ECONOMICS

GENCOM-COE-
Module-2-class-3

LAW OF DEMAND & SUPPLY 1

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❑MEANING OF DEMAND-

Demand in Economics implies both the desire to purchase and ability to pay for a good.

❑DETERMINANTS OF DEMAND

Demand for a commodity is determined by many factors, such as its **own price**, **consumer's income**, **prices of other commodities, tastes and preferences, and time** etc.

The functional relation between quantity demanded for a commodity and its determinants is referred to as the **demand function**. The mathematical expression of demand function is –

$$\boxed{Q_x = f(P_x, P_y, M, T, \ldots\ldots\ldots)}$$

where Q is the quantity damanded for good- X

Px is the per unit price of good-X

Py is the per unit price of good-Y

M is the money income of the consumer

T is the taste and preference of the consumer

TYPES OF DEMAND

- TYPES OF DEMAND
  - INDIRECT DEMAND
  - JOINT DEMAND
  - COMPOSIT DEMAND
  - DIRECT DEMAND
    - PRICE DEMAND
    - INCOME DEMAND
    - CROSS DEMAND

DIRECT DEMAND :

It refers to demand for a commodity that is directly consumed to satisfy human wants.

Example **:** Demand for food, clothes, shelter etc.

Price Demand **:** It refers to demand for a commodity at various given prices of that commodity, assuming other things remaining same.

Income Demand **:** It refers to demand for a commodity at various levels of consumer's income, assuming other things remaining same.

Cross Demand **:** When demand for a commodity depends on the prices of other related commodities, it is called cross demand.

INDIRECT OR DERIVED DEMAND : The demand for a commodity that arises because of the demand for some other commodity, called parent product, is called indirect demand.

***Examples* :** Demand for labour, capital, fertilizers etc.

JOINT DEMAND : It refers to demand for those goods which are always demanded jointly. ***Examples* :** Car and Petrol, Tea and Sugar etc.

Complements : Two goods are complements to each other if an increase (decrease) in the price of one of the goods causes consumers to demand less (more) of the other, all other things held constant.

Substitutes : Two goods are substitutes if an increase (decrease) in the price of one of the goods causes consumers to demand more (less) of the other, all other things held constant.

COMPOSITE DEMAND : It refers to demand for a commodity that provides multiple uses. ***Example* :** Demand for crude oil, coal etc.

THE DEMAND SCHEDULE and DEMAND CURVE :

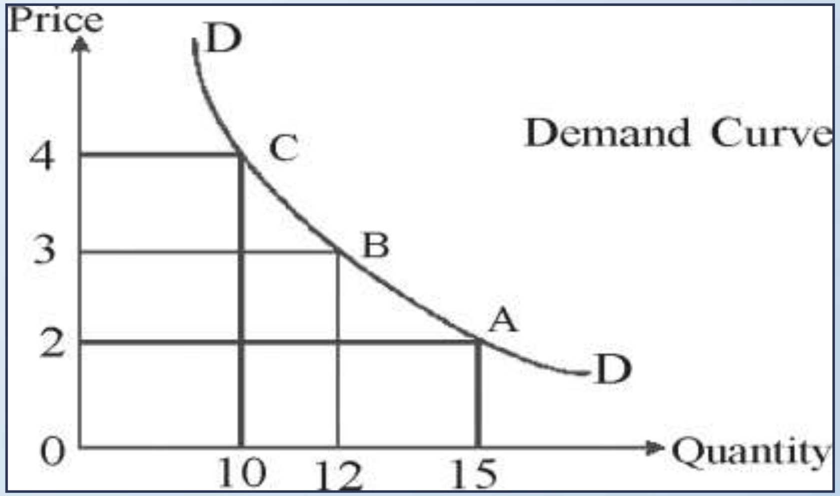
A demand schedule is a tabular presentation of different prices of a commodity and its corresponding quantity demanded, ceteris-paribus.

A demand curve is a graphical presentation of the demand schedule.

According to the law of demand, the demand curve slopes downward to the right or is negatively sloped

Demand Scheduled

Price (Rs.)	Quantity demanded
2	15
3	12
4	10



EXCEPTIONS TO THE LAW OF DEMAND :

The law of demand, however, does not apply to the following cases :

1.GIFFEN GOODS :

A historical example of Giffen good is the consumption of potatoes in 19th century Ireland. That is, whenever potato prices were raised, consumption of potatoes increased. This strange phenomenon was first observed by Sir Robert Giffen and has been named after him. **A giffen good is defined as an inferior good whose demand increases when its price increases**.

2.EXPECTATIONS OF FURTHER PRICE RISE IN FUTURE :

When consumers expect future rise in the price of a commodity, they will buy more quantity at a high price in the current period.

3.FASHIONABLE GOODS :

Even though prices of fashionable goods are going up, people are willing to buy these goods

4.PRESTIGE GOODS - VEBLEN EFFECT :

One exception to the law of demand is associated with the name of the economist Thornstein Veblen who propounded the doctrine of conspicuous consumption.

According to Veblen, some consumers measure the utility of a commodity entirely by its price i.e., for them, the greater the price of a commodity, the greater its utility.

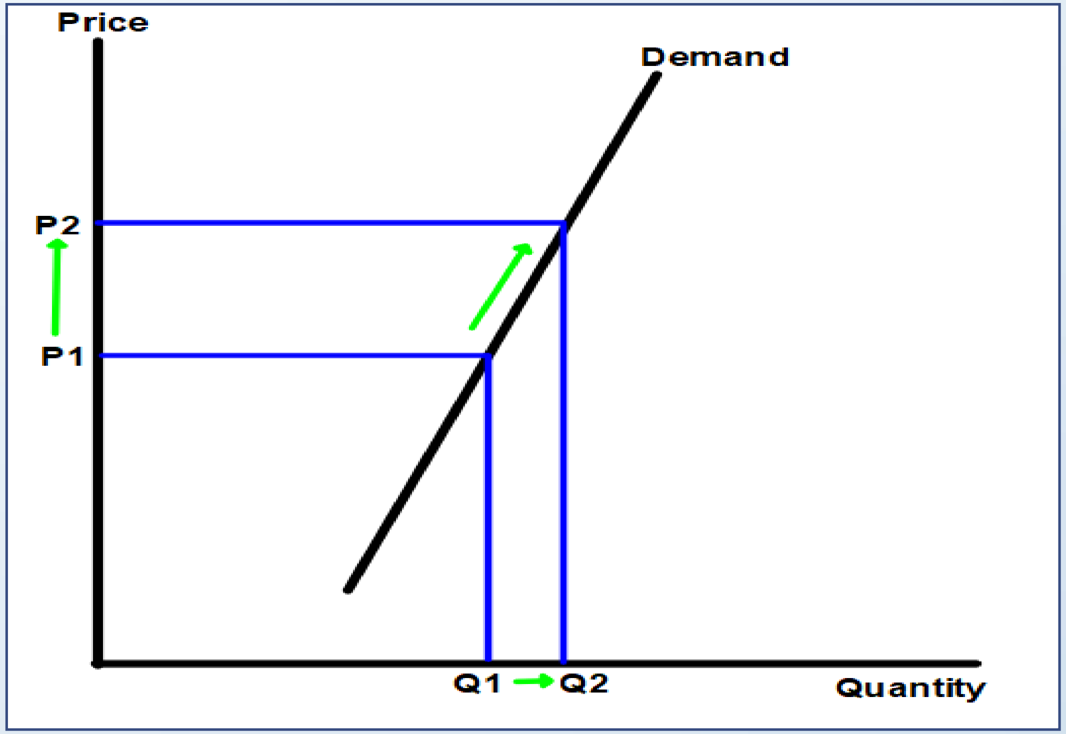
For example, gold, diamond, precious stones, antiques etc. are considered as prestige goods.

5.EMERGENCIES :

Emergencies like war, famine etc. negate the operation of the law of demand. At such time, consumers behave in an abnormal way.

If they expect shortage of goods, they would buy and hoard goods even at high price during such periods.

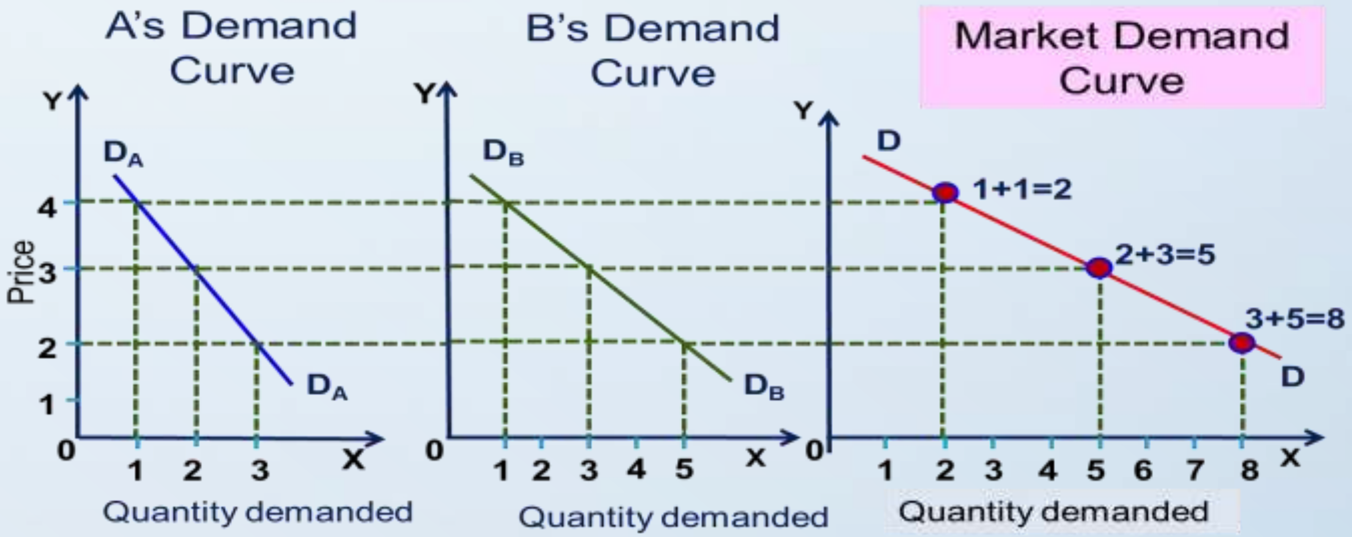
In above cases, quantity demanded is positively related to the price. So, **demand curve is positively sloped** or **upward sloping**.



❑MARKET DEMAND :

Market demand for a commodity is the sum of all individual demands for the commodity at a given price, per unit of time.

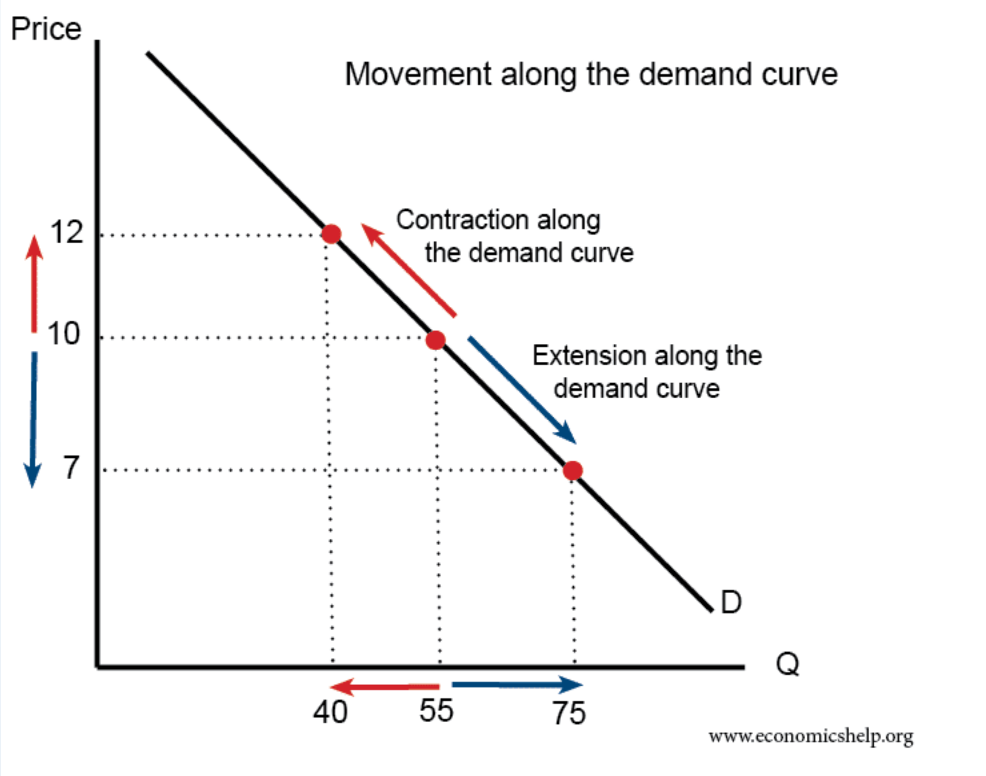
Thus, a market demand curve is horizontal summation of individual demand curves at different prices. Market demand curve is negatively sloped



DIFFERENCE BETWEEN SHIFT IN DEMAND CURVE AND MOVEMENT ALONG DEMAND CURVE-

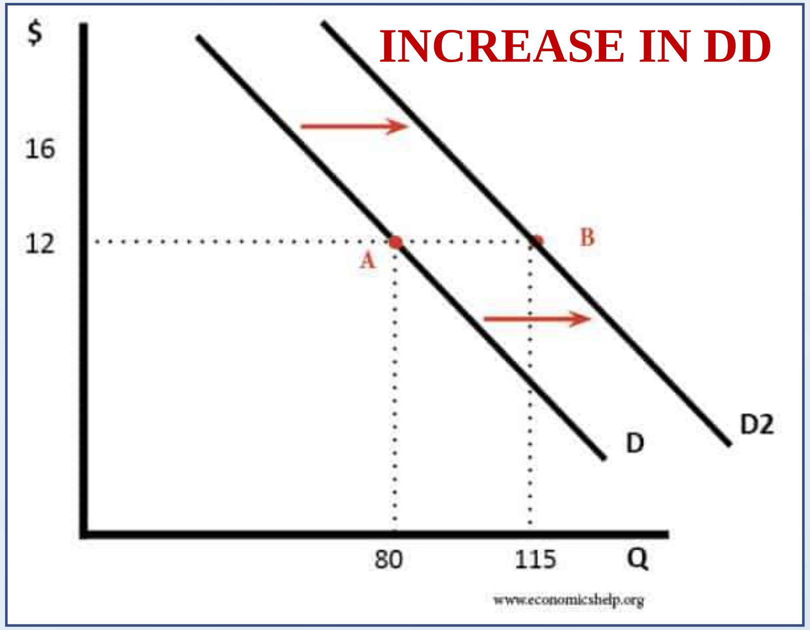
MOVEMENT ALONG DEMAND CURVE-

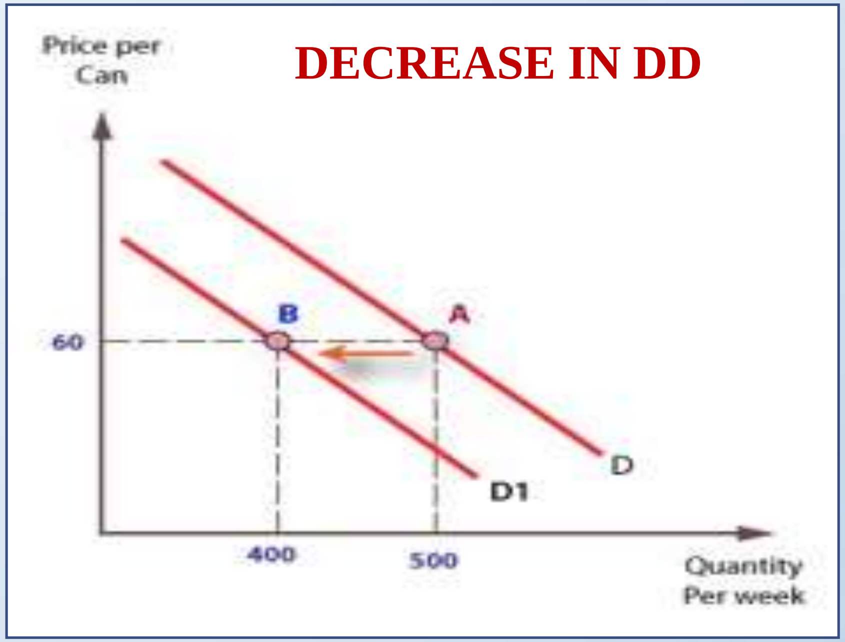
The effect of a change in own price, ceteris-paribus, on quantity demanded is known as change in quantity demanded or movement along demand curve. Such movements are also sometimes described as **EXTENSIONS or CONTRACTIONS** of demand.



SHIFT IN DEMAND CURVE-

The effect of a change in any factors other than own price on quantity demanded, involves a **shift in demand curve or change in demand.**
An increase in demand causes a shift to the right of the demand curve, a larger quantity being demanded at each & every price.
A shift in the demand curve to the left indicates a decrease in demand, less is demanded at each & every price.





SUPPLY

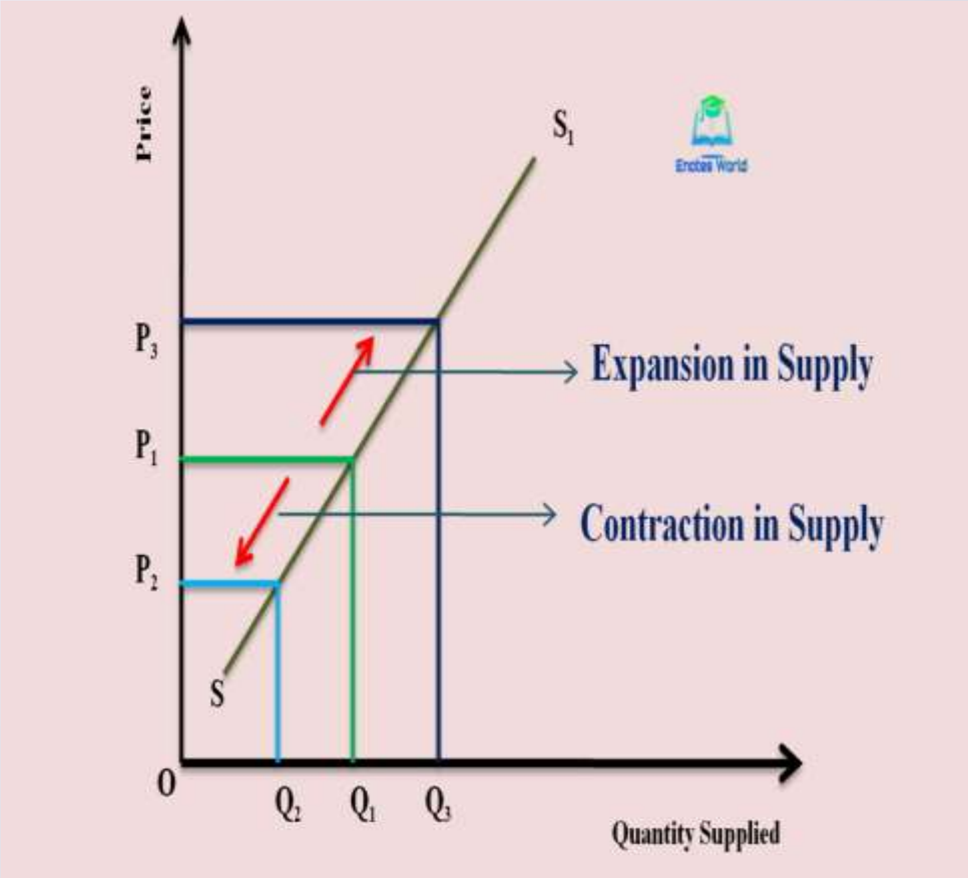
MEANING OF SUPPLY :

Supply can be defined as the quantities of a commodity or service which a seller is willing to offer for sale at various prices during a given period of time.

LAW OF SUPPLY :

It states that, other things being constant, the quantity supplied of a commodity increases when its price rises and vice-versa.

According to this law **price and supply are positively related**. The supply curve is **upward sloping or positively sloped.**

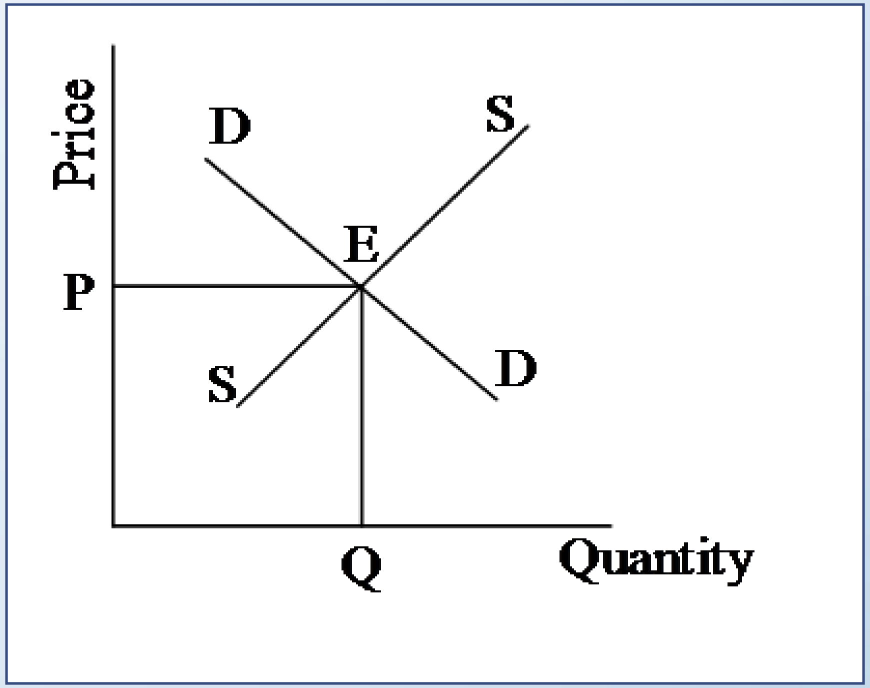


THE MARKET EQUILIBRIUM

Equilibrium refers to a state of market in which quantity demanded for a commodity equals the quantity supplied of the commodity.

The equilibrium price is the price at which quantity demanded for a commodity equals its quantity supplied.

Equilibrium price is also called market-clearing price.



THE CONCEPT OF CARDINAL UTILITY AND ITS MEASUREMENT

- The concept of ‘utility’ was introduced to social thoughts by Bentham in 1789 and to economic thoughts by Jevons in 1871.
- In general sense, utility is the ‘want satisfying power’ of a commodity.
- In economic sense, utility is a psychological phenomenon : it is a feeling of satisfaction, pleasure, happiness or well-being which a consumer derives from the consumption or possession of a commodity.
- A neo-classical economist, Walras, coined a term ‘util’, meaning ‘units of utility’ and used money as the measure of utility with the following assumptions:
  (i) utility of a commodity equals the money a consumer is willing to pay for it; **Cardinal utility measures utility quantitatively, while ordinal utility ranks utility in order.**
  (ii) marginal utility of money remains constant; and
  (iii) one util = one unit of money, e.g., Rs. 1 =1 util;

Cardinal utility measures utility quantitatively, while ordinal utility ranks utility in order.

Going by this method of measuring utility, the utility of a commodity for a consumer equals the money (the price) which he or she is willing to pay for the commodity. For example, if a thirsty person is willing to pay Rs 50 for one can of Pepsi, his/her utility of one can of Pepsi is 50 utils.

Total Utility (TU) :

Total utility (TU) from a single commodity, may be defined as the sum of the utility derived from all the units consumed of the commodity. For example, if a consumer consumes 4 units of a commodity and derives U1, U2, U3 and U4 utils from the successive units consumed, then

$$\mathbf{TU = U1 + U2 + U3 + U4}$$

If he consumes n units, then his total utility (TU) from n units may be expressed as

$$\mathbf{TUn = U1 + U2 + U3 + \ldots + Un}$$

In case number of commodities consumed is greater than one, then

$$\mathbf{TU = TUx + TUy + TUz + \ldots + TUn}$$

where subscripts x, y, z and n denotes commodities.

Marginal Utility :

The **marginal utility** can be defined as the utility derived from the marginal or the last unit consumed. Marginal utility is defined also as the addition to the total utility derived from the consumption or acquisition of one additional unit. More precisely, marginal utility (MU) is the change in the total utility resulting from the consumption of one additional unit. That is,

MU = ΔTU/ΔC

where **ΔTU = change in total utility, and ΔC = change in consumption by one unit.** Marginal utility (MU) may also be expressed as

MUn = TUn – TUn – 1

where TUn = total utility derived from the consumption of *n* units and TUn – 1 = total utility derived from the consumption of n — 1 units.

THE LAW OF DIMINISHING MARGINAL UTILITY

- The law of diminishing marginal utility is central to the cardinal utility analysis of the consumer behaviour. This law states that as the quantity consumed of a commodity increases per unit of time, the utility derived by the consumer from the successive units goes on decreasing, provided the consumption of all other goods remains constant. This law stems from the facts

(i) that the utility derived from a commodity depends on the intensity or urgency of the need for that commodity, and

(ii) that as more and more quantity of a commodity is consumed, the intensity of desire decreases.

For these reasons, the utility derived from the marginal unit goes on diminishing.

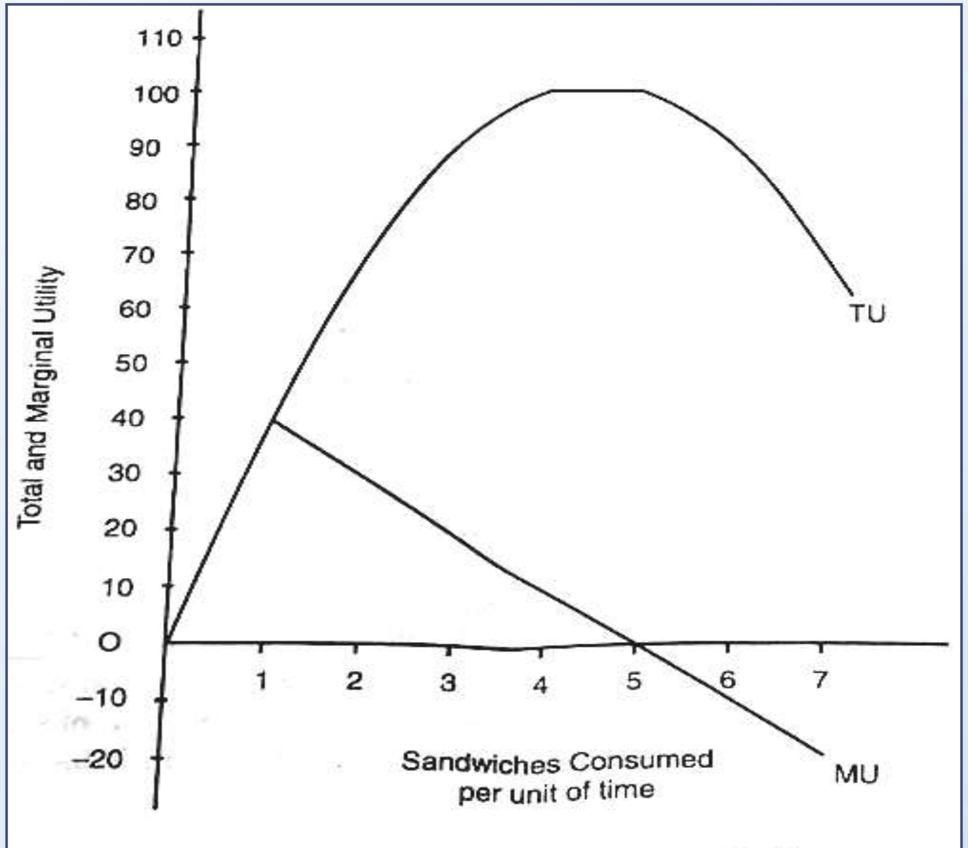
- This relationship between quantity consumed and utility derived from each successive unit consumed is called the law of diminishing marginal utility.

A numerical illustration of the law of diminishing marginal utility.

Sandwiches	Total Utility	Marginal Utility (TUn- TUn -1)
1	40	40 – 0 = 40
2	70	70 – 40 = 30
3	90	90 – 70 = 20
4	100	100 – 90 = 10
5	100	100 – 100 = 00
6	90	90 – 100 = –10

It may be seen in the table that the total utility reaches maximum at 100 at 5 sandwiches consumed. Here, MU = 0. Consumption of the 6th sandwich yields negative utility and the total utility starts declining.

Graphical representation of TU & MU-



Total and Marginal Utility

1.A horizontal demand curve is—

(SSC Higher Secondary Level Data Entry Operator & LDC Exam. 28.11.2010 (1st Sitting)

a) relatively elastic
b) perfectly inelastic
c) perfectly elastic
d) of unitary elasticity

2.For an inferior good, demand falls when— ***(SSC (10+2) Level DEO & LCD Exam. 11.12.2011)***

a) price rises b) income rise c) price falls d) income falls

3.Demand for complementary goods is known as— ***(SSC (10+2) Level DEO & LDC Exam. 04.11.2012)***

a) Joint demand b) Derived demand c) Direct demand d) Cross demand

4. Demand in Economics means : ***(SSC Multi-Tasking Staff Exam. 10.03.2013)***

a) Aggregate demand b) Market demand
c) Individual demand d) Demand backed by purchasing power

5.Diamonds are priced higher than water because— ***(SSC Graduate Level Tier-I Exam. 21.04.2013)***
a) they are sold by selected firms with monopolistic powers
b) their marginal utility to buyers is higher than that of water
c) their total utility to buyers is higher than that of water
d) consumers do not buy them at lower prices

6. The demand for labour is called— ***(SSC Graduate Level Tier-I Exam. 19.05.2013)***
a) Market demand b) Direct demand c) Derived demand d) Factory demand

7. The demand of a factor of production is— ***(SSC CGL Tier-I Exam. 19.10.2014)***
a) direct b) derived
c) neutral d) discretion of the producer

8. The Law of Demand is based on— ***(SSC (10+2) Level DEO & LDC Exam. 10.11.2013)***
a) Manufacturer's preference b) Seller's preference
c) Supplier's preference d) Consumer's preference

THANK YOU