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B.A Economics
Part -I ,Micro Economics
Topic - Consumer Equilibrium

Consumer Equilibrium

A consumer is in equilibrium when given his tastes, and price of the two goods, he spends a given money income on the purchase of two goods in such a way as to get the maximum satisfaction.

According to Koulsayiannis, "The consumer is in equilibrium when he maximises his utility, given his income and the market prices."

- 1 There is a defined indifference map showing the consumer's scale of preferences across different combinations of two goods X and Y.
- 2 The consumer has a fixed money income and wants to spend it completely on the goods X and Y
- 3 The prices of goods X and Y are fixed for the consumer.
- 4 The goods are homogeneous and divisible.
- 5 The consumer acts rationally and maximizes his satisfaction.

In order to discuss the consumer equilibrium we have to discuss about indifference map and budget line

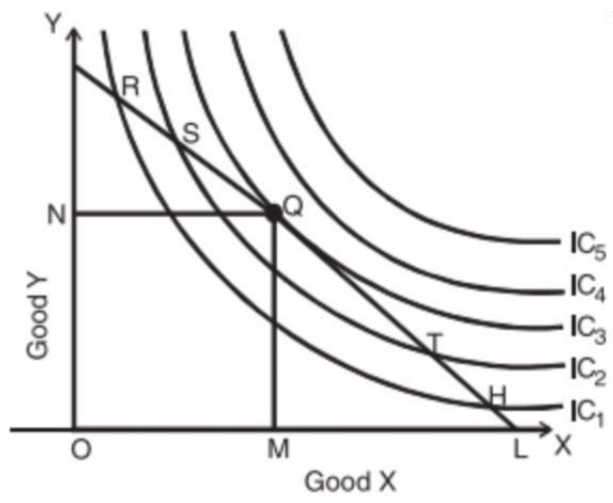
Indifference map

It shows the consumer's preference scale between various combination of two goods(say x and y)

Budget line

It shows combination of good that a consumer can afford to buy with his money income.

In the given indifference map, IC1 ,IC2, IC3, IC4, IC5 are indifference curves. PL is the budget line for the good x and good y .From the figure , we can see that the combinations R,S,Q,T and H cost the same to the consumer. In order to maximize his level of satisfaction,the consumer will try to reach the highest indifference curve.consumer will remain on the budget line since we have assumed a budget constraint. Here, if the consumer will choose point R and H then he will have least satisfaction because R



Explanation of the graph

In the above given graph, we depict an indifference map with indifference curves IC₁, IC₂, IC₃, IC₄, IC₅. PL is the budget line.

OX axis represents good X and OY axis represents good Y.

Combinations R, S, Q, T and H cost the same to the consumer. In order to maximize his level of satisfaction, the consumer will try to reach the highest IC (since we have assumed a budget constraint, he will be forced to remain on the budget line)

Combination R lies on the lower indifference curve IC₁. So he will have least satisfaction if he will choose combination R.

He can easily choose the combinations S, Q or T which lie on the higher Indifference curve. Even if he chooses the combination H, here also he will have least satisfaction.

IC₄ and IC₅ are higher Indifference curves. consumer can't go for it because they are beyond his budget limit (he can't afford)

Now in order to maximize his satisfaction, he has to attain equilibrium point Q where budget line (PL) is tangent to the IC₃. Also in this position, the consumer buys OM quantity of X and ON quantity of Y.

There are two conditions Consumer Equilibrium:

- **At the point of tangency the slope of budget line should be equal to the slope of IC i.e.;**

$$\text{Slope of Budget} = \text{Slope of IC}$$

$$P_x/P_y = MRS_{xy}$$

- **Indifference curve should be convex to the origin. It means MRS should be decking.**

(Note: $MRS_{xy} = MU_x/MU_y$)

Both the conditions are satisfied at point Q because here, Budget line PL is tangent to the IC₃ and also IC is convex to the origin. Therefore; at point Q, consumer will get maximum satisfaction by choosing OM amount of good X and ON amount of good Y. Hence, at equilibrium point Q,

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$$MRS_{xy} = MU_x/MU_y = P_x/P_y$$

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