CBSE Class–12 economics

Important Questions - Micro Economics 03

Production and Costs

VERY SHORT ANSWER QUESTIONS (1 MARK)

Q1. What is meant by production?

Ans. Production means transformation of input into output through specific process.

Q2. What will be the MP when TP is maximum?

Ans. Marginal Product will be zero when Total Product is maximum.

Q3. When there are diminishing returns to a factor, total product always decreases.

Ans. False, as TPP increases at a decreasing rate when there is diminishing returns to a factor.

Q4. TPP increases only when MPP increases.

Ans. False, TPP also increases when MPP decreases but remains positive.

Q5. Increase in TPP always indicates that there are increasing returns to a factor.

Ans. False, TPP increases even when there are diminishing returns to a factor.

Q6. When there are diminishing returns to a factor marginal and total products always fall.

Ans. False, only MPP falls, not TPP. In case of diminishing returns to a factor TPP increase at diminishing rate.

Q7. Calculate MP for the following.

Variable factor unit	0	1	2	3	4	5	6
TP unit	0	5	13	23	28	28	24

Ans. MP: 0 5 8 10 5 0 -4

Q8. Why AFC curve never touches "x" axis though lies very close to x axis?

Ans. Because TFC can never be zero.

Q9. Why AVC and AFC always lie below AC?

Ans. AC is the summation of AVC & AFC so AC always lies above AVC & AFC.

Q10. Why TVC curve start from origin?

Ans. TVC is zero at zero level of output.

Q11. When TVC is zero at zero level of output, what happens to TFC or Why TFC is not zero at zero level of output?

Ans. Fixed cost are to be incurred even at zero level of output.

Q12. Production function shows technical relationship between physical inputs and output of a commodity

1. **Technological relationship between inputs and cost**
2. **Economic relationship between inputs and output**
3. **Technological relationship between inputs and output**
4. **Technological relationship between inputs and price**

Ans. (3)

Q13. In the short run TPP changes with the change in which of the following factors

1) Economic cost
2) Fixed factors
3) All the factors
4) Variable factors

Ans. (4)

Q14. How is TPP derived from MPP?

1) Cumulative addition
2) Cumulative subtraction
3) Cumulative product
4) Cumulative division

Ans. (1)

Q15. The general shape of TPP in the short run is

1) Inverse U shaped
2) U shaped
3) Hyperbola
4) V- shaped

Ans. (1)

SHORT ANSWER QUESTIONS (3/4 Marks)

Q16. What are Returns to a Factor? What do you mean by the Law of Diminishing Returns?

Ans. Returns to a Factor is used to explain the behaviour of physical output as only one factor is allowed to vary and all other factors are kept constant. This is a short-run concept. The law of diminishing returns to a factor states that as the variable factor is allowed to vary (increase), keeping all other factors constant, and the Marginal Product first increases, reaches it is the maximum and then declines and even becomes negative.

Q17. What is change in quantity demanded?

Ans. It is also called movement along a demand curve. Due to change in its own price, quantity of commodity changes.

There are two type of change in quantity of Demand

(a) Extension in Demand

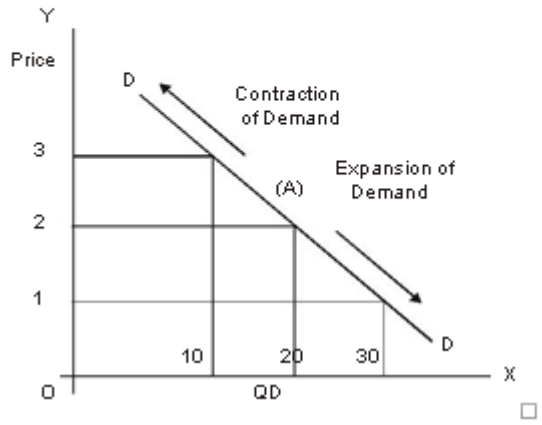
(b) Contraction in Demand

Q18. What is change in demand?

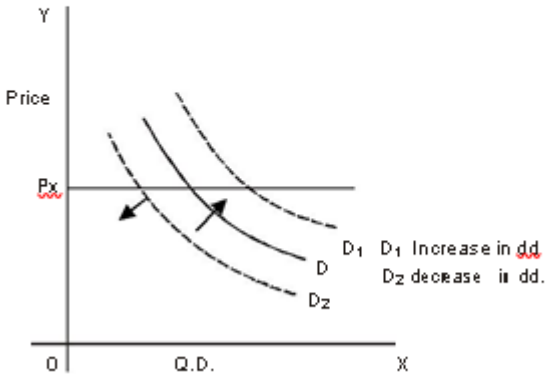
Ans. Change in Demand: - It is also called shift in demand curve. When quantity of commodity change due to change in factor other than price. It has two types-

a) Increase in Demand **b) Decrease in Demand**

Change in Quantity Demanded



Change in Demand



Q19. Define cost concept. What are the different types of costs?

Ans. The expenditure incurred on various inputs is known as the cost of production.

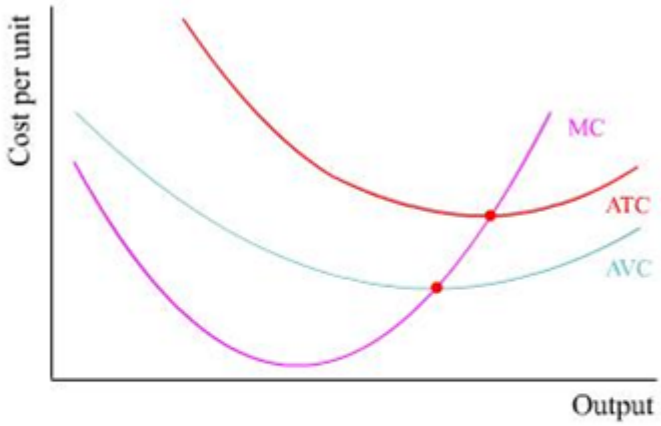
<u>Types of Cost</u>

1. **Money Cost: - Total money expenses by a firm for producing a commodity.**
2. **Explicit Cost and Implicit Cost: - Actual payment made to outsiders is Explicit Cost.**

Cost of self-supplied factors in implicit cost.

3. **Real Cost: - All the pain, sacrifices, discomforts involved in producing factor services to produce commodity.**
4. **Opportunity Cost: - It is the cost of next best alternative foregone.**
5. **Short Run Cost:-**
   I. **Fixed Cost: - Cost of fixed factors.**
   II. **Variable Cost: - Cost of variable factors**

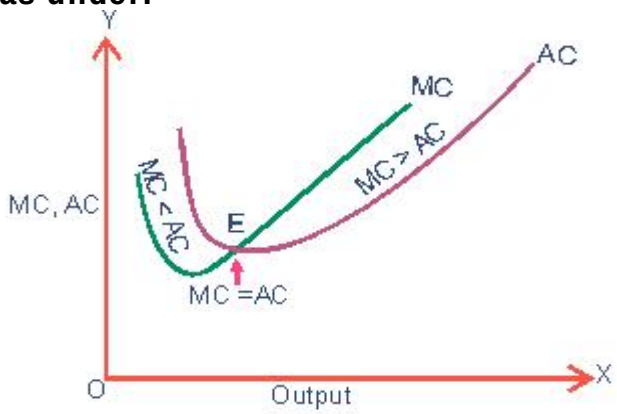
Relationship between AC, MC & AVC



1. When MC is less than AC than AC tends to fall.
2. When MC is equal to AC than AC is minimum.
3. When MC is more than AC than AC tends to increase

Q 20. Explain the relation between AC and MC with the help of a diagram.

Ans. The relation between AC and MC is explained with the help of a diagram as under:



Observations:

(i) When AC declines, MC declines faster than AC. So that MC curve remains below AC curve. Implying that AC > MC. In the figure, AC curve is falling till point E and MC continues to be lower than AC.

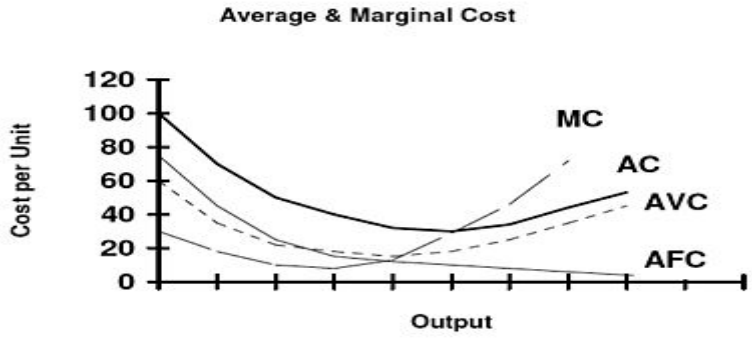
(ii) When AC increases, MC increases faster than AC. So that MC curve is above the AC curve. Implying that AC < MC. In the figure, AC start rising from point E and beyond E, MC is higher than AC.

(iii) MC curve cuts AC curve from its lowest point. When average curve is minimum then MC = AC. In the figure, MC curve is intersecting AC curve at its lowest or minimum point E.

LONG ANSWER QUESTIONS (6 Marks)

Q21. Explain the relation between Marginal Cost and Average Variable Cost with the help of diagram.

Ans. Relationship holding between marginal cost and average variable cost is also one of the many cost relationships. When marginal cost is less than average variable cost, average variable cost is decreasing. On the contrary, when marginal cost is greater than average variable cost, average variable cost is increasing. In some cases, this also means that average variable cost takes on a U-shape, though this is not guaranteed since neither average variable cost nor marginal cost contain a fixed cost component. In business, both the fixed and variable costs are used to determine the cost of production. Marginal costs measure the change in production expenses for making each additional item. Variable costs reflect the materials necessary to manufacture or make each product. As a result, the variable costs directly impact the marginal cost.



Let's take an example, Mary own a bakery and she is considering adding other options to her existing menu along with cakes. Other new stuffs will be sandwiches. But she will need to look at both the variable and marginal costs to determine if it's worth it. She should calculate the average cost of the extra ingredients and labour necessary to make the sandwiches. Then, she will need to use the variable costs and fixed costs to calculate the marginal cost. If the marginal cost associated with a sandwich is too high to bring in profit, the she wouldn't want to bother adding it.

Q22. Explain the determinants of supply?

Ans. Supply is the quantity of a good which is offered for sale at a given price at a particular time. Supply is a desired flow. It measures how much firms are willing to sell and not how much they actually sell. Supply may exceed or fall short of production. Supply in a particular year is the total production plus-minus stocks of the commodity.

Supply function can be expressed as

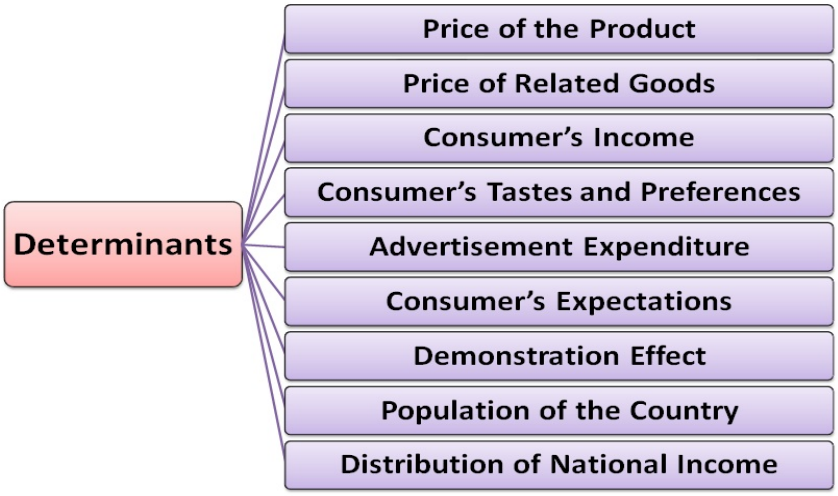
$Sx = f(Px, Pa... Pc, PL... PO, T, Cr, St, O, G)$

Where Px → own price of good x, Pa ... Pc → prices of related goods,

PL ... PO→ prices of inputs, T → time, St → the state of technology,

O → objectives of the firm, and G → taxes, subsidies and regulation.

Determinants of supply can be understood from the diagram below:



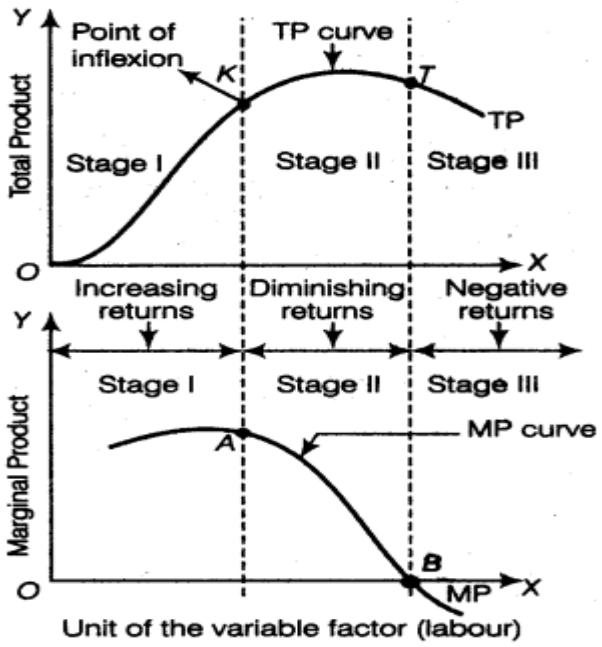
Some of the determinants are explained here:

1. Production cost - Since most private companies' goal is profit maximization. Higher production cost will lower profit, thus hinder supply. Factors affecting production cost are: input prices, wage rate, government regulation and taxes, etc.
2. Technology - Technological improvements help reduce production cost and increase profit, thus stimulate higher supply.
3. Number of sellers - More sellers in the market increase the market supply.
4. Expectation for future prices - If producers expect future price to be higher, they will try to hold on to their inventories and offer the products to the buyers in the future, and thus they can capture the higher price.

Q23. State the behaviour of Marginal product is the Law of Variable Proportions. Explain the causes of this behaviour.

Ans. Law of variable proportion states that the marginal product of the factor input, initially rises with the employment level. But soon it starts falling once it reaches to a certain level of employment.

This law can be well understood from the below diagram:



$AP = TP/Q,\ MP_{nth} = TP_n - TP_{n-1}$

Land (Units)	Labour (Units)	Total Product (TP)	Marginal Product (MP)	Stages
1	1	2	2	Increasing returns
1	2	5	3	
1	3	9	4	
1	4	12	3	Diminishing returns
1	5	14	2	
1	6	15	1	
1	7	15	0	Negative returns
	8	14	-1	

From the above diagram and table, we can jot down observation below:

(i) MP rises till 3rd unit of labour are employed, in this condition TP increases at increasing rate, this condition is called condition of increasing returns.

(ii') With the use of 4th unit of labour, MP starts decreasing and TP increases only at decreasing rate, this condition is called condition of diminishing returns.

(iii) When decreasing MP reduces to zero, Total Product is maximum.

(iv) When marginal product is negative, total products starts declining

Law of variable proportion basically depends on diminishing returns to marginal factor and the causes are imperfect factor sustainability, poor coordination between the factors, etc.