

**SYLLABUS****B.B.A. I SEM****Subject - Economics-1**

UNIT - I	Introduction to Economics: Definition, Nature and Scope of Economics. Micro and Macro Economics, Role of Economics in Decision Making.
UNIT - II	Demand Analysis and Supply Analysis: Meaning of Demand, Types of Demand, Law of demand, Determinants of Demand, Demand Function, Elasticity of demand- price elasticity of demand. Income elasticity of demand, Cross Elasticity of demand, Law of Supply, Supply Schedule, Supply Curve, Price elasticity of supply,
UNIT - III	Production Analysis: Production function, Types of Production Function, Law of Returns, Law of variable proportions, Law of Increasing Returns, Law of Constant Returns, Law of Diminishing returns, Returns to scale,
UNIT - IV	Cost and Revenue Analysis: Cost concepts, Elements of Cost, Relationship between Production and Cost, Average and Marginal cost curves, Relationship between average and marginal cost, Concept of revenue, Revenue Curve, Relationship between average and marginal revenue,
UNIT - V	Market Structures: Meaning of Market, Classification of markets, Perfect Competition, Imperfect Competition, Monopolistic Market, Oligopoly Market, and Duopoly Market.
UNIT - VI	International Tread :Balance of Payments, Concepts, Disequilibrium in BOP: Methods of Correction, Tread Barriers and Tread Strategy, Free Trade vs. Protection,



## UNIT-I

### AN OVERVIEW OF ECONOMICS

Economics is a social science. The basic function of a science is to study a certain kind of natural or social phenomenon. Economics as social science studies economic behaviour of the people and economic social phenomenon. Economics as a social science studies economic behaviour of the people and economic social phenomenon. Economics as a social science studies economic behaviour of the people and economic social phenomenon. Economics behaviour is essentially a conscious effort of the people to derive maximum gains from the use of scarce resources and opportunities available to them. Economics is, fundamentally, the study of how people allocate their limited resources to their alternative uses to produce and consumer goods and services to satisfy their endless wants or to maximize their gains. In their efforts to maximize their gains from their limited resources, people (individuals, households, firms, and the government) as producers and consumers have to make a number of choices regarding the use of their resources and spending their earnings. The need for making choices arises due to following basic facts of economics life:

- human wants are unlimited
- resources available to satisfy human wants are scarce
- people want to maximize their gains

### Resources can be classified as

- (i) Natural resources (including land, space, water, minerals, forest, climate, jointly called land);
- (ii) Human resources (including man-power, its energy, talent, professional skills, and innovative ability and organizational skill, jointly called labour);
- (iii) Man-made resources (including machinery, equipments, tools, technology and building, jointly called capital). To this economists add another category of resource called entrepreneurship, i.e., those who organizes the resources and assume risk in business. Time and information are two other kinds of resources which have economic value. All these resources available to a person, society, country-howsoever rich-at any point of time are limited. Resource scarcity of resources is, in fact, the mother of all economic problems. If resources were unlimited, like human wants, there would be no economic problem and no economics. It is the scarcity of resources in relation to human wants which forces people to make choices.

“Economics as a science studies economic behavior of the people and its consequences; it brings out cause-and-effect relationships between economic events; provides the tools and techniques of analyzing economic phenomena and the tools and techniques for predicting the consequences of economic decisions and economic events. Economics studies economic phenomena systematically and methodically. This approach to economic inquiry imparts economics the status of a ‘social science.’”

### Science of Choice

Economics studies that aspect of the individual and society in which limited resources are used to satisfy unlimited wants. Thus, it is a science of choice and is concerned with the satisfaction of human wants. The term economics is derived from the Greek words oikos and nomos which put together mean household management. Aristotle, the famous Greek philosopher considered economics to be “the art of household management.”

### Economic Activities

Economic activities are concerned with how people earn their income, spend it and satisfy their wants. In other words, economic activities are related to the production and consumption of wealth in terms of goods and services to satisfy wants.

### DEFINITIONS OF ECONOMICS

Economics has been defined by many economists in different ways. The various definitions of economics can be broadly classified into the following four categories, each emphasizing a particular aspect of economics study.



1. Classical or wealth definitions define economics as a study of wealth.
2. Neo-classical or welfare definitions define economics as a study of material welfare.
3. Scarcity definitions define economics as study of scarcity and choice.
4. Modern or growth definitions define economics as a study of changes and growth in means in relation to ends.

### **CLASSICAL OR WEALTH DEFINITIONS**

The early economists known as the classical economists defined economics as a science of wealth. Adam Smith, who was the first economist to give a scientific and systematic definition of economics in his famous book, an inquiry into the nature and causes of the wealth of nations, is widely regarded as the father of economics. Adam Smith was also the first economist to present a systematic analysis of economics and formally define it as the science of wealth.

According to him, economics studies "the nature and causes of the wealth of nations." He believed that the primary objective of every country was to increase its wealth and power and pointed out that political economy (as economics was called in earlier times) deals with the acquisition, accumulation and expenditure of wealth. This means that economics studies how people earn their wealth and how they spend it. In other words, economics studies the production and consumption of wealth. Thus it is on the one side a study of wealth; and on the other, and more important side, a part of the study of man."

### **NEO-CLASSICAL OR WELFARE DEFINITIONS**

Due to the severe criticism of the wealth definition by literary men and philosophers, economics fell into disrepute and lost all its importance till the close of the 19th century. It was, however, the neo-classical school led by Alfred Marshall which gave economics a respectable place among the social sciences by removing the misconceptions about it. The neo classicists evolved a new definition of economics which shifted emphasis from wealth to people and their welfare. These economists belonged to the neo-classical period and hence. Their definitions came to be known as neo-classical definitions. Since these economists laid emphasis on human welfare, their definitions also came to be known as welfare definitions.

The most important welfare definition was given by Alfred Marshall in his book, principles of economics, published in 1890.

According to Marshall, "Political Economy or Economics is a study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of well-being.

Thus it is on the one side a study of wealth; and on the other, and more important side, a part of the study of man."

### **SCARCITY DEFINITIONS**

Prof. Lionel Robbins, a distinguished English economist from the London School of Economics, who published his book, An Essay on the Nature and Significance of Economic Science, in the year 1932, has given a more exact, scientific and precise definition of economics which is widely accepted. According to Robbins, economics is neither a study of wealth nor a study of welfare. It is the study of scarcity and choice. He defines economics in these words:

"Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses." the scarcity definition given by Prof. Robbins was supported by other economists such as A.P. Lerner, J.R. Hicks and Cassel. the definition emphasizes the following points

#### **a. Unlimited Ends**

The term ends here refers to human wants. These are unlimited in number and are capable of being distinguished in order of importance. Man is said to be a bundle of wants. The satisfaction of one want immediately gives rise to another. When the elementary wants such as food, clothing and shelter are satisfied; wants for comforts and luxuries arise. Therefore, a complete satisfaction of wants is not



possible. Since we cannot satisfy all our wants, we have to choose and satisfy the more important ones first.

b. Scarce Means

The wants may be unlimited but the means or resources which are available to satisfy these wants are, by nature, scarce. The word scarcity is used here in a relative sense. The mere existence of short supply does not make a commodity scarce, if there is no demand for it. As Prof. Robbins points out, bad eggs, though short in supply, are not scarce since there is no demand for them. On the other hand, food grains consisting of millions of tones may be scarce because their demand is much greater than their supply.

A commodity is said to be scarce only if its supply is less than its demand. Thus, the word scarcity is used in a relative sense. The economic problems arise because most of the goods are scarce in relation to their demand. It has been aptly remarked, "If the means are not scarce, there is no problem at all; there is Nirvana."

c. Alternative uses of means

The means are not only scarce but can be put to alternative uses. for example, a plot of land can be used to grow either rice or vegetables. Electricity can be used to run a factory or illuminate a cinema house. A lorry can carry soldiers or goods from one place to another. A ten-rupee note can be used to buy a pen or a book. Thus, scarce means have alternative uses.

Choice has to be exercised between different uses when the means are limited. When we opt for one thing we have to forgo the other. If resources had only specific uses, there would be fewer economic problems as our choices would be greatly restricted.

d. How do economic problems arise?

Economic problems arise only when all this following conditions exist simultaneously:

- Multiplicity of ends which vary in importance
- Scarcity of resources
- Alternative uses of scarce resources
- e. Science of choice

According to Robbins, economics tells us how people make use of their scarce means, having alternative uses for the satisfaction of their unlimited ends. Since this involves choice-making, economics has also been called a science of choice. Choice is the essence of economic activities. Economising is necessary to make the optimum use of resources and this forms the central problem of economics.

Thus, according to Robbins, economics is mainly concerned with scarcity and choice. The scarcity of means and multiplicity of wants are the two foundation stones on which the structure of economic science is built.

Conclusion

Robbins' definition is scientific, exact and comprehensive. It brings to light the scarcity of resources as the source of all economic problems that confront man and society. His definition enjoys universal application. It applies to all the individuals, groups and types of nations, whether capitalist or communist. In fact, even the modern growth-oriented definitions of economics are based on the scarcity definition of Robbins with slight modifications.

However, a serious defect of Robbin's definition is that it is static and not dynamic. The scarcity definition fails to take into account the revolutionary changes that have taken place during the last five to six decades. Growth occupies the centre of attention of modern economists and in recent years, their focus has shifted from scarcity to growth occupies the centre of has shifted from scarcity to growth. In a modern dynamic economy. An attempt is made to overcome the scarcity of resources with scientific and technological developments many modern writers feel that economics has ceased to be scarcity oriented and has becomes growth-oriented.

MODERN OR GROWTH-ORIENTED DEFINITIONS

'Robbins' scarcity definition was widely accepted as the best possible definition of economics for a long time. However during the last 30 years or so, economic thinking has moved away from Robbins' view.



Economic problems today are not just concerned with adjusting multiple ends to scarce means but also with expanding and developing these means to meet the various growing and changing ends. Thus, besides studying the theory of value or resource allocation, economics deals with how the levels of income and employment in an economy are determined. It also studies the causes of economic fluctuations to see how economic stability can be promoted.

According to Prof. Paul Samuelson, a noble prize winner in economics, "Economics is the study of how people and society end up choosing, with or without the use of money, to employ scarce productive resources that could have alternative uses- to produce various commodities and distribute them for consumption, how or in the future, among various persons and groups in society, economics analyses the costs and the benefits of improving patterns of resources use."

### APPROACHES TO THE STUDY OF ECONOMICS

There are two approaches to the study of the subject matter of economics. They are:

- The traditional approach
- The modern approach

### TRADITIONAL APPROACH

According to the traditional approach, the subject matter of economics has been divided into six branches. They are:

- Consumption
- Exchange
- Production
- Public finance
- Distribution
- Economic planning

### CONSUMPTION

Consumption refers to the utilization of goods and services for the satisfaction of human wants. This branch studies the nature of human wants as well as the principles governing their satisfaction such as the law of diminishing marginal utility, the law of substitution, the law of family expenditure, consumer's surplus, the law of demand and the concept of elasticity of demand.

### PRODUCTION

Production creates utilities so that human wants can be satisfied. Consumption is not possible without production. This branch of economics studies how people make efforts to satisfy their wants by producing wealth and how goods and services are produced by the combination of the various factors of production namely, land, labour, capital and organization. The laws of production, capital formation and the role of entrepreneurs are also studied under this branch of economics.

### DISTRIBUTION

The total amount of goods and services produced annually in a country constitutes its national income. This total wealth of the country has to be distributed among the four factors of production as their share of reward for their contribution to production.

thus, this branch of economics is devoted to the study of determining rewards for the various factors of production namely land, labour, capital and organization in the form of rent, wages, interest and profit respectively. The principles which determine the share of rewards of each agent of production are dealt with in this branch. In this connection, various theories of rent, wages, interest and profit are also studied.

### EXCHANGE

This branch includes the study of how goods and services are bought and sold or exchanged among people. It includes organization of markets and determination of prices under different market conditions. Exchange also involves the study of the system of money, banking, transport and communication and other aids of trade such as advertising. Exchange places goods and services in the hands of consumers, thus, enabling their consumption.



## **PUBLIC FINANCE**

Public finance refers to the financial operations of the government, i.e., it deals with how the government earns income and spends it to satisfy the collective wants of society and how income and expenditure are adjusted. The instruments of public finance are taxation, public expenditure, public debt and production. Consumption and exchange but also for securing the much needed economic equality and economic growth along with stability of the economy.

The modern state being a welfare state, undertakes a number of economic activities to promote the welfare of society. This ever widening role of the state has given public finance an important place among the various branches of economics.

## **ECONOMIC PLANNING**

Economic planning has become an important branch of economics in recent times. Economic planning involves regulation and control of the economy by a central authority so that specific socio-economic goals are attained within a certain period of time. It aims at the systematic and efficient use of the available natural and human resources of the country to accelerate economic progress.

Underdeveloped countries have adopted economic planning to achieve rapid economic development while developed countries undertake economic planning to maintain full employment along with economic stability

## **MICRO AND MACROECONOMICS**

### **INTRODUCTION**

Microeconomics and macroeconomics are the two major branches of modern economic theory. The terms "microeconomics" and "macroeconomics" were originated by Ragnar Firsch in 1933. The prefixes "micro" and "macro" have been derived from the derived from the Greek words micros and macros which mean "small" and "large", respectively. In other words, "micro", means individualistic and "macro" means aggregative.

### **MEANING OF MICROECONOMICS**

Micro means a small part. Microeconomics is thus, the branch of economics which is concerned with the analysis of the behaviour of the individual (specific or particular) economic units or variables, such as an individual consumer or a producer or the price of a particular commodity, etc. Microeconomics, as Boulding puts, "is the study of particular commodities." Essentially, microeconomics is a study of particular economic organisms (consumers, producers, etc.) and their interactions, and of particular economic quantities (prices, wages, income, etc.) and their determination.

### **MEANING OF MACROECONOMICS**

"Macro" means large or aggregate (total). Macroeconomics is thus, a branch of economics which deals with the aggregate behaviour of the economy as a whole. Macroeconomics is essentially an aggregate economics. It makes a study of the economic system in general. Macroeconomics perceives the overall dimensions of economic affairs of a country. It looks at the total size, shape and functioning of the economy as a whole, rather than working of articulation or dimensions of the individual parts. To use Marshall's metaphorical language, macroeconomics views the forest as a whole, independently of the individual trees composing it.

Macro economics studies a very large economy-wide aggregate variables like:

- National income,
- Total savings,
- Total consumption,
- Total investment,
- Money supply,
- Price levels,
- Unemployment,
- Economic growth rate, etc.



Let us take an example to understand the meaning of these two concepts more clearly. The human body consists of various organs and cells each of which has some functions to perform and they are also interrelated. When we study a particular cell or organ, it will be termed as a micro study. A study of the human body as a whole will be termed as macro study.

### IMPORTANCE AND USES OF MICROECONOMICS

Microeconomics has great theoretical and practical significance.

- It explains price Determination and the Allocation of Resources. It provides an understanding of the working of market mechanism in a capitalist/free enterprise economy.
- It has direct Relevance in Business Decision-making. The knowledge of price theory has its own significance in practical business decision making. It is useful to a businessman in determining the price policy. It guides him in attainment of maximum productivity through optimum allocation of his given resources. It teaches him in analysis of the costs of production and estimation of the demand for his product.
- It Serves as a Guide for Business/Production Planning. Tools of microeconomics are useful in preparing the expansion plan of a business. It is also helpful in investment decision taking by the firm.
- It Serves as a Basis for Prediction. Microeconomics theory is useful to make conditional predictions. Demand forecasting, for instance, rests on microeconomics principles of demand.
- It Teaches the Art of Economising. Microeconomic principles deal with the economizing of scarce resources and show how to use them efficiently so as to gain maximum out of minimum. Microeconomic law, like the law of substitution, shows how a consumer can maximize his satisfaction by equating the ratios of marginal utilities to the prices of different goods which he buys. Likewise, there is optimum utilization of the factors of production when their marginal products become unequal.
- It is useful in Determination of Economic Policies of the Government. For instance, in determining a tax policy the government can know the effect and incidence of a particular tax through micro-economic tools and then judge its rationality and desirability. It also provides the principle for determining the price policy for the public enterprise. Similarly, the nature of price control administered prices, and such other policy issues can be determined on the basis of relevant micro-economic analysis.
- It Serves as the Basis for Welfare Economics. Microeconomics examines the subjective satisfaction that individuals derive from consuming goods and services and from enjoying leisure, it also suggests how to eliminate wastages and have optimization of resources so as to fetch maximum social welfare which is the underlying goal of welfare economics.
- It Explains the Phenomena of International Trade. Microeconomic theories explain many aspects of international trade such as the emergence, nature and gains of international trade determination of exchange rate, impact of tariffs on prices etc.

### LIMITATIONS OF MICROECONOMICS

Despite being a significant major branch of economic science and its immense usefulness in explaining economic behaviour of the individual economic units, microeconomics has inherent limitations as follows:

- Concept of Marginalism. Microeconomic theories are based on the principle of marginalism. Marginal changes are assumed in the relevant phenomena. Marginal change refers to the addition of just a single unit more. Thus, these are concepts like marginal utility, marginal cost, marginal product, marginal revenue, etc. It thus refers to a bit by bit change in the total variation.
- Unrealistic Assumption of Full Employment and Over Simplification. The entire microeconomics is based on the assumption of full employment even in a short-term analysis, which is unrealistic, by assuming full employment microeconomic theories have over simplified the conditions of reality.



- Pure Capitalist Model. Microeconomic theories assume laissez faire policy and pure capitalism in their behaviorist models. Today there is no pure capitalism, so most of the microeconomic theories have no significant relevance to practice.
- Incomplete explanation and misleading generalization. Microeconomics studies specific economic units separately from the rest of the whole economy. It thus explains only a part and not the whole of working of an economic system. Microeconomics thus does not furnish a complete explanation of the whole phenomenon. Again, application of deductive method in generalization from particular behaviour is often misleading. what is true for an individual may not be true for the entire system.

### IMPORTANCE OF MACROECONOMICS

#### Macroeconomics has its unique importance:

- It explains the working of the economic system as a whole.
- It examines the aggregate behaviour of the macroeconomic entities like firms, households and the government.
- Its knowledge is indispensable for the policy-makers for formulating macro-economic policies such as monetary policy, fiscal policy, industrial policy, exchange control, income policy, etc.
- It is very useful to the planner for preparing economic plans for the country's development.
- It is helpful in international comparison. For example, microeconomic data like national income, consumption, saving-income ratio, etc. are required for a comparative study of different countries.
- It explains economic dynamism and intricate interrelationships among macroeconomic variables, such as price level, income, output and employment.
- Its study facilitates overall purposes of control and prediction.

### LIMITATIONS OF MACROECONOMICS

#### Macroeconomics has certain limitations.

- It ignores, individual behaviour altogether.
- It has a tendency to excessive generalisation. Thus, analysing in aggregate terms, it pays least attention to the differences involved in the constituents.
- It is not easy to get correct and complete measures of economic aggregates. Thus, macroeconomic analysis lacks precision in actual practice.
- Macroeconomic predictions are not fully reliable when they are based on incomplete information or inaccurate measures. National income, price index number, etc. are only rough indicators.
- Often macro level policies may not produce the same results at micro levels.

### DIFFERENCE BETWEEN MICRO AND MACRO ECONOMICS :

Basis	Micro economics	Macro economics
Meaning	It is the study of the behaviour of individual economic units.	It is the study of aggregate or average covering the entire economy
Central problem	It deals with the problems of price determination of individual's products and factors of production.	It deals with the problem of determination of income, employment and general price level of the economy.
Basic parameters	Price is the basic parameter of the subject matter of micro economics. Economic unit like households and producers take their economic decision on the basis of prices in different markets.	Income is the basic parameter of macro economics. In macro economic
Different perspective	It is the bottom up view of the economy.	It is the top down view of the economy.



Methods of study	It uses the technique of partial equilibrium analysis. It means it makes it makes the theories with the assumptions of paribus i.e. other things remaining constant.	It uses the techniques of quasi general equilibrium analysis. It studies the interdependence of macroeconomic variables like aggregate demand and aggregate supply.
Maintools	Maintools are demand and supply.	Main tools are aggregate demand and supply
Other name	It is known as price theory.	It is known as income and employment theory.

### ROLE OF BUSINESS ECONOMICS IN DECISION-MAKING

Today, the business and society are in the midst of a revolution comparable to industrial revolution. This revolution has four components:

- i. The globalization of markets.
- ii. The spread of information technology.
- iii. The dismantling of traditional business hierarchies; and.
- iv. The creation of a new information economy.

The primary role of Business economics is to evaluate the alternative courses of action and choose the best among them. The role of Business economics in decision making and its significance can be summarized as follows:

1. Provides understanding to solve business problems: Business economics provides many important concepts which are needed for the analysis of business problems. concept of elasticity of demand, fixed and variable cost, opportunity cost and net present value, all help in understanding and solving business problem.
2. Helps a manager to be more competent: Business economics helps a manager to be more competent. With the help of various models, the manager can understand their relationship which helps him to represent the real situation.
3. Decision making in complex environment: Business economics helps in making decisions relating to a variety of business complexities e.g.
  - i. What products and services should be produced?
  - ii. What production techniques should be applied?
  - iii. What may be the best size and location of a new plant?
  - iv. How the capital should be allocated?
4. Focus attention on social problems: Business economics interacts between firm and society and plays an important role in business. It focuses attention on theses social obligations about which business decisions are to be taken. For this it serves as an instrument in increasing economic welfare of the society.
5. Estimate relationships: Business economics helps in making estimates about relationship between various business parameters e.g. income, demand elasticity, price elasticity, cost-volume analysis etc. Theses estimates are also useful in forecasting and decision-making.
6. Effect of external forces can be estimated: Economic analysis also helps in understanding effect of external forces on business. There are various factors which affect the business environment such as trade cycles, economic policies, national income, licencing policy and price control policy of government. Decisions are to be taken keeping in view the above factors.

### NATURE OF ECONOMICS

#### ECONOMICS AS A SCIENCE

The term science refers to a systematic body of knowledge that establishes the relationship between a cause and its effect. A body of knowledge becomes a science only when relevant facts are systematically collected, classified, analyzed and verified in order to find out the relationship between causes and effects. Based on such analysis, generalizations or laws are formulated which have universal validity.



Applying these principals to economics, we find that economics can be considered a science. Economics is a body of knowledge dealing with human behavior, where the various relevant facts have been systematically collected, classified, analyzed and verified base on which economic laws have been formulated like law of demand, law of diminishing marginal utility etc which have universal validity.

Economics deals with the human beings who do not always behave uniformly under all circumstances and at all places. The laws of economics are not as exact and certain as the law of pure sciences and also lack objectivity. So we can say that economics is a science not a pure science but a developing social science.

### **ECONOMICS AS AN ART**

An art is a system of rules for the attainment of a given end.

An art is also a systematic body of knowledge but unlike science, it lays down certain precepts or specific solutions for specific problems. The objective of an art is the formulation of principles immediately applicable to policy. According to cossa, "A science teaches us to know, an art teaches us to do". An art means application of knowledge.

Applying these definitions of art, we find that economics is in many respect an art also. Economics down certain rules and guiding principles for the solution of several economic problems such as poverty, unemployment and inflation.

### **ECONOMICS AS POSITIVE AND NORMATIVE SCIENCE**

A positive science is one which studies things as they are. It explains the causes and consequences of things but remains strictly neutral as regards ends. It refuses to pass moral judgments. It is merely descriptive, analytical and illuminating. A normative science on the other hand studies things as they are ought to be. It passes moral judgment on the rightness and wrongness of things and also prescribes the right solutions to problems.

Economics is both positive and normative science. As a positive science, economics studies the causes of poverty and inequality. As a normative science, economics not only explains the causes of poverty and inequality but also condemns such economic evils and advocates a fair distribution of national income, to reduce poverty and inequality. Economics tells us not only how things are, but also how things should be. It is both positive and normative science.

### **ECONOMICS A SOCIAL SCIENCE**

Economics is a social science since it studies the human behavior as a relationship between ends and scarce means which have alternative uses. It examines how human beings behave with others in society when they are engaged in economic activities. Economics studies human beings not in their individual capacities but as members of an organized society exchanging their goods and influencing by their actions.



## UNIT-II MEANING OF DEMAND

Demand for a commodity is the amount of it that a consumer will purchase will be ready to take off from the market at various given prices in a period of time such as a day, week, month or a year. It constitute three things as (i) desire for a commodity (ii) availability of resources (iii) willingness to spend the resources. "The demand for anything at a given price is the amount of it which will be bought per unit of time at that price." According to Hansen, "By demand, we mean the quantity of a commodity that will be purchased at a particular price and not merely the desire of a thing." Thus demand in economics implies both the desire to purchase and the ability to pay for a good.

The demand for a commodity and quantity demanded are two different concepts. whereas, demand refers to quantities of a commodity which consumers plan to buy at various prices of a good during a period of time and the quantity demanded is the amount of good or service which consumers plan to buy at a particular price.

### TYPES OF DEMAND

The main classification types of demand are as under:

- 1. Price Demand:** Price demand refers to the various quantities of commodity which the consumer will buy per unit of time at a certain prices (other things remaining the same). The quantity demanded changes with the change in price. The quantity demanded increases with a fall in price and the quantity demanded falls with an increase in price. In other words, we can say that quantity demanded and price have a negative relationship as

$$D_A = f(P_A)$$

Where  $D_A$  = Demand for commodity A  
 $f$  = Function  
 $P_A$  = Price of the commodity A.

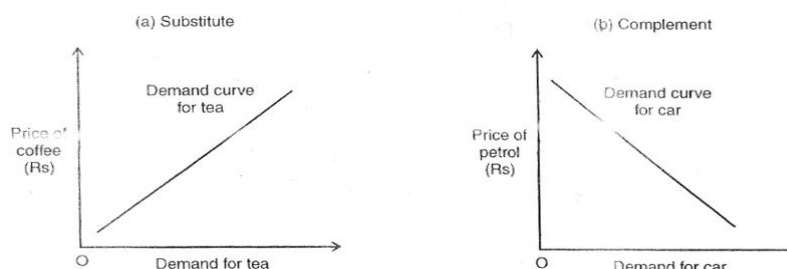
- 2. Income Demand:** Being *ceterus-paribus*, the income demand indicates the relationship between income and demand of the consumer. The income demand shows how much quantity a consumer will buy at different levels of his income. Generally, there is positive relationship between income and demand of the consumer i.e.

$$D_A = f(Y_A)$$

Where  $D_A$  = Demand for commodity A  
 $Y_A$  = Income of the consumer A.

The above function shows as the income of the consumer increases demand also increases and when income falls demand also decreases.

- 3. Cross Demand:** Cross demand refers to the relationship between quantity demanded of good 'A' and price to related good 'B' other things being equal. In simple words, from cross demand we mean the change in the quantity demanded of a commodity without any change in its price but due to the change in the price of related goods i.e. B commodity. The related goods can either be substitute goods or complementary goods. The demand curve in the case of substitute goods or complementary goods. The demand curve in the case of substitute will be of upward sloping while the demand curve in complementary goods will be of downward slop.





**DETERMINANTS OF DEMAND**

- 1) Price of the commodity
- 2) Price of substitutes and complementary goods.
- 3) Consumers' income.
- 4) Consumer's taste and preference.
- 5) Consumers' expectations of future prices
- 6) Demonstration effect.
- 7) Consumer-credit facility
- 8) Population of the country Distribution of national income

**DEMAND SCHEDULE**

Demand schedule refers to the response of amount demanded to change in price of a commodity. It summarizes the information on prices and quantity demanded. It is of two types.

- 1. Individual Demand Schedule
- 2. Market Demand Schedule

1. Individual Demand Schedule: Considering other things being equal individual demand schedule refers to the quantities of the commodities demanded by the consumer at various prices. It can be with the help of table 1:

**Individual Demand Schedule**

Price per unit of the bale	Quantity Demanded
5	1
4	2
3	3
2	4
1	5

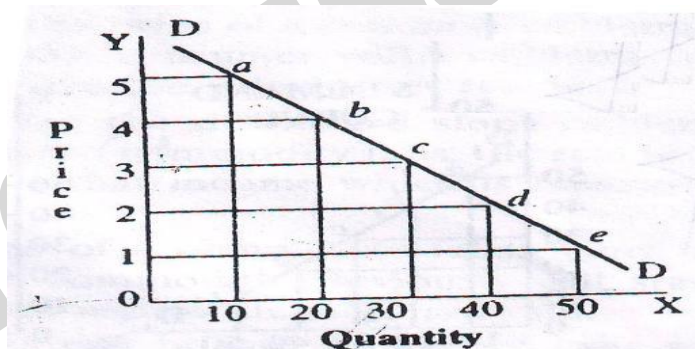
From the above table it is seen that as the price per unit say cotton goes on increasing, the quantity demanded goes on falling. AS is clear, when price of cotton is Rs. 5, quantity demanded is 1 units. Now, the price of cotton falls to Rs. 3, the quantity demanded increases to 3 units. Moreover, as the price falls to Rs. 1 quantity demanded shoots upto 5 units.

**Individual Demand Curve**

Individual demand curve refers to the quantity demanded by the consumer at different levels of prices. It can be shown with the help of figure

In the figure given below OX axis measures the different quantities of cotton demanded on OY-axis price per unit cotton. DD is demand curve. The points a, b, c, d, e on the demand curve shows the price quantity relationship. At price Rs. 5 the quantity demanded is 1 units. As the price falls to Rs. 1 per unit, the quantity demanded increases to 5 units. Moreover, the demand curve slopes downward from left to right which indicates that there is inverse relation between price and quantity demanded.

**Diagram**





### Market Demand Schedule

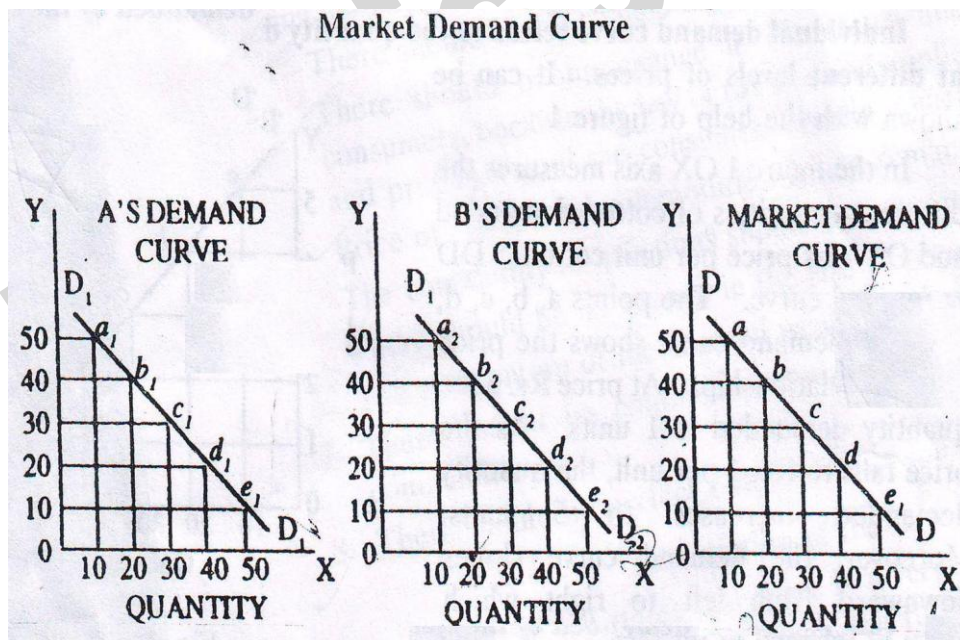
The market demand is the summation of collection demand of all persons of a homogeneous commodity. Basically, the market demand schedule-depicts the functional relationship between prices and quantity demanded. If we are interested to know the demand schedule for a year, we will add the demand for all the months of that particular year. In this way, we may conclude that market demand schedule is a lateral summation of the quantities purchased by all individuals at different prices in a particular period of time. Therefore, "Market demand schedule is defined as the quantities of a given commodity which all consumers will buy at all possible prices at a given moment of time." The market demand schedule is shown in table 2.

Market Demand Schedule

Price Per Unit	Quantity Demanded by A	Quantity Demanded by B	Total Market Demand (A + B)
5	10	15	25
4	15	20	35
3	20	25	45
2	25	30	55
1	30	35	65

In table 2, market schedule is obtained by adding the demand of A and B at different prices. For instance, at a price of Rs. 5 the market demand is 25 i.e. 10 of A consumer and 15 for B consumer. AS the price falls to Rs. 1 the market demand increases to 65 i.e. 30 and 35 for A and B consumers respectively. In other words, we can say that like individual demand, market demand also depicts the negative correlation between price and quantity demanded.

### Market Demand Curve



The market demand curve is the horizontal summation of all individuals demand for the commodity. The above figure and B shows the individual demand curves. D<sub>1</sub> D<sub>1</sub> and D<sub>2</sub> D<sub>2</sub> are the demand curves for consumers A and B and the market demand curve is DD. It is also assumed that there are two consumers in the market facing same price of the commodity but they purchase according to their individual requirements.



### A + B = Market Demand

At price Rs. 5 the market demand is

$$a_1 + a_2 = a$$

At price Rs. 4 the market demand is

$$b_1 + b_2 = b$$

In the same fashion, at prices 3, 2, 1, the market demand is

$$c_1 + c_2 = c$$

$$d_1 + d_2 = d$$

$$e_1 + e_2 = e$$

Now, if we combine these points we will get the market demand curve as DD.

### Law of Demand

The law of demand states that there is inverse relation between the price and demand for a commodity. According to law of demand, other things being equal, if price of a commodity falls, the quantity demanded of it will rise and if price of a commodity rises, the quantity demanded of it will fall. Although, this relationship is not proportionate yet it does not mean when price falls by one-half the demand for good will be doubled. It simply shows the direction of change in demand as a result of change in price. We can say that quantity demanded and price have an inverse relationship.

### THE DEMAND CURVE

A demand curve is a graphical presentation of the demand schedule. A demand curve is obtained by plotting a demand schedule. For example, when the data given in the demand schedule (Table ) is presented graphically as in Fig. the resulting curve DD' is the demand curve. The curve DD' in Fig. depicts the law of demand. It slopes downward to the right. It has a negative slope. The negative slope of the demand curve DD' shows the inverse relationship between the price of shirt and its quantity demanded. It shows that demand for shirts increases with the decreases in its price and decreases with rise in its price. As can be seen in Fig. below, downward movement on the demand curve DD' from point D towards D' shows fall in price and rise in demand. Similarly, an upward movement from point D' towards D reads rise in price and fall in demand.

### Why Demand Curve Slopes Downward to the Right

The Diagram for Demand Curve shows that demand curve slopes downward to the right. Why does it happen? The reasons behind the law of demand are following:

**(i) Income effect.** When price of a commodity falls, real income of its consumers increases in terms of this commodity. In other words, their purchasing power increases since they are required to pay less for the same quantity. According to another economic law, increase in real income (or purchasing power) increases demand for goods and services in general and for the goods with reduced price in particular. The increase in demand on account of increase in real income is called income effect.

**(ii) Substitution effect.** When price of a commodity falls, it becomes cheaper compared to its substitutes, their prices remaining constant. In other words, when price of a commodity falls, price of its substitutes remaining the same, its substitute becomes relatively costlier. Consequently, rational consumers tend to substitute cheaper goods for costlier ones within the range of normal goods- goods whose demand increases with increase in consumer's income-other things remaining the same. Therefore, demand for the relatively cheaper commodity increases. The increase in demand on account of this factor is known as substitution effect.

**(iii) Diminishing marginal utility.** Marginal utility is the utility derived from the marginal unit of a commodity when its price falls. When a person buys a commodity, he exchanges his money income with the commodity in order to maximize his satisfaction. He continues to buy goods and services so long as marginal utility of his money ( $Mu_m$ ) is less than the marginal utility of the commodity ( $Mu_c$ ). commodity  $Mu_m$  with  $Mu_c$ , with a view to maximizing his satisfaction. Consequently, demand for a commodity increases when its price falls.



### Assumptions in the law of demand

According to Stigler and Boulding, the law of demand is based on the following assumptions:

1. There should be no change in the income of the consumers.
2. There should be no change in the tastes and preferences of the consumers, because the law of the demand applies only when the tastes and preferences of the consumers remain constant.
3. Price of the related commodities should remain unchanged.
4. The commodity in questions should be a normal one.
5. There should be no change in the size of population.
6. There distribution of income and wealth should be equal.
7. There should be continuous demand except in case of indivisible commodities.
8. There should be perfect competition in the market.

### Importance of the Law

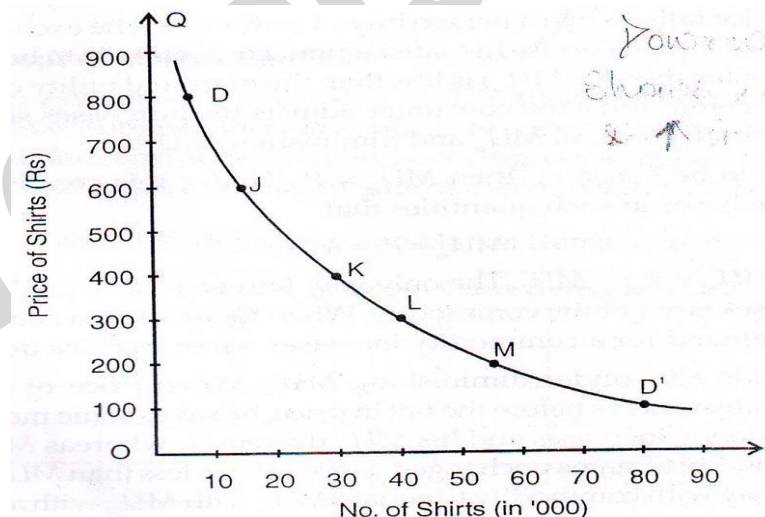
The law of demand has been of great theoretical and practical importance in economics as:

1. Price Determination.
2. Importance for the consumer
3. Importance to Finance Minister
4. Important for Planning.
5. Important for Producers
6. Importance for Farmers

### EXCEPTIONS TO THE LAW OF DEMAND

The law of demand is one of the fundamental laws of economics. The law of demand, however, does not apply to the following cases:

- (i) Expectations regarding future prices.
- (ii) Prestigious goods.
- (iii) Giffen goods.



### ELASTICITY OF DEMAND

Elasticity of demand is defined as the degree of responsiveness of the quantity demanded of a good to a change in its price, consumers income and prices of related goods. There are three concepts of demand elasticity - price elasticity, income elasticity and cross elasticity.



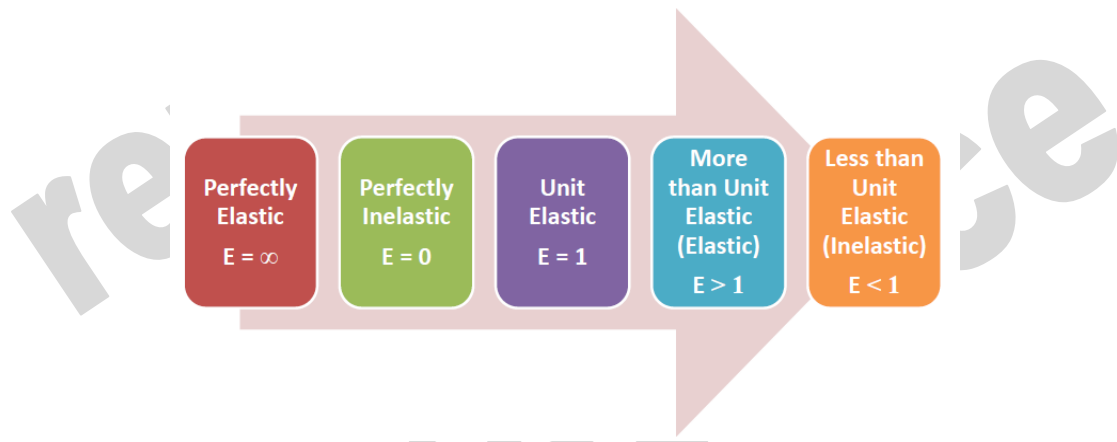
$$E = \frac{\% \text{ change in Quantity demanded}}{\% \text{ change in variable}}$$

### Price elasticity of demand

(PED or  $E_d$ ) is a measure used in economics to show the responsiveness, or elasticity, of the quantity demanded of a good or service to a change in its price. More precisely, it gives the percentage change in quantity demanded in response to a one percent change in price (holding constant all the other determinants of demand, such as income).

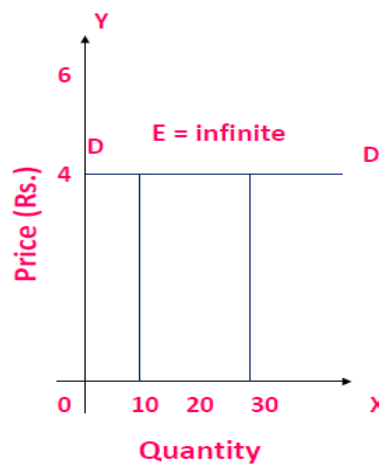
$$\text{Price elasticity of Demand} = \frac{\text{Proportionate change in purchases of commodity X}}{\text{Proportionate change in price of commodity X}}$$

## Degrees of Price Elasticity of Demand

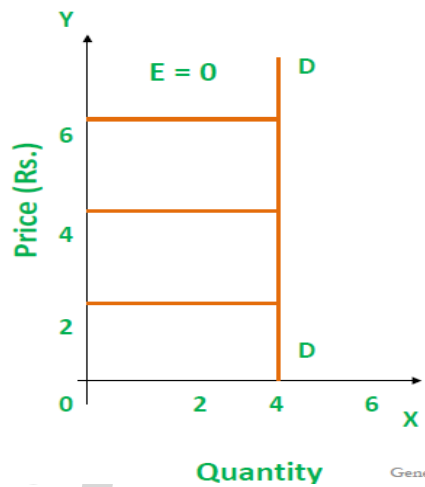


### Types/Degrees of Price Elasticity of Demand

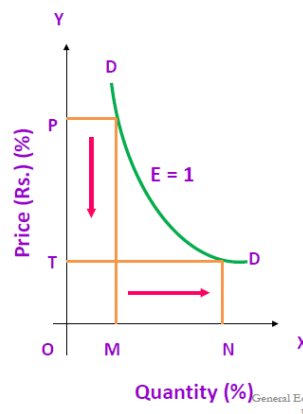
A) Perfectly Elastic Demand: A perfectly elastic demand refers to the situation when demand is infinite at the prevailing price. It is a situation where the slightest rise in price causes the quantity demanded of the commodity falls to zero.



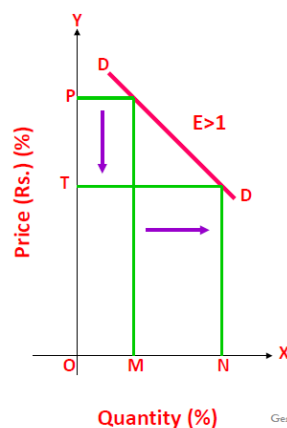
B) Perfectly Inelastic Demand: A perfectly inelastic demand refers to a situation when change in price causes no change in the quantity demanded. Even a substantial change in price does not impact quantity demanded.



- C) Unitary Elastic Demand: It is a situation when change in quantity demanded in response to change in own price of the commodity is such that total expenditure of the quantity remains constant. In short % change in quantity demanded is equal to % change in price. This type of demand curve is called Rectangular Hyperbola

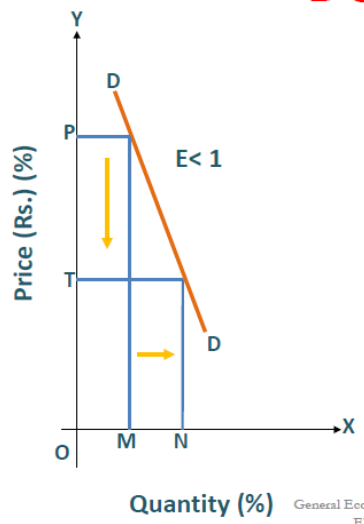


- D) Greater than unitary Elastic Demand: Demand is greater than unitary elastic when change in quantity demanded in response to change in price of the commodity is such that total expenditure of the commodity increases when the price decreases, and total expenditure decreases when price increases. In short % change in quantity demanded is greater than % change in price.





E) Less than Unitary Elastic Demand: Demand is less than unitary elastic when change in quantity demanded in response to change in price of the commodity is such that total expenditure on the commodity decreases when price falls, and total expenditure increases when price rises. In short % change in quantity demanded is less than % change in price.



**Methods to measure Price Elasticity of demand**

There are three methods of measuring price elasticity of demand:

- (1) Total Expenditure Method.
- (2) Geometrical Method or Point Elasticity Method.
- (3) Arc Method.

**Total Expenditure (Outlay) Method:**

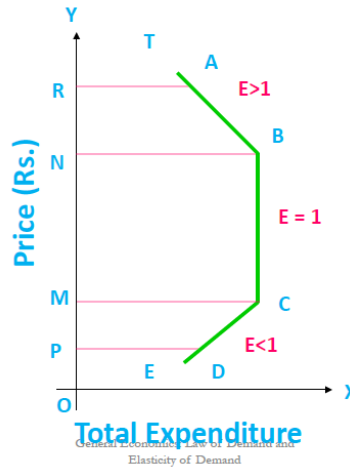
This method is evolved by Dr. Alfred Marshall. According to this method, to measure the elasticity of demand it is essential to know how much & in what direction the total expenditure has changed as a result of change in the price of good.

**Total Expenditure (Outlay) Method**

Elasticity of Demand	Price	Total Expenditure
Greater than Unity i.e. $E_p > 1$	↑ ↓	↓ ↑
Unity i.e. $E_p = 1$	Same Same	Unchanged Unchanged
Less than Unity i.e. $E_p < 1$	↑ ↓	↑ ↓

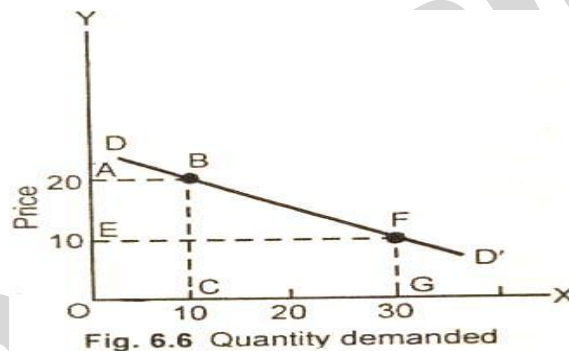


## Total Expenditure (Outlay) Method



For Example:

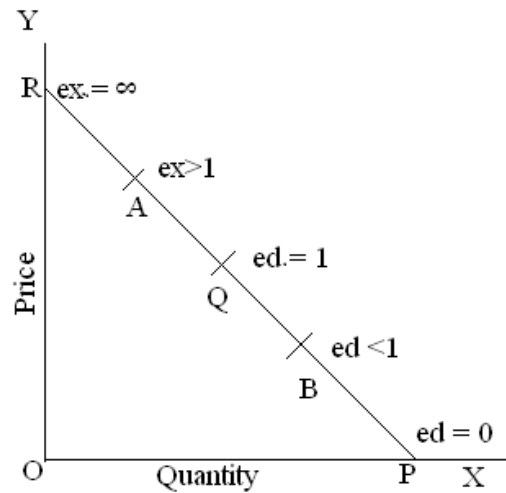
Price Per Unit (\$)	Quantity Demanded	Total Expenditure (\$)
20	10 Pens	200.0
10	30 Pens	300.0



### Point Method or Geometrical Method:

This method was also suggested by Alfred Marshall. It explains the elasticity of demand at a particular point of the demand curve if the demand function is linear one (or when demands curve is straight line sloping down from left to right). The point method is not applicable on curvilinear demand curves. This method is based on the proposition that each point of the straight line demand curve has different elasticity of demand. Different elasticity of demand. We have already shown (under the heading slope and elasticity) that every point on demand curve does not have the same elasticity. This has been explained by point method, also known as Geometrical Method. The basic formula for this method is:

$$E_p = \frac{\text{Length of Lower segment}}{\text{Length of Upper segment}}$$



Now we can calculate elasticity of demand at different points R,A,Q, B and P, As per the ratio of the lower part to upper part.

$$e_p \text{ at } Q = \frac{QP}{AP} = 1$$

$$e_p \text{ at } A = \frac{AP}{RP} < 1$$

$$e_p \text{ at } B = \frac{BP}{QP} > 1$$

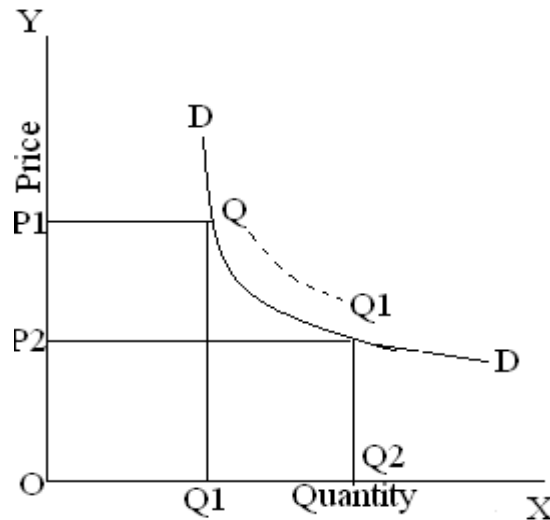
$$e_p \text{ at } R = \frac{RP}{0} = \infty$$

$$e_p \text{ at } P = \frac{0}{RP} = 0$$

Therefore, we can say that at the mid-point on a straight line demand curve, elasticity will be unitary, at higher points (such as A and R) elasticity will be greater than one; at lower points (B and P) the elasticity will be less than one. At points R and P the elasticity's will be infinite and zero respectively. Point method is very useful in economics. It helps us measuring elasticity with very small changes in price and quantity demanded. It also tells us that slope and elasticity are two different things.

### Arc Method:

As we have seen that point elasticity method can be used to determine the elasticity of demand at different points when infinitesimal changes in price are taking place. If the price change is somewhat large or we have to measure elasticity between two different points rather than at a specific point we use Arc Method. When we have to measure the price elasticity over an arc of the demand curve, such as between points Q and Q1 on the demand curve in figure the point elasticity method cannot yield true picture. In measuring arc elasticity we use the average of the two prices and average of two quantities at these prices in the following manner.



**Income elasticity of demand**

Income elasticity of demand measures the percentage change in demand caused by a percent change in income. A change in income causes the demand curve to shift reflecting the change in demand. IED is a measurement of how far the curve shifts horizontally along the X-axis. Income elasticity can be used to classify goods as normal or inferior. With a normal good demand varies in the same direction as income. With an inferior good demand and income move in opposite directions

**Income Elasticity = Proportionate change in the quantity purchased / Proportionate change in Income**

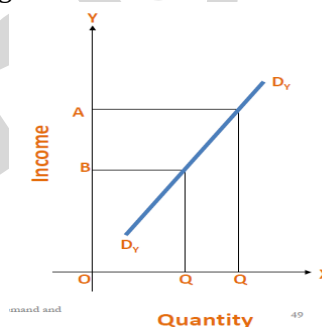
$$E_y = \frac{\% \text{ Change in Quantity Demanded}}{\% \text{ Change in Income}}$$

**Degree of Income Elasticity of Demand**

1. Positive Income Elasticity of Demand
  - a. Unitary income elasticity of demand
  - b. Less than unitary income elasticity of demand
  - c. More than unitary income elasticity of demand
2. Negative income elasticity of demand
3. Zero income elasticity of demand

**Positive income Elasticity of Demand**

Income elasticity of demand for a good is positive, when with a increase in the income of a consumer his demand for the goods is increases and vice-versa.





**Negative Income Elasticity of Demand:**

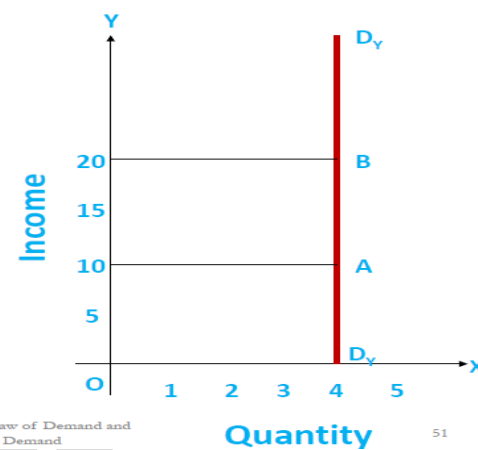
Income Elasticity of Demand is negative when increases in the income of the consumer is accomplished by fall in demand of good.

It is negative in case of inferior goods which are known as Giffen goods.



**Zero Income Elasticity of Demand:**

Income Elasticity of demand is zero, when change in the income of consumer evokes no change in his demands. Demands for necessities like oil, salt, etc., have zero income elasticity of demand



**CROSS ELASTICITY OF DEMAND**

Cross price elasticity of demand measures the percentage change in demand for a particular good caused by a percent change in the price of another good. Goods can be complements, substitutes or unrelated. A change in the price of a related good causes the demand curve to shift reflecting a change in demand for the original good. Cross price elasticity is a measurement of how far, and in which direction, the curve shifts horizontally along the x-axis. Positive cross-price elasticity means that the goods are substitute goods.

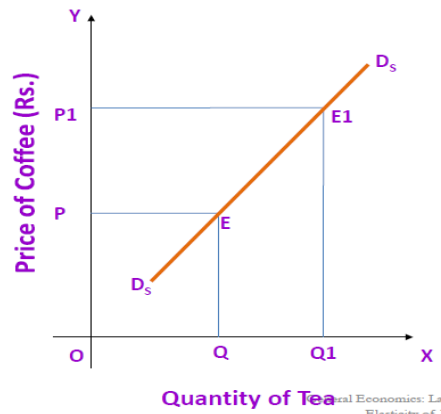
$$\text{Cross elasticity of Demand for X and Y} = \frac{\text{Proportionate change in purchases of commodity X}}{\text{Proportionate change in price of commodity Y}}$$

The numerical value of cross elasticity depends on whether the two goods in question are substitutes, complements or unrelated.

**Degree of Cross Elasticity of Demand**

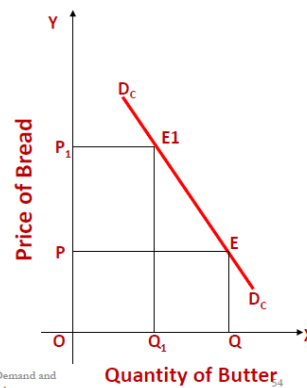
Positive Cross Elasticity of Demand:

It is positive in case of substitute goods for example, Rise in the price of coffee will lead to increase in Demand for Tea. The curve slopes upward from left to right



**Negative Cross Elasticity of Demand:**

It is negative in case of complementary goods. For example rise in price of bread will bring down the demand for butter. the curves slopes downward from left to right.



**Zero Elasticity Of Demand:**

Cross elasticity of demand is zero when two goods are not related to each other . for example, Rise in the price of wheat will have no effect on the demand for shoes.

**Types of Cross Elasticity**

**(i) Substitute Goods.** When two goods are substitute of each other, such as coke and Pepsi, an increase in the price of one good will lead to an increase in demand for the other good. The numerical value of goods is positive.

**For example** there are two goods. Coke and Pepsi which are close substitutes. If there is increase in the price of Pepsi called good y by 10% and it increases the demand for Coke called good X by 5%, the cross elasticity of demand would be:

$E_{xy} = \% \Delta q_x / \% \Delta p_y = 0.2$

Since  $E_{xy}$  is positive ( $E > 0$ ), therefore, Coke and Pepsi are close substitutes.

**(ii) Complementary Goods.** However, in case of complementary goods such as car and petrol, cricket bat and ball, a rise in the price of one good say cricket bat by 7% will bring a fall in the demand for the balls (say by 6%). The cross elasticity of demand which are complementary to each other is, therefore,  $6\% / 7\% = 0.85$  (**negative**).

**(iv) Unrelated Goods.** The two goods which are unrelated to each other, say apples and pens, if the price of apple rises in the market, it is unlikely to result in a change in quantity demanded of pens. The elasticity is zero of unrelated goods.



## SUPPLY

### Meaning of Supply

Supply means the quantities of goods which are offered for sale at particular prices during a given period of time. Thus, the supply of a commodity may be defined as the amount of that commodity which the sellers (or producers) are able and willing to offer for sale at a particular price during a certain period of time.

The supply for a commodity and quantity supplied are two different concepts. Whereas, supply refers to quantities of a commodity which producers or seller offer for sell at all possible prices of a good during a period of time and the quantity supplied is the amount of good or service which producers or seller offer for sell at particular price of a good during a particular period of time.

### Factors Affecting Supply

The determinants of supply are as follows:

- 1) Price.
- 2) Prices of related goods.
- 3) Objectives of producer
- 4) Number of producers
- 5) The cost of factors of production
- 6) The State of Technology
- 7) Factors Outside the Economic Sphere, Weather conditions, floods and droughts, epidemics etc.
- 8) Tax and Subsidy
- 9) Nature of commodity
- 10) Future expectation of price

### Law of supply

Law of supply may be stated as "Other things remaining unchanged, the supply of a commodity expands (i.e., rise) with a rise in its price, and contracts (i.e. falls) with a fall in its price." The law, thus, suggests that the supply varies directly with the changes in price. So, a larger amount is supplied at a higher price than at a lower price in the market. We can say that quantity supplied and price have a positive relationship.

### Explanation of the Law

The law can be explained and illustrated with the help of a supply schedule as well as supply curve, based on imaginary data, as follows see table and figure given below. When the data of Table are plotted on a graph, a supply curve can be drawn as shown in Figure. From the supply schedule it appears that the market supply tends to expand with a rise in price and vice versa. Similarly, the upward sloping curve also depicts a direct co-variation between price and supply.

**TABLE : Market Supply Schedule**

Price of a ball pen (Rs.)	Quantity Supplied (in 000 per week)
1	5
2	10
3	15
4	20
5	25

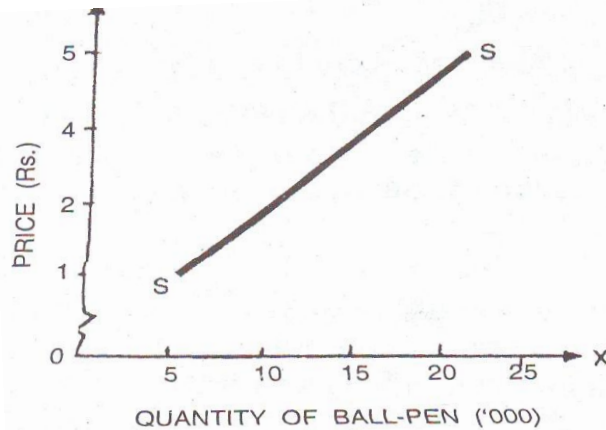


Figure 8.1 The Supply Curve

### Price Elasticity of Supply

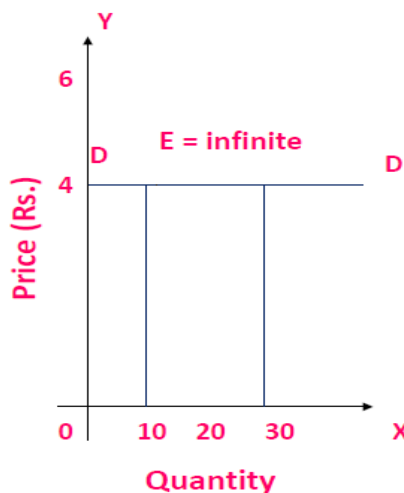
Price Elasticity of supply measures the degree of responsiveness of the quantity supplied of a commodity to a change in its price. It defined as the proportionate change in quantity supplied to the percentage or proportionate change in price. In symbolic terms;

$$\text{Price elasticity of supply} = \frac{\text{Proportionate change in quantity supplied of commodity X}}{\text{Proportionate change in price of commodity X}}$$

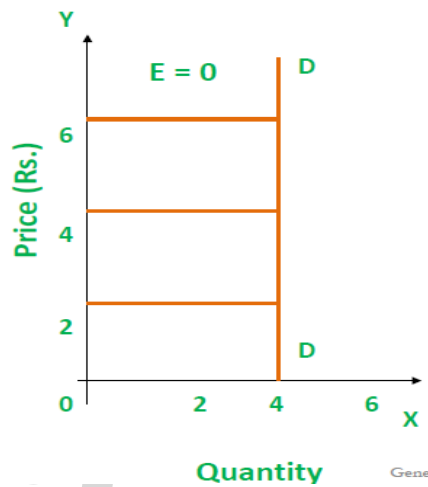
There are various degrees of elasticity of supply. It may be perfectly elastic, perfectly inelastic, Unitary elastic, More than unit elastic and less than unit elastic.

### Types/Degrees of Price Elasticity of Demand

- A) Perfectly Elastic supply: A perfectly elastic supply refers to the situation when supply is infinite at the prevailing price. It is a situation where the slightest rise in price causes the quantity supplied of the commodity rises to infinity. It is the extreme case of supply.



- B) Perfectly inelastic supply: A perfectly inelastic supply refers to a situation when change in price causes no change in the quantity supplied. Even a substantial change in price does not impact quantity supplied.



- C) Unitary Elastic supply: It is a situation when change in % change in quantity supplied is equal to % change in price. Elasticity of supply is equal to one.
- D) Greater than unitary Elastic supply: Supply is greater than unitary elastic when change in quantity supplied is more in response to change in price of the commodity. In short % change in quantity supplied is greater than % change in price.
- E) Less than Unitary Elastic supply: supply is less than unitary elastic when change in quantity demanded is less in response to change in price of the commodity. % change in quantity supplied is less than % change in price.