DADABHOY INSTITUTE OF HIGHER EDUCATION
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Principles of Microeconomics

Final Examination
Fall Semester- 2020

Faculty of Business Administration
Instructor Name: Prof. Dr. Noor Ahmed Memon

Exam Date: February 15, 2021
Time: 9:30 am– 12:30 p.m.
Marks: 40

Question 1: (05 Marks)

Select down the best option in the answer sheet

1. The demand curve shows the quantity of good that consumers are willing to------- as the price per unit change.
   A. Purchase B. Buy C. Sell
2. The supply curve shows the ----------of good that are willing to sell at given price.
   A. Quantity B. Amount C. Product
3. Demand and supply curves shift in response to **----------** in such variables as wage rates, capital costs, and income.
   A. Changes B. Shifts C. Drops
4. Market mechanism results in an equilibrium in which the quantity supplied ----------the quantity demanded.
   A. Equals B. Divided C. Different
5. ----------between price and quantity demanded is known as the demand
   A. Partnership B. Relationship C Co- Relation
6. Lower costs result in ----------and increased sales
   A. Higher B, Medium C. lower
7. Demand and supply curves shift over---------- as market conditions change.
   A. Period B. C. Time D. Gap
8. With “utility maximization”, a consumer cannot---------- utility by consuming more of one good and less of another.
   A. Decrease B. Shift C. Increase
9. The consumer is rational and he wants to obtain ----------satisfaction given his income and prices.
   A. Full B. Maximum C. Minimum

10. It is assumed that the consumer cans **----------**his preference according to the satisfaction of each combination of goods.

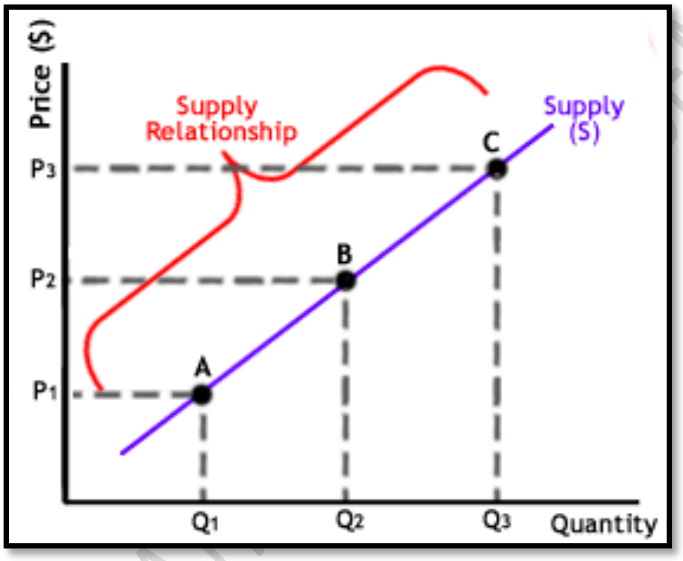
A. .Chose B. Preference C. Rank

Question 2: (10 Marks)

What do you understand with the Law of Diminishing Marginal Utility? Use diagrams where appropriate.

Question 3: (05 Marks)

Study the diagram below and explain it.



Question 4: (05 Marks)

How price is determined in a Perfectly Competitive Market? Explain with help of diagram.

Question 5: (05 Marks)

Define production functions. Explain with help of diagram

Question 6: (05 Marks)

How do you distinguish between Monopoly and Prefect competition? Use diagrams where appropriate.

Question 7: (05 Marks)

Define indifference curve. Explain their main characteristics with help of diagram.

Best of Luck

FINAL TERM EXAMINATION FALL 2020

Name	AROON PAKASH
SUBJECT	MICRO ECONOMICS
REGD ID.	MBA/3-16/M04026
SUBMITTED TO	DR.NOOR AHMED MEMON

ANSWERS

Ans 1:

1) A
2) A
3) B
4) A
5) B
6) C
7) A
8) A
9) B
10) C

Ans 2:

Definition:

Law of diminishing marginal utility states that as ‘’a consumer consumes more and more units of commodity utility from the successive units goes on diminishing’’ Alfred Marshall related this law on following words. The additional benefit which a person derives from an increase of his stock of a thing diminishes with ever increase in the stock that the already has

This law is based on two fundamental truths. First, while the perfect demand for man is almost limitless, every need is satisfied. Therefore, as a person uses more pieces of goods, the pressure to seek goods continues to fall and is achieved when one no longer wants other units of goods. That is, when a saturation point is entered, the average consumption of the asset becomes zero. Critical use of assets means that the person has everything he or she wants in those assets in question..

The second fact is that the law of marginal value is based on the fact that different assets are not the right positions for each other in satisfying certain different needs. When a person uses more pieces of goods, the demand for certain goods decreases but if the units of those goods are not supplied to meet other needs and produce as much satisfaction as they did in the beginning to satisfy the first demand, the incomplete benefits of good would not diminish.

It is clear from the above that the law of reciprocity is defined as a common and fundamental human tendency. This law was reached by entering and observing the behavior of people.

Table and Diagram are shown below:

Cups of Tea Consumed per Day	Total Utility Units	Marginal Utility Units
1	12	12
2	22	10
3	30	8
4	36	6
5	40	4
6	41	1
7	39	-2
8	34	-5

Consider Table in which we have presented the total and marginal utilities derived by a person from cups of tea consumed per day. When one cup of tea is taken per day, the total utility derived by the person is 12 units. And because this is the first cup its marginal utility is also 12.

With the consumption of 2nd cup per day, the total utility rises to 22 but marginal utility falls to 10. It will be seen from the table that as the consumption of tea increases to six cups per day, marginal utility from the additional cups goes on diminishing (i.e., the total utility goes on increasing at a diminishing rate).

However, when the cups of tea consumed per day increase to seven, then instead of giving positive marginal utility, the seventh cup gives negative marginal utility equal to -2. This is because too many cups of tea consumed per day (say more than six for a particular individual) may cause him acidity and gas trouble. Thus, the extra cups of tea beyond six to the individual in question give him disutility rather than positive satisfaction.

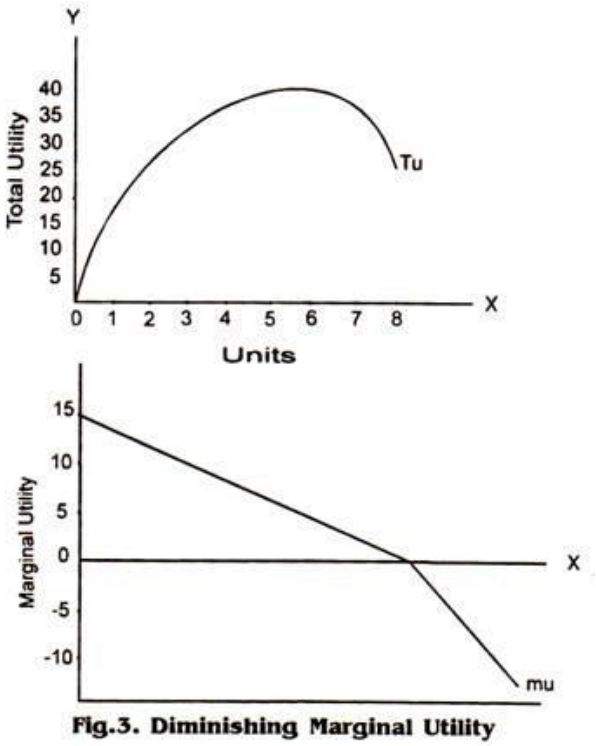


Fig.3. Diminishing Marginal Utility

We have graphically represented the data of the above table in Figure 3. We have constructed rectangles representing the total utility obtained from various numbers of cups of tea consumed per day. As will be seen in the Figure, the length of the rectangle goes on increasing up to the sixth cup of tea and beyond that length of the rectangle declines, indicating thereby that up to the sixth cup of tea total utility obtained from the increasing cups of tea goes on increasing whereas beyond the 6th cup, total utility declines. In other words, marginal utility of the additional cups up to the 6th cup is positive, whereas beyond the sixth cup marginal utility is negative.

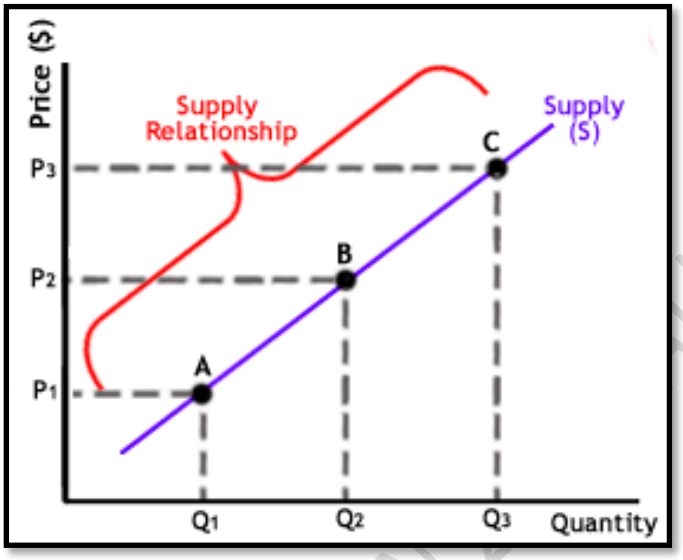
The marginal utility obtained by the consumer from additional cups of tea as he increases the consumption of tea has been shaded. A glance at the Figure 3 will show that this shaded area goes on declining which shows that marginal utility from the additional cups of tea is diminishing. We have joined the various rectangles by a smooth curve which is the curve of total utility which rises Up to a point and then declines due to negative marginal utility.

Moreover, the shaded areas of the rectangles representing marginal utility of the various cups of tea have also been shown separately in the figure given below. We have joined the shaded rectangles by a smooth curve which is the curve of marginal utility. As will be seen, this marginal utility curve goes on declining throughout and even falls below the x-axis. Portion below the x-axis indicates the negative marginal utility.

This downward-sloping marginal utility curve has an important implication for consumer's behavior regarding demand for goods. We shall explain how the demand curve is derived from marginal utility curve. The main reason why the demand curves for good slope downward is the fact of diminishing marginal utility.

The significance of the diminishing marginal utility of a good for the theory of demand is that the quantity demanded of a good rises as the price falls and vice versa. Thus, it is because of the diminishing marginal utility that the demand curve slopes downward

Ans 3:



The diagram shows that

"The relationship between price and the quantity supplied. If an object's price on the market increases, the producers would be willing to supply more of the product. If the object's price on the market decreases, they are less willing to supply a lot and the quantity decreases."

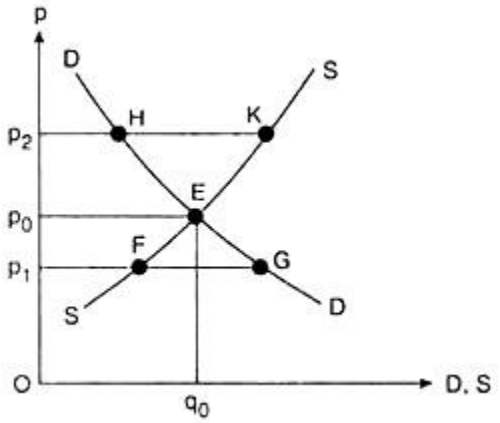
Ans 4:

In a perfectly competitive market, the number of buyers and sellers is large.

In a perfectly competitive market, equilibrium price of the product is determined through a process of interaction between the aggregate or market demand and the aggregate or market supply. Equilibrium price is the price at which the market demand becomes equal to market supply.

We may explain the process of price determination as a matter of interaction between demand and supply with the help of diagram. The DD curve in this figure is the aggregate or market demand curve for the product. This curve tells us what is the aggregate demand of the buyers for the good at any particular price, and, as such, this curve is the horizontal summation of the individual demand curves of all the buyers.

For Example: The DD curve of diagram we come to know that at the price p = p,, the market demand for the good is P_1G. Again, at $p = p_2$, the market demand amounts to p_2H.
Owing to the law of demand, the individual demand curves are downward sloping towards right. That is why the market demand curve as a horizontal summation of the individual demand curves would also be downward sloping towards right (or negatively sloped).



Price Determination in a perfect competitive market

On the other hand, the SS curve in diagram is the aggregate or market supply curve for the good. We may know from this curve the market supply of the good at any particular price, and so, this curve is the horizontal summation of the individual supply curves of the sellers. For example,

from the supply curve, SS, we can know that at $p = p_1$, the market supply of the good is p_1F, or at $p = p_2$, the market supply is p_2K.

Since the supply curves of individual sellers are sloping upwards towards right owing to the law of supply, the aggregate supply curve as the horizontal summation of the individual supply curves would also be sloping upwards towards right or positively sloped, like the SS curve

The price, p_0, of the good that would be obtained at the point of intersection, E, of the aggregate demand curve, DD, and the aggregate supply curve, SS, would itself be the equilibrium price of the good. At $p = p_0$, the market demand and market supply of the good are equal, both being equal to $q = q_0$ in diagram. That is why, here $p = p_0$ is the equilibrium price and $q = q_0$ is the equilibrium quantity demanded and supplied.

Ans 5:

PRODUCTION FUNCTION WITH DIAGRAM

"The production function expresses a functional relationship between quantities of inputs and outputs it shows how and to what extent output changes with variations in inputs during a specified period of time.

The production function is a technological or engineering concept which can be expressed in the form of a table, graph and equation showing the amount of output obtained from various combinations of inputs used in production, given the state of technology. Algebraically, it may be expressed in the form of an equation as

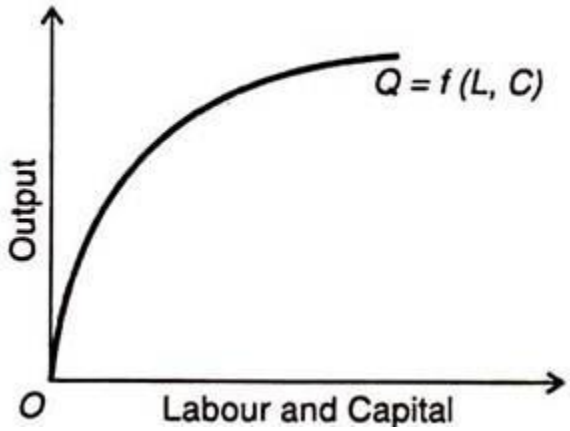
$Q = F (L, M, N, C, \bar{T})$

where Q stands for the output of a good per unit of time, L for labour, M for management (of organisation), N for land (or natural resources), C for capital and $\bar{T}$ for given technology and F refers to the functional relationship function with many inputs cannot be depicted on a diagram.

Economists, therefore, use a two-input production function. If we take two inputs, labour and capital, the production function assumes the form.

$Q = F (L, C)$

Such a production function is shown in diagram.



The production function as determined by technical conditions of production is of two types: it may be rigid or flexible. The former relates to the short-run and the latter to the long-run. In the short-run, the technical conditions of production are rigid so that the various inputs used to produce a given output are in fixed proportions.

However, in the short-run, it is possible to increase the quantities of one input while keeping the quantities of other inputs constant in order to have more output. This aspect of the production function is known as the Law of Variable Proportions. In the long-run, it is possible for a firm to change all inputs up or down in accordance with its scale. This is known as returns to scale.

The returns to scale are constant when output increases in the same proportion as the increase in the quantities of inputs. The returns to scale are increasing when the increase in output is more than proportional to the increase in inputs. They are decreasing if the increase in output is less than proportional to the increase in inputs.

Ans 6: Difference between Monopoly and perfect competitive market

Monopolistic Markets

In a monopolistic market, firms are price makers because they control the prices of goods and services. In this type of market, prices are generally high for goods and services because firms have total control of the market. Firms have total market share, which creates difficult entry and exit points. Since barriers to entry in a monopolistic market are high, firms that manage to enter the market are still often dominated by one bigger firm. A monopolistic market generally involves a single seller, and buyers do not have a choice concerning where to purchase their goods or services..

Perfectly Competitive Markets

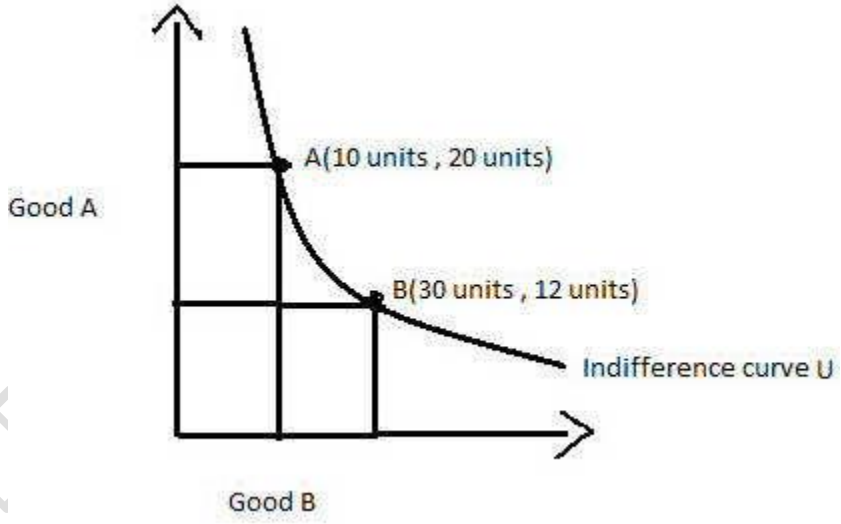
In a market that experiences perfect competition, prices are dictated by supply and demand. Firms in a perfectly competitive market are all price takers because no one firm has enough market control. Unlike a monopolistic market, firms in a perfectly competitive market have a small market share. Barriers to entry are relatively low, and firms can enter and exit the market easily. Contrary to a monopolistic market, a perfectly competitive market has many buyers and sellers, and consumers can choose where they buy their goods and services.

Ans7:

Definition: Indifference Curve

An indifference curve is a graph showing combination of two goods that give the consumer equal satisfaction and utility. Each point on an indifference curve indicates that a consumer is indifferent between the two and all points give him the same utility.

Graphically, the indifference curve is drawn as a downward sloping convex to the origin. The graph shows a combination of two goods that the consumer consumes.



The above diagram shows the U indifference curve showing bundles of goods A and B. To the consumer, bundle A and B are the same as both of them give him the equal satisfaction. In other words, point A gives as much utility as point B to the individual. The consumer will be satisfied at any point along the curve assuming that other things are constant.

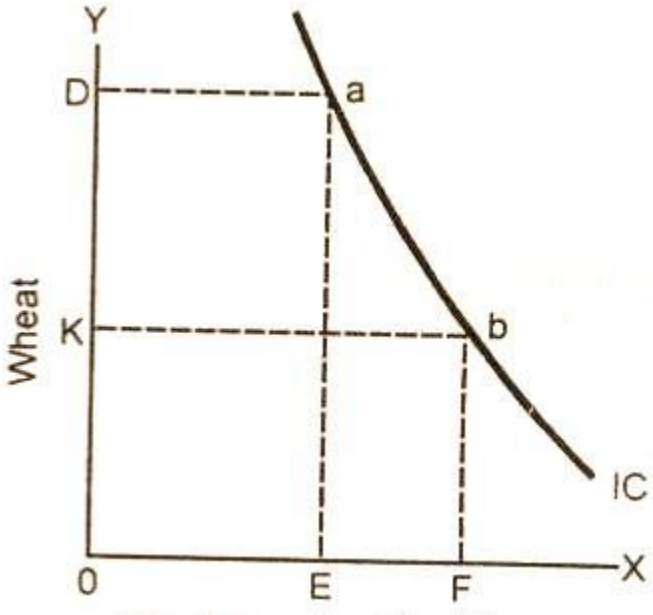
Main Characteristics of indifference curve:

1. Indifference curves slop downward to the right.
2. Every indifference curve to the right represents a higher level of satisfaction.
3. Indifference curves cannot intersect each other.

4. Indifference curve will not touch the axis.
5. Indifference curves are convex to the origin

- **Indifference curves slop downward to the right**

The indifference curves must slope down from left to right. This means that an indifference curve is negatively sloped. It slopes downward because as the consumer increases the consumption of X commodity, he has to give up certain units of Y commodity in order to maintain the same level of satisfaction.



Cooking Oil

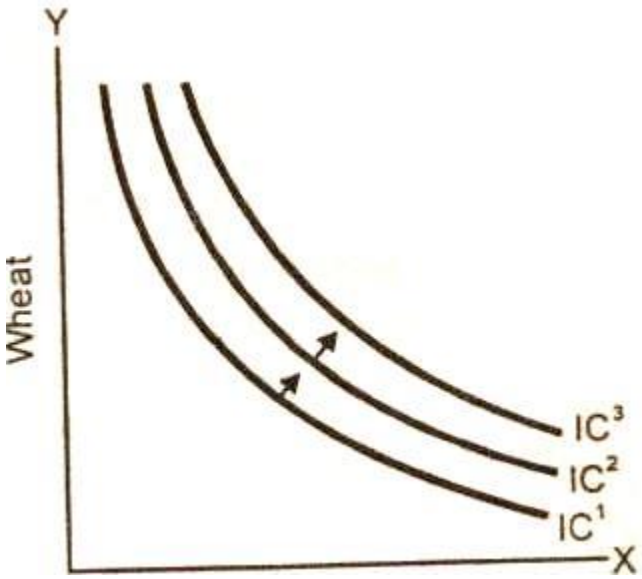
The two combinations of commodity cooking oil and commodity wheat is shown by the points a and b on the same indifference curve. The consumer is indifferent towards points a and b as they represent equal level of satisfaction.

At point (a) on the indifference curve, the consumer is satisfied with OE units of ghee and OD units of wheat. He is equally satisfied with OF units of ghee and OK units of wheat shown by point b on the indifference curve. It is only on the negatively sloped curve that different points representing different combinations of goods X and Y give the same level of satisfaction to make the consumer indifferent.

- **Higher Indifference Curve Represents Higher Level**:

A higher indifference curve that lies above and to the right of another indifference curve represents a higher level of satisfaction and combination on a lower indifference curve yields a lower satisfaction.

In other words, we can say that the combination of goods which lies on a higher indifference curve will be preferred by a consumer to the combination which lies on a lower indifference curve.

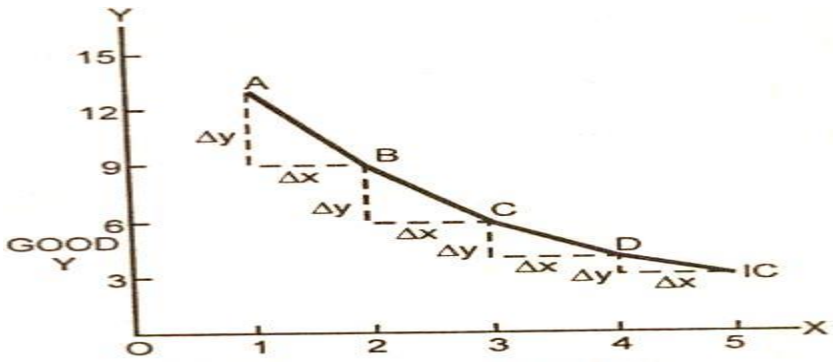


Cooking Oil

In this diagram there are three indifference curves, IC^1, IC^2 and IC^3 which represents different levels of satisfaction. The indifference curve IC^3 shows greater amount of satisfaction and it contains more of both goods than IC^2 and IC^1 ($IC^3 > IC^2 > IC^1$).

- **Indifference Curve are Convex to the Origin**:

This is an important property of indifference curves. They are convex to the origin (bowed inward). This is equivalent to saying that as the consumer substitutes commodity X for commodity Y, the marginal rate of substitution diminishes of X for Y along an indifference curve.

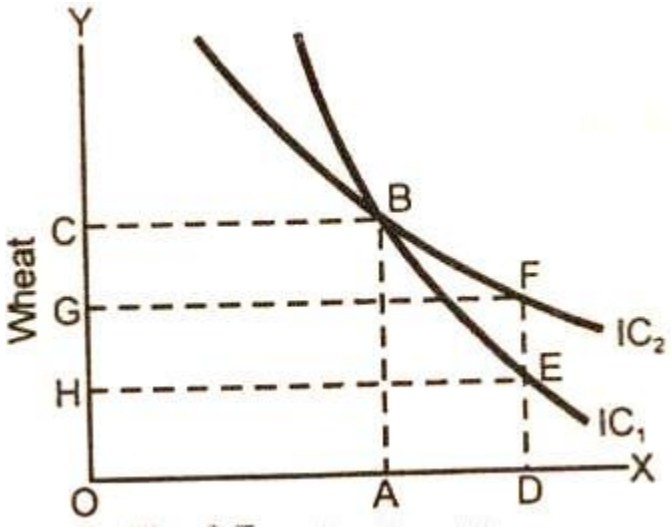


GOOD X

In this figure as the consumer moves from A to B to C to D, the willingness to substitute good X for good Y diminishes. This means that as the amount of good X is increased by equal amounts, that of good Y diminishes by smaller amounts. The marginal rate of substitution of X for Y is the quantity of Y good that the consumer is willing to give up to gain a marginal unit of good X. The slope of IC is negative. It is convex to the origin.

- **Indifference Curve Cannot Intersect Each Other:**

Given the definition of indifference curve and the assumptions behind it, the indifference curves cannot intersect each other. It is because at the point of tangency, the higher curve will give as much as of the two commodities as is given by the lower indifference curve. This is absurd and impossible.



Cooking Oil

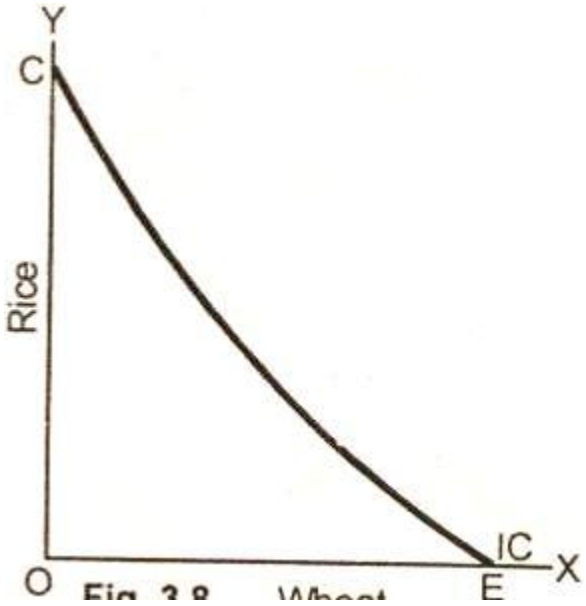
Two indifference curves are showing cutting each other at point B. The combinations represented by points B and F given equal satisfaction to the consumer because both lie on the

same indifference curve IC_2. Similarly the combinations shows by points B and E on indifference curve IC_1 give equal satisfaction top the consumer.

If combination F is equal to combination B in terms of satisfaction and combination E is equal to combination B in satisfaction. It follows that the combination F will be equivalent to E in terms of satisfaction. This conclusion looks quite funny because combination F on IC_2 contains more of good Y (wheat) than combination which gives more satisfaction to the consumer. We, therefore, conclude that indifference curves cannot cut each other.

- **Indifference Curves do not Touch the Horizontal or Vertical Axis:**

One of the basic assumptions of indifference curves is that the consumer purchases combinations of different commodities. He is not supposed to purchase only one commodity. In that case indifference curve will touch one axis. This violates the basic assumption of indifference curves.



Wheat

it is shown that the in difference IC touches Y axis at point C and X axis at point E. At point C, the consumer purchase only OC commodity of rice and no commodity of wheat, similarly at point E, he buys OE quantity of wheat and no amount of rice. Such indifference curves are against our basic assumption. Our basic assumption is that the consumer buys two goods in combination.