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B.A Economics

Sem- 1

Paper- MIC

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

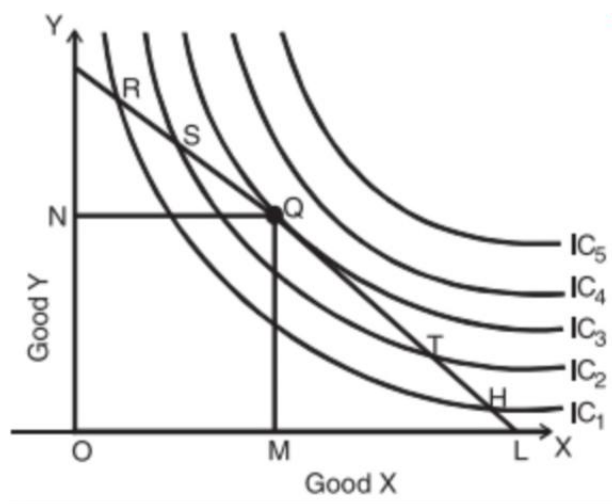
It shows the consumer's preference scale between various combination of two goods(say x and y)

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 and H lie on the lower indifference curve.

Budget line

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



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.

The OX axis represents good X and the 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 the least satisfaction if he chooses 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 the 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,;**

Slope of Budget = Slope of IC

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

- **The indifference curve should be convex to the origin. It means MRS should be decreasing.**

(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, consumers will get maximum satisfaction by choosing OM amount of good X and ON amount of good Y. Hence, at equilibrium point Q,

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