INDIAN SCHOOL AL WADI AL KABIR

Class: XI	Department: Commerce
WORKSHEET NO: 1	Topic: THEORY OF CONSUMER BEHAVIOUR & DEMAND

1. 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.

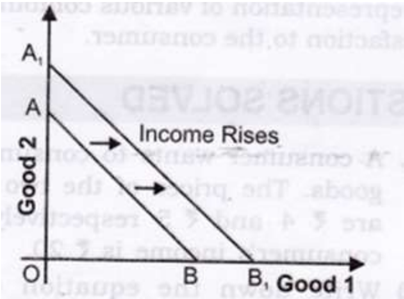
1. **Write down the equation of the budget line.**
2. **How much quantify of good 1 can the consumer consume if she spends her entire income on that good?**
3. **How much of good 2 can she consume if she spends her entire income on that good?**
4. **What is the slope of the budget line?**

Answer:

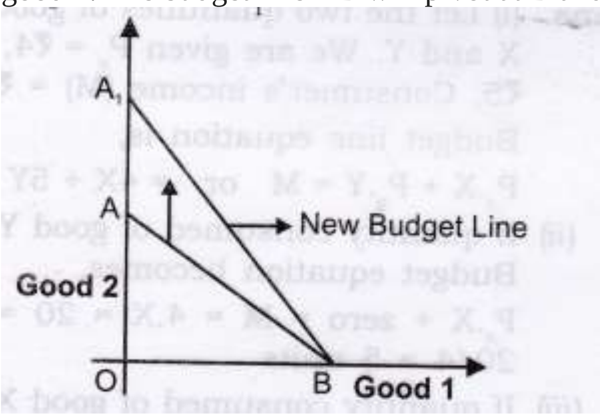
1. Let the two quantities of goods be X and Y. We are given Px = Rs 4, P = Rs 5, Consumer's income (M) = Rs 20. Budget line equation is,
   Px .X + Py .Y = M or = 4X + 5Y = 20
2. If quantity consumed of good Y = 0, Budget equation becomes,
   Px.X + zero = M = 4.X = 20 = X = 20/4 = 5 units
3. If quantity consumed of good X = 0, Budget equation becomes,
   Zero + Py.Y = M
   or = 5Y = 20 = Y = 20/5 = 4 units.
4. Slope of budget line = Px/Py = 4/5 = 0.8

(Questions 2, 3 and 4 are related to question 1)

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. A consumer consumes only two goods X and Y and is in equilibrium. Price of x falls. Explain the reaction of the consumer through the utility analysis. (refer notes)
2. Explain consumer's equilibrium with the help of indifference curve analysis. Use diagram. (refer notes)
3. What is meant by demand in economics? State the Law of Demand. Is there any exception to the law?
   (Refer notes for law of demand)
   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.

4. 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 qnty demanded of a commodity increases with a fall in the price of the given commodity and vice versa, provided other things remaining the same.

5. Explain the distinction between 'change in demand' and 'change in quantity demanded'(refer notes)
6. 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)

7. Explain two causes of 'decrease' in demand for a commodity.
8. Draw and explain the different types of price elasticity of demand.
9. Why is an indifference curve strictly convex? Explain.
10. Distinguish between budget set and budget line. Use diagram.
    (Refer notes for the above questions 9-12)

11. Why is demand for water inelastic?
    Because water is necessity for living, if price increases or decreases people will buy it.

12. Total utility is maximum when
    (a) Marginal utility is zero.
    (b) Marginal utility is at its highest point.
    (c) Marginal utility is equal to average utility.
    (d) Average utility is maximum.
    A: (a)

13. What does the area under the marginal utility curve depict?
    (a) Average Utility
    (b) Total Utility
    (c) Indifference Curve
    (d) Consumer Equilibrium
    A: (b)

14. Which one of the following is not an assumption of the theory of demand based on analysis of indifference curve?
    (a) Given scale of preferences as between different combinations of two goods.
    (b) Diminishing marginal rate of substitution.
    (c) Constant marginal utility of money.
    (d) Consumers would always prefer more of a particular piece of goods to less of it, other things remaining the same.

    A: (c)

15. 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.
    A: (c)

16. An indifference curve slopes down towards right since more of one commodity and less of another result in—
    (a) Same satisfaction.
    (b) Greater satisfaction.
    (c) Maximum satisfaction.
    (d) Decreasing expenditure.
    A: (a)

17. 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

    A: b

18. Budget line indicates:
    a. Price ratio
    b. Income ratio
    c. Cost ratio
    d. None of these

    A:b

19. In marginal utility theory, utility is:
    a. An ordinal concept
    b. A cardinal concept
    c. Both (a) and (b)
    d. None of the above

    A: b

20. If with rise in price of good Y, demand for good X rises, the two goods are;
    a. Substitutes
    b. Complements
    c. Not related
    d. Jointly demanded

    A: b