** Cross Elasticity of Demand.

The concept of cross elasticity of demand has been propounded by Moore, in his book ~~System~~ 'Synthetic Economics' and later by Triffin in 'Theory of value'

* Cross elasticity of demand may arise in three types of goods -
(i) In Substitutes (ii) Complementary goods
(iii) Independent goods.

$$ed = \frac{\text{Proportionate change in the quantity demanded of X}}{\text{Proportionate change in the price of Y}}$$

$$ed = \frac{\Delta X}{\Delta P_y} \cdot \frac{P_y}{X}$$

Where,

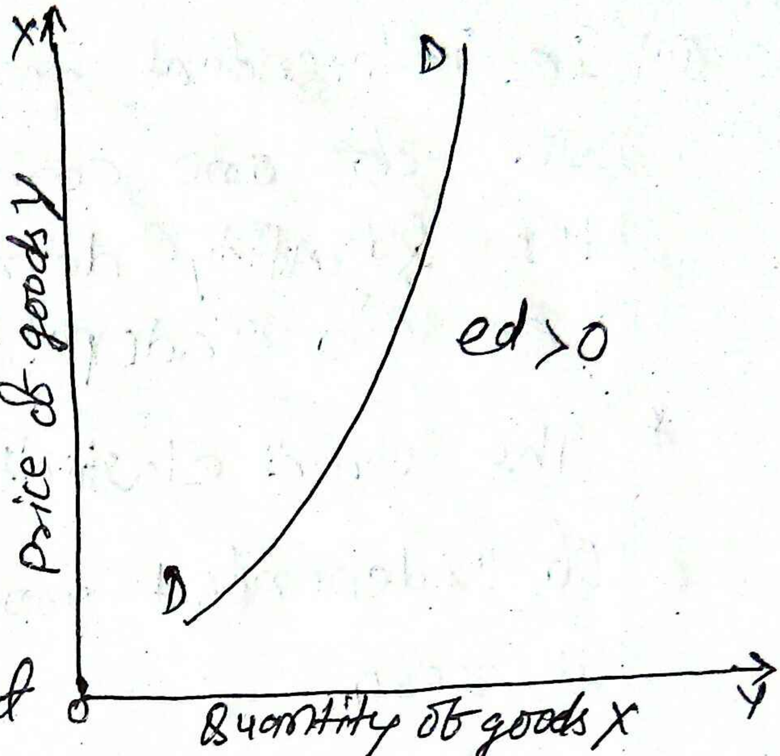
Δx = change in demand of x (Due to change in price of y)

x = initial demand of x

ΔP_y = change in price of y

P_y = initial price of y.

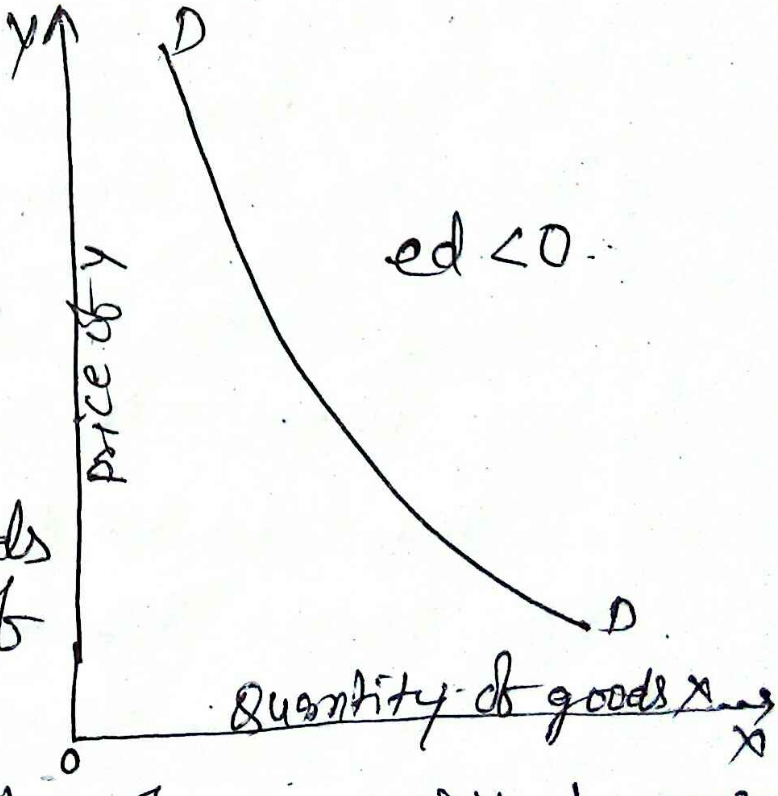
(i) In Substitutes -



The cross elasticity of demand is high in the case of 'close substitutes' and It is also positive in close substitutes. but It is low in the case of poor substitutes.

(ii) In Complementary goods.

There is negative relationship between two complementary goods. Ex- motor cars and tyres,



If x and y is complementary goods then if the price of ~~x~~ y increase the demanded Quantity of x will decrease.

(iii) <u>In independent goods</u> – A change in the price of one commodity will not affect the Quantity demanded of other in the case of independent goods.

* The cross elasticity of Independent goods is zero.