



INDIAN SCHOOL AL WADI AL KABIR

Class: XI	Department: Commerce
WORKSHEET: 1	Topic: The Theory of Consumer Behaviour and Demand

1. If a commodity is available for free, how many unit's consumer should consume to be in equilibrium using one-commodity case of cardinal utility approach?

- (a) 5 units
- (b) 10 units
- (c) Till MU becomes zero
- (d) Can't be determined

2. Write the correct sequence of options in column II by matching them with options of column I.

Column I	Column II
A. Exceptions to law of diminishing marginal utility	(i) Music
B. Prof. Gossen	(ii) Indifference curve analysis
C. Prof. Allen and Hicks	(iii) Law of diminishing marginal utility

Codes

- | | | | | | | | |
|-----|-------|------|-------|-----|------|-------|------|
| | A | B | C | | A | B | C |
| (a) | (i) | (ii) | (iii) | (b) | (i) | (iii) | (ii) |
| (c) | (iii) | (ii) | (i) | (d) | (ii) | (iii) | (i) |

3. The consumer is in equilibrium at a point where the budget line—

- (a) Is above an indifference curve.
- (b) Is below an indifference curve.
- (c) Is tangent to an indifference curve.
- (d) Cuts an indifference curve

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

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

5. Decreasing slope of indifference curve is explained by:

- a. Law of diminishing marginal returns
- b. Law of diminishing MRS
- c. Law of demand
- d. Law of constant MRS

6. Budget line indicates:

- a. Price ratio
- b. Income ratio
- c. Cost ratio
- d. None of these

7. Who propounded the ordinal utility theory?

- (a) Marshall
- (b) Pigou
- (c) Hicks and Allen
- (d) Ricardo

8. In marginal utility theory, utility is:

- a. An ordinal concept
- b. A cardinal concept
- c. Both (a) and (b)
- d. None of the above

9. Consumer's equilibrium takes at a point where:

- (a) $MU = Price$
- (b) $MU < Price$
- (c) $MU > Price$
- (d) None of these

10. Which of the following shows elasticity less than one?

- (a) Necessity Goods
- (b) Comforts
- (c) Luxuries
- (d) All of these

Assertion-Reasoning Questions

There are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the appropriate option from the options given below:

- (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)
- (b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A)
- (c) Assertion (A) is true, but Reason (R) is false
- (d) Assertion (A) is false, but Reason (R) is true

1. **Assertion (A):** Different persons derive different levels of utility from consumption of similar types of commodities.

Reason (R): The want satisfying power of any commodity is known as its utility, which is measured in 'utils' under cardinal approach.

2. Assertion (A): Higher IC represents higher satisfaction due to monotonic preferences.

Reason (R): A consumer always prefers more units of a good over less units.

1. Causes of Downward Sloping of Demand Curve:

- Law of diminishing the marginal utility
- Substitution effect
- Income effect
- New buyers
- Old buyers

1. Law of diminishing the marginal utility

The law of diminishing marginal utility states that with each increasing quantity of the commodity, its marginal utility declines.

For example, when a person is very hungry the first chapatti that he eats will give him the most satisfaction. As he will consume more chapattis, his level of satisfaction will diminish.

Thus, when the quantity of goods is more, the marginal utility of the commodity is less. Thus, the consumer is not willing to pay more price for the commodity and its demand will decline.

Also, when the price of the commodity is low, its demand increases.

Hence, the demand curve slopes downwards from left to right.

2. Substitution effect

Let us understand this with an example. Tea and coffee are substitute goods. If the price of tea rises, consumers will shift to coffee.

This will decrease the demand for tea and increase the demand for coffee. Thus, the demand curve of tea will slope downwards.

3. Income effect

Income effect refers to the change in the real income or the purchasing power of the consumers. When the price level falls the purchasing power of the consumer's increases and they buy more goods.

Similarly, when the price level rises, the purchasing power of the consumer's decreases and they buy less quantity of goods.

4. New buyers

Due to the fall in the prices of a commodity new buyers get attracted towards it and buy it. Thus, this increases the demand for the commodity.

5. Old buyers

When the prices of the goods fall the old buyers tend to buy more goods than usual thereby increasing its demand. This causes the downward sloping of demand curve.

3. A consumer wants to consume two goods. The prices of the two goods are Rs 4 and Rs 5 respectively. The consumer's income is Rs 20.

1. Write down the equation of the budget line.
2. How much quantify of good 1 can the consumer consume if she spends her entire income on that good?
3. How much of good 2 can she consume if she spends her entire income on that good?
4. What is the slope of the budget line?

Answer:

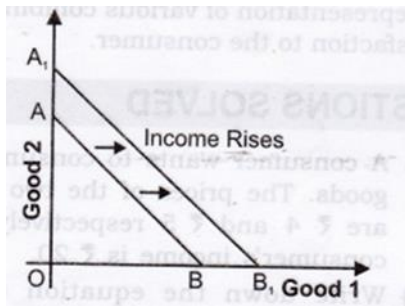
1. Let the two quantities of goods be X and Y. We are given $P_x = \text{Rs } 4$, $P_y = \text{Rs } 5$, Consumer's income (M) = Rs 20. Budget line equation is,
 $P_x \cdot X + P_y \cdot Y = M$ or $4X + 5Y = 20$

2. If quantity consumed of good Y = 0, Budget equation becomes,
 $P_x \cdot X + \text{zero} = M = 4 \cdot X = 20 = X = 20/4 = 5$ units
3. If quantity consumed of good X = 0, Budget equation becomes,
 $\text{Zero} + P_y \cdot Y = M$
 or $5Y = 20 = Y = 20/5 = 4$ units.
4. Slope of budget line = $P_x/P_y = 4/5 = 0.8$

(Questions 2, 3 and 4 are related to question 3)

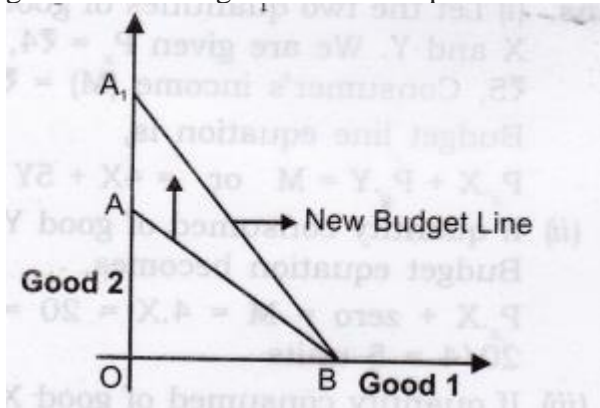
Question 2. How does the budget line change if the consumer's income increases to ?40 but the prices remain unchanged?

Answer: If consumer's income increases to Rs 40, the consumer can buy more pieces/quantities of both the goods X and Y. There will be parallel rightward shift in the budget line AB to A1B1.



Question 3. How does the budget line change if the price of good 2 decreases by a rupee but the price of good 1 and the consumer's income remain unchanged?

Answer: If price of good 2 (shown on y-axis) decreases, consumer can buy more pieces /quantity of good 2. The budget line AB will pivot at B and rotate upwards to A1 B.



Question 4. What happens to the budget set if both the prices as well as the income double?

Answer: There will be no change in the budget line. Let us understand this with the help of an example: Suppose, the price of goods 1 rises from Rs 4 to Rs 8 and that of goods 2 rises from Rs 5 to Rs 10. Income also rises from Rs 20 to Rs 40. With double increase in prices and income, intercepts on both X-axis and Y-axis will remain unchanged at 5 units (goods 1) and 4 units (goods 2) respectively. Slope of budget line will also remain the same. Therefore, there will be no change in the budget set and the budget line.

1. State the Law of Demand. Is there any exception to the law?
 Exception to the law:

- a. A Giffen good is considered to be an exception of law of demand. The unique features of a Giffen good results in quantity demanded increasing where there is an increase in price.
 - b. Veblen goods, i.e: conspicuous Consumption, i.e: they are goods that people buy more of when or if the price increases. These goods tend to be status symbols and displays wealth eg: diamonds, Rolls Royce cars, Patek Phillipe watches.
2. Explain the inverse relationship between price and quantity demanded of a commodity. when the price of a good falls it has following two effects that lead a consumer to buy more of that commodity.
- a. Income effect:
When the price of a commodity falls, the real income of the consumer increases. As a result, he can now buy more of a commodity. This is called income effect.
 - b. Substitution effect:
When price of a commodity falls, it becomes relatively cheaper than others. This induces the consumer to substitute the relatively cheaper commodity for the other good which is relatively expensive. This is called substitution effect.
Thus, as a result of the combined operation of the income effect and substitution effect, the qty demanded of a commodity increases with a fall in the price of the given commodity and vice versa, provided other things remaining the same.
3. Explain how rise in income of a consumer affects the demand of a good. Give examples.
The rise in the income of the consumer affects the demand of a good in the following ways:
- a. Normal goods:
In case of any normal good, like wheat, rice, any increase in the income of the buyer increases his demand for that commodity - causing the demand curve to shift towards right. There exists direct relationship between income and demand for normal good.
 - b. Inferior goods:
In case of inferior goods, there is inverse relationship between the income of the buyer and his demand for inferior goods. With the increase in income the demand curve of inferior good like bajra shifts left wards (draw the graphs)
5. Why is price elasticity of demand has negative sign always?
Price elasticity of demand is generally negative because of the inverse relationship between Price and Quantity demanded

CASE BASED QUESTIONS

Salt has no close substitute and moreover, a household has to share a negligible part of his entire budget. Therefore, even in spite of increase in price of salt, its demand will not be affected. However, demand for a particular brand of toothpaste is comparatively more elastic as there are many brands of toothpaste available in the market, so the consumers can switch over to any other brand in case of hike in the price of a particular brand of toothpaste.

1. The elasticity of demand of salt is
 - (a) elastic
 - (b) **inelastic**
 - (c) perfectly elastic
 - (d) perfectly inelastic
2. makes demand for salt inelastic.
 - (a) Necessity
 - (b) Non-availability of substitute

- (c) **Both (a) and (b)**
- (d) None of the above

3. Why demand for toothpaste is elastic in nature?

- (a) It is not a necessity of life
- (b) It has a competitive market
- (c) Consumer has a preference for it
- (d) All of the above

4. Which of the following is not a determinant of elasticity of demand?

- (a) Availability of substitutes
- (b) Nature of the good
- (c) Number of buyers in the market
- (d) Expenditure on a commodity

5. **Assertion (A)** Any good which has inelastic demand must be necessity of life.

Reason (R) Elastic goods are highly price sensitive in nature as compared to inelastic goods.

Alternatives

- (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)
- (b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A)
- (c) Assertion (A) is true, but Reason (R) is false
- (d) Assertion (A) is false, but Reason (R) is true