

## SYBA (CBCGSS) (Sem III) (II)

## ANSWER KEY Q.P Code

A3981/Economics: Pap- II

Marks: 100

Q.1) a) Equilibrium of a consumer is attained when  $MU_x = P_x$  Draw the diagram, explain

b) Explain the following properties of indifference Curve:

(i) An indifference curve slopes downwards from the left to the right:

Sol: Prove that an IC cannot be upward sloping. Horizontal or vertical.

(ii) An indifference curve is convex to the origin.

Sol: Prove that If IC is concave,  $MRS_{xy}$  would be rising. If IC is a straight line,  $MRS_{xy}$  will be constant. This is absurd. So IC is convex to the origin, which means  $MRS_{xy}$  diminishes

c) Draw diagram of substitution effect :

Q.2) a) Production function :

1) **Meaning** : production function refers to the functional relationship between physical factor inputs and output of a firm per unit of time.

2) **Equation** : production function :-  $Q = f(N, L, K, E, T)$

3) **Features** :

i) Production is flow concept.

ii) It is expressed in physical terms.

iii) Time element.

iv) The production of a firm depends on the state of technology and inputs.

b) Draw diagram of Law of variable proportions and discuss three phases.

c) Draw diagram and explain.

i) Increasing returns to scale.

ii) Constant returns to scale.

iii) Decreasing returns to scale.

Q.3) a) Social Cost :-

Social cost refers to the cost incurred by the society as a whole in producing the product social cost may be in the form of externalities. The social cost are the sum of private costs and net of economic damages and benefits bestowed upon others.

**Private Cost :-**

Private costs are those which are actually incurred by an individual or firm for its business activity private costs are internal cost of the firm private cost is equal to economic cost.

b) Solution :

Units	TFC	TVC	TC	MC	AFC	AVC	MC
0	145	-	145	-	-	-	-
1	145	30	175	30	145	30	175
2	145	55	200	25	72.5	27.5	100
3	145	75	220	20	48.33	25	73.33
4	145	105	250	30	36.25	26.25	62.5
5	145	155	300	50	29	31	60

6	145	225	370	70	24.17	37.5	61.67
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**c) Draw diagram.**

- AR and MR curves are falling downward sloping (straight line).
- MR curve lies half way between AR curve and Y-axis.
- MR curve lies below the AR curve

**Q.4) a) Competitive Market : meaning :-**

Competitive market (perfect competition) is a market situation where there are a large number of buyers and sellers and single uniform price is ruling for a commodity which is determined by the forces of total demand and total supply.

**Characteristics :-**

- 1) Large number of buyers and sellers.
- 2) Homogeneous goods.
- 3) Complete Market Information.
- 4) No Barriers to Entry.
- 5) No transport costs.
- 6) perfect mobility of factors of production.

**b) Draw diagram.**

- Equilibrium condition =  $LMC = SMC = P = MR$

**c) Consumer Surplus :-**

Draw diagram.

Measurement :- Consumer Surplus = The price consumer is willing to pay (Marginal Utility) – The price which he actually pays. (Market price)

**Q.5) a) Strong ordering :-**

Paul samuelson's theory of 'Revealed preference' is based on strong ordering. If a consumer is faced with a choice of A and B, and he prefers A for B, then under similar conditions, he cannot prefer B for A. hence B remains inferior to A there, consumer's behavior is based on strong ordering. When he clearly and precisely selects A over B.

**Weak ordering :-**

The indifference curve analysis of demand is based on weak ordering form of preference hypothesis Weak – ordering implies the possibility of preference of indifference. The consumer may prefer A to B or B to A or he may be indifferent between A and B.

**b) Cobb – Douglas production function :-**

A production function, which is most popularly used in empirical work, is cobb-Douglas production function. This is because it is the easiest to handle mathematically. The Cobb-Douglas production function takes the form

$$Q = AK^{\beta}L^{\alpha}$$

The important characteristics of this function are :-

- i) Factor intensity.
- ii) The efficiency of production.
- iii) Returns to scale.

c) Derive LAC using SACs

**d) Draw diagram of producer's Surplus.**

For a given price producer surplus is the difference between the price & cost of supply A change in price brings in a changes in producer's surplus.