## TOPIC-: INDIFFERENCE CURVE ANALYSIS

**MEANING:-** Indifference curve shows the combination of 2 goods which give the consumer the same level of satisfaction. In other words, since all the combination lying on an indifference curve provide the same satisfaction, the consumer is indifferent among 2 combinations. Indifference curve also known as ISO utility curve.

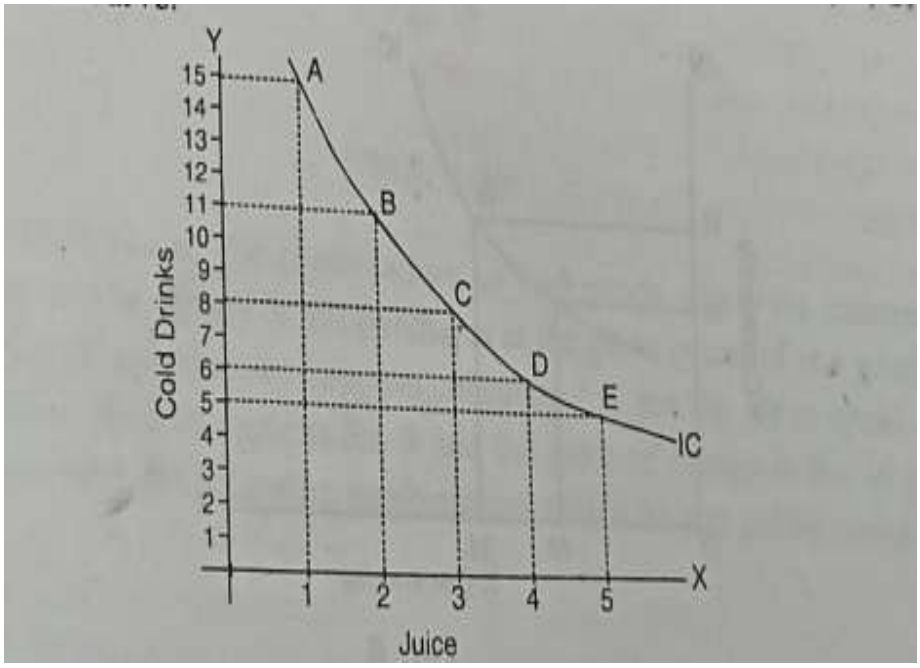
According to prof. A. L. Meyers has defined indifference curve in the following manner. "An indifference schedule may be defined as a schedule of various combinations of goods that will be equally satisfactory to the individual concerned. If we depict this in the form of a curve we get indifference curve".

**Explanation with illustration-:** The indifference curve can more precisely be explained with the help of following table.

| Combination | Cold drink | Juice |
|---|---|---|
| 1 | 15 | 1 |
| 2 | 11 | 2 |
| 3 | 8 | 3 |
| 4 | 6 | 4 |
| 5 | 5 | 5 |

In the above schedule the consumer obtains as much total satisfaction from 15 cold drinks and 1 juices as from 11 cold drinks and 2 juices and as well as from other combinations. In other worlds, consumer feels indifferent whether he gets 1st combination ( 15 CD+ 1J ) the 2nd combination (11 CD +2 J) the 3rd combination (8 CD+3J) or 4th combination ( 6 CD + 4J) or the 5th combination ( 5 CD +5J ) .The total satisfaction is the same in all these combinations.

If we translate this schedule in a diagram we get an indifference curve. In the above graph juices is measured on X axis and cold drinks are measured at Y axis. If consumers is at point A on indifference curve he will be just as satisfied as point B,C,D&E respectively where he will be getting 11 CD +2 J, 8 CD + 3 J, 6CD + 4 J, 5CD + 5J . If we join points A, B, C, D & E we get a curve known as indifference curve.



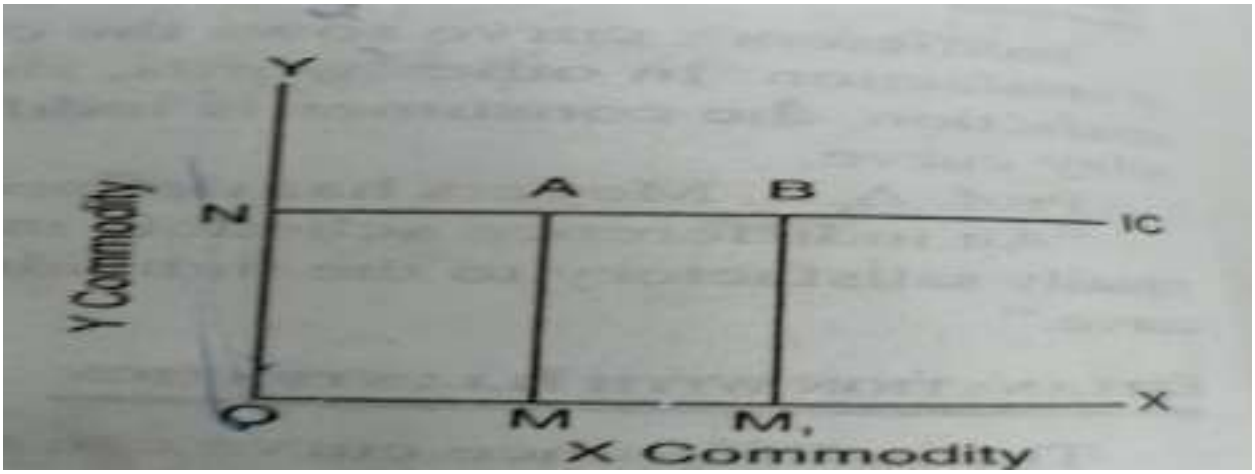

**Assumptions of indifference Curve**

1. **Rationality of Consumer:-** The indifference curve assumes that a consumer is a rational human being. He take his decision after due consideration of all the available alternatives and then choose the best alternative.
2. **Ordinal Utility:-** Indifference curve is based on ordinal utility approach. Here we do not measure utility but only make a comparison between utilities of 2 commodities.
3. **Diminishing Marginal Rate of Substitution:-** The rate at which commodity substitutes another commodity is known as the rate of substitution. Indifference curves analysis, assumption is that as we increase the quantity of a commodity, its capacity to substitute the commodity goes on diminishing.
4. **Consistency and Transitivity:-** consistency means that a consumer is consistent in his preference. If he prefers one combination of commodities over another combination then he'll always do so. For example, if he prefers A combination over B combination then he'll always prefers A over B, when both are available. Transitivity means that there is consistency or continuity. For example, If he prefers A combination over B i.e. A >B and also that B >C then A>C i.e. A combination will always be preferred over C .
4. **Positive Utility**:- Under indifference curve analysis utility is always taken as positive. It means that more units of commodity are preferred over lesser ones. Five units of a commodity preferred over four units and four units are preferred over 3 units and so on.

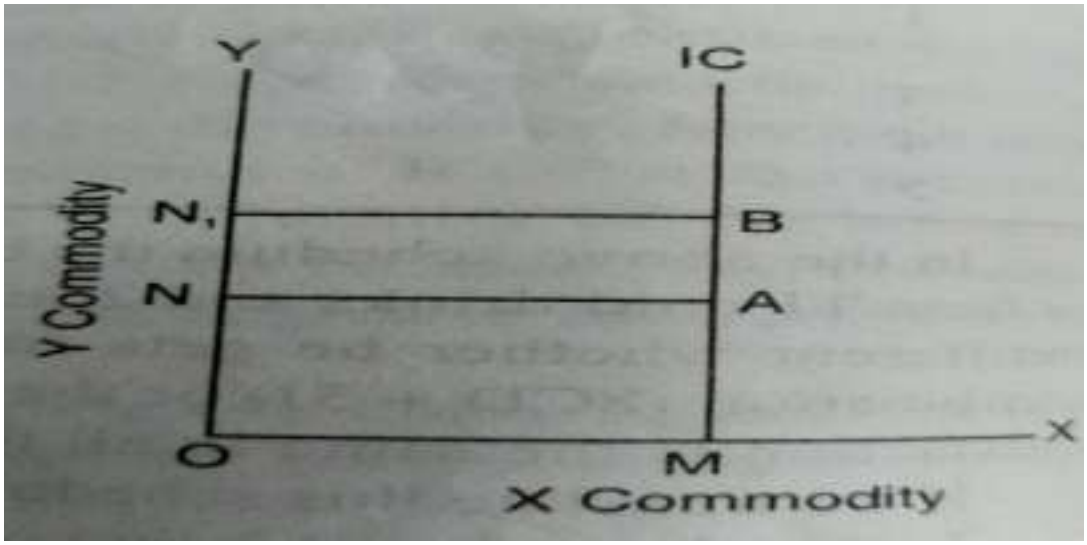
## PROPERTIES OF INDIFFERENCE CURVE-:

1. **Downward sloping from left right:-** One of the most important features of indifference curve is that it is downward sloping or negatively sloped. The main reason for this is that when the consumer decides to have more units of one of the 2 goods he'll have to reduce the numbers of units of the other good so that his level of satisfaction remains same.

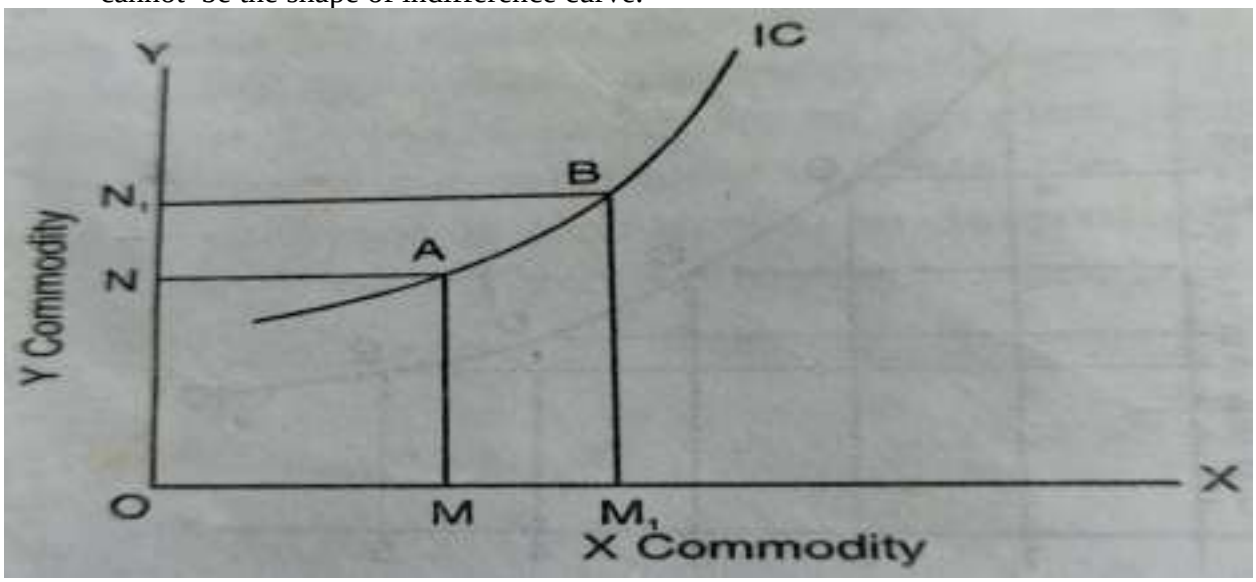
- **Indifference curve cannot be a Horizontal Straight Line**:- When the consumer shifts from A point to B point he gets more unit of X commodity without reducing the units of Y. Hence, now the consumer is in a better position than at point A. Thus this cannot be the shape of IC because it states that the satisfaction of consumer must remain same at all the points on an indifference curve. This does not hold good in this case.




- **Indifference curve cannot be a vertical straight line:-** When the consumer moves from point A to point B he gets more units of Y commodity without reducing the units of X. Hence, now the consumer in a better position than at point A. This cannot be the shape of indifference because as per the basic of assumption of indifference curve all the combination of two commodities should give equal at all points on indifference curve and this does not hold good in this case.



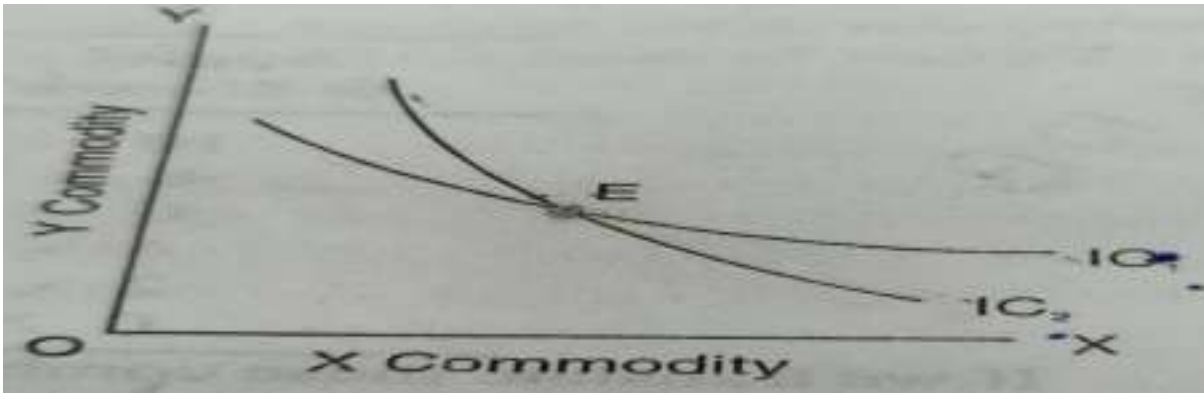

- **Indifference curve cannot be upward rising:-** When the consumer moves from point A to point B he gets more units of both X&Y commodity and hence in a better position than before. Since as per indifference curve assumption the satisfaction of consumer must be remain same at all points on an indifference curve this assumption does not hold good in this case because the satisfaction of consumer ultimately increases as he moves from point A to B. Hence, this cannot be the shape of indifference curve.




2. **Two indifference curves never Intersect each other:-** The second property of indifference curve is that no two such curves will ever cut each other because two indifference curve represent two different levels of satisfaction i. e. higher IC gives higher level of satisfaction than lower IC.

   If two indifference curve intersect each other then it will mean that the point of intersection i.e. E in our case is the common point on two

indifference curves and the consumer will get same satisfaction at this point where he is on IC1 or IC2. This could not generally happen because as stated with indifference represent different levels of satisfaction and hence cannot intersect each other.




3. **Indifference curves are convex to origin:-** The 3rd characteristics of indifference curves is that they're normally convex to origin because as the consumer has more and more of a commodity say X he is prepared for gone less and less or other commodities say Y and thus marginal rate of substitution of X for Y goes on falling. Due to this diminishing MRS the shape of indifference curve is convex to origin.

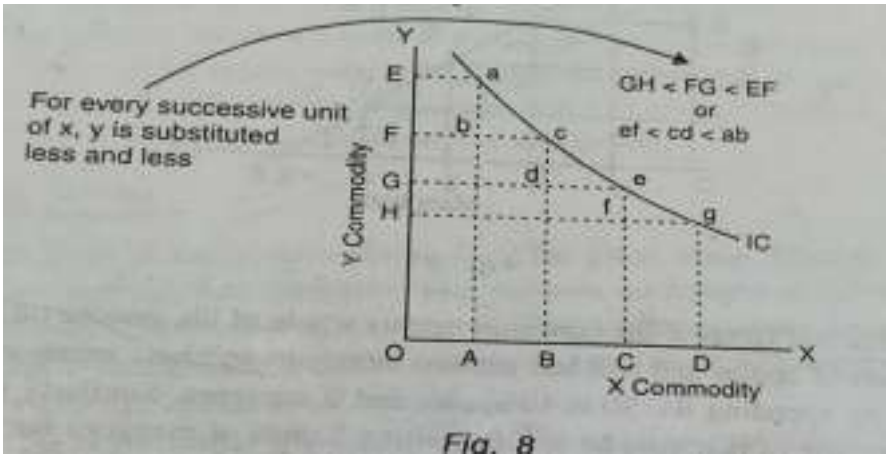
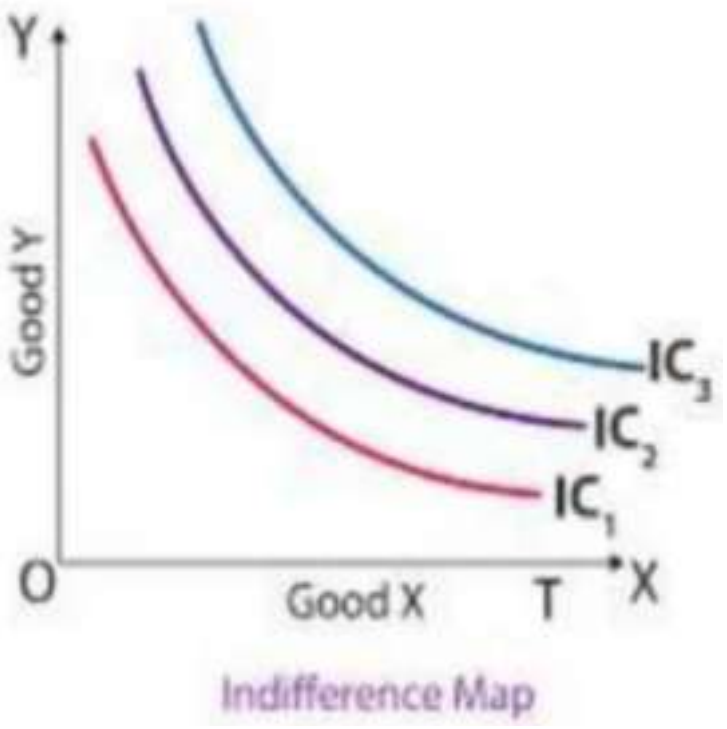



Fig. 8

4. **A Higher indifference curve shows Higher level of Satisfaction:-** The last property of indifference curve is that a higher indifference curve will represent a higher level of satisfaction than a lower indifference curve . This means any combination on two goods on higher curve give higher level of satisfaction to the consumer than the lower

one.



Indifference Map

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