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FIRST MID TERM EXAMINATION ANSWER KEY-2024

GRADE: XI **ECONOMICS** **MARKS: 50**

1.	c)The study of individual economics units behaviour	6.	a)Increasing return to scale
2.	b)Adam smith	7.	d)Implicit
3.	c)200	8.	C)Super normal profit
4.	d)Edge worth	9.	b)Variable
5.	c)Organiser	10.	d) b&c

PART-B

II)ANSWER ANY 4 OF THE FOLLOWING QUESTIONS:

Question number 17 is Compulsory **4X2=8**

11)What is meant by Economics?

- The term or word 'Economics' comes from the Ancient Greek oikonomikos (oikos means "households"; and, nomos means"management", "custom" or "law").
- Thus,the term 'Economics' means 'managementof households'.
- The subject was earlierknown as 'Political Economy', is renamedas 'Economics', in the late 19th century by Alfred Marshall

12)What are Giffen goods? Why?

1. The Giffen good or **inferior good is an exception to the law of demand.**
2. When the price of an **inferior good falls, the poor will buy less and vice versa.**

13)State the production function

"Production function is the relationship between inputs of productive services per unit of time and outputs of product per unit of time."

Q = f (N, L, K, T)

Q = Quantity of output N = Land L = Labour K = Capital T = Technology

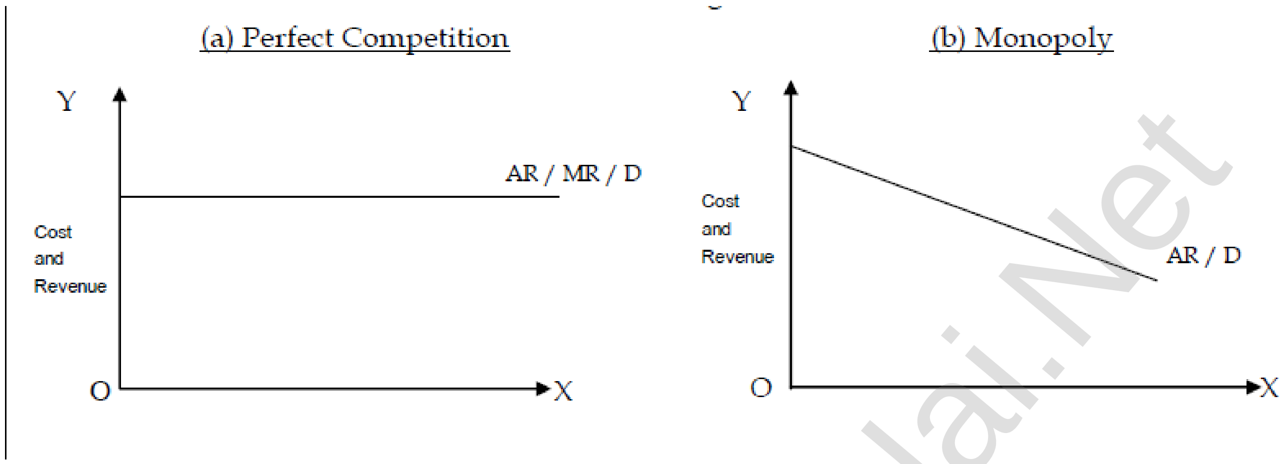
14) What you mean by Fixed cost?

Fixed Cost does not change with the change in the quantity of output.

(ii) In other words, expenses on fixed factors remain unchanged irrespective of the level of output, whether the output is increased or decreased or even it becomes zero.

15)Draw demand curve of a firm for the following

a)perfect competition b)Monopoly



16) What is meant by Sunk cost?

- **A cost incurred in the past and cannot be recovered in future is called as Sunk Cost.**
- **This is historical but irrelevant for future business decisions.**
- **They are unalterable and unrecoverable.**

17) Explain Perfectly Inelastic Demand

PART-C

III)ANSWER ANY OF THE FOLLOWING QUESTIONS: 4X3=12

Q.NO 24IS COMPULSORY.

18)Explain the scarcity definition of Economics and assess it.

Lionel Robbins

"Economics is a science which studies human behaviour as a relationship between ends and scarce means which have alternative uses".

The major features of Robbins‟ definition are:

(a) Ends refer to human wants. Human beings have unlimited number of wants.

(b) Resources or means that go to satisfy the unlimited human wants are limited or scarce in

supply.
(c) Scarce means are capable of having alternative uses.
Criticism
(a) Robbins does not make any distinction between goods conducive to human welfare and goods that are not.
(b) Economics deals not only with the micro-economic aspects but also with the macro - economic aspects like how national income is generated.

19) Define consumer surplus.

Alfred Marshall

- Formula of consumer's surplus
- (i) Consumer's surplus = What a person is willing to pay – What he actually pays.
- Consumer's surplus = Potential price – Actual price.
- (ii) Mathematically Consumer's surplus = TU – (P × Q)
- Where, TU = Total Utility P = Price Q = Quantity of the commodity

20)State and explain the elasticity of supply

Elasticity of supply may be defined as the degree of responsiveness of change in supply to change in price on the part of sellers.
(ii) It is mathematically expressed as:
Elasticity of supply =Proportionate change in supply/Proportionate change in price
$e_s = \Delta Q_s / \Delta P_s \times P/Q$

Where Q_s - Supply P - Price Δ - Change

21)State the difference between Money cost and real cost

Money cost	Real cost
Production cost expressed in money terms is called as money cost.	Real cost refers to the payment made to compensate the efforts and sacrifices of all factor owners for their services in production.
Money cost includes the expenditures such as cost of raw materials, payment of wages and salaries, payment of rent, interest on capital, expenses on fuel and power and expenses on transportation.	It includes the efforts and sacrifices of landlords in the use of land, capitalists to save and invest, and workers in foregoing leisure.
Money costs are also called as Prime Cost or Direct Cost or Nominal Cost or Accounting Cost or Explicit Cost or Out of Pocket Cost, suiting to context.	Adam Smith regarded pains and sacrifices of labour as real cost of production.

22)What are the features of a Market?

- Buyers and sellers of a commodity or a service
- A commodity to be bought and sold
- Price agreeable to buyer and seller

- Direct or indirect exchange

23)Write a short note on Marginal Revenue

- Marginal revenue (MR) is the addition to the total revenue by the sale of an additional unit of a commodity.
- MR can be found out by dividing change in total revenue by the change in quantity sold out.
- MR denotes Marginal Revenue ΔTR denotes change in Total Revenue
- ΔQ denotes change in total quantity
- The other method of estimating MR is:

MR = TRn – TRn-1 **(or)** TR n+1 – TRn
Where, MR denotes Marginal Revenue
TRn denotes total revenue of nth item
TRn-1 denotes Total Revenue of n-1th item
TRn+1 denotes Total Revenue of n+1th item
If TR = PQ MR = ΔTR/ΔQ = P, which is equal to AR.

24) State and explain the cross elasticity of demand.

The cross elasticity of demand refers to the percentage change in quantity demanded for one commodity as a result of a small change in the price of another commodity. This type of elasticity usually arises in the case of the interrelated goods such as substitutes and complementary goods. The cross elasticity of demand for goods X and Y can be expressed as:
E_c _Proportion chane in demandof Commodity X/ Proportion chaneg in price of Commodity Y

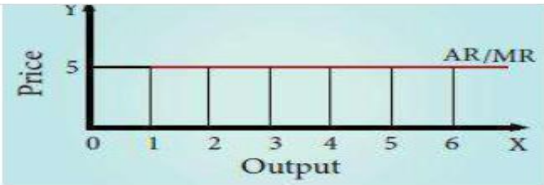
PART-D

IV.ANSWER ALL THE QUESTIONS: 4X5=20

25) Bring out the relationship between AR and MR curves under various price conditions.

If a firm is able to sell additional units at the same price then AR and MR will be constant and equal.
★ If the firm is able to sell additional units only by reducing the price, then both AR and MR will fall and be different.
Constant AR and MR (at Fixed Price)
(i) When price remains constant or fixed, the MR will be also constant and will coincide with AR.
(ii) Under perfect competition as the price is uniform and fixed, AR is equal to MR and their shape will be a straight line horizontal to X axis.

Quantity Sold (Q)	Price (P) ₹	Total Revenue (TR) ₹	Average Revenue (AR) ₹	Marginal Revenue (MR) ₹
1	5	5	5	5
2	5	10	5	5
3	5	15	5	5
4	5	20	5	5
5	5	25	5	5
6	5	30	5	5



Declining AR and MR (at Declining Price)

Diagram

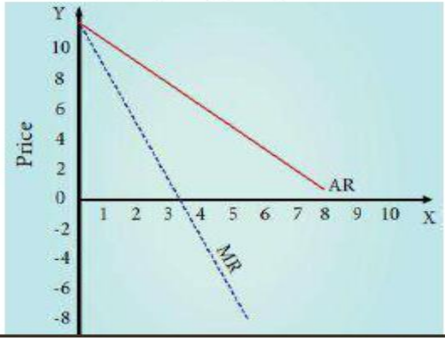


Table - AR, TR, MR at declining price

Quantity Sold (Q)	Price (P) / Average Revenue (AR) ₹	Total Revenue (TR) ₹	Marginal Revenue (MR) ₹
1	10	10	-
2	9	18	8
3	8	24	6
4	7	28	4
5	6	30	2
6	5	30	0
7	4	28	-2
8	3	24	-4
9	2	18	-6
10	1	10	-8

Explanation

- ❖ When a firm sells large quantities at lower prices both AR and MR will fall but the fall in
- ❖ MR will be more steeper than the fall in the AR.
- ❖ It is to be noted that MR will be lower than AR.
- ❖ Both AR and MR will be sloping downwards straight from left to right.
- ❖ The MR curve divides the distance between AR Curve and Y axis into two equal parts.
- ❖ The decline in AR need not be a straight line or linear.
- ❖ If the prices are declining with the increase in quantity sold, the AR can be non-linear, taking a shape of concave or convex to the origin.

25)b)Explain the law of demand and its exceptions

Definition - Marshall

- ❖ **The Law of Demand says as "the quantity demanded increases with a fall in price and diminishes with a rise in price".**

Assumptions of Law of Demand

(i) The income of the consumer remains constant.

(ii) The taste, habit and preference of the consumer remain the same.

(iii) The prices of other related goods should not change.

(iv) There should be no substitutes for the commodity in study.

(v) The demand for the commodity must be continuous.

(vi) There should not be any change in the quality of the commodity.

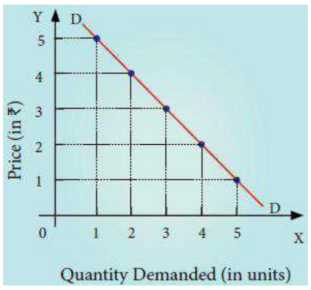
Demand Schedule Schedule Explanation

Price	Quantity Demanded (Units)
5	1
4	2
3	3
2	4
1	5

(i) The law of demand explains the relationship between the price of a commodity and the quantity demanded of it.

(ii) This law states that quantity demanded of a commodity expands with a fall in price and contracts with a rise in price.

(iii) The law of demand states that there is an inverse relationship between the price and the quantity demanded of a commodity.



Law of Demand Diagram Diagram Explanation

(i) X axis represents the quantity demanded and Y axis represents the price of the commodity.

(ii) DD is the demand curve, which has a negative slope i.e., slope downward from left to right which indicates that when price falls, the demand expands and when price rises, the demand contracts.

26)a) Examine the law of Variable proportions with the help of a diagram

G.Stigler

★ "As equal increments of one input are added, the inputs of other productive services being held constant, beyond a certain point, the resulting increments of product will decrease, i.e., the marginal product will diminish".

Assumptions

(i) Only one factor is variable while others are held constant.
(ii) All units of the variable factor are homogeneous.
(iii) The product is measured in physical units.
(iv) There is no change in the state of technology.
(v) There is no change in the price of the product.

Table - Stages of Production Diagram

Table & Diagram Explanation

Stage - I

⇨ MPL increases up to third labourer and it is higher than the average product.

⇨ So that total product is increasing at an increasing rate.

Stage - II

⇨ **MPL decreases up to sixth unit of labour where MPL curve intersects the X - axis.**

⇨ **At fourth unit of labor MPL = APL.**

⇨ **After this, MPL curve is lower than the APL.**

⇨ **TPL increases at a decreasing rate.**

Stage - III

⇨ **The sixth unit of labour is marked by negative MPL , the APL continues to fall but remains positive.**

⇨ **After the sixth unit, TPL declines with the employment of more units of variable factor, labour.**

26)b) Bring out the features of perfect competition.

(i) Large Number of Buyers and Sellers

⇨ A large number of buyers" implies that each individual buyer buys a very, very small
quantum of a product as compared to that found in the market.

⇨ The term, „large number of sellers" implies that share of each individual seller is a very, very small quantum of a product.

(ii) Homogeneous Product and Uniform Price

⇨ The product sold and bought is homogeneous in nature, in the sense that the units of the product are perfectly substitutable.

⇨ All the units of the product are identical.

⇨ Therefore, a uniform price prevails in the market.

(iii) Free Entry and Exit

⇨ In the short run, it is possible for the very efficient producer, producing the product at a very low cost, to earn super normal profits.

⇨ Attracted by such a profit, new firms enter into the industry.

⇨ An inefficient producer, who is unable to bring down the cost incurs loss.

⇨ The loss-incurring firms quit the market.

(iv) Absence of Transport Cost

⇨ The prevalence of the uniform price is also due to the absence of the transport cost.

(v) Perfect Mobility of Factors of Production

⇨ The prevalence of the uniform price is also due to the perfect mobility of the factors of production.

⇨ As they enjoy perfect freedom to move from one place to another and from one occupation to another, the price gets adjusted.

(vi) Perfect Knowledge of the Market

⇨ All buyers and sellers have a thorough knowledge of the quality of the product, prevailing price etc.

(vii) No Government Intervention

⇨ There is no government regulation on supply of raw materials, and in the determination of price etc.

27)a) If Total cost =10+Q^3 , Find out AC,AVC,TFC, AFC when Q=5

Formula

(i) Total Cost

TC = TFC + TVC

(ii) Average Variable Cost

AVC =TVC/Q

(iii) Average Fixed Cost

AFC =TFC/Q

(iv) Average Cost

AC =TC/Q

Solutions

(i) Total Cost

TC = 10 + Q3 TC = 10 + 125 TC = 135

(ii) Total Variable Cost

135 = 10 + TVC 135 – 10 = TVC TVC = 125

(iii) Total Fixed Cost 135 – 125 = 10

(iv) Average Fixed Cost

AFC =TFC/Q AFC =10/5= 2

(v) Average Variable Cost

AVC =TVC/Q AVC =125/5 = 5 Q = 5

AVC = 25

(vi) Average Cost

AC =TC/Q AC =135/5= 27

b)Compare and contrast various definitions of Economics.

I. Wealth Definition - Adam Smith

Adam Smith in his book "An Inquiry into Nature and Causes of Wealth of Nations" (1776) defines "Economics as the science of wealth".

Criticism

(i) For Smith, Economics consists of „wealth-getting‟ activities and „wealth-spending‟ activities.

(ii) An undue emphasis is given to material wealth.

(iii) This view leads him to ignore human welfare as an essential part of Economics.

(iv) Ruskin and Carlyle regards Economics as a „dismal science‟, as it teaches selfishness which is against ethics.

II. Welfare Definition - Alfred Marshall

Alfred Marshall in his book "Principles of Economics" (1890) defines Economics thus:

"Political Economy" or Economics is a study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of well-being.

- Thus, it is on one side a study of wealth; and on the other, and more important side, a part of the study of man."

Criticism

(i) Marshall regards only material things.

(ii) He does not consider immaterial things.

(iii) Marshall‟s definition is based on the concept of welfare. But it is not clearly defined.

(iv) The welfare of an individual or nation is dependent not only on the stock of wealth possessed but also on political, social and cultural activities of the nation.

III. Scarcity Definition - Lionel Robbins

Lionel Robbins published a book “An Essay on the Nature and Significance of Economic Science” in 1932.
According to him, “Economics is a science which studies human behaviour as a relationship between ends and scarce means which have alternative uses”.
Criticism

(i) Robbins does not make any distinction between goods conducive to human welfare and goods that are not.
(ii) Economics deals not only with the micro-economic aspects of resource-allocation but also with the macro-economic aspects like how national income is generated.
(iii) Robbins‟ definition does not cover the theory of economic growth and development.

IV. Growth Definition - Samuelson
Paul Samuelson published a book "An Intradictory Analysis" in 1948.
He defines Economics as “the study of how men and society choose, with or without the use of money, to employ scarce productive resources which could have alternative uses, to produce various commodities over time, and distribute them for consumption, now and in the future among various people and groups of society”.
Criticism
(i) Like Robbins, Samuelson states that the means are scarce in relation to unlimited ends and that such means could be put to alternative uses.
(ii) Samuelson makes his definition dynamic by including the element of time in it.
(iii) Samuelson‟s definition is applicable also in a barter economy, where money is not used.

28)a)Elucidate the law of diminishing marginal Utility with a diagram Definition - Marshall

The law as, “the additional benefit which a person derives from a given increase of his stock of a thing, diminishes with every increase in the stock that he already has”.

Assumptions

(i) Utility can be measured by cardinal numbers.
(ii) The marginal utility of money of the consumer remains constant.
(iii) The consumer should be a rational consumer.
(iv) The units of the commodity consumed must be reasonable in size.
(v) The commodity consumed should be homogeneous or uniform in character.
(vi) The consumption of goods must take place continuously at a given period of time.
(vii) No change in the taste, habits, preferences, fashions, income and character of the consumer during the process of consumption.

Explanation

- **The Law of Diminishing Marginal Utility states that if a consumer continues to consume more and more units of the same commodity, its marginal utility diminishes.**

Illustration

- **The law can be explained with a simple illustration.**

(i) Suppose a consumer wants to consume 7 apples one after another.
(ii) The utility from the first apple is 20.
(iii) But the utility from the second apple will be less than that of the first (say 15), the third less than that of the second (say 10) and so on.

(iv) Finally, the utility from the fifth apple becomes zero and the utilities from sixth and seventh apples are negative (or disutility or disliking).

(v) This tendency is called the "The Law of Diminishing Marginal Utility'.

Table Diagram

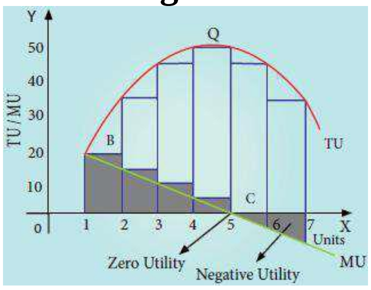


Diagram Explanation

(i) We find that the total utility goes on increasing but at a diminishing rate.

(ii) On the other hand, marginal utility goes on diminishing.

(iii) When marginal utility becomes zero, the total utility is maximum and when marginal utility becomes negative, the total utility diminishes.

Criticism

(i) Utility cannot be measured numerically, because utility is subjective.

(ii) This law is based on the unrealistic assumptions.

(iii) This law is not applicable to indivisible commodities.

b)Explain basic problems of the economy with the help of production possibility curve

Production Possibility Curve

★ The problem of choice between relatively scarce commodities due to limited productive resources with the society can be illustrated with the help of a geometric device, is known as production possibility curve.

Assumptions

(i) The time period does not change. It remains the same throughout the curve.

(ii) Techniques of production are fixed.

(iii) There is full employment in the economy.

(iv) Only two goods can be produced from the given resources.

(v) Resources of production are fully mobile.

(vi) The factors of production are given in quantity and quality.

(vii) The law of diminishing returns operates in production.

possibilities	production in tons	production
I	0	25
II	100	23
III	200	20
IV	300	15
V	400	8
VI	500	0

are thrown into the production of food, a maximum of 500 tons of food can be produced, given the existing technology.

(ii) If on the other hand, all resources are instead used for producing cars, 25 cars can be produced.

(iii) In between these two extreme possibilities exist.

(iv) If we are willing to give up some food, we can have some cars.

Production possibilities Diagram

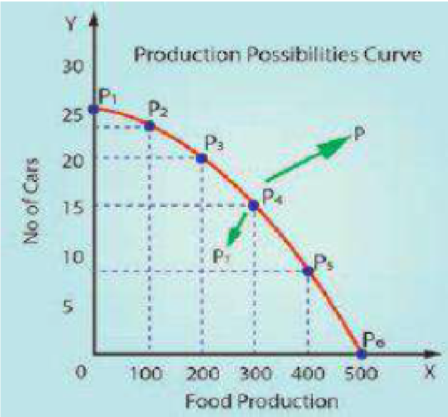


Diagram Explanation

(i) The quantity of food is shown on X - axis and the number of cars is shown on Y - axis.

(ii) The different six production possibilities are being shown as point P_1 P_2 P_3 P_4 P_5 & P_6.

(iii) Production possibility curve P_1 to P_6.

(iv) This shows the locus of points of the different possibilities of production of two commodities, which a firm or an economy can produce, with the help of given resources and the techniques of production.

(v) Points lying inside the curve like P_6 are attainable by the society but at these points resources production are not fully employed.

Shift of production possibility curve

❖ The PPC shifts upward or downward due to:

(i) The change in the supply of productive resources.

(ii) The change in the state of technology.