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Elasticity of Demand(H.W)

Definition of e_D

Price elasticity of demand (e_D) measures percentage change in the quantity demanded of a good due to a percentage change in its price.

Measurement of Price Elasticity of Demand

e_D can be calculated as

$$e_D = \frac{\text{Percentage change in demand}}{\text{Percentage change in price}}$$

or $$e_D = -\frac{\Delta Q}{\Delta P} \cdot \frac{P}{Q}$$

There are five degrees of e_D:

(*i*) Perfectly inelastic demand ($e_D = 0$)
(*ii*) Inelastic demand ($0 < e_D < 1$)
(*iii*) Unitary elastic demand ($e_D = 1$)
(*iv*) Elastic demand ($1 < e_D < \infty$)
(*v*) Perfectly elastic demand ($e_D = \infty$).

Factors affecting e_D

The major determinants of price elasticity of demand are:

(*i*) Availability of substitutes
(*ii*) Income of the consumers
(*iii*) Luxuries *versus* necessities
(*iv*) Proportion of total expenditure spent on the product
(*v*) Number of uses of the commodity
(*vi*) Time period.

Multiple Choice Questions

1. Coefficient of elasticity of demand is negative. It means:
(*a*) Consumers sometimes buy negative units of a commodity
(*b*) Price and quantity demanded move in same direction
(*c*) Law of demand holds
(*d*) The two goods are complementary to each other

2. E_d = _____
(*a*) $\frac{\Delta Q}{\Delta P} \cdot \frac{P}{Q}$ (*b*) $\frac{\Delta P}{\Delta Q} \cdot \frac{Q}{P}$ (*c*) $\frac{\Delta P}{\Delta Q} \cdot \frac{P}{Q}$ (*d*) $\frac{\Delta Q}{\Delta P} \cdot \frac{Q}{P}$

3. Demand is elastic when:
(*a*) Price level is high
(*b*) More substitutes are available
(*c*) Income of the consumer is less
(*d*) All of the above

4. The absolute value of the coefficient of price elasticity of demand ranges from:
(*a*) Zero to infinity
(*b*) Minus infinity to plus infinity
(*c*) One to minus infinity
(*d*) One to infinity

5. $E_d = \infty$ in case of:
(*a*) Luxuries
(*b*) Normal goods
(*c*) Necessities
(*d*) Perfect competition

6. $E_d = 0$ in case of:
(*a*) Luxuries
(*b*) Normal goods
(*c*) Necessities
(*d*) Essentials

7. Price elasticity of demand of a horizontal demand curve is called:
(*a*) Perfectly elastic
(*b*) Perfectly inelastic
(*c*) Elastic
(*d*) Inelastic

8. Price elasticity of demand of a vertical demand curve is called:
(*a*) Perfectly elastic
(*b*) Elastic
(*c*) Inelastic
(*d*) Perfectly inelastic

9. When percentage change in quantity demanded is more than the percentage change in price than demand curve is:
(*a*) Flatter
(*b*) Steeper
(*c*) Rectangular hyperbola
(*d*) Horizontal

10. When percentage change is quantity demanded is less than the percentage change in price demand curve is:
(*a*) Flatter
(*b*) Steeper
(*c*) Rectangular
(*d*) Horizontal

11. $E_d = 1$ in case of:
(*a*) Luxuries
(*b*) Normal goods
(*c*) Necessities
(*d*) Essentials

12. Price elasticity of demand on a linear demand curve at the *x*-axis is equal to:
(*a*) Zero
(*b*) One
(*c*) Infinity
(*d*) $0 < E_d < 1$

13. Price elasticity of demand on a linear demand curve at the *y*-axis is equal to:
(*a*) Zero
(*b*) One
(*c*) Infinity
(*d*) $0 < E_d < 1$