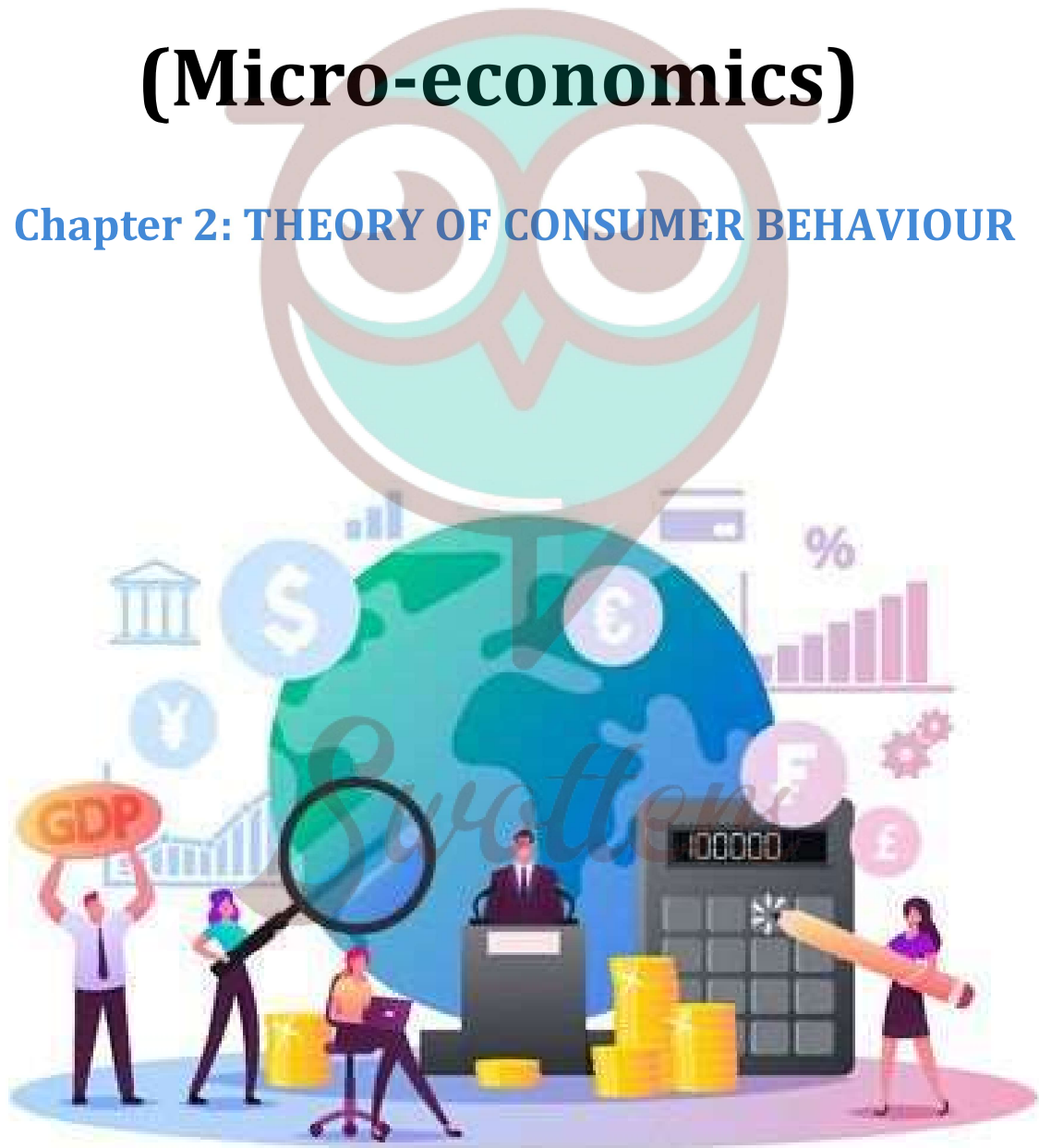


Economics

(Micro-economics)

Chapter 2: THEORY OF CONSUMER BEHAVIOUR



- (a) $\Delta TU/\Delta Q$
- (b) $\Delta MU/\Delta Q$
- (c) $\Delta Q/\Delta TU$
- (d) $\Delta Q/\Delta MU$

Question 7. When TU becomes maximum, MU is:

- (a) Positive
- (b) Negative
- (c) Zero
- (d) None of these

Question 8. Which of the following is true ?

- (a) TU increases till MU is positive
- (b) TU is maximum when MU is equal to zero
- (c) TU declines when MU is negative
- (d) All of these

Question 9. Who basically propounded the concept of Law of Equimarginal Utility ?

- (a) Marshall
- (b) Gossen
- (c) Ricardo
- (d) J. S. Mill

Question 10. In difference curve is:

- (a) Convex to the origin
- (b) Concave to the origin
- (c) Both (a) and (b) true
- (d) All of these false

Question 11. The ability of satisfying human want in a goods is called its:

- (a) Productivity
- (b) Satisfaction
- (c) Utility
- (d) Profitability

Question 12. Slope of budget line or price line is:

- (a) $-P_x P_y$
- (b) $-P_y P_x$
- (c) $+P_x P_y$
- (d) $+P_y P_x$

Question 13. Utility is related to:

- (a) Usefulness
- (b) Morality
- (c) Satisfaction of human wants
- (d) All the above

Question 14. Utility can be measured by:

- (a) Money
- (b) Exchange of goods
- (c) Weight of the good
- (d) None of these

Question 15. Law of Equi-marginal utility is called:

- (a) Law of increasing utility
- (b) Law of diminishing utility
- (c) Law of substitution
- (d) None of these

Very Short:

Question 1. How is total utility derived from the marginal utility?

Question 2. An individual bought 50 units of a product at Rs. 4 per unit. When the price falls by 25% its demand rises to 100 units. Find the price elasticity of demand.

Question 3. Which curve shows the various combinations of two products that give the same amount of satisfaction to the consumer?

Question 4. Define Utility.

Question 5. State the law of equi-marginal utility.

Question 6. What will be the MU when TU is maximum?

Question 7. What is the reason behind a convex indifference curve?

Question 8. Which direction is the indifference curve slope?

Question 9. What is a consumer surplus?

Question 10. What is the point of satiety?

Short Questions:

1. Distinguish between 'increase in demand' and 'increase in quantity demanded' of a commodity.
2. Given price of a good, how does a consumer decide as to how much of that good to buy?
3. Explain how the demand for a good is affected by the price of its related goods? Give examples.
4. Distinguish between normal goods and inferior goods. Give example also.
5. Explain any four factors that affect price elasticity of demand.
6. Define marginal utility. State the law of diminishing marginal utility.
7. If a good can be used for many purposes, the demand for it will be elastic. Why?
8. "If a product price increases, a family's spending on the product has to increase." Defend or refute.
9. Suppose there are 30 consumers for a good, having identical demand function: $d(p) = 10 - 3P$ for any price less than or equal to $10/3$ and $d(p) = 0$ for any price greater than $10/3$. Write the market demand function.
10. How would you comment on the elasticity of demand when 8% decrease in price of a

Long Questions :

Question 1. Is the demand for the following elastic, moderate elastic, inelastic? Give reason.

1. Demand for petrol
2. Demand for textbooks
3. Demand for cars
4. Demand for milk

Question 2. Explain four determinants of demand for a commodity.

Question 3. Describe the assumption which is made to determine the consumer's equilibrium position.

Question 4. Explain relationship between total utility and marginal utility with the help of a schedule.

Question 5. Given $e_D = -0.02$, and percentage increase in price = 20%, find change in expenditure on the commodity.

MCQ Answers:

1. Answer: (a) Marshall
2. Answer: (a) Micro Economics
3. Answer: (d) All of these
4. Answer: (b) Law of Diminishing Marginal Utility
5. Answer: (d) All of these
6. Answer: (a) $\Delta TU/\Delta Q$
7. Answer: (c) Zero
8. Answer: (d) All of these
9. Answer: (c) Ricardo
10. Answer: (a) Convex to the origin
11. Answer: (c) Utility
12. Answer: (a) $-P_x/P_y$
13. Answer: (d) All the above
14. Answer: (a) Money
15. Answer: (c) Law of substitution

Very Short Answers:

1. Answer: The total utility is the total sum of marginal utilities of different unit of goods.
 $TU_n = MU_1 + MU_2 + MU_3 + \dots + MU_n$
2. Answer: Elasticity of demand is 4.
3. Answer: Indifference Curve
4. Answer: The "Utility" in economics determines the satisfaction received or expected to be acquired from the consumption of product and services.
5. Answer: The law of equi-marginal utility refers to a balanced position where a consumer distributes his income between different goods in such a way that the value derived from the last rupees is the same as the first one.
6. Answer: The MU will be zero when TU is maximum.
7. Answer: The reason behind a convex indifference curve is the diminishing marginal rate of substitution.
8. Answer: The indifference curve slopes downward to the right.
9. Answer: Consumer surplus is defined as the difference between what the consumer wants to pay for a product and what he actually pays.
10. Answer: The point of satiety is when the marginal utility becomes zero.

Short Answers:

1. Ans. When demand increases at given price then it is called 'increase in demand'. On the

other hand, when demand increases by decrease in the price of a commodity then it is called increase in quantity demand.

2. Ans. Consumer purchases up to the point where marginal utility is equal to the price ($MU=P$). So long as marginal utility is greater than price, he keeps on purchasing. As he makes purchases MU falls and at a particular quantity of the good MU becomes equal to price. Consumer purchases up to this point.

3. Ans. Related goods are either substitutes or complementary

Substitutes Goods : When price of a substitute falls, it becomes cheaper than the given good. So the consumer substitutes it for given good will decrease. Similarly, a rise in the price of substitute will result in increase in the demand for given good.

For example Tea and Coffee.

Complementary Goods : When the price of a complementary good falls its demand rises and the demand for the given good will increase. Similarly when price of complementary good increases, then demand for given good decreases.

For example : – Car & Petrol.

4. Ans. **Normal Goods :** These are the goods the demand for which increases as income of

the buyer rises. There is a positive relationship between income and demand or income effect is positive.

Example ; Rice, Wheat

Inferior Goods : These are the goods the demand for which decreases as income of buyer

rises. Thus, there is negative relationship between income and demand or income effect is negative.

Example : coarse grain, coarse cloth.

5. Ans.

1. **Nature of Commodity :** Necessaries like Salt, Kerosene oil etc. have inelastic demand

and luxuries have elastic demand.

2. **Availability of substitutes :** Demand for goods which have close substitutes is relatively more elastic and goods without close substitutes have less elastic

demand.

3. **Different uses** : Commodities that can be put to different use have elastic demand for

instance electricity has different uses.

4. **Habit of the consumer** : Goods to which consumers become habitual will have inelastic demand.

Examples – Liquor and Cigarette.

6. Ans. **Marginal Utility** : It is addition more to the total utility as consumption is increased

by one more unit of the commodity.

Law of Diminishing Marginal utility : It states that as consumer consumes more and more units of a commodity, the utility derived from each successive unit goes on decreasing. According to this law TU increases at decreasing rate and MU decreases

7. Ans: If a good can be used for many purposes , the demand for it will be more elastic because with a decrease in its price it is put to several uses and with a rise in its price it is withdrawn from its many existing uses. So that, there is a considerable change in demand in response to some change in price.

8. Ans: When product price increases, expenditure on the commodity will not increase in the situation when $E_d > 1$ (elasticity of demand is greater than unity). It will increase only in situation when $E_d < 1$. In a situation when $E_d = 1$. Expenditure will remain constant, even when prices rise.

9. Ans: Market demand function is simply a horizontal summation of individual demand functions. Since demand function for all the 30 consumers is identical, we can write market demand simply as 'individual demand function multiplying by a factor of 30'.

Thus: Individual demand function :

$$D(p) = 10 - 3P$$

Market demand function:

$$\begin{aligned} Md(p) &= 10 \times 30 - 3(30)P \\ &= 300 - 90P. \end{aligned}$$

commodity causes 2% increase in expenditure of the commodity?

10. Ans: Elasticity of demand must be greater than unity (implying a situation of elastic demand) when expenditure on the commodity responds inversely to any change in price of the commodity.

Long Answers:

1. Answer: (1) The demand for petrol is moderately elastic as when the cost of petrol rises, the customers will decrease the use of it.

(2) The demand for textbooks is inelastic because even if the price rises the demand will never change.

(3) The demand for cars is elastic as it is a luxury good so when the price of a car goes up, the demand for it comes down

(4) The demand for milk is elastic because when the price of the milk increases the consumer starts taking less quantity of milk.

2. Answer: The four determinants of demand for a commodity are mentioned below.

- Price of Commodity- When the cost of the good increases the demands of it decreases and vice-versa.
- Income of the consumer- When the income of a customer increases, the demand for normal goods also increases and vice-versa.
- Price of related goods- In a complementary product, demand increases with the decrease in the price of complementary goods. In terms of a substitute, the demand for goods decreases with the fall in the price of other substitute goods.
- Taste and preference of customer- With the change in people's taste and liking demand increases and with the decrease in taste demand decreases.

3. Answer: The assumption which is made to determine the consumer's equilibrium position are mentioned below.

- Rationality- The consumer has a rational behavior, they want to consume maximum from his given income and price
- Utility in Ordinal- It is assumed that the consumer ranks his performances according to that satisfaction from each combination of products.
- The Consistency of Choice- It is also assumed that the customer's choices are consistent.
- Perfect Competition-The perfect competition in the market form in which large number of sellers are selling homogenous product.
- Total Utility- This depends on the total quantities of product consumed by the consumer.

4. Answer.

Quantity (Units)	Total utility	Marginal utility
0	0	–
1	8	8
2	14	6
3	18	4
4	20	2
5	20	0
6	18	–2

1. As long as MU is positive, TU increases.
2. When marginal utility is equal to zero then total utility is maximum.
3. When marginal utility is negative; Total utility starts diminishing.

5. Answer:

$$\frac{\Delta q}{p} \times 100 = 20$$

↑

Percentage change in price

$e_D = -0.02$, so that

$$\frac{\frac{\Delta q}{p} \times 100}{\frac{\Delta p}{p} \times 100} = -0.02$$

OR

$$\frac{\frac{\Delta q}{q} \times 100}{20} = -0.02$$

OR

$$\frac{\Delta q}{q} \times 100$$

(%change in quantity demanded) = $-0.02 \times 20 = -0.4$

Implying 4% decrease in quantity demanded owing to 20% increase in price of the commodity.

We know,

Old expenditure = P Q

New expenditure = P(1+0.2) Q(1-0.04)

Percentage change in expenditure

$$= \frac{\text{New expenditure} - \text{Old expenditure}}{\text{Old expenditure}} \times 100$$

$$= \frac{P(1+0.2) \times Q(1-0.04) - PQ}{PQ} \times 100$$

$$= \frac{PQ(1.2)(0.96) - PQ}{PQ} \times 100$$

$$= \frac{[(1.2)(0.96) - 1]PQ}{PQ} \times 100$$

$$= 1.152 - 1 \quad 100$$

$$= 0.152 \quad 100 = 15.2$$

Implying that expenditure on the commodity increases by 15.2% owing to increase the

commodity by 20%. Which is why ed is less than 1.



Swotters