Course

on

HS205: consumer Behaviour and Welfare Economics

3rd semester

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Instructor

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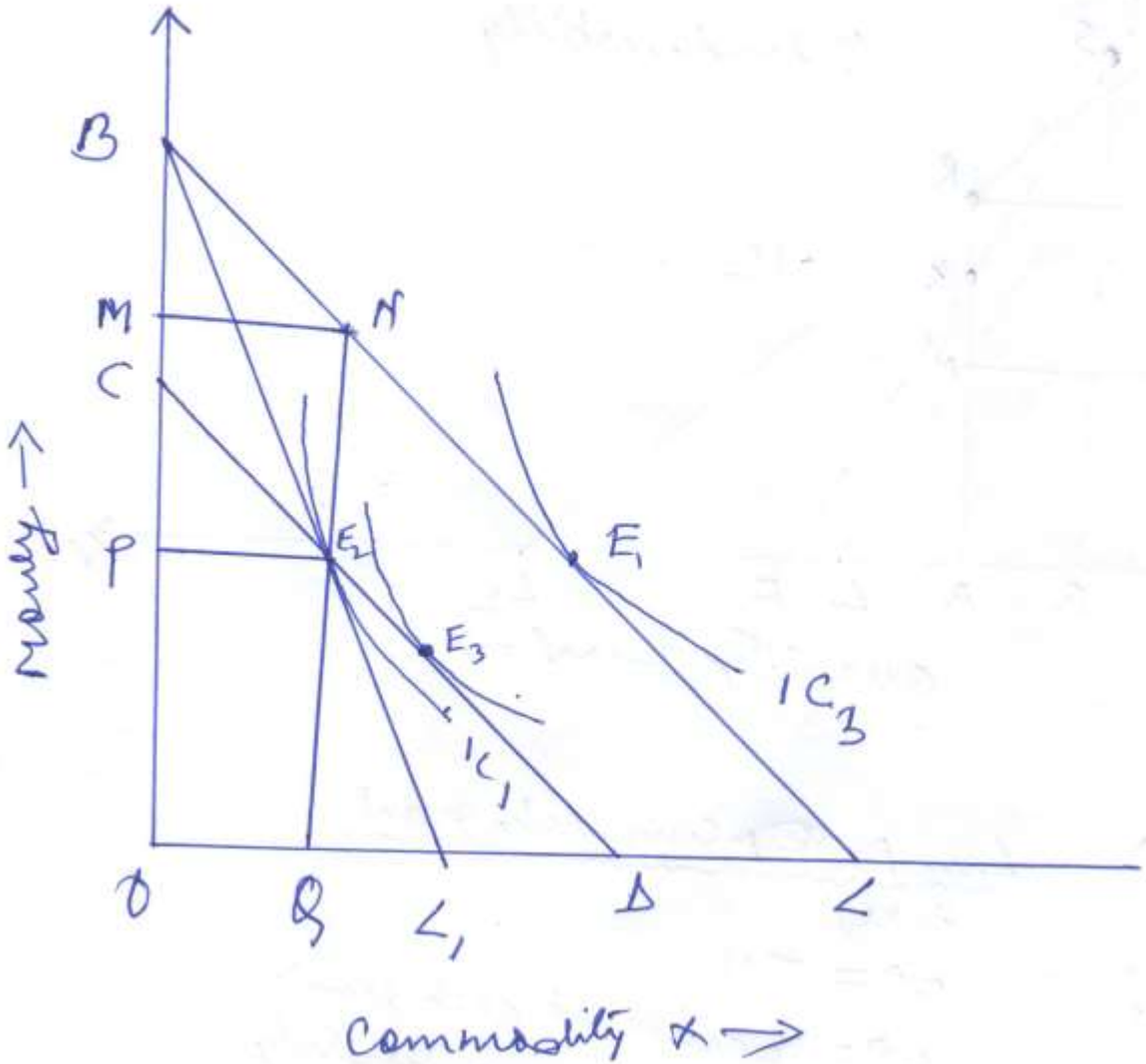
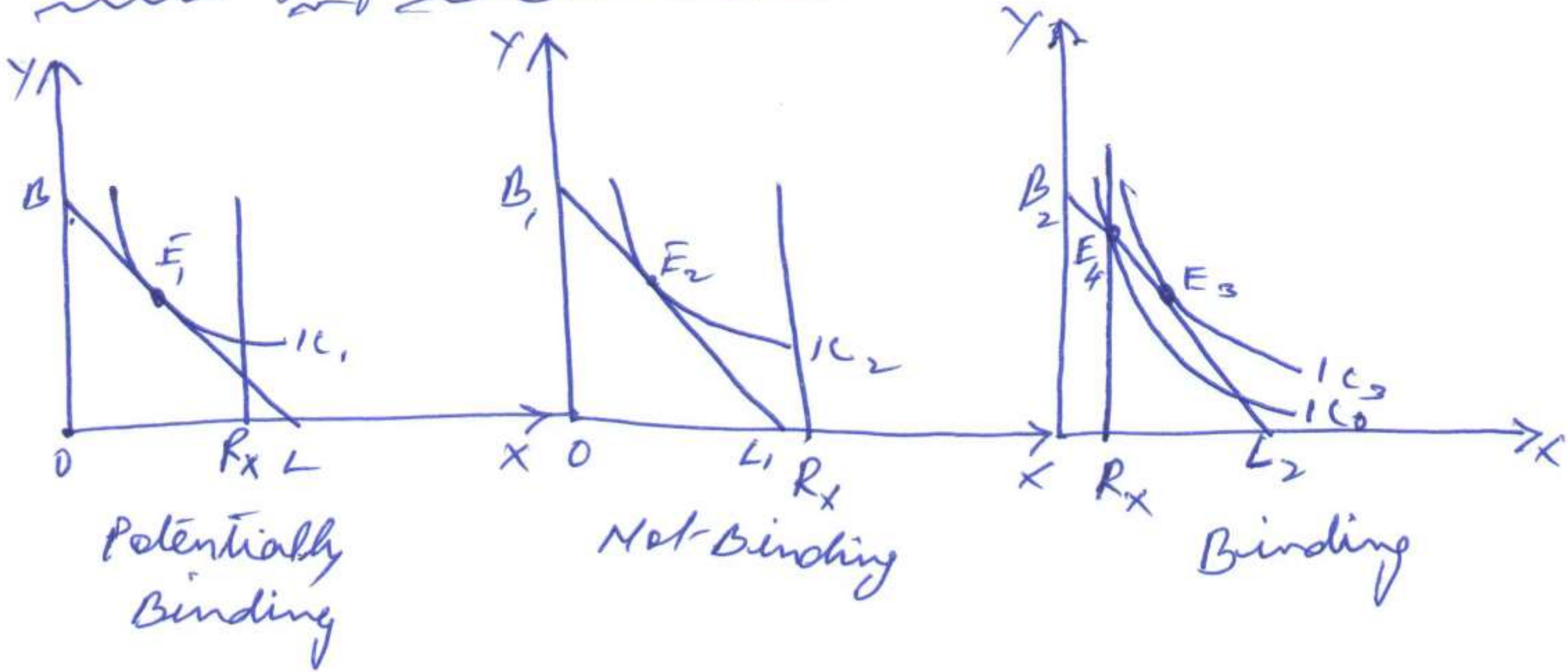
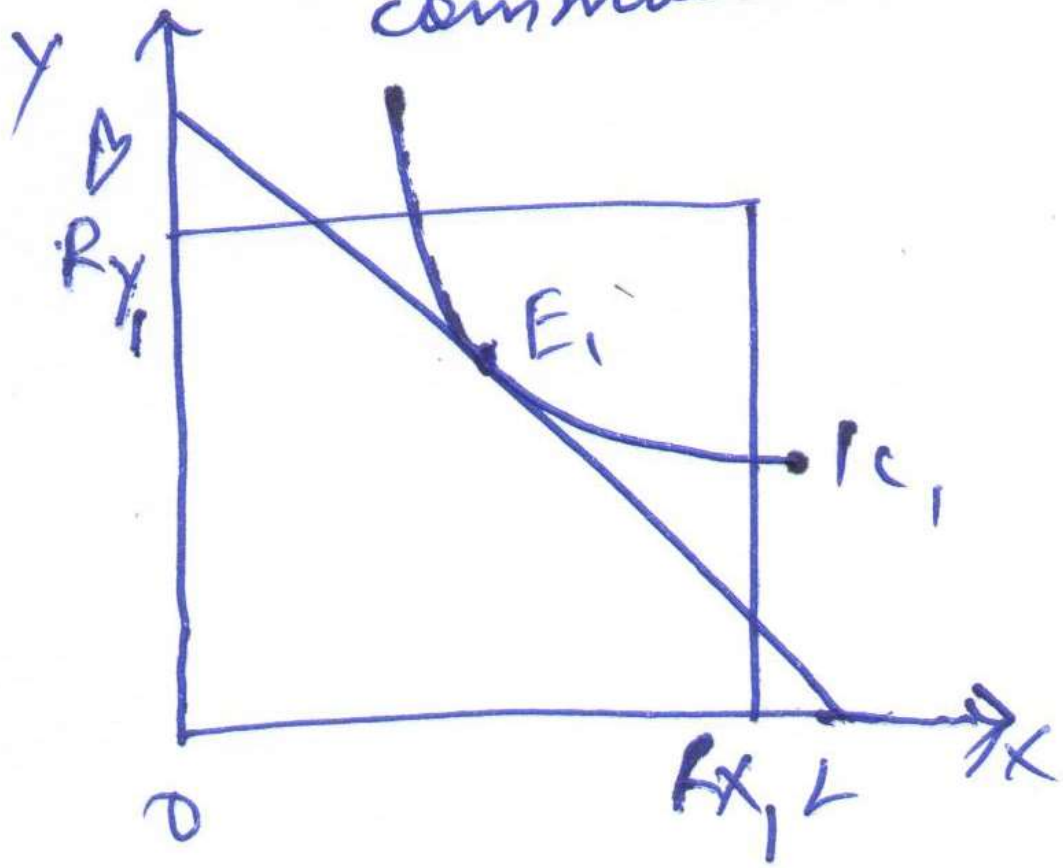
Welfare effect of Direct & Indirect taxes

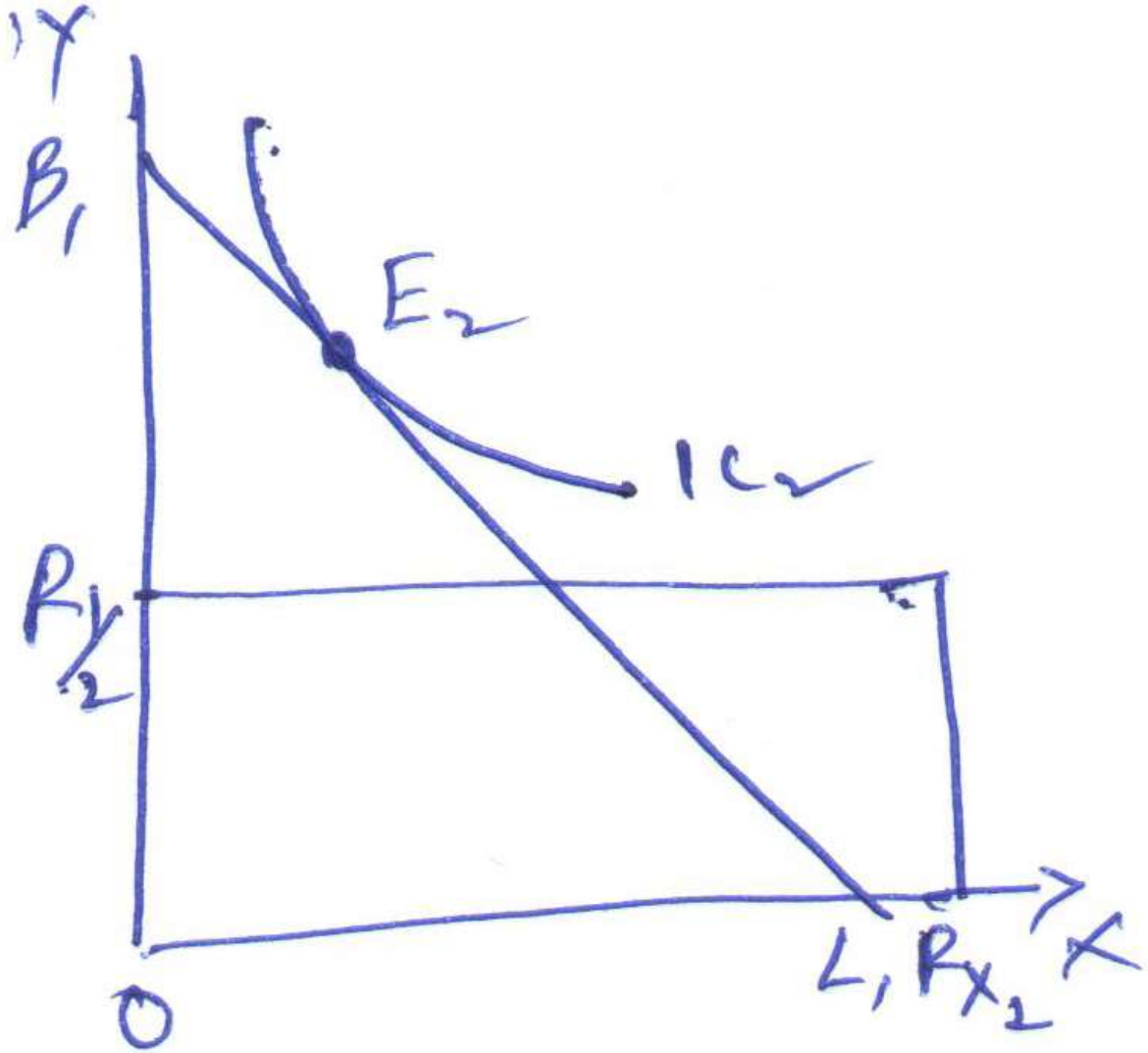


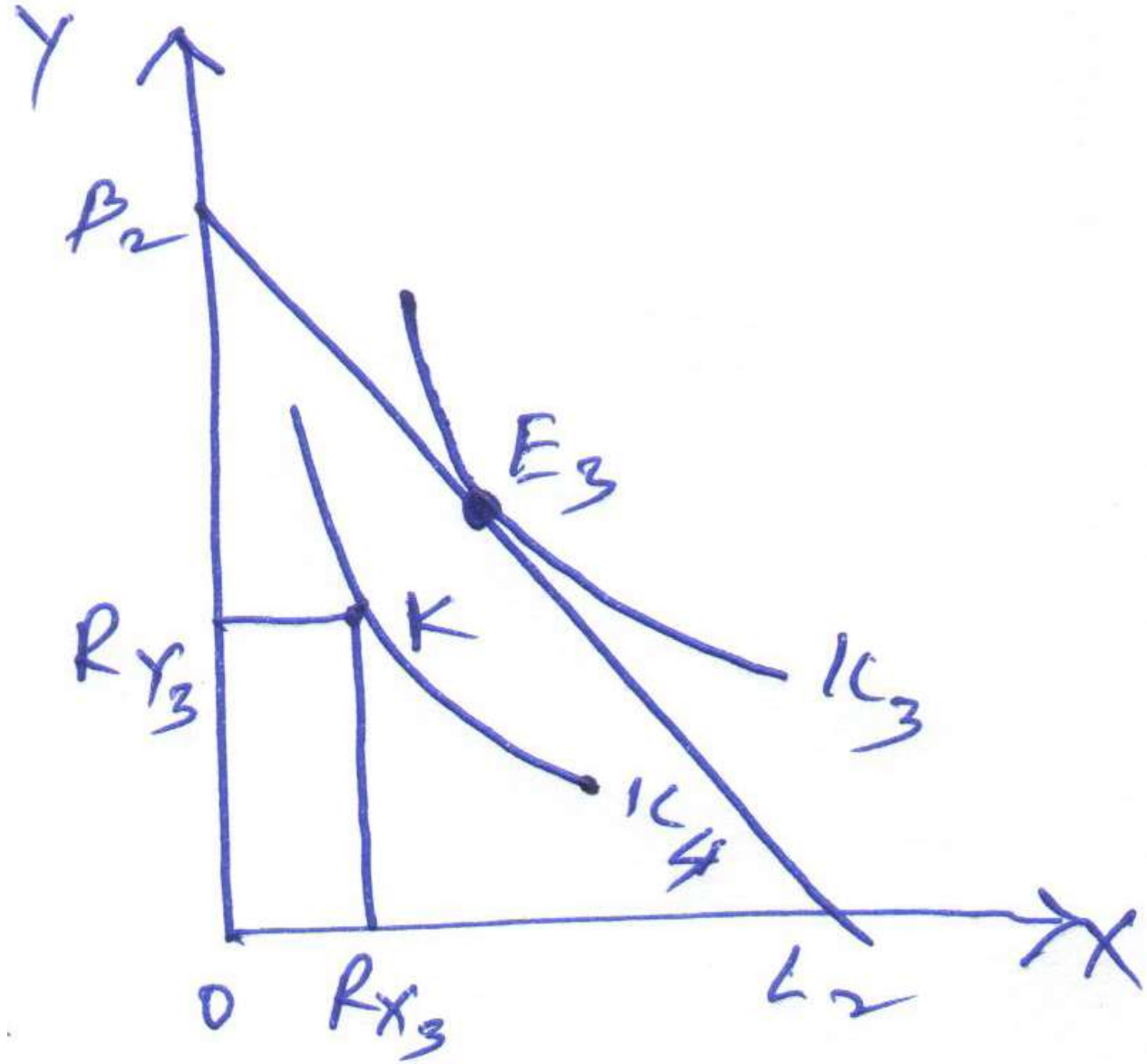
Rationing of one commodity



Rationing of Both the commodities




Y
B_1
E_2
IC_2
$R_y/_2$
$L_1 R_{x_2}$
X
O


Y
B_2
E_3
R_{Y_3}
K
IC_3
IC_4
0
R_{X_3}
L_2
X

Lecture 12 Elasticity of Demand and Elasticity of Supply

Elasticity of demand: Meaning

Elasticity of demand can be defined as the proportionate or percentage change in the quantity demand as a result of a proportionate or % change in its price, income or prices of other goods

Different types of elasticity

1. Price elasticity of demand
2. Income elasticity of demand
3. Cross elasticity of demand

Elasticity of demand

1. $E_p = \dfrac{\%\,\Delta \text{ in demand}}{\%\,\Delta \text{ in price}} = \dfrac{\frac{\Delta Q}{Q} \times 100\%}{\frac{\Delta P}{P} \times 100\%} = \dfrac{\Delta Q}{\Delta P} \times \dfrac{P}{Q} = \dfrac{dQ}{dP} \times \dfrac{P}{Q}$

2. $E_y = \dfrac{dQ}{dy} \dfrac{y}{Q}$

3. $E_{xy} = \dfrac{\%\,\Delta \text{ in demand}x}{\%\,\Delta \text{ in price}y} = \dfrac{\frac{\Delta Q_x}{Q_x} \times 100\%}{\frac{\Delta P_y}{P_y} \times 100} = \dfrac{\Delta Q_x}{\Delta P_y} \dfrac{P_y}{Q_x} = \dfrac{dQ_x}{dP_y} \dfrac{P_y}{Q_x}$

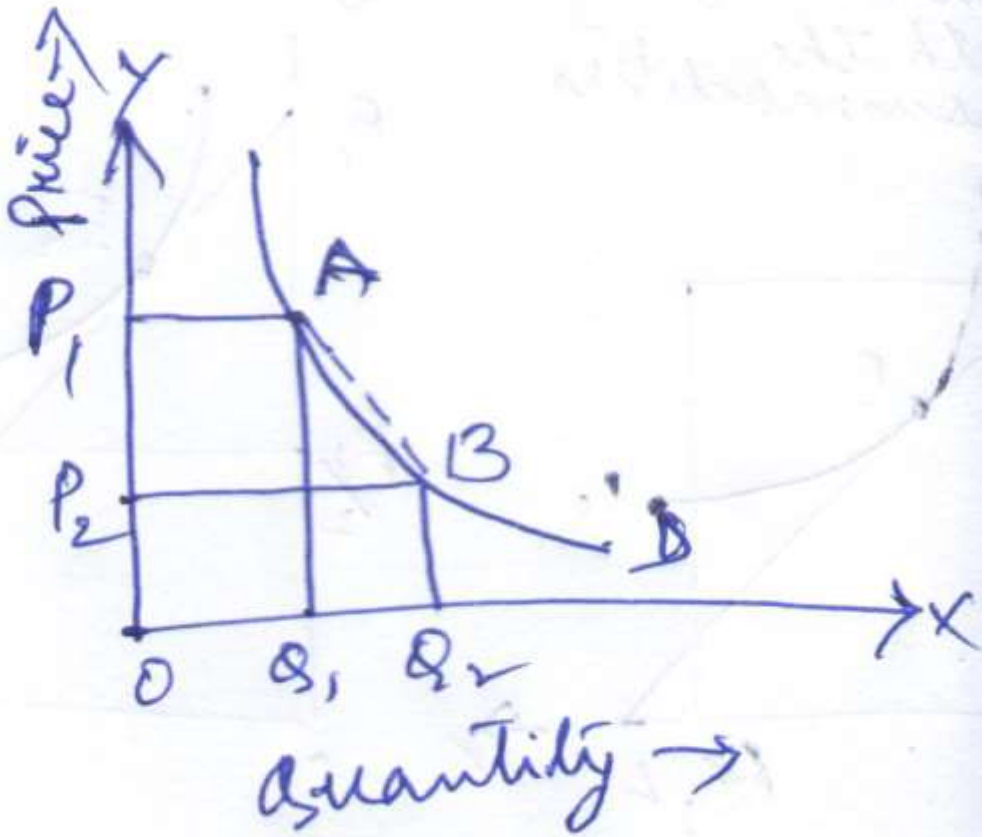
On the basis of intensity or value of the elasticity

1. Elasticity of demand is 1 = Unitary elasticity
2. Elasticity of demand is >1 = Relatively elastic or elastic demand
3. Elasticity of demand is <1 = **Relatively inelastic** or **inelastic** demand
4. Elasticity of demand is 0 = Perfectly inelasticity
5. Elasticity of demand is α = Perfectly elasticity

Arc elasticity

when the changes are large

$$\text{Arc elasticity} = \frac{dQ}{dP} \times \frac{P_1 + P_2}{Q_1 + Q_2}$$



Price elasticity & price consumption curve