment and no significant degree of influence on the management of the enterprise

Chapter 10

Indian Economy

Indian Economy-Pre Independence Period

Characteristics:

(1) Large scale unemployment and absence of alternate sources of employment which forced many to depend on agriculture for livelihood
(2) The increased pressure on land caused sub division and fragmentation of land holdings, subsistence farming, reduced agricultural productivity and poverty.
(3) The imports of cheap machine made goods from Britain and an overt shift of tastes and fashion of Indians in favour of imported goods made the survival of domestic industries all the more difficult.
(4) The systems of land tenure, especially the zamindari system created a class of people whose interests were focused on perpetuating the British rule.
(5) Excessive pressure on land increased the demand for land under tenancy, and the zamindars got the opportunity to extract excessive rents and other payments
(6) Absentee landlordism, high indebtedness of agriculturists, growth of a class of exploitative money lenders and low attention to productivity enhancing measures led to a virtual collapse of Indian agriculture.

The Economic Reforms of 1991

The reforms, popularly known as **liberalization, privatization and globalisation**, spelt a major shift in economic philosophy and fundamental change in approach and had two major objectives:

a) reorientation of the economy from a centrally directed and highly controlled one to a 'market friendly' or market oriented economy.
b) macroeconomic stabilization by substantial reduction in fiscal deficit.

The Fiscal Reforms:
Measures:

1. Introduction of a stable and transparent tax structure,
2. Ensuring better tax compliance,
3. Thrust on curbing government expenditure
4. Reduction in subsidies and abolition of unnecessary subsidies
5. Disinvestment of part of government's equity holdings in select public sector undertakings and
6. Encouraging private sector participation.

Monetary & Financial Sector Reforms

Measures:

1. Interest rate liberalization and reduction in controls on banks by the Reserve Bank of India in respect of interest rates chargeable on loans and payable on deposits.
2. Opening of new private sector banks and facilitating greater competition among public sector, private sector and foreign banks and simultaneously removal of administrative constraints that reduced efficiency
3. Reduction in reserve requirements namely, statutory liquidity ratio (SLR) and cash reserve ratio (CRR) in line with the recommendations of the Narasimham Committee Report, 1991.
4. Liberalisation of bank branch licensing policy and granting of freedom to banks in respect of opening, relocating or closure of branches
5. Prudential norms of accounting in respect of classification of assets, disclosure of income and provisions for bad debt were introduced in tune with the Narasimham Committee recommendations to ensure that the books of commercial banks reflect the accurate and truthful picture of their financial position.

Capital Market Reforms

The Securities and Exchange Board of India (SEBI) which was set up in 1988 was given statutory recognition in 1992

Trade Policy Reforms

The trade policy reforms aimed at:

- dismantling of quantitative restrictions on imports and exports
- focusing on a more outward oriented regime with phased reduction and simplification of tariffs, and
- removal of licensing procedures for imports.

Question Bank

Chapter 1

1. Economists regard decision making as important because:

(a)The resources required to satisfy our unlimited wants and needs are finite, or scarce.

(b) It is crucial to understand how we can best allocate our scarce resources to satisfy society's unlimited wants and needs.

(c) Resources have alternative uses.

(d) All the above.

2. Business Economics is -

(a) Abstract and applies the tools of Microeconomics.

(b) Involves practical application of economic theory in business decision making.

(c) Incorporates tools from multiple disciplines.

(d) (b) and (c) above.

3. Which of the following is a normative statement?

(a) Planned economies allocate resources via government departments.

(b) Most transitional economies have experienced problems of falling output and rising prices over the past decade.

(c) There is a greater degree of consumer sovereignty in market economies than planned economies.

(d) Reducing inequality should be a major priority for mixed economies.

4. In every economic system, scarcity imposes limitations on

(a) households, business firms, governments, and the nation as a whole.

(b) households and business firms, but not the governments.

(c) local and state governments, but not the federal government.

(d)households and governments, but not business firms.

5.Macroeconomics is also called- economics.

(a) applied

(b) aggregate

(c) experimental

(d) none of the above

6. Which of the following does not suggest a macro approach for India?

(a) Determining the GNP of India.

(b) Finding the causes of failure of ABC Ltd.

(c) Identifying the causes of inflation in India.

(d) Analyse the causes of failure of industry in providing large scale employment

7. Ram: My corn harvest this year is poor.

Krishan: Don't worry. Price increases will compensate for the fall in quantity supplied.

Vinod: Climate affects crop yields. Some years are bad, others are good.

Madhu: The Government ought to guarantee that our income will not fall.

In this conversation, the normative statement is made by -

(a) Ram

(b) Krishan

(c) Vinod

(d) Madhu

8. Consider the following and decide which, if any, economy is without scarcity:

(a) The pre-independent Indian economy, where most people were farmers.

(b) A mythical economy where everybody is a billionaire.

(c) Any economy where income is distributed equally among its people.

(d) None of the above.

9. Which of the following is not the subject matter of Business Economics?

(a) Should our firm be in this business?

(b) How much should be produced and at price should be kept?

(c) How will the product be placed in the market?

(d) How should we decrease unemployment in the economy?

10.Which of the following is a normative economic statement?

(a) Unemployment rate decreases with industrialization

(b) Economics is a social science that studies human behaviour.

(c) The minimum wage should be raised to 200/- per day

(d) India spends a huge amount of money on national defence.

11.Which of the following would be considered a topic of study in Macroeconomics?

(a) The effect of increase in wages on the profitability of cotton industry

(b) The effect on steel prices when more steel is imported

(c) The effect of an increasing inflation rate on living standards of people in India

(d) The effect of an increase in the price of coffee on the quantity of tea consumed

12. Which of the following is not within the scope of Business Economics?

(a) Capital Budgeting

(b) Risk Analysis

(c) Business Cycles

(d)Accounting Standards

13.Which of the following statements is incorrect?

(a) Business economics is normative in nature.

(b) Business Economics has a close connection with statistics.

(c) Business Economist need not worry about macro variables.

(d)Business Economics is also called Managerial Economics.

14.Economic goods are considered scarce resources because they.

(a) cannot be increased in quantity.

(b) do not exist in adequate quantity to satisfy the requirements of the society.

(c) are of primary importance in satisfying social requirements.

(d)are limited to man made goods.

15. In a free market economy the allocation of resources is determined by

(a) voting done by consumers.

(b) a central planning authority.

(c) consumer preferences.

(d) the level of profits of firms.

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(a) voting done by consumers.

(b) a central planning authority.

(c) consumer preferences.

(d) the level of profits of firms.

20.A capitalist economy uses _____as the principal means of allocating resources.

(a) demand

(b)supply

(c) efficiency

(d) prices

21. Which of the following statements does not apply to a market economy?

(a) Firms decide whom to hire and what to produce.

(b) Firms aim at maximizing profits.

(c) Households decide which firms to work for and what to buy with their incomes.

(d) Government policies are the primary forces that guide the decisions of firms and households.

22. In a mixed economy -

(a) all economic decisions are taken by the central authority.

(b) all economic decisions are taken by private entrepreneurs.

(c) economic decisions are partly taken by the state and partly by the private entrepreneurs.

(d) none of the above.

23. The central problem in economics is that of

(a) comparing the success of command versus market economies.

(b) guaranteering that production occurs in the most efficient manner.

(c) guaranteering a minimum level of income for every citizen.

(d) allocating scarce resources in such a manner that society's unlimited needs or

wants are satisfied in the best possible manner.

24. Capital intensive technique would get chosen in a

(a) labour surplus economy where the relative price of capital is lower.

(b) capital surplus economy where the relative price of capital is lower.

(c) developed economy where technology is better.

(d) developing economy where technology is poor.

25. Mr. Satish hired a business consultant to guide him for growth of his business. The consultant visited his factory and suggested some changes with respect to staff appointment, loan availability and so on. Which approach is that consultant using?

(a) Micro economics

(b) Macro economics

(c) None of the above

(d) Both a and b

26. Profit motive is a merit of

(a) Socialism

(b) Capitalism

(c) Mixed economy

(d) None of the above

27._____is also called as command economy

(a) Socialist

(b) Capitalist

(c) Mixed economy

(d) None of the above

28. Which of the following statements is/are correct regarding business economics?

(a) Business economics attempts to indicate how business policies are firmly rooted in economic principles.

(b) Business economics uses micro economic analysis of the business unit and macro economic analysis of business environment.

(c) Business economics takes a pragmatic approach towards facilitating an integration between economic theory and business practices.

(d) All the above.

29.Unlimited ends and limited means together present the problem of

(a) Scarcity of resources

(b) Choice

(c) Distribution

(d) None of the above

30. Which of the following is considered as a disadvantage of allocating resources using the market system?

(a) Income will tend to be unevenly distributed.

(b) People do not get goods of their choice.

(c) Men of Initiative and enterprise are not rewarded.

(d) Profits will tend to be low

Chapter 2

1. Demand for a commodity refers to:

(a) Desire backed by ability to pay for the commodity.
(b) Need for the commodity and willingness to pay for it.
(c) The quantity demanded of that commodity at a certain price.
(d) The quantity of the commodity demanded at a certain price during any particular period of time.

2. In the case of a straight line demand curve meeting the two axes, the price-elasticity of demand at the mid-point of the line would be:

(a) 0

(b) 1

(c) 1.5

(d) 2

3. The Law of Demand, assuming other things to remain constant, establishes the relationship between:

(a) income of the consumer and the quantity of a good demanded by him.

(b) price of a good and the quantity demanded.

(c) price of a good and the demand for its substitute.

(d) quantity demanded of a good and the relative prices of its complementary goods.

4. Suppose the price of Pepsi increases, we will expect the demand curve of Coca Cola to:

(a) Shift towards left since these are substitutes

(b) Shift towards right since these are substitutes

(c) Remain at the same level

(d) None of the above

5. All of the following are determinants of demand except:

(a) Tastes and preferences.

(b) Quantity supplied.

(c) Income of the consumer

(d) Price of related goods.

6. If the price of Pepsi decreases relative to the price of Coke and 7-UP, the demand for:

(a)Coke will decrease.

(b) 7-Up will decrease.

(c) Coke and 7-UP will increase.

(d)Coke and 7-Up will decrease.

7. If a good is a luxury, its income elasticity of demand is:

(a) Positive and less than 1.

(b) Negative but greater than -1.

(c) Positive and greater than 1.

(d) Zero.

8. The price of hot dogs increases by 22% and the quantity of hot dogs demanded falls by 25%. This indicates that demand for hot dogs is:

(a) Elastic.

(b) Inelastic.

(c) Unitarily elastic.

(d) Perfectly elastic.

9. Suppose the price of movies seen at a theatre rises from 120 per person to 200 per person. The theatre manager observes that the rise in price causes attendance at a given movie to fall from 300 persons to 200 persons. What is the price elasticity of demand for movies? (Use Arc Elasticity Method)

(a) .5

(b) .8

(c) 1.0

(d) 1.2

10.When the numerical value of cross elasticity between two goods is very high, it means

(a) The goods are perfect complements and therefore have to be used together

(b) The goods are perfect substitutes and can be used with ease in place of one another

(c) There is a high degree of substitutability between the two goods

(d) The goods are neutral and therefore cannot be considered as substitutes

11.If the local pizzeria raises the price of a medium pizza from 60 to 100 and quantity demanded falls from 700 pizzas a night to 100 pizzas a night, the price elasticity of demand for pizzas is :(Use Arc Elasticity Method)

(a) .67

(b) 1.5

(c) 2.0

(d) 3.0

12. If electricity demand is inelastic, and electricity charges increase, which of the following is likely to occur?

(a) Quantity demanded will fall by a relatively large amount.

(b) Quantity demanded will fall by a relatively small amount.

(c) Quantity demanded will rise in the short run, but fall in the long run.

(d) Quantity demanded will fall in the short run, but rise in the long run.

13. Point elasticity is useful for which of the following situations?

(a) The bookstore is considering doubling the price of notebooks.

(b) A restaurant is considering lowering the price of its most expensive dishes by 50 percent.

(c) An auto producer is interested in determining the response of consumers to the price of cars being lowered by ₹100.

(d) None of the above.

14. A decrease in price will result in an increase in total revenue if:

(a) The percentage change in quantity demanded in less than the percentage change in price.

(b) The percentage change in quantity demanded is greater than the percentage change in price.

(c) Demand is inelastic.

(d) The consumer is operating along a linear demand curve at a point at which the price is very low and the quantity demanded is very high.

15. Which of the following is a property of an indifference curve?

(a) It is convex to the origin due to diminishing marginal rate of substitution

(b) The marginal rate of substitution is constant as you move along an indifference curve.

(c) Marginal utility is constant as you move along an indifference curve.

(d) Total utility is greatest where the budget line cuts the indifference curve.

16.When economists speak of the utility of a certain good, they are referring to

(a) The demand for the good.

(b) The usefulness of the good in consumption.

(c) The expected satisfaction derived from consuming the good.

(d) The rate at which consumers are willing to exchange one good for another.

17. A vertical supply curve parallel to Y axis implies that the elasticity of supply is:

(a) Zero

(b) Infinity

(c) Equal to one

(d) Greater than zero but less than infinity.

18.The quantity purchased remains constant irrespective of the change in income. This is known as

(a) negative income elasticity of demand

(b) income elasticity of demand less than one

(c) zero income elasticity of demand

(d) income elasticity of demand is greater than one

19. As income increases, the consumer will go in for superior goods and consequently the demand for inferior goods will fall. This means inferior goods have

(a) income elasticity of demand less than one

(b) negative income elasticity of demand

(c) zero income elasticity of demand

(d) unitary income elasticity of demand

20. When income increases the money spent on necessaries of life may not increase in the same proportion. This means

(a) income elasticity of demand is zero

(b) income elasticity of demand is one

(c) income elasticity of demand is greater than one

(d) income elasticity of demand is less than one

21.If price of computers increases by 10% and supply increases by 25%. The elasticity of supply is:

(a) 2.5

(b) 0.4

(c) (-) 2.5

(d) (-) 0.4

22.An increase in the number of sellers of bikes will increase the

(a) The price of a bike

(b) Demand for bikes

(c) The supply of bikes

(d) Demand for helmets

23. If the supply of bottled water price decreases, other things remaining the same, the equilibrium price_____and the equilibrium quantity_____

(a) increases; decreases

(b) decreases; increases

(c) decreases; decreases

(d) increases; increases

24.The elasticity of supply is defined as the

(a) responsiveness of the quantity supplied of a good to a change in its price

(b) responsiveness of the quantity supplied of a good without change in its price

(c) responsiveness of the quantity demanded of a good to a change in its price

(d) responsiveness of the quantity demanded of a good without change in its price

25. Elasticity of supply is measured by dividing the percentage change in quantity supplied of a good by_____

(a) Percentage change in income

(b)Percentage change in quantity demanded of goods

(c) Percentage change in price

(d) Percentage change in taste and preference

26.Elasticity of supply is zero means

(a) perfectly inelastic supply

(b) perfectly elastic supply

(c) imperfectly elastic supply

(d)none of the above

27. If the quantity supplied is exactly equal to the relative change in price then the elasticity of supply is

(a) Less than one

(b) Greater than one

(c) One

(d) None of the above

28. The price of a commodity decreases from 6 to 4 and the quantity demanded of the good increases from 10 units to 15 units. Find the coefficient of price elasticity.

(a) 1.5

(b) 2.5

(c) -1.5

(d) 0.5

29. The supply function is given as Q=-100 + 10P. Find the elasticity using point method, when price is 15.

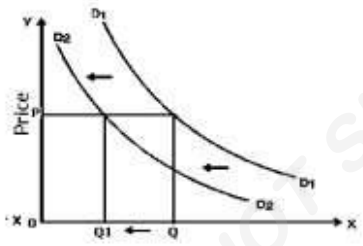
(a) 4

(b) -3

(c) -5

(d)3

30. The diagram given below shows



(a) A change in demand which may be caused by a rise in income and the good is a normal good

(b) A shift of demand curve caused by a fall in the price of a complementary good

(c) A change in demand which is caused by a rise in income and the good is an inferior good

(d) A shift of demand curve caused by a rise in the price of a substitute and the good is a normal good

Chapter 3

1. In the production of wheat, all of the following are variable factors that are used by the farmer except:

(a) the seed and fertilizer used when the crop is planted.

(b) the field that has been cleared of trees and in which the crop is planted.

(c) the tractor used by the farmer in planting and cultivating not only wheat but also corn and barley.

(d) the number of hours that the farmer spends in cultivating the wheat fields.

2.The marginal product of a variable input is best described as: (a) total product divided by the number of units of variable input.

(b) the additional output resulting from a one unit increase in the variable input.

(c) the additional output resulting from a one unit increase in both the variable and fixed inputs.

(d) the ratio of the amount of the variable input that is being used to the amount of the fixed input that is being used.

3. Diminishing marginal returns implies:

(a) decreasing average variable costs.

(b) decreasing marginal costs.

(c) increasing marginal costs.

(d) decreasing average fixed costs.

4.Diminishing returns occur:

(a) when units of a variable input are added to a fixed input and total product falls.

(b) when units of a variable input are added to a fixed input and marginal product falls.

(c) when the size of the plant is increased in the long run.

(d) when the quantity of the fixed input is increased and returns to the variable input falls.

Use the below information to answer questions 5-7

Hours of Labour	Total Output	Marginal Product
0	–	–
1	100	100
2	–	80
3	240	–

5. What is the total output when 2 hours of labour are employed?

(a) 80

(b)100

(c)180

(d)200

6. What is the marginal product of the third hour of labour?

(a)60

(b)80

(c)100

(d)240

7. What is the average product of the first three hours of labour?

(a)60

(b)80

(c)100

(d)240

8. Total cost in the short run is classified into fixed costs and variable costs. Which one of the following is a variable cost?

(a) Cost of raw materials.

(b) Cost of equipment.

(c) Interest payment on past borrowings.

(d)Payment of rent on building.

9. In the short run, when the output of a firm increases, its average fixed cost:

(a) increases.

(b) decreases.

(c) remains constant.

(d)first declines and then rises.

10. Which one of the following is also known as planning curve?

(a) Long run average cost curve.

(b) Short run average cost curve.

(c) Average variable cost curve.

(d)Average total cost curve.

Use the following data to answer questions 11-13

Output (O)	***0***	***1***	***2***	***3***	***4***	***5***	***6***
Total Cost (TC)	*₹240*	*₹330*	*₹410*	*₹480*	*₹540*	*₹610*	*₹690*

11. The average fixed cost of 2 units of output is:

(a)80

(b)85

(c)120

(d)205

12. The marginal cost of the sixth unit of output is:

(a)133

(b)75

(c)80

(d)450

13.Diminishing marginal returns start to occur between units:

(a)2 and 3.

(b)3 and 4.

(c)4 and 5.

(d)5 and 6.

14.Marginal cost is defined as:

(a)the change in total cost due to a one unit change in output.

(b)total cost divided by output.

(c)the change in output due to a one unit change in an input.

(d)total product divided by the quantity of input.

15. Which of the following statements is correct concerning the relationships among the firm's cost functions?

(a) TC=TFC-TVC

(b) TVC=TFC-TC.

(c) TFC=TC-TVC.

(d) TC=TVC-TFC.

16. Suppose output increases in the short run. Total cost will:

(a) increase due to an increase in fixed costs only.

(b) increase due to an increase in variable costs only.

(c) increase due to an increase in both fixed and variable costs.

(d) decrease if the firm is in the region of diminishing returns.

17.Which of the following statements concerning the long-run average cost curve is false?

(a) It represents the least-cost input combination for producing each level of output

(b) It is derived from a series of short-run average cost curves.

(c) The short-run cost curve at the minimum point of the long-run average cost curve represents the least-cost plant size for all levels of output.

(d) As output increases, the amount of capital employed by the firm increases along the curve.

18. A firm's average total cost is 300 at 5 units of output and 320 at 6 units of output. The marginal cost of producing the 6th unit is:

(a) 20

(b) 120

(c) 320

(d) 420

19. A firm producing 7 units of output has an average total cost of 150 and has to pay 350 to its fixed factors of production whether it produces or not. How much of the average total cost is made up of variable costs?

(a) 200

(b) 50

(c) 300

(d) 100

20. A firm has a variable cost of 1000 at 5 units of output. If fixed costs are 400, what will be the average total cost at 5 units of output?

(a)280

(b) 60

(c) 120

(d)1400

Chapter 4

1. Pure oligopoly is based on the

(a) differentiated

(b) homogeneous

(c) unrelated

(d) none of the above

2. In oligopoly, when the industry is dominated by one large firm which is considered as leader of the group, Then it is called:

(a) full oligopoly

(b)collusive oligopoly

(c) partial oligopoly

(d) syndicated oligopoly

3. When the products are sold through a centralized body, oligopoly is known as

(a) organized oligopoly

(b) partial oligopoly

(c) competitive oligopoly

(d) syndicated oligopoly

4. Under_____the monopolist will fix a price which will take away the entire consumers' surplus.

(a) second degree of price discrimination

(b) first degree of price discrimination

(c) third degree of price discrimination

(d)none of the above.

5. Price discrimination is related to

(a)time

(b) size of the purchase

(c) income

(d)any of the above

6. The firm and the industry are one and the same in_____

(a) Perfect competition

(b)Monopolistic competition

(c) Duopoly

(d) Monopoly

7.The demand curve of a monopoly firm will be

(a) Upward sloping

(b)Downward sloping

(c) Horizontal

(d) Vertical

8.If the average cost is higher than the average revenue then the firm incurs

(a) Normal profit

(b) Abnormal profit

(c) Loss

(d) No profit, no loss

9. Assume that when Price is 10, the quantity demanded is 5 units and when Price is 12 the quantity demanded is 4 units. Based on this information, what is the Marginal Revenue resulting from increase in output from 4 units to 5 units.

(a) 5

(b) 4

(c) 2

(d)3

10. Average revenue is equal to.

(a) The change in P & Q due to a one unit change in output.

(b) Nothing but price of one unit of output.

(c) The change in quantity divided by change in price.

(d) Graphically it denotes the firm's supply curve.

11. Example of a commodity said to have an International Market.

(a) Perishable Goods.

(b) High Value and Small Bulk Commodities.

(c) Product whose trading is restricted by government.

(d) Bulky articles

12. Weekly market is example of

Market:

(a) Regulated Market

(b) Spot Market

(c) Forward Market

(d) Unregulated Market

13.Conditions for equilibrium of a firm are:

(a) MR = MC

(b) MC should cut MR from below.

(c) MR = AR and MC should cut MR from below.

(d) MR = MC and MC should have a positive slope.

14. Natural Monopoly arises when

(a)There is enormous goodwill enjoyed by a firm.

(b) There are stringent legal and regulatory requirement.

(c)There are very large Economies of Scale.

(d)There are Business Combinations and Cartels.

15. Secular period is also known as

(a)very short period

(b) short period

(c) very long period

(d)long period

16.Stock exchange market is an example of

(a)unregulated market

(b)regulated market

(c) spot market

(d)none of the above

17. The market for the ultimate consumers is known as

(a) whole sale market

(b)regulated market

(c) unregulated market

(d)retail market

18.When e > 1 then MR is

(a)zero

(b)negative

(c)positive

(d)one

19. When e = 1 then MR is

(a)positive

(b)zero

(c)one

(d)negative

20.When e < 1 then MR is

(a)negative

(b)zero

(c)positive

(d)one

Chapter 5

1.The term business cycle refers to

(a) the ups and downs in production of commodities

(b) the fluctuating levels of economic activity over a period of time

(c) decline in economic activities over prolonged period of time

(d)increasing unemployment rate and diminishing rate of savings

2.A significant decline in general economic activity extending over a period of time is

(a) business cycle

(b) contraction phase

(c)recession

(d)recovery

3.The trough of a business cycle occurs when hits its lowest point.

(a) inflation in the economy

(b) the money supply

(c)aggregate economic activity

(d)the unemployment rate

4.The lowest point in the business cycle is referred to as the

(a) Expansion.

(b) Boom.

(c) Peak.

(d) Trough.

5.A leading indicator is

(a) a variable that tends to move along with the level of economic activity

(b) a variable that tends to move in advance of aggregate economic activity

(c) a variable that tends to move consequent on the level of aggregate economic activity

(d) None of the above

6. The different phases of a business cycle

(a) do not have the same length and severity

(b)expansion phase always last more than ten years

(c) last many years and are difficult to get over in short periods

(d) none of the above

7.Which of the following is not an example of coincident indicator?

(a) Industrial production

(b) inflation

(c) Retail sales

(d) New orders for plant and equipment

8. According to trade cycles occur due to onset of innovations.

(a) Hawtrey

(b) Adam Smith

(c)J M Keynes

(d) Schumpeter

9.Business cycle generally originates in free market economies, what is a free market economy?

(a) The economy where government is in possession of major assets

(b) The economy where private firms control major assets

(c) The economy where decisions of productions are taken by public sector undertakings

(d) The economy where price is controlled by government.

10.Which of the following statements is correct?

(a) The business cycle largely affects the agricultural sector

(b) The business cycle largely affects small employees

(c) The business cycle generally affects all sectors of economy but business sector in particular.

(d) The business cycle affects low wages workers

11. According to Keynes, fluctuations in Economic activities are due to-.

(a) Fluctuation in aggregate effective demand.

(b) Innovations

(c) Changes in money supply

(d) Fluctuation in agricultural output

12.Which of the following is the cause of business cycles?

(a) Fluctuations in investments

(b) Fluctuations in aggregate effective demand

(c) Fluctuations in government spending

(d) All of the above

13.Economists use changes in a variety of activities to measure the business cycle and to predict where the economy is headed towards which are called

(a) Signals

(b) Indicators

(c) Barometer

(d)Clues

14.If the growth rate of population is higher than the rate of economic growth, there will be in the economy.

(a) more savings

(b) no effect on savings

(c) lesser savings

(d) none of these

15.The cobweb theory was propounded by.

(a)Hawtrey

(b) Adam Smith

(c) JM Keynes

(d)Nicholas Kaldor

Chapter 6

1.In the Keynesian model, equilibrium aggregate output is determined by

(a) aggregate demand

(b) consumption function

(c) the national demand for labor

(d) the price level

2. Keynes believed that an economy may attain equilibrium level of output

(a) only at the full-employment level of output

(b) below the full-employment level of output

(c) only if prices were inflexible

(d) a) and c) above

3.If the consumption function is expressed as C = a + bY then b represents

(a) autonomous consumer expenditure when income is zero

(b) the marginal propensity to consume.

(c) the expenditure multiplier when consumption is increased

(d) part of disposable income

4.If the consumption function is expressed as C = a + bY then a represents

(a) autonomous consumer expenditure.

(b) the marginal propensity to consume.

(c) the consumption income relationship

(d) Non-linear consumption function

5.If the consumption function is C = 20 + 0.5Yd, then an increase in disposable income by

100 will result in an increase in consumer expenditure by ----------

(a) 25

(b) 70

(c) 50

(d) 100

6. In the Keynesian cross diagram, the point at which the aggregate demand function crosses the 45-degree line indicates the

(a) level of full employment income.

(b) less than full employment level of income.

(c) equilibrium level of income which may or may not be full employment level of income

(d) autonomous level of income which may not be full employment level of income

7. In a closed economy, aggregate demand is the sum of

(a)consumer expenditure, demand for exports and government spending.

(b) consumer expenditure, planned investment spending and government spending.

(c) consumer expenditure, actual investment spending, government spending and net exports.

(d) consumer expenditure, planned investment spending, government spending, and net exports.

8. Under equation C= a+by, b=0.8, what is the value of 2 sector expenditure multiplier?

(a)4

(b) 2

(c) 5

(d) 1

Chapter 7

1. Fiscal policy refers to the

(a) use of government spending, taxation and borrowing to influence the level of economic activity

(b) government activities related to use of government spending for supply of essential goods

(c) use of government spending, taxation and borrowing for reducing the fiscal deficits

(d) and (b) above

2. If real GDP is continuously declining and the rate of unemployment in the economy is increasing, the appropriate policy should be to

(a) Increase taxes and decrease government spending

(b) Decrease both taxes and government spending

(c) Decrease taxes and increase government spending

(d) Either (a) or (c)

3.During recession the fiscal policy of the government should be directed towards

(a) Increasing the taxes and reducing the aggregate demand

(b) Decreasing taxes to ensure higher disposable income

(c) Increasing government expenditure and increasing taxes

(d) None of the above

4. According to Keynesian economics, when we have inflation an effective fiscal policy should not include

(a) increase corporate taxes.

(b) decrease aggregate demand.

(c) Increase government purchases.

(d) None of the above is correct

5.Which of the following may ensure a decrease in aggregate demand during inflation?

(a)decrease in all types of government spending and/ or an increase in taxes

(b) increase in government spending and/or a decrease in taxes

(c) decrease in government spending and/ or a decrease in taxes

(d) All the above

6.A recession is characterized by

(a) Declining prices and rising employment

(b) Declining unemployment and rising prices

(c) Declining real income and rising unemployment.

(d) Rising real income and rising prices

7.Which one of the following is an example of fiscal policy?

(a) A tax cut aimed at increasing the disposable income and spending

(b) A reduction in government expenditure to contain inflation

(c) An increase in taxes and decrease in government expenditure to control inflation

(d) All the above

8. Read the following statements

I. Fiscal policy is said to be contractionary when revenue is higher than spending i.e., the government budget is in surplus

II. Other things constant, a fiscal expansion will raise interest rates and "crowd out" some private investment

III. During inflation new taxes can be levied and the rates of existing taxes are raised to reduce disposable incomes

IV. Classical economists advocated contractionary fiscal policy to solve the problem of inflation

Of the above statements

(a) I and II are correct

(b) I, II and III are correct

(c) Only III is correct

(d) All are correct

9. While resorting to expansionary fiscal policy

(a) the government may possibly have a budget surplus as increased expenditure will bring more output and more tax revenue

(b) the government may run into budget deficits because tax cuts reduce government income and the government expenditures exceed tax revenues in a given year

(c) it is important to have a balanced budget to avoid inflation and bring in stability

(d) None of the above will happen

10.An increase in personal income taxes

(a) reduces disposable incomes leading to fall in consumption spending and aggregate demand

(b) is desirable during inflation or when there is excessive levels of aggregate demand

(c) is to compensate the deficiency in effective demand by boosting aggregate

spending

(d) both a) and b) are correct

11. While the government resorts to deliberate fiscal policy it may not attempt to manipulate

(a) Government expenditures on public works

(b) The rates of personal income taxes and corporate taxes

(c) Government expenditures on goods and services purchased by government

(d) The rate of interest prevailing in the economy

12. Which of the following fiscal remedy would you advice when an economy is facing recession

(a) the government may cut interest rates to encourage consumption and investment

(b) the government may cut taxes to increase aggregate demand

(c) the government may follow a policy of balanced the budget.

(d) None of the above will work

Chapter 8

1.Which of the following is the function of monetary policy?

(a) regulate the exchange rate and keep it stable

(b) regulate the movement of credit to the corporate sector

(c) regulate the level of production and prices

(d)regulate the availability, cost and use of money and credit

2.The main objective of monetary policy in India is

(a) reduce food shortages to achieve stability

(b) economic growth with price stability

(c) overall monetary stability in the banking system

(d) reduction of poverty and unemployment

3.The monetary transmission mechanism refers to

(a) how money gets circulated in different sectors of the economy post monetary policy

(b) the ratio of nominal interest and real interest rates consequent on a monetary policy

(c) the process or channels through which the evolution of monetary aggregates affects the level of product and prices

(d) none of the above

4. A contractionary monetary policy-induced increase in interest rates

(a) increases the cost of capital and the real cost of borrowing for firms

(b) increases the cost of capital and the real cost of borrowing for firms and households

(c) decreases the cost of capital and the real cost of borrowing for firms

(d) has no interest rate effect on firms and households

5.RBI provides financial accommodation to the commercial banks through repos/reverse repos under

(a) Market Stabilisation Scheme (MSS)

(b) The Marginal Standing Facility (MSF)

(c) Liquidity Adjustment Facility (LAF).

(d) Statutory Liquidity Ratio (SLR)

6._____is a money market instrument, which enables collateralised short term borrowing and lending through sale/purchase operations in debt instruments.

(a)OMO

(b) CRR

(c) SLR

(d) Repo

7.In India, the term 'Policy rate' refers to

(a) The bank rate prescribed by the RBI in its half yearly monetary policy statement

(b) The CRR and SLR prescribed by RBI in its monetary policy statement

(c) the fixed repo rate quoted for sovereign securities in the overnight segment of Liquidity Adjustment Facility (LAF)

(d) the fixed repo rate quoted for sovereign securities in the overnight segment of Marginal Standing Facility (MSF)

8. Reverse repo operation takes place when

(a) RBI borrows money from banks by giving them securities

(b) banks borrow money from RBI by giving them securities

(c) banks borrow money in the overnight segment of the money market

(d) RBI borrows money from the central government

9.The Monetary Policy Framework Agreement is on

(a) the maximum repo rate that RBI can charge from government

(b) the maximum tolerable inflation rate that RBI should target to achieve price stability.

(c) the maximum repo rate that RBI can charge from the commercial banks

(d) the maximum reverse repo rate that RBI can charge from the commercial banks

10. An open market operation is an instrument of monetary policy which involves buying or selling of_____from or to the public and banks

(a) bonds and bills of exchange

(b) debentures and shares

(c) government securities

(d) none of these

Chapter 9

1. Which of the following statements is incorrect?

(a) Direct investments are real investments in factories, assets, land, inventories etc. and involve foreign ownership of production facilities.

(b) Foreign portfolio investments involve flow of 'financial capital'.

(c) Foreign direct investment (FDI) is not concerned with either manufacture of goods or with provision of services.

(d) Portfolio capital moves to a recipient country which has revealed its potential for higher returns and profitability

2. Which of the following would be an example of foreign direct investment from Country X?

(a) A firm in Country X buys bonds issued by a Chinese computer manufacturer.

(b) A computer firm in Country X enters into a contract with a Malaysian firm for the latter to make and sell to it processors

(c) Mr. Z a citizen of Country X buys a controlling share in an Italian electronics firm

(d) None of the above

3. Which of the following types of FDI includes creation of fresh assets and production facilities in the host country?

(a) Brownfield investment

(b) Merger and acquisition

(c) Greenfield investment

(d) Strategic alliances

4.Which is the leading country in respect of inflow of FDI to India?

(a) Mauritius

(b) USA

(c) Japan

(d) USA

5. An argument in favour of direct foreign investment is that it tends to

(a) promote rural development

(b) increase access to modern technology

(c) protect domestic industries

(d) keep inflation under control

6.A foreign direct investor

(a) May enter India only through automatic route

(b) May enter India only through government route

(c) May enter India only through equity in domestic enterprises

(d) Any of the above

7. Foreign investments are prohibited in

(a) Power generation and distribution

(b) Highways and waterways

(c) Chit funds and Nidhi company

(d) Airports and air transport

8.Which of the following statement is false in respect of FPI?

(a) portfolio capital in general, moves to investment in financial stocks, bonds and other financial instruments

(b) is effected largely by individuals and institutions through the mechanism of capital market

(c) is difficult to recover as it involves purely long-term investments and the investors have controlling interest

(d) investors also do not have any intention of exercising voting power or controlling or managing the affairs of the company.

Chapter 10

1. The Indian industry stagnated under the colonial rule because

(a) Indians were keen on building huge structures and monuments only

(b) Deterioration was caused by high prices of inputs due to draught

(c) The Indian manufactures could not compete with the imports of cheap machine made goods

(d) None of the above

2.The first wave of liberalization starts in India

(a) In 1951

(b) In 1980's

(c) In 1990

(d) In 1966

3.The sequence of growth and structural change in Indian economy is characterized by

(a) The historical pattern of prominence of sectors as agriculture, industry, services

(b)The historical pattern of prominence of sectors as industry, services, agriculture

(c) Unique experience of the sequence as agriculture, services, industry

(d) All the above are correct

4.Merchandise Exports from India Scheme was replaced by -

(a) Remission of Duties and Taxes on Export Products (RoDTEP) in 2021

(b) National Logistics Policy (NLP) in 2020

(c) Remission of Duties and Taxes on Export Products (RoDTEP) in 2019

(d) None of the above

5. Which of the following is not a policy reform included in the new economic policy of 1991-

(a) removing licensing requirements for all industries

(b) Foreign investment was liberalized

(c) Liberalisation of international trade

(d) The disinvestment of government holdings of equity share capital of public sector enterprises

6. Imports of foreign goods and entry of foreign investments were restricted in India because

(a) The government wanted people to follow the policy of Be Indian; Buy Indian'

(b) Because foreign goods were costly and meant loss of precious foreign exchange

(c) Government policy was directed towards protection of domestic industries from foreign competition

(d) Government wanted to preserve Indian culture and to avoid influence of foreign culture

7.In the context of the new economic policy of 1991, the term 'disinvestment' stands for -

(a)A policy whereby government investments are reduced to correct fiscal deficit

(b) The policy of sale of portion of the government shareholding of a public sector enterprise

(c)The policy of public partnership in private enterprise

(d) A policy of opening up government monopoly to the privates sector

8. The objective of introducing Monopolies and Restrictive Trade Practices Act 1969 was

(a) to ensure that the operation of the economic system does not result in the concentration of economic power in hands of a few

(b) to provide for the control of monopolies

(c) to prohibit monopolistic and restrictive trade practice

(d) all the above

9.Which one of the following is a feature of green revolution

(a) use of soil friendly green manure to preserve fertility of soil

(b) grow more crops by redistributing land to landless people

(c) High yielding varieties of seeds and scientific cultivation

(d) Diversification to horticulture

10.The new economic policy of 1991 manifest in

(a) State led industrialization and import substitution

(b) Rethinking the role of markets versus the state

(c) Emphasized the role of good governance

(d) Bringing about reduction in poverty and redistributive justice

11. The post independence economic policy was rooted in

(a)A capitalist mode of production with heavy industrialization

(b) social and economic redistribution and industrialization directed by the state

(c) social and economic redistribution through private sector initiatives

(d) Industrialization led by private entrepreneurs and redistribution by state