

MARCH - 2017

[Time : 3 hours]

ECONOMICS [XII] (With key)

[Marks : 200]

PART - A

Note : Answer all the questions.

I. Choose the most suitable answer from the given four alternatives and write the option code and the corresponding answer: $14 \times 1 = 14$

1. The author of wealth definition is:
(a) Samuelson (b) Alfred Marshall
(c) Adam Smith (d) Lionel Robbins
2. Red tapism and Corruption lead to :
(a) Inefficiency of Production
(b) Inequality of income and wealth
(c) Absence of technology
(d) Efficient Use of resources.
3. Single commodity consumption mode is :
(a) Production possibility curve
(b) Law of equimarginal utility
(c) Law of supply
(d) Law of diminishing marginal utility
4. Demand for a commodity depends on :
(a) Price of that commodity
(b) Price of related goods
(c) Income
(d) All the above
5. The degree of response of demand to change in price is :
(a) Income elasticity of demand
(b) Cross-elasticity of demand
(c) Price elasticity of demand
(d) All the above
6. The time element in price analysis was introduced by :
(a) J.R. Hicks (b) J.M. Keynes
(c) Alfred Marshall (d) J.S. Mill
7. The initial supply price of land is :
(a) Zero (b) Greater than one
(c) Less than one (d) Equal to one
8. Average variable cost is obtained by dividing :
(a) TC/Q (b) TFC/Q
(c) TVC/Q (d) None
9. Under perfect competition, the demand curve is :
(a) upward sloping (b) horizontal
(c) downward sloping
(d) vertical
10. The demand for labour is :
(a) effective demand (b) direct demand
(c) derived demand (d) elastic demand
11. The classical theory assumed the existence of :
(a) Unemployment
(b) Disguised unemployment
(c) Full employment
(d) Under-employment
12. The marginal propensity to save is :
(a) $\frac{\Delta S}{\Delta Y}$ (b) $\frac{\Delta C}{\Delta Y}$
(c) $\frac{\Delta P}{\Delta Q}$ (d) $\frac{C}{Y}$
13. During inflation :
(a) businessmen gain
(b) wage earners gain
(c) salaried people gain
(d) rentiers gain

14. Tax revenue deals with the :
 (a) Fees (b) Kinds of taxes
 (c) Revenue (d) Non tax revenue

II. Fill in the blanks with suitable answers :
12 × 1 = 12

15. Production refers to the creation of _____.
 16. Most of the economic activities of capitalism are centered on _____.
 17. Wants may be both _____ and _____.
 18. Adding up of individual consumers schedule is _____.
 19. _____ is the major determinant of supply.
 20. _____ is man-made physical goods used to produce other goods.
 21. The distinction between the fixed and variable factors is possible only in _____.
 22. Monopoly power achieved through patent right is called _____.
 23. Marginal Productivity Theory is based on the assumption of _____ competition.
 24. _____ refers to the cash holdings of the people.
 25. The direct exchange of goods for goods is known as _____.
 26. _____ tax is a blend of progressive tax and proportional tax.

III. Match the following : **12 × 1 = 12**

27. Wealth (a) Veblen effect
 28. Market forces (b) Prof. Schumpeter
 29. Maximum Social Advantage (c) C+I+G+(X-M)
 30. Positive relationship of price and demand (c) Diamond
 31. Long period supply curve (e) Tax rate decreases
 32. Entrepreneur, an innovator (f) Clark
 33. Average cost (g) Stock

34. South Africa (h) Cost per unit
 35. Dynamic theory of profit (i) Purchasing power of money
 36. Aggregate demand (j) Hicks and Dalton
 37. Value of money (k) More elastic
 38. Regressive tax (l) Supply, demand and price

IV. Answer each of the following questions in a word or two : **12 × 1 = 12**

39. What is the other name for Economics?
 40. What is the result of over-production?
 41. What is Indifference Curve?
 42. When the demand for labour is inelastic, can a trade union raise wages?
 43. Give an example for fixed input.
 44. Give the condition for producers equilibrium?
 45. What is an envelope curve?
 46. What is the essential feature of monopolistic competition?
 47. Who is the author of Agio Theory of Interest?
 48. Who is the author of the "General Theory of Employment, Interest and Money"?
 49. Name the bank which controls money supply in a country.
 50. What is public debt?

PART - B

V. Note : (i) Answer **any ten** of the following questions. **10 × 3 = 30**

(ii) Answer for each question should be about **four** or **five** lines.

51. Describe the relationship between Economics, Mathematics and Statistics?
 52. Name the important general economic systems.
 53. What is Opportunity Cost?
 54. What are the classifications of goods?
 55. Why does the demand curve slope downwards?
 56. What is equilibrium price?

57. Differentiate the short period from the long period?
58. What is meant by division of labour?
59. What are the forms of capital?
60. Mention the relationship between MC and AC.
61. What are economic costs?
62. Distinguish between real wages and money wages.
63. What are the three motives of Liquidity Preference Theory?
64. What is stagflation?
65. What are the canons of taxation?

PART - C

- VI. Note :** (i) Answer **any six** of the following questions.
 (ii) Answer for each question should be about **a page**. $6 \times 10 = 60$
66. What are the merits and demerits of mixed economy?
 67. Explain the shift in supply with diagram.
 68. What are the functions of entrepreneur?
 69. Explain the short run average cost curves.
 70. Explain Marginal cost with suitable illustration.

71. Explain the features of perfect competition.
72. What are the criticisms of Say's Law? **[any ten]**
73. What are the determinants of consumption other than income?
74. Define Budget. Explain the balanced and unbalanced budget?
75. Differentiate between the direct and indirect taxes.

PART - D

VII. Note : (i) Answer **any three** of the following questions.

(ii) Answer for each question should be about **three** pages.

$3 \times 20 = 60$

76. Discuss the nature and scope of economics?
77. What is indifference curve map? Explain the properties of indifference curve with diagrams.
78. Explain the methods of measurement of price elasticity demand in detail.
79. Explain the price and output determination under monopoly.
80. Examine Ricardian Theory of Rent.
81. Describe the functions of money.



ANSWERS

- I.**
1. (c) Adam Smith
 2. (a) Inefficiency of Production
 3. (d) Law of diminishing marginal utility
 4. (d) All the above
 5. (c) Price elasticity of demand
 6. (c) Alfred Marshall
 7. (a) Zero
 8. (c) TVC/Q
 9. (b) horizontal
 10. (c) derived demand
 11. (c) Full employment

12. (b) $\frac{\Delta C}{\Delta Y}$
 13. (a) businessmen gain
 14. (b) Kinds of taxes
- II.**
15. wealth and utilities
 16. Price mechanism
 17. competitive and complementary
 18. market demand schedule
 19. Price
 20. Capital

21. short run
 22. Legal Monopoly
 23. perfect
 24. Liquidity Preference
 25. barter
 26. Digressive
- III. 27. (g) 28. (l) 29. (j)
 30. (a) 31. (k) 32. (b)
 33. (h) 34. (d) 35. (f)
 36. (c) 37. (i) 38. (e)
- IV. 39. Political economy
 40. Depression
 41. Locus of different Combinations of two Commodities
 42. Yes
 43. Heavy machinery / building / capital equipment
 44. $MRTS_{xy} = \frac{px}{py}$
 45. It is a group of short run cost curves/ planning curve
 46. Product differentiation
 47. Bohm-Bawerk
 48. Keynes
 49. Central bank
 50. Borrowing from the public

PART - B

- V.
51. 1. Economics is related to mathematics & statistics. Statistics is the science of average and counting.
 2. In economics, statistics helps to make tables and diagrams for statistical analysis.
 3. In Modern economics, statistics and mathematical methods were called as Econometrics.
52. The most important general economic systems are
1. Traditional Economy.
 2. Capitalist Economy.
 3. Socialist Economy.
 4. Mixed Economy.

53. 1. The “opportunity cost” is the cost of something in terms of opportunity forgone.
 2. The opportunity cost of an action is the value of next best alternative forgone.
 3. It is a key difference between accounting cost and economic cost.
54. • Necessaries
 • Comforts
 • Luxuries
55. • The demand curve slopes downwards mainly due to the Law of diminishing marginal utility.
 • The Law of DMU states that an additional unit of a commodity gives a lesser satisfaction.
 • Therefore, the consumer will buy more goods only at a lower price when price increases demand decline.
 • This effects is known as substitution effect.
56. • There is only one price at which the preference of sellers and buyers meet together.
 • At the point of intersection of the demand and supply curve.
 • Demand is equal to supply.
 • Price is stable.

57.

Short period	Long period
(a) Short period at least one factor is fixed	(a) Long period all the factors are variable
(b) Supply is inelastic	(b) Supply is more elastic
(c) Demand determines the price	(c) Supply determines the price

58. • Division of labour was introduced by Adam Smith.
 • It means dividing process of production into distinct and several component.
 • Processes and assigning each component in the hands of Labour or a set of Labourers who are specialists in the particular process.
 • Division of Labour is limited by the extent of market.

59. • Physical capital or Material Resources
• Money Capital or monetary Resources
• Human Capital or Human Resources
60. • When marginal cost is less than average cost, average cost is falling.
• When marginal cost is greater than the average cost, average cost is rising
• The marginal cost curve must cut the average cost curve at AC's minimum point from below.
61. • The economic cost includes both explicit and implicit cost
• The money rewards for the own services of the entrepreneur and the factors owned by himself and employed in production are known as implicit costs or imputed cost.

Economic cost = implicit cost + explicit cost

62.

Money Wages	Real Wages
(i) Money wages are also known as nominal wages.	(i) Real wages refer to the commodities and services.
(ii) Depend upon the purchasing power of money.	(ii) Depend upon the standard of living of workers in a country.

63. • Transaction motive
• Precautionary motive
• Speculative motive
64. Since 1970s the world has been facing the problem of stagflation and lack of demand on the one hand and inflation on the other is called Stagflation. In the case of stagflation, both monetary policy and fiscal policy are found to be ineffective.
65. (a) Canon of equity
(b) Canon of certainty
(c) Canon of convenience
(d) Canon of economy

PART - C**VI.****66. Merits:****(i) Efficient resource utilization :**

1. The resources are utilized efficiently as good features of both capitalism and socialism coexist.
2. If there is misallocation of resources, the State controls and regulates it.

(ii) Prices are Administered :

1. In the case of goods which are scarce the prices are administered by the government.
2. The prices are not fixed always by forces of demand and supply.

(iii) Social welfare :

1. There is overall welfare due to centralized planning.
2. workers are given incentives and rewards for any innovation.
3. Inequalities of income and wealth are reduced.

Demerits:**(i) Lack of Co-ordination of mixed economy :**

1. Poor co-ordination between the public and private sectors.
2. Lack of co-ordination is due to the private sector which dislikes any restriction imposed on it by the government.

(ii) Red –tapism and delay by Public Sector :

1. There is too much of red-tapism and corruptions leading to delays in decision making and project implementation.

(iii) Economic fluctuations :

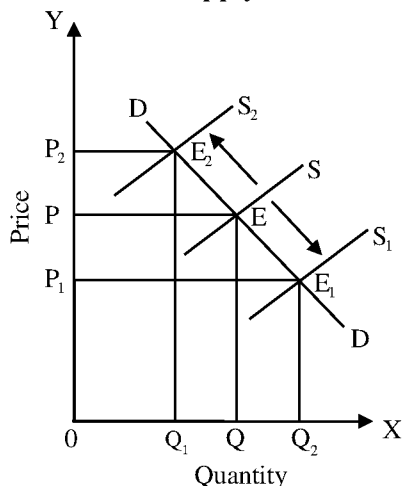
1. The lack of policy co-ordination between private and public sector results in economic fluctuations.
2. The mixed economies experience economic fluctuations.

67. Shifts in supply:

- The supply curve shows the relationship between the price and quantity supplied keeping the 'other things' constant.

- The 'other things' which affect supply include number of sellers in the market, factor prices etc.

Shift in supply curve



- X axis represents Quantity.
- Y axis represents price.
- The shift of supply curve from its original level of S to new level of S₁.
- An Increase in factor price will increase the cost of production and supply curve will shift from S to S₂.
- Equilibrium point also moves from E to E₁ or E₂ respectively.

68. Identifying Profitable Investible opportunities:

- Conceiving a new and most promising and profitable idea or capturing a new idea available in the market.

Deciding the size of unit of production :

- An entrepreneur has to decide the size of the unit – whether big or small depending upon the nature of the product.

Deciding the location of the production unit :

- A rational entrepreneur will always locate his unit of production nearer to both factor market and the end use market.

Identifying the optimum combination of factors of production :

- He decides in what combinations he should combine these factors so that maximum output is produced at minimum cost.

Making innovations :

- According to Schumpeter, basically an entrepreneur is an innovator of new markets and new techniques of production.

Deciding the reward payment :

- The factors used in production have to be rewarded on the basis of their productivity.
- Reward is the crucial function of an entrepreneur.

Taking Risks and facing uncertainties :

- According to Hawley, a business is nothing but a bundle of risks.
- One who is ready to accept risk becomes a successful entrepreneur.
- According to Knight one of the important functions of entrepreneur is uncertainty bearing.

69. Short run average cost curves.

Average Fixed Cost (AFC)

- The average fixed cost is the fixed cost per unit of output.
- It is obtained by dividing the total fixed cost by the number of units of the commodity produced.

$$AFC = \frac{TFC}{Q}$$

Where AFC = Average Fixed Cost

TFC = Total Fixed Cost

Q = Number of units of output produced

- Suppose for a firm the total fixed cost is Rs. 2000 when output is 100 units, AFC will be Rs. 2000/100 = Rs. 20

Average Variable Cost (AVC):-

- Average variable cost is the variable cost per unit of output.
- It is the total variable cost divided by the number of units of output produced
- Average cost is the cost per unit of output produced.

$$AVC = \frac{TVC}{Q}$$

Where AVC = Average Variable Cost

TVC = Total Variable Cost

Q = Number of units of output produced.

- Average variable cost curve is 'U' shaped
- As the output increases the AVC will fall up to normal capacity output due to the operation of increasing returns.

Average total cost or Average cost.

- Average total cost is simply called average cost which is the total cost divided by the number of units of output produced.

$$AC = \frac{TC}{Q}$$

Where AC = Average Cost

TC = Total Cost

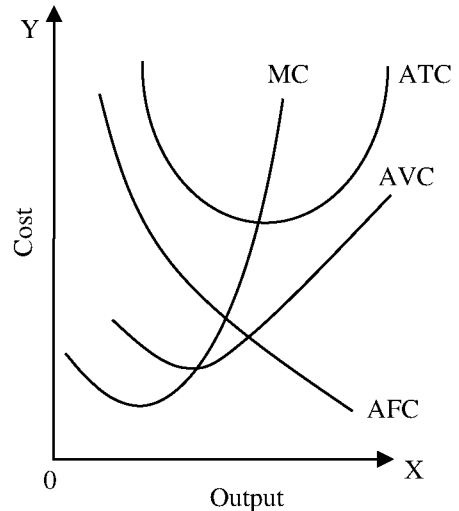
Q = Number of units of output produced.

- Average cost is the sum of average fixed cost and average variable cost i.e.

$$AC = AFC + AVC$$

Units of output	TFC	TVC	TC	AFC	AVC	AC
1	2	3	2 + 3	2/1	3/1	5 + 6
1	2	3	4	5	5	7
0	120	0	120	-	0	-
1	120	100	220	120	100	220
2	120	160	280	60	80	140
3	120	210	330	40	70	110
4	120	240	360	30	60	90
5	120	400	520	24	80	104
6	120	540	660	20	90	110
7	120	700	820	17.14	100	117.14
8	120	880	1000	15	110	125

Short run average cost curve



70. Marginal cost

- Marginal cost is defined as the addition made to the total cost by the production of one additional unit of output.

Output (Unit)	Total Cost (Rs.)	Marginal Cost (Rs.)
0	200	-
1	300	100
2	390	90
3	470	80
4	570	100
5	690	120
6	820	130
7	955	135
8	1100	145

For Example:

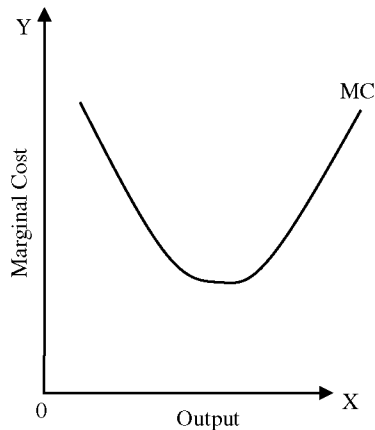
- The total cost of producing 99 units is Rs. 9000 and the total cost of producing 100 units is Rs. 10,000 then the marginal cost will be Rs. 10,000 - Rs. 9000 = Rs. 1000

$$MC_n = TC_n - TC_{n-1}$$

MC_n = Marginal cost

TC_n = Total cost at producing n units

TC_{n-1} = Total cost of producing n - 1 units



- The marginal cost curve is 'U' shaped.
- The shape of MC is determined by law of variable proportions.
- If increasing returns (economies of scale) is in operation, the marginal cost curve will be declining.
- The diminishing returns (diseconomies of scale) are in operation, the MC curve will be increasing as it is the situation of increasing cost.

71. (a) **Large number of buyers and sellers:**

1. There are a large number of buyers and sellers in a perfect competitive market that neither a single buyer nor a single seller can influence the price.
2. The price is determined by market forces namely the demand for and the supply of the product.
3. There will be uniform price in the market.
4. Sellers accept this price and adjust the quantity produced to maximise their profit
5. The sellers in the perfect competitive market are price-takers and quantity adjusters.

(b) **Homogeneous Product:**

1. The product must be homogeneous and identical in all respects i.e the products are same in size, taste, etc.

2. The products of different firms are perfect substitutes and the cross-elasticity is infinite.

(c) **Perfect knowledge about market conditions:**

1. Both buyers and sellers are fully aware of the current price in the market.
2. The buyer will not offer high price and the sellers will not accept to give low price.

(d) **Free entry and Free exit**

1. There must be complete freedom for the entry of new firms or the exit of the existing firms from the industry.
2. When the existing firms are earning super normal profits, new firms enter into the market. When there is loss in the industry, some firms leave the industry.

(e) **Perfect mobility of factors of production:**

Factors of productions should be free to move from one use to another or from one industry to another easily to get better remuneration.

(f) **Absence of transport cost:**

1. In a perfectly competitive market, it is assumed that there are no transport costs.
2. If transport cost is incurred, the firms nearer to the market will charge a low price than the firms far away.

(g) **Absence of Government artificial collusions:**

1. There are no government controls or restrictions on supply, pricing etc.
2. There is also no collusion among buyers or sellers

72. **Criticism of Say's Law:-**

The main points of criticism of the law are:

1. Great Depression made Say's law unpopular.

2. All incomes earned are not always spend on consumption.
3. Similarly whatever is saved is not automatically invested.
4. The law was based on wrong analysis of market.
5. It suffers from the fallacy of aggregation.
6. Aggregate supply and aggregate demand are not always equal.
7. Rate of interest is not the equilibrating factor.
8. Capitalist system is not self-adjusting always.
9. Perfect competition is an unrealistic assumption.
10. Money is a dominant force in the economy.

73. **Other Determinants of Consumption :**

1. Income distribution
2. Size and nature of wealth distribution
3. Age distribution of population
4. Inflation or price level
5. Government policies
6. Rate of interest
7. Expectations about price, income, etc.
8. Advertisements
9. Improvement in the living standard
10. Changes in cultural values

74. **Definition of a Budget:**

Prof. Dimock says, "A budget is a balanced estimate of expenditures and receipts for a given period of time. In the hands of the administration, the budget is record of past performance, a method of current control and projection of future plans".

(a) **Balanced Budget :** A balanced budget is that over a period of time, revenue does not fall short of expenditure. In other words government budget is said to be balanced when its tax revenue and expenditure are equal.

(b) **Unbalanced Budget :** Unbalance budget is that over a period of time, revenue exceeds expenditure (Surplus) or expenditure exceeds revenue (Deficit budget).

(i) Surplus Budget

(ii) Deficit Budget

(i) **Surplus Budget:** When there is an excess of income over expenditure. It is called as surplus budget.

(ii) **Deficit budget:** When there is an excess of expenditure over income. It is a case of deficit budget.

75. **Direct tax**

1. Taxes on income.
2. Taxes imposed on one person and collected from the same person.
3. Impact and incidence of the tax fall on the same person.
4. Tax cannot be shifted.
5. The burden of the tax is borne by the person on whom it is levied.
6. This tax paid by the rich.
7. Tax evasion is impossible.
8. Examples: Income tax, wealth tax, corporate tax, gift tax, estate duty, expenditure tax etc.

Indirect tax :

1. Taxes on commodities and services.
2. Taxes imposed on one person and collected from the another person.
3. Impact of tax is fall on one person and incidence of the tax fall on the another person.
4. Tax can be shifted.
5. The burden of the tax is borne by ultimate consumer. This tax paid by the poor.
6. Tax evasion is possible.
Examples: Excise duty, custom duties, sales tax etc.

PART - D**VII.****76. Nature of Economics:-**

- Economics is a Social Science which deals with human wants and their satisfaction.
- Economics is the science of scarcity.
- Scarcity is the basic fact of life.
- Our wants are unlimited but means are limited.
- This leads to choice making.
- Choice is the essence of economic activity.
- As all wants are not of equal importance this leads to choice.
- We have to pay a price for scarcity goods.
- As prices are paid in money, we study about the part played by money in the economic life of a society.
- All scarce goods which satisfy our wants are known as wealth.
- In economics, we study about the production of wealth, exchange of wealth distribution of wealth and consumption of wealth.
- This wealth is produced to promote human welfare, we study the relationship between wealth and welfare.

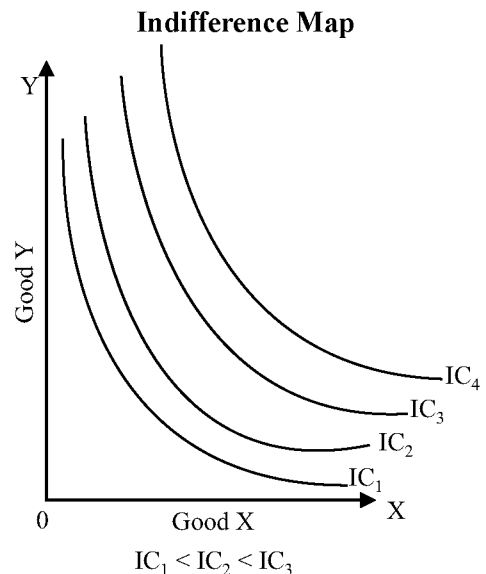
Scope of Economics:-

- Economics has become one of the important branches of social sciences.
- It is of great practical value in our daily life.
- In pure science we study the subject to arrive at the truth but in economics its to find out many economic and social problems of the society.
“Knowledge for the Sake of knowledge” is not the goal of an economist.
- Economics must be fruit bearing. It has no ready made answer for immediate problems.
- The Government is making broad economic policies.

- According to Keynes “The theory of economics does not furnish a body of settled conclusions immediately applicable to policy. It is a method, rather than doctrine an apparatus of the mind, a technique of thinking, which helps to draw correct conclusions”.
- Most of the problems of the modern state are economic in nature.
- During World war II, the German economy was damaged heavily. The advice of an economist Ludwig Erhard who made miracle to recover quickly.
- Similarly, J. M. Keynes, had great influence on the economic policies of the American government when it was in great economic trouble during the 1930s
- “you cannot be in any real sense a citizen, unless you are also in some degree an economist”.

77. Indifference Map:

- Indifference map is a group of Indifference curves for two Commodities showing different levels of satisfaction.
- In this indifference map, a higher indifference curve denotes higher level of satisfaction and a lower indifference curve represents lower level of satisfaction.



Properties of an Indifference Curve:

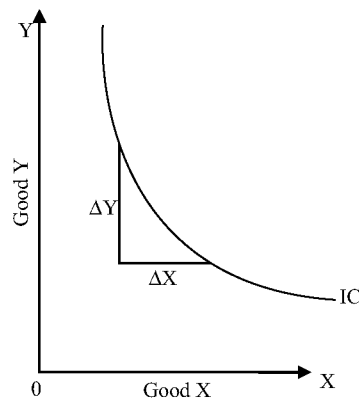
- Indifference curves slope downwards to the right.
- Indifference curves are Convex to the Origin.
- No two indifference curves can ever cut each other.

All Indifference curves slope downwards from left to right:

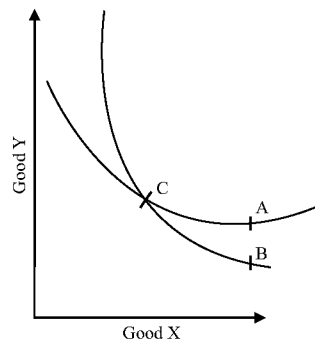
- The downward slope of indifference curve must be attributed to the fact that the Consumer in substituting good X by good Y, increases the amount of Y and reduces the amount of X.
- The indifference curve were horizontal line running parallel to X axis then the combinations which it represents is the same amount of Y but more and more of X.
- In that case, the satisfaction from the combination will not be equal.

All indifference Curves are Convex to the origin:

- The Operation of a principle known as 'Diminishing Marginal Rate of Substitution'.
- X axis represents the Commodity of X.
- Y axis represents the commodity of Y.
- If the Indifference Curves are Concave to the origin, then it will mean that MRS is Increasing.
- Indifference Curve can't be a straight line or vertical line.

**No two indifference curves intersect each other**

- Point A which is on Indifference curve 2 represents a higher level of satisfaction to the consumer than at point B which is on in difference curve 1.
- But Point C lies on both curves. That means two levels of satisfaction A and B which are unequal have become equal. That can not be accepted.
- So Indifference Curves can never cut each other.

**78. Introduction:**

- Elasticity of demand explain the rate at which demand changes due to a change in price.

- The concept of elasticity of demand measures the rate of change in demand.
- The concept of elasticity of demand was introduced by Alfred Marshall.

Definition:

“The elasticity (or responsiveness) of demand in a market is great or small according as the amount demanded increases much or little for a given fall in price, and diminishes much or little for a given rise in price”.

Types of elasticity demand:

- (i) Price (ii) Income
(iii) Cross elasticity of demand

Measurement of price elasticity of demand:

Important methods for calculating price elasticity of demand are,

- Percentage method
- Point method or slope method
- Total outlay method
- Arc method

Percentage method:

Percentage change in demand divided by percentage change in price.

$$\text{Formula is } e_p = \frac{\% \Delta q}{\% \Delta p}$$

For example, the price of rice rises by 10% and the demand for rice falls by 15%.

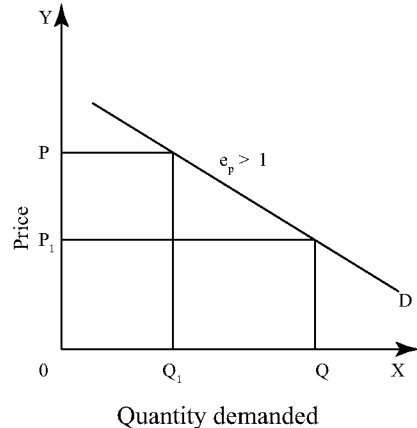
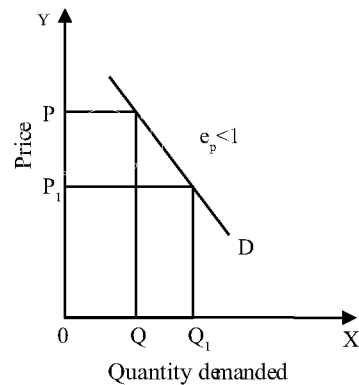
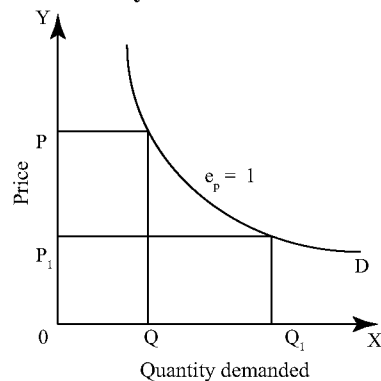
$$\text{Then } e_p = \frac{15}{10} = 1.5$$

∴ $e_p > 1$, The demand for rice is elastic.

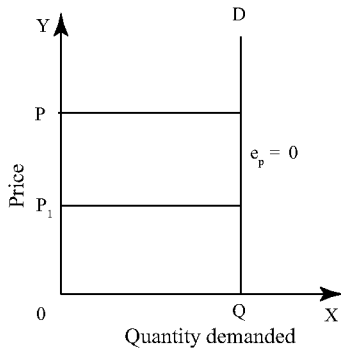
Thus there are five measures of elasticity

- (i) Relatively elastic demand – $e_p > 1$
(ii) Relatively inelastic demand – $e_p < 1$
(iii) Unitary elastic demand – $e_p = 1$

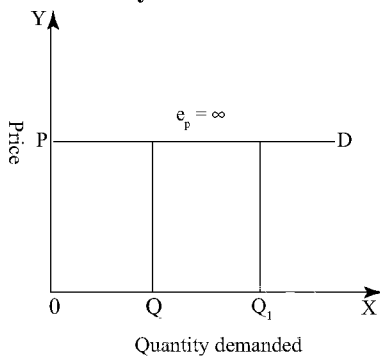
- (iv) Perfectly inelastic demand – $e_p = 0$
(v) Perfectly elastic demand – $e_p = \infty$

Graphical illustration :**Relatively elastic demand****Relatively inelastic demand****Unitary elastic demand**

Perfectly inelastic demand



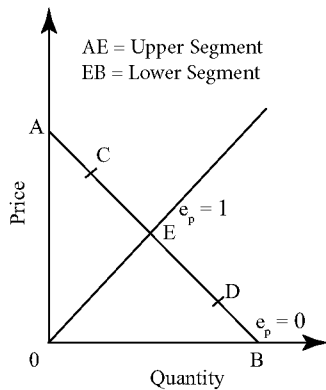
Perfectly elastic demand



Point Method:-

We can calculate the price elasticity of demand at a point on the linear demand curve.

Formula $e_p = \frac{\text{Lower segment of the demand curve}}{\text{Upper segment of the demand curve}}$



For example, let us assume that the length of the demand curve AB is 4cm

Exactly at middle point of AB demand curve,

(i) e_p at point E $e_p = \frac{EB}{EA} = \frac{2}{2} = 1$

$\therefore e_p = 1$

(ii) e_p point D $e_p = \frac{DB}{DA} = \frac{1}{3} = 0.3$

$\therefore e_p < 1$

(iii) e_p at point C $e_p = \frac{CB}{CA} = \frac{3}{1} = 3$

$\therefore e_p > 1$

(iv) e_p at point B $e_p = \frac{0}{AB} = \frac{0}{4} = 0$

$\therefore e_p = 0$

(v) e_p at point A $e_p = \frac{AB}{0} = \frac{4}{0} = \infty$

$\therefore e_p = \infty$

Total outlay method

- Demand is elastic, if total outlay or expenditure increases for a fall in price ($e_p > 1$)
- Demand is inelastic, if total outlay or expenditure falls for a fall in price ($e_p < 1$)
- Elasticity of demand is unitary, if total expenditure does not change for a fall in price ($e_p = 1$)

Changes in price	Types of elasticity of demand		
	$e_p = 1$	$e_p < 1$	$e_p > 1$
Fall in price	Total outlay remains constant	Total outlay falls	Total outlay rises
Rise in price	Total outlay remains constant	Total outlay rises	Total outlay falls

Arc Method:

Segment of a demand curve between two points is called an Arc Method.

Formula

$$E_p = \frac{q_1 - q_2}{Q_1 + q_2} \div \frac{P_1 - P_2}{P_1 + P_2}$$

$$= \frac{\Delta q}{Q_1 + q_2} \div \frac{\Delta p}{P_1 + P_2}$$

$$= \frac{\Delta q}{Q_1 + q_2} \times \frac{P_1 + P_2}{\Delta p}$$

$$\therefore E_p = \frac{\Delta q}{\Delta p} \times \frac{P_1 + P_2}{Q_1 + q_2}$$

Δq = Change in quantity demanded

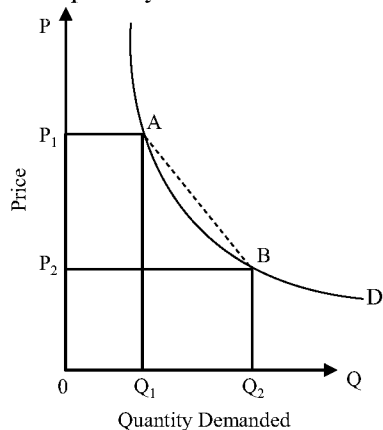
Δp = Change in price of the commodity

P_1 = Original price

P_2 = New price

Q_1 = Original quantity

Q_2 = New quantity

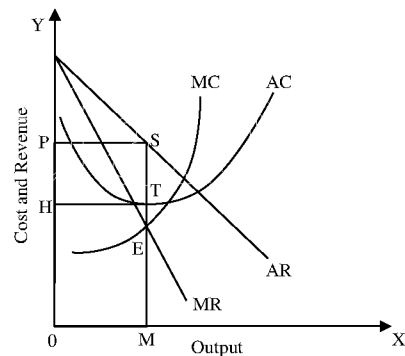


In figure we can measure arc elasticity between points A and B on the demand curve, we will have to take the average prices of OP_1 and OP_2 and average of the two quantities demanded (original and the new).

79. (i) Price and output Determination :

A monopolist like a perfectly competitive firm tries to maximise his profits

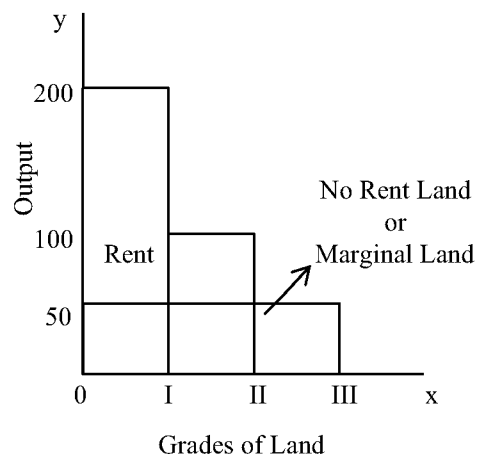
- A monopoly firm faces a downward sloping demand curve, that is, its average revenue curve.
- The downward sloping demand curve implies that larger output can be sold only by reducing the price.
- The marginal revenue curve will be below the average revenue curve.
- The average cost curve is “U” shaped.
- The monopolist will be in equilibrium when $MC = MR$.
- The MC curve cuts the MR curve from below.



1. AR is the average Revenue Curve and MR is the Marginal Revenue Curve.
2. AR curve is falling and MR curve is lies below AR.
3. The monopolist is in equilibrium at E where $MR=MC$.
4. OM units of output and fixes price at OP.
5. The average revenue is MS and Average Cost is MT.
6. Profit per unit is $MS-MT = TS$.

7. Total profit is average profit (TS) multiplied by output OM, which is equal to HTSP.
8. The monopolist is in equilibrium at point 'E' and produces OM output at which he is earning maximum profit.
9. The monopoly price is higher than the Marginal Revenue and Marginal Cost.
80. **Ricardian Theory of Rent :**
- (i) Ricardian theory of rent is one of the earliest theory of rent. It is named after Ricardo, a great classical economist of the 19th century.
- (ii) According to Ricardo, "rent is that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil.
- (iii) Rent is payment made for the use of land for its original powers.
- (iv) Rent arose on account of differences in the fertility of land.
- (v) Only superior lands get rent.
- (vi) Rent is a differential surplus.
- (vii) Rent may also arise on account of situation advantage.
- (viii) For example, some lands may be nearer to the market.
- (ix) The producer can save a lot of transport costs.
- (x) Even if all land are equally fertile, land which enjoy situation advantage will earn rent.
- (xi) Ricardo explained his theory by taking the example of colonization.
- (xii) If some people go and settle down in a place, first they will cultivate the best lands.
- (xiii) If more people go and settle down, the demand for land will increase and they will cultivate the second grade lands.
- (xiv) The cost of production will go up.
- (xv) The price of grain in the market must cover the cost of cultivation.
- (xvi) In this case, the first grade land will get rent.
- (xvii) After some time, if there is increase in population even third grade lands will be cultivated. Now, even second grade lands will get more rent but the third grade lands will not get rent.
- (xviii) It is known as no-rent land.
- (xix) Ricardo came to the conclusion that rent did enter price because there are some no-rent or marginal lands.
- (xx) As the produce of no-rent land gets a price, Ricardo argued that rent did not enter price.

Ricardian theory of rent



Explanation:

- (i) Grades of Land are shown along the x-axis

- (ii) Output are shown along the y-axis.
- (iii) The shaded area in the diagram indicates rent.
- (iv) In this case, grade I and grade II lands get rent.
- (v) The grade III land will not get rent.

Criticism of the Ricardian Theory of Rent:

- (i) According to Ricardo, land has “original and indestructible powers”. But the fertility of land may decline after some time because of continuous cultivation.
- (ii) Ricardo believed that rent is peculiar to land alone. But many modern economists argue that the rent aspect can be seen in other factors like labour and capital.
- (iii) This theory does not take note of scarcity rent.
- (iv) It is based on perfect competition. but in the real world, we have imperfect competition.

Conclusion:

Though there are some criticism against the Ricardian theory, we may note it tells that because of increasing pressure on land, we have to cultivate inferior lands.

81. Money has over come the difficulties of barter. Walker has said “Money is that which money does”. By this, he has referred to the functions of money. Money performs many functions in a modern economy.

“Money is a matter of functions four

A medium, a measure, a standard, a store”.

- (i) **Medium of exchange:** Money is accepted freely in exchange for all other goods. Barter system is very inconvenient. So the introduction of money has got over the difficulty of barter.
- (ii) **Measure of Value:** Money acts as a common measure of value. It is a unit of account and a standard of measurement. Whenever we buy a good in the market we pay a price for it in money. And price is nothing but value expressed in terms of money.
- (iii) **Store of Value:** A man who wants to store his wealth in some convenient form will find money admirably suitable for the purpose. It act as a store of value.
- (iv) **Standard of deferred payments:** Money is used as a standard for future payments. It forms the basis for credit transactions. Business in modern times is based on credit to a large extent. This is facilitated by the existence of money. In credit, since payment is made at a future date, there must be some medium which will have as far as possible the same exchange power in the future as at present.

