

# J.K. SHAH CLASSES

SOLUTION

SUB: ECONOMICS

DURATION - 1 HR

MARKS - 25

## SET B

- Ans.1.** (i) Use  
(ii) Increase  
(iii) Joint  
(iv) Marginal  
(v) Gossen

**Ans. 2.** (i)

<b>Demand</b>	<b>Desire</b>
<b><u>Meaning:</u></b> The demand refers to a desire backed by the purchasing power and willingness to pay for a particular commodity.	The desire refers to a mere wish of a person to own a particular commodity which need not be backed by the ability and willingness to pay.
<b><u>Formula:</u></b> Demand: Desire+ purchasing power+ willingness to pay.	Desire Mere wish to own.
<b><u>Limitations:</u></b> Demand has a number of limitations like income, fashions, price, etc.	Desire has no limitations. A man can desire anything which he may not buy.
<b><u>Inclusion in economics:</u></b> Demand is an economic phenomenon. Therefore, it is studied in economics.	Desire is a purely psychological concept. Therefore, it is not studied in economics.
<b><u>Relation:</u></b> Demand has inverse relation with the price. It is always expressed with reference to the price, time and place.	Desire has no relation with the price. It is expressed without reference to the price, time and place.

**(ii) Total Utility and Marginal utility**

<b>Total utility</b>	<b>Marginal utility</b>
<b>1. Meaning</b> Total utility means the sum total by consuming one more unit of utilities derived by the consumer from all the units of a commodity.	Marginal utility refers to the net addition made to the total utility by consuming one more unit.
<b>2. Maximum satisfaction</b> Total utility remains maximum zero at the time of maximum satisfaction.	Marginal utility remains at the time of maximum satisfaction.
<b>3. Positive/ negative</b> Though TU declines after maximum, it remains positive.	MU diminishes sharply and turns negative later.
<b>4. Formula</b> Symbolically. $TU_n = MU_1 + MU_2 + \dots + MU_n$ Items - TU of (N-1) items.	Symbolically. MU of 'N' th unit = TU of 'N' - TU of (N-1) items.

**Ans.3.(i)** The following are the factors affecting demand:

- 1) **Price:** Price is one of the most important determinants of demand i.e as price rise demand falls and as price falls demand rise. Therefore, there is a inverse relation between price and demand
  
- 2) **Income:** Income is also important determinants of demand i.e as income is high demand is also high and vise-versa. Therefore, there is direct relationship between income and demand.
  
- 3) **Complementary goods:** Complementary goods are those goods which are demanded jointly i.e this as well as that.  
  
For e.g: Car & Petrol. If the price of petrol raises demand for car fall and vise-versa. Therefore, there is inverse relationship between complementary goods.
  
- 4) **Substitute goods:** Substitute goods are those goods which are demanded either i.e this or that. For e.g: Tea or Coffee, if the price of tea raises demand for coffee also rise and vise-versa. Therefore, there is a direct relationship between substitute goods.
  
- 5) **Fashion:** Fashion for commodity also determinants the demand. For e.g: Fashion for a particular commodity will increase the demand. Thus, more the fashion will be the demand and vise-versa. Therefore, there is direct relation between fashion and demand.
  
- 6) **Quality:** Quality of a commodity also affect the demand i.e higher the quality more the demand and vise-versa. Therefore, there is direct relationship between quality and demand.

- 7) **Population:** Population of a particular country also determines the demand i.e higher the population more the demand and vice-versa. Therefore, there is direct relationship between population and demand.
  - 8) **Advertisement:** Advertisement also affects the demand. Advertisement for a specific commodity encourages the demand. Therefore higher the advertisement more the demand and vice-versa. Therefore, there is direct relationship between advertisement and demand.
  - 9) **Utility:** Utility from a commodity determines the demand i.e higher the utility higher the demand and vice-versa. Therefore, there is direct relationship between utility and demand.
  - 10) **Climatic Condition:** Climatic condition also determines the demand i.e as climate change demand also changes. For e.g: Raincoats and Umbrellas are demanded more due to change in climate during the rainy season. Therefore, there is direct relationship between climate and demand.
  - 11) **Consumer expectation about future price:** If consumer expect rise in price in future, demand for commodity will also rise in present. Therefore, there is direct relationship between future price and demand.
- (ii)
- 1) **Subjective concept:** Utility is a subjective concept which means that it differs from person to person. The utility of a commodity is different for different people. For e.g.: A smoker gets more utility in cigarettes, while a non-smoker gets zero utility in cigarettes.
  - 2) **Relative Concept:** Utility of a commodity differs from time to time and place to place i.e. a commodity may have different utilities at different place and at different time. For e.g: Cold drinks & Ice-creams have greater utility in hot places while rain coats and umbrella have more utility during rainy seasons.
  - 3) **Utility different from usefulness:** If a product satisfies a particular want it means it has utility but it may be not useful at all. For e.g: poison has utility but it is harmful to health.
  - 4) **Utility different from Pleasure:** A commodity may have a utility but its consumption may not give any pleasure to the consumer. For e.g: Injection & bitter medicines may not give any pleasure but its consumption brings utility.
  - 5) **Utility different from Satisfaction:** Utility and satisfaction are related but not every time. Satisfaction is the end result of utility. For e.g: utility present in a commodity before consumption while satisfaction gets after consumption.
  - 6) **Utility depends upon intensity of wants:** If a want is very intense or urgent, the commodity will have more utility. For e.g: If a consumer consumes first glass of water in this case intensity is high therefore, utility is also high. If a consumer consumes second glass of water in this case intensity is low. Therefore, utility is also low.

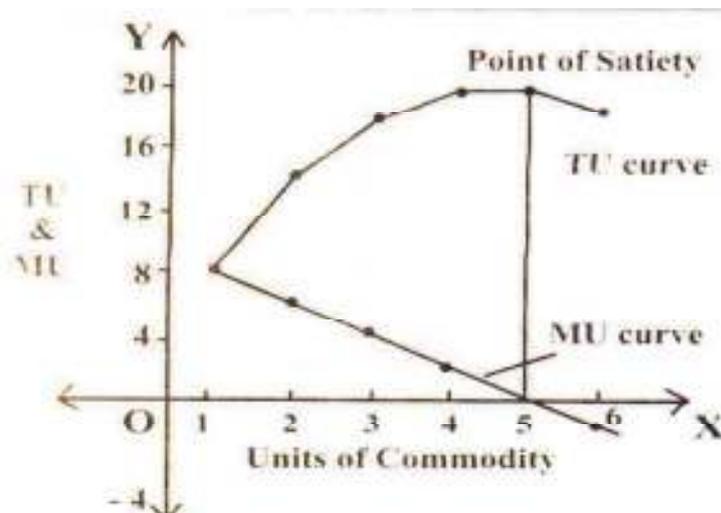
- 7) **No moral consideration:** A commodity that satisfies a human want has utility. For e.g: Cigarettes has utility but it is harmful product which is bad for health, therefore, commodity has utility but does not have ethical value.
- 8) **No measurement:** Utility is neither visible nor measurable. It means that utility can be measured in numbers. Therefore, utility is not only mental expression.

**Ans.4. (i) Relationship between total utility and marginal utility** can be explained with the help of the following schedule and diagram:

**Total Utility and Marginal Utility Schedule**

Units of commodity	TU Units	Mu Units
1	8	8
2	14	6
3	18	4
4	20	2
5	20	0
6	18	-2

The above given schedule indicates MU and TU derived from each unit of a commodity.



**The above given schedule and diagram explain that:**

- Initially, total utility and marginal utility are equal ( $TU = MU$ )
- From the consumption of second unit, total utility increases at a diminishing rate and marginal utility goes on decreasing. So TU curves curve slopes upward and MU slopes downward. ( $TU \uparrow$ ,  $MU \downarrow$ )
- When total utility is maximum, marginal utility is zero. It indicates point of satiation (i.e., maximum satisfaction). At this point, TU curve reaches the highest level and MU curve touches the x- axis. ( $TU$  maximum,  $MU$  zero)
- When total utility declines, marginal utility intersects the 'X' axis and becomes negative. It shows dissatisfaction of a consumer. In this case, TU curve starts falling and MU curve enters into the negative quadrant. ( $TU \downarrow$   $MU$  negative)  
It is observed that total utility is always positive. but marginal utility may be positive, zero or even negative.

- (ii) Yes, I agree with the above sentence, because:-
- In some cases, the demand curve slopes upwards from left to right. This is the result of direct relationship between price and demand.
  - In case of Giffen goods, the demand falls inspite of a fall in price.
  - The demand for goods used by rich people does not change even if there is a change in price.
  - Due to changes in tastes, fashions, etc. the demand may fall inspite of a fall in the price.

**Ans. 5.(i) (A) INTRODUCTION:** The law of DMU was introduced by Dr. Alfred Marshall, which is written in his book "Principles of Economics". The law states that the general behaviour of a consumer.

**(B) STATEMENT OF LAW:** "Other things being equal," with the increase in stock of commodity, its Marginal utility gets diminish.

**(C) EXPLANATION OF LAW:** The above law states that "the more we have commodity, the less we want to consume" It means that if a consumer has more of some stock of commodity, the utility from every additional stock gets reduced.

**(D) UTILITY SCHEDULE:**

UNITS OF MANGOES	MARGINAL UTILITY (M.U)	TOTAL UTILITY (T.U)

- From the above schedule upto 5<sup>th</sup> units of mangoes T.U is increasing, at the same time M.U is decreasing.
- At 6<sup>th</sup> unit of mangoes T.U becomes constant or maximum while M.U becomes Zero.
- Finally, at 7<sup>th</sup> unit of mangoes T.U falls at the same time M.U becomes negative.
- From the above diagram, on X-axis units of mangoes are represented & on Y-axis Total utility (T.U) and Marginal utility (M.U) are represented T.U the total utility curve & M.U the marginal utility curve.
- In the beginning T.U curve is increasing while M.U curve is decreasing.
- After certain point T.U curve becomes constant while M.U curve becomes zero, which is shown of line of satiety.
- Finally T.U curve falls, at the same time Marginal utility curves enters in negative.

#### (F) ASSUMPTION TO DMU:

- 1) **Cardinal measurement:** Marshall assumes that, utility can be measured in cardinal numbers (imaginary numbers)
- 2) **Homogeneity:** The commodity which we consume are same in all respect. Therefore, it is assume that a commodity should be same colour, taste, size, shape, etc.
- 3) **Reasonability:** The units of commodity consumed should be of reasonable size in other words, the units should neither big nor small. For e.g: a thirsty man cannot experience D.M.U if he drinks water in a spoon.
- 4) **Continuity:** All units of commodity are to be consumed continuously i.e without any time gap. Therefore, it is assumed that commodity should be consumed continuously.
- 5) **Rationality (Normal Behaviour):** The consumer should be rational in behaviour. Rationality means a consumer should able to express his satisfaction.
- 6) **Constant M.U of money:** The M.U of money is assuming to be constant. It means consumer should ignore utility of money while consuming commodity.
- 7) **Constant Income, Taste & Habit:** It is also assume, that the consumer income, taste, habit, etc should remain constant.

#### G) EXPECTATION TO D.M.U:

The law is not applicable in the following case:

- 1) **Hobbies:** In case of hobbies like collection of stamps, old coins, antiques, etc. The M.U goes on increasing with the increase in collection but the collection of stamps or coins are not same therefore, hobbies are not exception to D.M.U.
- 2) **Drunkards:** People addicted to drinking, experience increasing marginal utility as they consume more and more. However, their behaviour is not normal.
- 3) **Misers:** Misers the people who are very greedy, they enjoy more & more marginal utility by acquiring more 7 more money. However, the behaviour of misers is not normal.
- 4) **Money:** Since, everyone desires to have more money, it is always experience that every additional money gives more utility. But this is not true. The importance of additional money is not the same for rich & poor person.
- 5) **Music & Reading:** People who enjoy reading & music get more utility by reading more books and listening to more music. But they do not read the same book or listen to the same music.

(ii) **A) INTRODUCTION:** The law of demand was introduced by Dr, Alfred Marshall which is written in his book "Principles of Economics". The law of demand states relationship between price and demand.

**B) STATEMENT OF LAW:** "Other things being equal," Demand varies inversely with price i.e price falls demand rise and as price rise demand falls.

- C) **EXPLANATION OF LAW:** The above law explains relationship between price and demand i.e as price change demand also change inversely.

Therefore  $D = F(P)$      $D =$  demand for commodity     $F =$  Functional relationship     $P =$  Price of commodity.

- D) **DEMAND SCHEDULE:**

PRICE (RS)	QUANTITY DEMAND (KG)
10	1
8	2
6	3
4	4
2	5

- From the above schedule, at a price of Rs.10 quantity demand is 1kg as price falls Rs.10 to Rs.8 quantity demand rise from 1kg to 2kg. Further as price falls from Rs.8 to Rs.6 quantity demand rise from 2kg to 3kg and so on.
- Finally, as price falls to Rs.2 quantity demand rise to 5kg.
- Therefore, there is inverse relationship between price and quantity demand.

- E) **DEMAND CURVE:**

- From the above diagram, on X-axis quantity demand are represented and Y-axis prices are represented quantity demand. The demand curve which slopes downward from left to right.
- At a higher price of Rs.10 quantity demand is less i.e 1kg and at a lower price of rs.2 quantity demand is high i.e 5kg.
- It states that as price falls quantity demand rise therefore, there is inverse relationship between price and quantity demand.

- F) **ASSUMPTION TO LAW OF DEMAND:**

- 1) **No change in income:** It is assumed that the income of consumer should remain constant because if income changes demand also change.
- 2) **No change in price of related goods:** It is assumed that the price of substitute and complementary goods should remain constant because if their price changes demand also change.
- 3) **No change in Population:** It is also assumed that the population of a particular country should remain constant because if population changes demand also change.
- 4) **No change in Advertisement:** It is further assumed that advertisement for a specific commodity should remain constant because more the advertisement more the demand.

- 5) **No change in climatic condition:** It is also assumed that climatic condition should remain unchanged because with the change in climatic demand also change.
- 6) **No change in utility:** It is assume that utility from a commodity should always remain constant because higher the utility higher the demand.

**G) EXCEPTION TO LAW OF DEMAND:**

- 1) **Giffen goods:** Giffen goods are typical type of inferior goods which is purchased less at lower price. The term Giffen goods introduced by Sir Robert Giffen in 19<sup>th</sup> century. Who observed the behaviour of people towards inferior goods? According to him the people purchase less even the price is less due to poor quality of goods. Therefore, law of demand not apply in this case. Thus there is a direct relationship between price and demand. For e.g: Food grains sold at ration supply This can be explained with the help of diagram:

The above diagram explains the demand curve slopes upwards from left to right.

- 2) **Snob Appeal:** Rich people are more connected with social status with expensive goods like diamonds. They purchase more when price of such goods are high and purchase less when price are less. Therefore there is a direct relationship between price and demand.
- 3) **Quality:** Sometimes people are more concerned with quality when they purchase any commodity. In this case even the price is high for high quality demand is also high and vice-versa. Therefore, there is direct relationship between price and demand.
- 4) **Fashion:** The law of demand may not work or operate in case of those people who are fashion conscious (aware) For e.g: If a people purchase new fashion commodity even though price are high it means at a higher price more the demand . Therefore there is direct relationship between fashion and demand.
- 5) **Demonstration effect:** It is the tendency of the people to imitate (to copy) the consumption pattern / life style in such case law of demand may not operate because such goods are available at high price. Therefore even the price is high demand is also high. Thus, there is direct relationship between price and demand.