**c) Economics, a Science or an Art?**Broadly different subjects can be classified as science subjects and Arts subjects, Science subjects groups includes physics, Chemistry, Biology etc while Arts group includes History, civics, sociology Languages etc. Whether Economics is a science or an art? Let us first understand what is terms ‘science’ and ‘arts’ really means.  
A science is a systematized body of knowledge. A branch of knowledge becomes systematized when relevant facts hove been collected and analyzed in a manner that we can trace the effects back to their and project cases forward to their effects. In other words laws have been discovered explaining facts, it becomes a science, In Economics also many laws and principles have been discovered and hence it is treated as a science. An art lays down formulae to guide people who want to achieve a certain aim. In this angle also Economics guides the people to achieve aims, e.g. aim like removal poverty, more production etc. Thus Economics is an art also. In short Economics is both science as well as art also. The nature of economics deals with the question that whether economics falls into the category of science or arts. Various economists have given their arguments in favour of science while others have their reservations for arts. **Economics as a Science** -------- To consider anything as a science, first, we should know what science is all about? Science deals with systematic studies that signify the cause and effect relationship. In science, facts and figures are collected and are analyzed systematically to arrive at any certain conclusion. For these attributes, economics can be considered as a science. However, economics is treated as a social science because of the following features: 1)It involves a systematic collection of facts and figures. 2)Like in science, it is based on the formulation of theories and laws. 3) It deals with the cause and effect relationship. These points validate that the nature of economics is correlated with science. Just as in science, various economic theories are also based on logical reasoning. **Economics as an Art** ---------It is said that “knowledge is science, action is art.” Economic theories are used to solve various economic problems in society. Thus, it can be inferred that besides being a social science, economics is also an art.

**1. Product Method:** In this method, national income is measured as a flow of goods and services. We calculate money value of all final goods and services produced in an economy during a year. Final goods here refer to those goods which are directly consumed and not used in further production process. Goods which are further used in production process are called intermediate goods. In the value of final goods, value of intermediate goods is already included therefore we do not count value of intermediate goods in national income otherwise there will be double counting of value of goods. To avoid the problem of double counting we can use the value-addition method in which not the whole value of a commodity but value-addition (i.e. value of final good value of intermediate good) at each stage of production is calculated and these are summed up to arrive at GDP. The money value is calculated at market prices so sum-total is the GDP at market prices. GDP at market price can be converted into by methods discussed earlier.

**2. Income Method**: Under this method, national income is measured as a flow of factor incomes. There are generally four factors of production labour, capital, land and entrepreneurship. Labour gets wages and salaries, capital gets interest, land gets rent and entrepreneurship gets profit as there remuneration. Besides, there are some self-employed persons who employ their own labour and capital such as doctors, advocates, CAs, etc. Their income is called mixed income. The sum-total of all these factor incomes is called NDP at factor costs.

**3. Expenditure Method:** In this method, national income is measured as a flow of expenditure. GDP is sum-total of private consumption expenditure. Government consumption expenditure, gross capital formation (Government and private) and net exports (Export-Import).

Demand is the rate at which consumers want to buy a product. Economic theory holds that  demand consists of two factors: taste and ability to buy. Taste, which is the desire for a  good, determines the willingness to buy the good at a specific price. Ability to buy means  that to buy a good at specific price, an individual must possess sufficient wealth or income.

**The various factors that influence demand forecasting are explained as follows:**

**i. Types of Goods:**Affect the demand forecasting process to a larger extent. Goods can be producer‟s goods,  consumer goods, or services. Apart from this, goods can be established and new goods.  Established goods are those goods which already exist in the market, whereas new goods are  those which are yet to be introduced in the market.

Information regarding the demand, substitutes and level of competition of goods is known only  in case of established goods. On the other hand, it is difficult to forecast demand for the new  goods. Therefore, forecasting is different for different types of goods.

**ii. Competition Level:**

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

**iii. Price of Goods:**

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

**iv. Level of Technology:**

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

**v. Economic Viewpoint:**

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

**DEMAND FUNCTION** The term „micro‟ means small. The study of an individual consumer or a firm is called  microeconomics (also called the *Theory of Firm*). Micro means „one millionth‟.  Microeconomics deals with behavior and problems of single individual and of micro  organization. Managerial economics has its roots in microeconomics and it deals with the micro  or individual enterprises. It is concerned with the application of the concepts such as price  theory, Law of Demand and theories of market structure and so on. Micro-economic theory takes the total quantity of resources as given and seeks to explain how they  are assigned to the production of different goods. Allocation of resources determines what goods  shall be produced and how they shall be produced. In a free market economy, the allocation of  resources to the production of various goods depends upon the prices of the various goods and prices of the various resources or factors of production. Hence, micro-economics proceeds to  analyses how the relative prices of goods and factors are determined in order to explain how the  allocation of resources is determined. Therefore, the theory of product pricing and theory of  factor pricing or the theory of distribution fall within the domain of micro-economics.

**DETERMINANTS OF DEMAND:** Determinants of demand are as follows

1. No. of buyers

2. Income

3. Normal Good

4. Inferior good

**STEPS INVOLVES IN DF…..1. Identification of business objectives:** In the first stage we should know what is the aim of forecasting? What we get or know from the  forecasting? Estimation of factors like quantity and composition of demand for goods, price to be  quoted, sales planning and inventory control etc., are done in the first stage. **2. Determining the nature of goods under consideration:**Different category of goods has their own distinctive demand. Example capital goods, consumer  durables and non-durables goods in which category our goods fall we should estimate. **3. Selecting a proper method of forecasting:**There are different methods for demand forecasting. Which is best suited method that we should  select for doing demand forecasting?  **4. Interpretation of results:**The forecasting which is done by the managerial economist should be interpreted in detailed  manner. That means it should be easy to understand by the top management.

**1. Individual demand:-**A commodity or good demanded by a single person is called individual demand. **Application:** when the price is very high, a low-income buyer may not buy anything, though a high-income buyer may buy something. In such a case, we may distinguish between the  demand of an individual buyer and that of the market which is the aggregate of individuals.  **2. Market Demand** A demand for a particular product by all customers and added, is called market demand.  (Total all individual demand is called as the market demand) Table is the market demand schedule. This schedule, from the angle of simplification, is  based on the assumption that there are two buyers, A and B for X commodity. By adding up  their individual demand, the market demand schedule has been estimated:  3 **Derive Demand**The increase in demand for one particular good causes increase in the demand for other good is  called derived demand. Complementary goods are those goods which are jointly used to satisfy  a want. In other words, complementary goods are those which are incomplete without each  other. These are things that go together, often used simultaneously. For example, pen and ink,  Tennis rackets and tennis balls, cameras and film, etc. For example, demand for coal leads to derived demand for mining, as coal must be mined for  coal to be consumed. **4. Cross Demand:** When the demand of one commodity is related with the price of other commodity is called cross demand. The commodity may be substitute or complementary.  Substitute goods are those goods which can be used in case of each other. For example, tea  and coffee, Coca-cola and Pepsi. In such case demand and price are positively related. This  means if the price of one increased then the demand for other also increases and vise versa. 5. **Cross elasticity demand:**There is a mutual relationship between change in price and quantit related goods. Change in the price of one goods can cause change in the demand for the  related good. For example, change in the price of tea ordinarily causes change in demand  for coffee. Likewise, change in the price of cars causes change in demand for petrol.  Mutual relationship between quantity demanded of a good due to change in the price of  another goods can be measured by cross elasticity of demand. Change in the Price of a particular good effect the demand for the other good. For  example, 10% increase in the price of fuel, that causes 20% decrease in the demand  for new cars which are not giving mileage, This measures the % change in QD for a  good after the change in price of another.

**Factors Affecting Demand**

There are factors on which the demand for a commodity depends. These factors are economic,  social as well as political factors. The effect of all the factors on the amount demanded for the  commodity is called Demand Function. These factors are as follows: 1. **Price of the Commodity**: The most important factor-affecting amount demanded is the price of the commodity. The amount of a commodity demanded at a particular price is more properly  called price demand. The relation between price and demand is called the Law of Demand. It is

not only the existing price but also the expected changes in price, which affect demand. **2. Income of the Consumer**: The second most important factor influencing demand is consumer income. In fact, we can establish a relation between the consumer income and the demand at  different levels of income, price and other things remaining the same. The demand for a normal  commodity goes up when income rises and falls down when income falls. But in case of Giffen  goods the relationship is the opposite. **3. Prices of related goods:** The demand for a commodity is also affected by the changes in  prices of the related goods also. Related goods can be of two types:

(i**). Substitutes** which can replace each other in use; for example, tea and coffee are substitutes. The change in price of a substitute has effect on a commodity‟s demand in the same direction in  which price changes. The rise in price of coffee shall raise the demand for tea; **(ii). Complementary** foods are those which are jointly demanded, such as pen and ink. In such cases complementary goods have opposite relationship between price of one commodity and the  amount demanded for the other. If the price of pens goes up, their demand is less as a result of  which the demand for ink is also less. The price and demand go in opposite direction. The effect  of changes in price of a commodity on amounts demanded of related commodities is called Cross  Demand. **4. Tastes of the Consumers**: The amount demanded also depends on consumer‟s taste. Tastes include fashion, habit, customs, etc. A consumer‟s taste is also affected by advertisement. If the  taste for a commodity goes up, its amount demanded is more even at the same price. This is  called increase in demand. The opposite is called decrease in demand. **5. Wealth**: The amount demanded of commodity is also affected by the amount of wealth as well as its distribution. The wealthier are the people; higher is the demand for normal  commodities. If wealth is more equally distributed, the demand for necessaries and comforts  is more. On the other hand, if some people are rich, while the majorities are poor, the demand  for luxuries is generally higher. **6. Population**: Increase in population increases demand for necessaries of life. The composition of population also affects demand. Composition of population means the  proportion of young and old and children as well as the ratio of men to women. A change in  composition of population has an effect on the nature of demand for different commodities. **7. Government Policy**: Government policy affects the demands for commodities through taxation. Taxing a commodity increases its price and the demand goes down. Similarly,  financial help from the government increases the demand for a commodity while lowering its  price. 8. **Expectations regarding the future**: If consumers expect changes in price of commodity  in future, they will change the demand at present even when the present price remains the  same. Similarly, if consumers expect their incomes to rise in the near future they may  increase the demand for a commodity just now. **9. Climate and weather**: The climate of an area and the weather prevailing there has a Decisive effect on consumer’s demand. In cold areas woolen cloth is demanded. During hot Summer days, ice is very much in demand. On a rainy day, ice cream is not so much  demanded. **10. State of business**: The level of demand for different commodities also depends upon the business conditions in the country. If the country is passing through boom conditions, there will  be a marked increase in demand. On the other hand, the level of demand goes down during  depression

**Scope of Economics**

Economists use different economic theories to solve various economic problems in society. Its applicability is very vast. From a small organization to a multinational firm, economic laws come into play. The scope of economics can be understood under two subheads: Microeconomics and Macroeconomics. Let’s discuss these in detail:

**Microeconomics** Microeconomics examines individual economic activity, industries, and their interaction. It has the following characteristics: **Elasticity:** It determines the ratio of change in the proportion of one variable to another variable. For example- the income elasticity of demand, the price elasticity of demand, the price elasticity of supply, etc. **Theory of Production:** It involves an efficient conversion of input into output. For example- packaging, shipping, storing, and manufacturing. **Cost of Production:** With the help of this theory, the object price is evaluated by the price of resources. **Monopoly:** Under this theory, the dominance of a single entity is studied in a particular field. **Oligopoly:** It corresponds to the dominance of small entities in a market.

**Macroeconomics**

It is the study of an economy as a whole. It explains broad aggregates and their interactions “top down.” Macroeconomics has the following characteristics:**Growth:** It studies the factors which explain economic growth such as the increase in output per capita of a country over a long period of time. **Business Cycle:** This theory emerged after the Great Depression of the 1930s. It advocates the involvement of the central bank and the government to formulate monetary and fiscal policies to monitor the output over the business cycle. **Unemployment:** It is measured by the unemployment rate. It is caused by various factors like rising in wages, a shortfall in vacancies, and more.

**Inflation and Deflation:** Inflation corresponds to an increase in the price of a commodity, while deflation corresponds to a decrease in the price of a commodity. These indicators are valuable to evaluate the status of the economy of a country.