# ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE-27 B.Sc. ECONOMICS - I SEMESTER SEMESTER EXAMINATION: OCTOBER 2019 ECS 1118- MICROECONOMICS I 

Time- 2 1/2 hrs
Max Marks-70

## This paper contains TWO printed pages and THREE parts

## Part A.

## Answer any TEN of the following

$3 \times 10=30$

1. More of a commodity is demanded at the same price. Does it indicate change in demand or change in quantity demanded? Explain it.
2. What is the relationship between marginal utility curve and the demand curve?
3. At a price of Rs. 5 per unit, 100 units of a commodity are purchased. If the price falls to Rs. 4 per unit, at least how many units are to be purchased for the elasticity of demand to be greater than unity?
4. Mention any four factors, other than the price of a product, which influences the supply of a commodity?
5. Total utility becomes maximum when (a) marginal utility increases, (b) marginal utility decreases, (c) marginal utility becomes zero- which statements is correct?
6. Define cross price elasticity of demand.
7. With the help of a diagram, state the marginal rate of substitution between two goods.
8. What is the constraint in the process of utility maximization by any consumer?
9. Is income effect positive for every commodity, give the reason?
10. "Marginal Product of a variable factor will always rise as its average product rises"- Is this statement true?
11. Define an iso-quant. Mention any two properties of an iso-quant.
12. Explain with the help of a diagram, the reason behind the "U" shape of the AVC curve during shortrun?

## Part B.

## Answer any TWO of the following

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5 \times 2=10
$$

13. When two commodity baskets are purchased by the consumer at two different point of time, explain how price weighted quantity indices may be used to verify the weak axiom of revealed preference?
14. Why the LAC curve is the envelope of all possible SAC curves? Explain diagrammatically.
15. What is income effect? Draw an income-consumption curve (ICC) for normal good? What would be the shape of an ICC if one of the two goods is inferior?

Part C.
$15 \times 2=30$
16. A student has Rs. 100 per month to spend on two luxuries; the money can be spent either on clothing, which costs Rs. 50 per item or on cinema, which costs Rs. 10 per visit. If $\mathrm{q}_{1}$ is the number of items of
clothing bought and $\mathrm{q}_{2}$ is the number of visits to cinema, then the student's utility function is defined as $\mathrm{U}=10 \mathrm{q}_{1} \mathrm{q}_{2}$. Show that the student will spend equal amounts or not of his income on each item under equilibrium.
17. A company produces two products X and Y , using a fixed amount of a certain resource A . The product transformation curve is given by, $\mathrm{X}+\mathrm{Y}^{2}+4 \mathrm{Y}=20$.
(a) Find out the largest amount of X that the company can produce by using all its fixed resources in the production of X alone.
(b) Find out the largest amount of Y that the company can produce by using all its fixed resource in the production of Y alone.
(c) What an amount of X and Y should be produced in order to have $\mathrm{X}=4 \mathrm{Y}$ ?
18. Answer the following;
a) Find the slope of an assumed linear demand curve for theater tickets, when persons purchase 1,000 at $\$ 5.00$ per ticket and 200 at $\$ 15.00$ per ticket.
b) Which of the following factors will cause the shift of the demand curve to the right or left, explain diagrammatically?
i. In December, the price of Christmas trees rises and the number of trees sold also rises, what probably happens to the demand for it?
ii. If everyone thinks that the price of tomatoes will go up next week, what is likely to happen to demand for tomatoes today?
iii. When the price of petroleum goes up, what probably happens to the demand for natural gas?

