Laxmi Narain Dubey College, Motihari (a constituent unit of B.R.A. Bihar University, Muz.) NAAC Accredited 'B+' Department of Economics

> **Topic: <u>Consumer's Equilibrium</u>** Paper-I: MICROECONOMICS Part-I

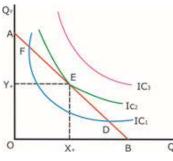
B.A. (Hons.)

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Consumer's Equilibrium

✓ A consumer achieves the equilibrium when he maximises his utility given his monetary income and the prices of the two goods.



 \checkmark It is said that a consumer is in equilibrium when he is able to reach the highest indifference curve given the budget constraint.

✓ In the following figure, the indifference curves are represented by IC₁, IC ₂, and IC ₃ while the budget line is given by line AB. The consumer is in equilibrium at point E on IC₂ consuming O_x^* and O_y^* units of goods x and y, respectively.

Fig- Consumer's Equilibrium

The alternative options available to the consumer are as follows:

- Combinations of goods x and y represented by points D and F are feasible points as they lie on the budget line, AB of the consumer. The consumer will not choose these points as they lie on a lower indifference curve, IC₁ as compared with IC₂.
- Combinations of goods x and y on indifference curve, IC₃, are beyond the means of the consumer with his budget line, AB.

Conditions for equilibrium

(i) The necessary condition is, $MRS_{xy} = P_x/P_y$

- \checkmark In the figure, the indifference curve IC₂ is tangential to the budget line AB at point E.
- \checkmark The slope of the indifference curve IC₂ is equal to the slope of the budget line AB.
- ✓ Hence, $MRS_{xy} = P_x/P_y$
- ✓ So by implication, $MRS_{xy} = MU_x/MU_y$

(ii) The sufficient condition is at the point of tangency, the MRS_{xy} should be diminishing.

- \checkmark In the figure, at the point of equilibrium E, the indifference curve is convex to the origin.
- \checkmark This is because the marginal rate of substitution is diminishing.
- \checkmark Thus for equilibrium to be stable, the MRS_{xy} should be decreasing at the tangency point.