Unit 1
 1.) Law of demand limitations?
Limitations of Law of Demand

When the prices of normal goods rises, the demand for them decrease, there are few cases where the law cannot operated. Following are the limitations of law of demand.

1. Prestige Goods

There are certain commodities like sports car or diamond, which are the sign of distinction and honor in any society. If the price of these goods increases the demand for them may be increase instead of falling.

2. Price Expectations

Expect a further increase in the price of a specific commodity they will go to buy more and more in spite of rising in price. In this case the violation of law is temporary.

3. Ignorance of the Consumer

If the consumer is ignorant about the rise in price of goods, he may buy more of the commodity at higher price.

4. Giffen Goods

If the prices of basic goods like (sugar, wheat etc) on which the poor spend a large part of their income declining the poor increase the demand for superior goods. When the price of giffen goods fall it demand will also falls. There is a positive price effect in the case of giffen goods.

2.)ELASTICITY OF DEMAND ?

ELASTICITY OF DEMAND:

Law of demand explains the relationship between a change in price and consequent change in amount demanded. "Marshall" introduced the concept of elasticity of demand. Elasticity of demand shows the extent of change in quantity demanded to a change in price.

In the words of "Marshall", "The elasticity of demand in a market is great or small according as the amount demanded increases much or little for a given fall in the price and diminishes much or little for a given rise in Price"

$$\text{Price elasticity} = \frac{\text{Proportionate change in the quantity demand of commodity}}{\text{Proportionate change in the price of commodity}}$$

- Types of Elasticity of Demand:

There are three types of elasticity of demand:

- 1.Price elasticity of demand
- 2.Income elasticity of demand
- 3.Cross elasticity of demand
- 4.Advertising Elasticity of Demand

3.)Demand Forecasting any three methods?

•The information about the future is essential for both new firms and those planning to expand the scale of their production. Demand forecasting refers to an estimate of future demand for the product.

Survey Method:

Survey method is one of the most common and direct methods of forecasting demand in the short term. This method encompasses the future purchase plans of consumers and their intentions. In this method, an organization conducts surveys with consumers to determine the demand for their existing products and services and anticipate the future demand accordingly.

•Statistical Methods:

•Statistical methods are complex set of methods of demand forecasting. These methods are used to forecast demand in the long term. In this method, demand is forecasted on the basis of historical data and cross-sectional data.

•Historical data refers to the past data obtained from various sources, such as previous years' balance sheets and market survey reports. On the other hand, cross-sectional data is collected by conducting interviews with individuals and performing market surveys. Unlike survey methods, statistical methods are cost effective and reliable as the element of subjectivity is minimum in these methods.

Least Squares Method

The least squares method is a form of mathematical regression analysis used to determine the line of best fit for a set of data, providing a visual demonstration of the relationship between the data points. Each point of data represents the relationship between a known independent variable and an unknown dependent variable.

4.Determinants of Demand ?

Determinants of Demand

There are many determinants of demand, but the top five determinants of demand are as follows:

Product cost: Demand of the product changes as per the change in the price of the commodity. People deciding to buy a product remain constant only if all the factors related to it remain unchanged.

The income of the consumers: When the income increases, the number of goods demanded also increases. Likewise, if the income decreases, the demand also decreases.

Costs of related goods and services: For a complimentary product, an increase in the cost of one commodity will decrease the demand for a complimentary product. Example: An increase in the rate of bread will decrease the demand for butter. Similarly, an increase in the rate of one commodity will generate the demand for a substitute product to increase. Example: Increase in the cost of tea will raise the demand for coffee and therefore, decrease the demand for tea.

Consumer expectation: High expectation of income or expectation in the increase in price of a good also leads to an increase in demand. Similarly, low expectation of income or low pricing of goods will decrease the demand.

Buyers in the market: If the number of buyers for a commodity are more or less, then there will be a shift in demand.

Unit 2:

1.)Cobb-Douglas production function:

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

Y= (AKX L1-x)

Where Y=output

K=Capital

L=Labour

A, ∞=positive constant

Assumptions:

It has the following assumptions

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

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

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

4.   There are constant returns to scale

5.   All inputs are homogenous

6.   There is perfect competition

7.   There is no change in technology

2.) Laws of variable proportions:

This law exhibits the short-run production functions in which one factor varies while the others are fixed. Also, when you obtain extra output on applying an extra unit of the input, then this output is either equal to or less than the output that you obtain from the previous unit.

The Law of Variable Proportions concerns itself with the way the output changes when you increase the number of units of a variable factor. Hence, it refers to the effect of the changing factor-ratio on the output.

Assumptions of the Law: The law is based upon the following assumptions:

    i)   The state of technology remains constant. If there is any improvement in technology, the average and marginal out put will not decrease but increase.

    ii)   Only one factor of input is made variable and other factors are kept constant. This law does not apply to those cases where the factors must be used in rigidly fixed proportions.

    iii)   All units of the variable factors are homogenous.

Stages of Law of Variable Proportion

The Law of Variable proportions has three stages, which are discussed below.

1. First Stage or Stage of Increasing returns: In this stage, the total product increases at an increasing rate. This happens because the efficiency of the fixed factors increases with addition of variable inputs to the product.
2. Second Stage or Stage of Diminishing Returns: In this stage, the total product increases at a diminishing rate until it reaches the maximum point. The marginal and average product are positive but diminishing gradually.
3. Third Stage or Stage of Negative Returns: In this stage, the total product declines and the marginal product becomes negative.

3.) **ISOQUANTS ?**

The term Isoquants is derived from the words 'iso' and 'quant' – 'Iso' means equal and 'quent' implies quantity. Isoquant therefore, means equal quantity. A family of iso-product curves or isoquants or production difference curves can represent a production function with two variable inputs, which are substitutable for one another within limits.

Iqoquants are the curves, which represent the different combinations of inputs producing a particular quantity of output. Any combination on the isoquant represents the some level of output.

For a given output level firm's production become

$$Q= f (L, K)$$

Where 'Q', the units of output is a function of the quantity of two inputs 'L' and 'K'.

Thus an isoquant shows all possible combinations of two inputs, which are capable of producing equal or a given level of output. Since each combination yields same output, the producer becomes indifferent towards these combinations.

Assumptions

1. There are only two factors of production, viz. labour and capital.
2. The two factors can substitute each other up to certain limit
3. The shape of the isoquant depends upon the extent of substitutability of the two inputs.
4. The technology is given over a period.

4.) Fixed and variable costs, Opportunity costs :

Fixed cost is that cost which remains constant for a certain level to output. It is not affected by the changes in the volume of production. But fixed cost per unit decrease, when the production is increased. Fixed cost includes salaries, Rent, Administrative expenses depreciations etc.

Variable is that which varies directly with the variation is output. An increase in total output results in an increase in total variable costs and decrease in total output results in a proportionate decline in the total variables costs. The variable cost per unit will be constant. Ex: Raw materials, labour, direct expenses, etc.

The opportunity cost concept is made use for long-run decisions. This concept is very important in capital expenditure budgeting. This concept is very important in capital expenditure budgeting. The concept is also useful for taking short-run decisions opportunity cost is the cost concept to use when the supply of inputs is strictly limited and when there is an alternative

Unit 3:

1.) Perfect competition:

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

- **Characteristics of Perfect Competition**

  ➤ A large number of buyers and sellers

  ➤ Homogeneous product

  ➤ Free entry and exit

  ➤ Perfect knowledge

  ➤ Indifference

  ➤ Price Takers

  ➤ No Transportation Cost

  ➤ Absence of government intervention

  ➤ Free Mobility of factors of Production.

2.) <u>MONOPOLY</u>

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

MONOPOLY

Advantages	Disadvantages
• Encourages R&D • Encourages innovation • Economies of scale can be gained	• Exploitation of consumer – higher prices • Potential for supply to be limited - less choice • Potential for inefficiency

Features

1. Single person or a firm
2. No close substitute
3. Large number of Buyers
4. Price Maker
5. Downward Sloping Demand Curve
6. Restrictions on Entry and exit

3.) <u>OLIGOPOLY</u>

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

Characteristics

- Few Firms
- Interdependence
- Indeterminate Demand Curve
- Advertising and selling costs
- Price Rigidity

4.) •MONOPOLISTIC COMPETITION

• MONOPOLISTIC COMPETITION

Edward. H. Chamberlain developed the theory of monopolistic competition, which presents a more realistic picture of the actual market structure and the nature of competition. The market structure which is characterised with large number of buyers ,large number of sellers with differentiated products.

• Characteristics of Monopolistic Competition

1. Existence of Many firms
2. Product Differentiation
3. Large Number of Buyers
4. Free Entry and Exist of Firms
5. Selling costs
6. Imperfect Knowledge