P E O D - R & U - Reason-Based Questions

Q.1. When elasticity of demand is infinity, slope of demand curve will also be infinity.

Ans. False. We know that,

$$\text{Elasticity of demand } (E_d) = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

$$\text{Slope of demand curve} = \frac{\Delta P}{\Delta Q}, \text{ So that}$$

$$\text{Elasticity of demand } (E_d) = \frac{1}{\text{Slope of demand curve}} \times \frac{P}{Q}$$

Or, $$\text{Slope of demand curve} = \frac{1}{\text{Elasticity of demand}} \times \frac{P}{Q}$$

Substituting the given value, we get

$$\text{Slope of demand curve} = \frac{1}{\infty} \times \frac{P}{Q} = 0$$

Q.2. If a good can be used for many purposes, the demand for it will be elastic.

Ans. True. 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be more elastic because with a decrease in its price, it is put to several uses and with a rise in its price, it is withdrawn from its many existing uses.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.

Q.3. Elasticity of demand is low at lower level of price of the commodity.

Ans. True. Following observations answer this question:

i. Initially when P_X is low, Q_X is high.
ii. At the lower level of P_X, a unit change in price implies a higher percentage change in price.
iii. At the higher level of Q_X, a unit change in quantity implies a lower percentage change in quantity.
iv. Higher percentage change in price and lower percentage change in quantity implies low elasticity of demand.