



# SHRI VIDHYABHARATHI MATRIC HR. SEC. SCHOOL

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XII - STANDARD ECONOMICS

COMMON HALF YEARLY EXAMINATION - DEC - 2018 17.12.2018

Answer Key		
Q.No	SECTION - I	Mark
1.	a) Subsistence Economy	1
2.	a) Inefficiency of production	1
3.	c) J.R. Hicks and R.G.D.Allen	1
4.	d) Law of Diminishing marginal Utility	1
5.	d) All the above	1
6.	c) Price elasticity of demand	1
7.	b) $S > D$	1
8.	a) All factors changes	1
9.	d) All of these	1
10.	c) Total revenue	1
11.	c) The lowest point of the AC curve	1
12.	c) Large number of sellers	1
13.	d) Monopoly	1
14.	d) Organization	1
15.	c) E. Hawley	1
16.	c) Full employment	
17.	d) $\Delta C / \Delta Y$	
18.	b) Liquidity	
19.	a) Barter system	
20.	a) Credit control	
<b>SECTION - II</b>		<b>7 X 2 = 14</b>
21.	<b>Opportunity Cost</b> <ul style="list-style-type: none"> <li>❖ The opportunity cost of an action is the <b>value of next best alternative forgone</b></li> <li>❖ The consideration of opportunity costs is one of the key differences between the concepts of 'economic cost' and 'accounting cost'.</li> <li>❖ 3. For example, if you choose to watch cricket highlights in T.V., you must give up an extra hour study.</li> </ul>	2
22.	<b>"Consumer's surplus".</b> "The excess of price which a person would be willing to pay rather than go without the thing, over that which he actually does pay, is the economic measure of this surplus of satisfaction. It may be called consumer's surplus." Consumer's surplus = Potential price - Actual price	2
23.	<b>Utility:</b> <ul style="list-style-type: none"> <li>❖ In the ordinary language, utility means 'usefulness'.</li> <li>❖ In economics, utility is defined as the power of commodity or a service to satisfy a human want.</li> <li>❖ Utility is a subjective or psychological concept.</li> </ul>	2

24.	<b>The demand curve slope downwards</b>		2
	<ul style="list-style-type: none"> <li>❖ Mainly due to the law of diminishing marginal utility.</li> <li>❖ The law of diminishing marginal utility states that an additional unit of a commodity gives a lesser satisfaction.</li> <li>❖ 3. Therefore, the consumer will buy more only at a lower price.</li> </ul>		
25.	<b>Short Period</b>		2
	1	One factors will be a fixed input, other inputs can be changed	
	2	Supply Curve elastic, but not flatter	
	3	P = Equilibrium Price	
	<b>Long Period</b>		
	Both Fixed & Variable inputs can be changed		
	Supply Curve is more elastic, and flatter		
	P = Lower Equilibrium Price		
26.	<b>Forms Of Capital:</b> 1. Physical Capital    2. Money Capital and    3. Human Capital		2
27.	<b>Average Fixed cost:</b>		2
	<ul style="list-style-type: none"> <li>❖ The average fixed cost is the fixed cost per unit of output.</li> <li>❖ It is obtained by dividing the total fixed cost by the number of units of the commodity produced.</li> <li>❖ <math>AFC = TFC / Q</math></li> </ul>		
28.	<b>The assumptions of marginal productivity theory of distribution:</b>		2
	<ul style="list-style-type: none"> <li>❖ There is <b>perfect competition</b>.</li> <li>❖ All units of a <b>factor are homogeneous</b>. It means that one unit of a factor is the same as the other.</li> <li>❖ Factors <b>can be substituted for each other</b>. That is, all factors are interchangeable.</li> <li>❖ The theory is based on the <b>law of diminishing returns as applied to business</b></li> </ul>		
29.	<b>The factors on which the aggregate demand depends:</b>		2
	<ul style="list-style-type: none"> <li>❖ Propensity to consume (Consumption function)</li> <li>❖ Inducement to invest (Investment function)</li> </ul>		
30.	<b>The four components of money supply in India:</b>		2
	<ul style="list-style-type: none"> <li>❖ M1 = Currency with the public. (also known as <b>narrow money</b>)</li> <li>❖ M2 = M1 + Post Office savings deposits.</li> <li>❖ M3 = M1 + Time deposits of the public with the banks. ( also known as <b>broad money</b>)</li> <li>❖ M4 = M3 + Total Post Office deposits.</li> </ul>		
<b>SECTION - III</b>			<b>7 X 3 = 21</b>
31.	<b>The merits and demerits of a mixed economy:</b>		3
	<p><b>Merits of Mixed Economy</b></p> <p><b>1. Efficient resource utilisation:</b> The resources are utilized efficiently as good features of both capitalism and socialism coexist. If there is misallocation of resources, the State controls and regulates it. This ensures the efficient utilization of resources.</p> <p><b>2. Prices are administered:</b> The prices are not fixed always by forces of demand and supply. In the case of goods which are scarce, the prices are administered by the government and such goods are also rationed.</p>		

**3. Social Welfare:** In a mixed economy, planning is centralized and there is overall welfare. Workers are given incentives and reward for any innovations. There is social security provided to the workers. Inequalities of income and wealth are reduced.

### Demerits of Mixed Economy

**1. Lack of Co-ordination:** The coordination between the public and private sectors is poor in a mixed economy. Public sector spends huge public resources for infrastructure. The private sector aims at profit maximization by using the infrastructure created by the public sector.

**2. Red -tapism and delay by Public Sector:** There is every chance that the public sector works inefficiently. There is too much of red-tapism and corruption leading to delays in decision-making and project implementation. They result in inefficiency and also affect production.

**3. Economic FluctuationS (No Stability):** The mixed economies experience economic fluctuations. The lack of policy coordination between private and public sector results in economic fluctuations.

32.

### Types of Elasticity of Demand

There are three types of elasticity of demand;

1. Price elasticity of demand;
2. Income elasticity of demand; and
3. Cross-elasticity of demand

#### 1. Price elasticity of demand

“The degree of responsiveness of quantity demanded to a change in price is called price elasticity of demand”

$$\text{Price elasticity of demand} = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$$

Symbolically,

$$e_p = \frac{\Delta Q / Q}{\Delta P / P} = \frac{\Delta Q}{Q} \times \frac{P}{\Delta P}$$

$\Delta$  - change  
 P - price  
 Q - quantity

#### Income elasticity of demand

Income elasticity of demand is the degree of responsiveness of demand to the change in income.

$$e_y = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in income}}$$

Symbolically  $e_y = \frac{\Delta q}{q} \div \frac{\Delta y}{y}$  where q and y stand for quantities demanded and income respectively.

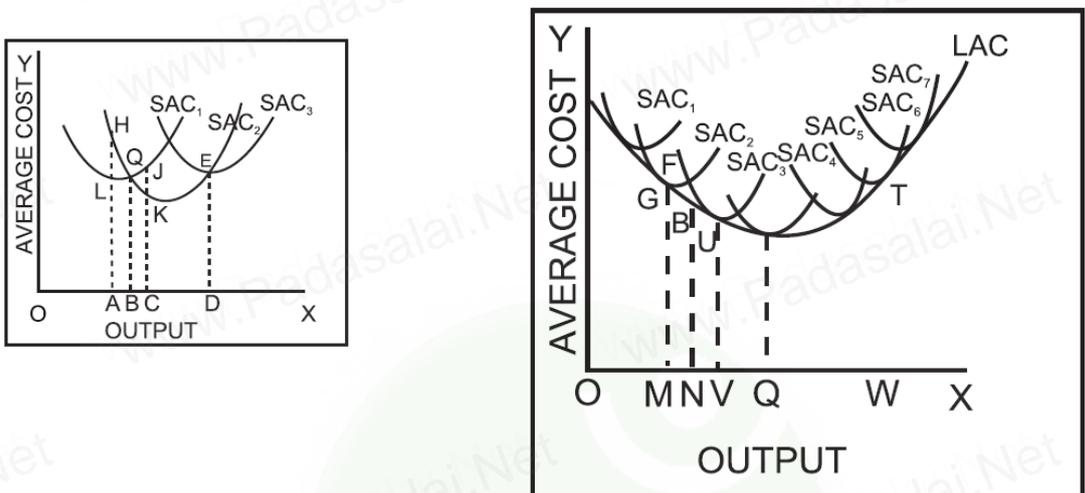
$$= \frac{\Delta q}{q} \times \frac{y}{\Delta y} \quad \Delta \text{ means change}$$

#### Cross-elasticity of demand

The responsiveness of demand to changes in prices of related goods is called cross-elasticity of demand (related goods may be substitutes or complementary goods).

3

	<p>In other words, it is the responsiveness of demand for commodity x to the change in the price of commodity y.</p> $e_c = \frac{\text{Percentage change in the quantity demanded of commodity X}}{\text{Percentage change in the price of commodity y}}$ $e_c = \frac{\Delta q_x}{\Delta p_y} \times \frac{p_y}{q_x}$	
33.	<p><b>The functions of entrepreneur:</b></p> <ul style="list-style-type: none"> <li>❖ Identifying <b>Profitable Investible</b> Opportunities</li> <li>❖ Deciding the <b>location of the production unit</b></li> <li>❖ Deciding the <b>size of unit of production</b></li> <li>❖ Identifying <b>optimum combination of factors of production</b></li> <li>❖ Making <b>innovations</b></li> <li>❖ Deciding the <b>reward payment</b></li> <li>❖ 7. Taking <b>Risks</b> and facing <b>uncertainties</b></li> </ul>	3
34.	<p><b>The methods of controlling monopoly:</b></p> <p><b>LEGISLATIVE METHOD</b> - Government can control monopolies by legal actions.</p> <p><b>CONTROLLING PRICE AND OUTPUT</b>- Government would fix either price or output or both.</p> <p><b>TAXATION</b> - Taxation is another method by which the monopolistic power can be prevented or restricted.</p> <p><b>NATIONALISATION</b>- Nationalisation of big companies is one of the solution.</p> <p><b>CONSUMER'S ASSOCIATION</b> - The growth of monopoly power can also be controlled by encouraging the formation of consumers associations to improve the bargaining power of consumers.</p>	3
35.	<p><b>Characteristics of Oligopoly</b></p> <p><b>1. Interdependence:</b> The most important feature of oligopoly is interdependence in decision - making. Since there are a few firms, each firm closely watches the activities of the other firm. Any change in price, output, product, etc., by a firm will have a direct effect on the fortune of its rivals. So an oligopolistic firm must consider not only the market demand for its product, but also the possible moves of other firms in the industry.</p> <p><b>2. Group Behaviour:</b> Firms may realise the importance of mutual cooperation. Then they will have a tendency of collusion. At the same time, the desire of each firm to earn maximum profit may encourage competitive spirit. Thus, co-operative and collusive trend as well as competitive trend would prevail in an oligopolistic market.</p> <p><b>3. Price Rigidity:</b> Another important feature of oligopoly is price rigidity. Price is sticky or rigid at the prevailing level due to the fear of reaction from the rival firms. If an oligopolistic firm lowers its price, the price reduction will be followed by the rival firms. As a result, the firm loses its profit. Expecting the same kind of reaction, if the oligopolistic firm raises the price, the rival firms will not follow. This would result in losing customers. In both ways the firm would face difficulties. Hence the price is rigid.</p>	3

36.	<p><b>Long run Average Cost Curve (LAC)</b>  <b>The LAC Curve:</b>          In the long-run all factors are variable. Therefore the firm can change the size of the plant (capital equipment, machinery etc) to meet the changes in demand. A long-run average cost curve depicts the functional relationship between output and the long-run cost of production.          The Long run Average Cost (<b>LAC</b>) Curve is based on the assumption that in the long run a <b>firm has a number of alternatives</b> with regard to the scale of operations.</p> 	3
37.	<p><b>Schumpeter's theory of profits:</b></p> <ol style="list-style-type: none"> <li><b>According to Schumpeter, profits are the reward for innovations.</b> An innovation is something more than an invention.</li> <li>An invention becomes an innovation only when it is applied to industrial processes.</li> </ol> <p><b>Innovation includes ,</b></p> <ol style="list-style-type: none"> <li>introduction of new goods,</li> <li>new methods of production and</li> <li>opening new market.</li> <li>Innovations introduced by the entrepreneur.</li> </ol> <p><b>3. So entrepreneur gets profits for innovations.</b>          The criticism against the theory is that though innovation is an important factor in the emergence of profits.</p>	3
38.	<p><b>Keynes three reasons of liquidity preference:</b>          According to Keynes, interest is the reward for parting with liquidity for a specified period of time. In other words, it is the reward for not hoarding, people have liquidity preference for three motives.          They are</p> <ol style="list-style-type: none"> <li><b>Transaction motive;</b></li> <li><b>Precautionary motive;</b></li> <li><b>Speculative motive.</b></li> </ol> <p><b>The transaction motive</b> refers to the money held to finance day to day spending.  <b>Precautionary Motive</b> money is held to meet an unforeseen expenditure.  <b>speculative motive</b> is for securing profit from knowing better than the market what the future will bring forth.</p>	3

39.	<p><b>a) Dear money policy</b>                      <b>b) Cheap money policy</b></p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>a) Dear Money Policy</b></p> <p>↓</p> <p>Cash reserve ratio, repo and bank rates are increased, securities are sold</p> <p>⇩</p> <p>Money supply falls</p> <p>⇩</p> <p>Interest rate rises</p> <p>⇩</p> <p>Investment expenditure declines</p> <p>⇩</p> <p>Economy cools down</p> <p>⇩</p> <p>Inflation declines</p> </div> <div style="text-align: center;"> <p><b>b) Cheap Money Policy</b></p> <p>↓</p> <p>Cash reserve ratio, repo and bank rates are lowered, securities are purchased</p> <p>⇩</p> <p>Money supply rises</p> <p>⇩</p> <p>Interest rate falls</p> <p>⇩</p> <p>Investment expenditure gets stimulated</p> <p>⇩</p> <p>Economy revives</p> <p>⇩</p> <p>GDP rises</p> </div> </div>	3
40.	<p><b>Taxes of the State Governments</b></p> <p>Under the Constitution of India, only the State governments are provided with separate powers to raise revenue, while the Union territories are financed by the Central government directly. The main sources of tax and non-tax revenue are 1. Land revenue, 2. Taxes on the sale and purchase of goods except newspaper, 3. Taxes on agricultural income, 4. Taxes on land and building, 5. Succession and estate duties in respect of agricultural land, 6. Excise duty on alcoholic liquors and narcotics, 7. Taxes on the entry of goods into a local area, 8. Taxes on mineral rights, 9. Taxes on the consumption of electricity 10. Taxes on vehicles, animals and boats, 11. Taxes on goods and passengers carried by road and inland water ways, 12. Stamp duties, court fees and registration, 13. Entertainment tax, 14. Taxes on advertisements other than those in newspaper, 15. Taxes on trade, profession and employment, 16. Income from irrigation and forests, 17. Grants from the central government and 18. Other incomes such as income from registration and share in the income-tax, excise and estate duties and debt services, loans and overdrafts.</p>	3
<b>SECTION - IV</b>		7 X 5 = 35
41.	<p><b>The different definitions of economics:</b></p> <p><b>Adam Smith Definition and Importance</b></p> <ol style="list-style-type: none"> <li>1. Adam Smith defined economics as :“<b>Economics is the science of wealth</b>”.</li> <li>2. He is the author of the famous book “Wealth of Nations”.</li> <li>3. It is only after Adam Smith, we study economics as a Systematic science.</li> </ol> <p><b>Alfred Marshall's - Definition (Welfare Definition)</b></p> <p>Alfred Marshall (1842-1924) defined economics as “a <b>study of mankind</b> in the ordinary business of life”. An altered form of this definition is :  <b>“Economics is a study of man’s actions in the ordinary business of life”</b></p> <p><b>Explanation:</b></p> <ol style="list-style-type: none"> <li>1. In the words of Marshall, “Economics is on the one side a study of wealth, and on the other and more <b>important side, a part of the study of man.</b></li> <li>2. <b>Man is the centre of his study.</b> According to him, the study of man is more important than the study of wealth.</li> <li>3. Economics studies how people try “to <b>increase the material means of wellbeing</b>”.</li> <li>4. According to this definition, we may say that economics is the <b>study of the causes of material welfare.</b></li> </ol>	5

5. Marshall's definition is known as **material welfare definition of economics** because of its emphasis on welfare.

**Lionel Robbins' Definition (Scarcity Definition):**

Lionel Robbins has defined economics as follows :

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

**Basic assumptions of the Definition:**

1. Ends are various. The term "ends" mean wants. Human wants are unlimited.
2. Means are limited. Means like time, money and resources are limited.
3. We can put time and money to alternative uses.
4. All wants are not of equal importance.

**Explanation:**

1. Though **means are limited**, if they do not have alternative uses, you cannot economize anything.
2. **If all wants are of equal importance, you cannot economize anything.**
3. Economics **studies human behaviour as a relationship between unlimited wants and scarce means**. As means are limited, we have to pay a price for them.
4. We study in economics how the **prices of scarce goods are determined**. We have to choose among different wants.
5. That is why we say that **scarcity and choice are central problems** in economics. Economics is the science of choice.
6. **Choice between alternatives is the basic principle underlying** all economic activity. This is applicable to all economic systems – capitalism, socialism and mixed economy.
7. Robbins puts it. "To plan is to act with a purpose, to choose, and **choice is the essence of economic activity**".

(OR)

**Capitalism:**

A capitalist economy is an economic system in which the production and distribution of commodities take place through the mechanism of free markets. Hence it is called market economy or free trade economy.

**Advantages of capitalism**

**INCREASE IN PRODUCTIVITY :** In this economy every farmer, trader or industrialist can hold and use property any way he likes.

He increase the productivity to meet his own self interest.

**MAXIMIZES THE WELFARE** The self interest of individual also promotes society's welfare.

**FLEXIBLE SYSTEM:** The shortage and surplus in the economy are adjusted by the forces of demand and supply.

**NON INTERFERENCE OF THE STATE:** The state has a minimum role to play. There is a no conflict between the individual interest and the society.

**LOW COST AND QUANTITATIVE PRODUCTS.** The consumers and producers have full freedom and therefore it leads to production of quality products at low costs and prices.

**TECHNOLOGICAL IMPROVEMENT.** The element of competition under capitalism drives the producers to innovate something new to boost the sales and thereby bring about progress.

5

### Disadvantages Of Capitalism

**INEQUALITIES** – Capitalism creates extreme inequalities in income and wealth. The producers landlords, traders reap huge profits and accumulate wealth.

**LEADS TO MONOPOLY** – Firms combine to form cartels, trust and in this process bring about reduction number of firms engaged in production.

Inequalities leads to monopoly.

**DEPRESSION**’- There is over production of goods due to heavy competition

**MECHNISATION AND AUTOMATION** – Capitalism encourages mechanization and automation. This will result in unemployment particularly in labour surplus economies.

**WELFARE IGNORED**- Under capitalism private enterprises produce luxury goods which give higher profits and ignore the basic goods required which give less profit. Hence welfare of public ignored.

**EXPLOITATION OF LABOUR** – Under capitalism private enterprises produce luxury goods which give higher profits and ignore the basic goods required which give less profit.

42.

### Law of Diminishing Marginal utility:

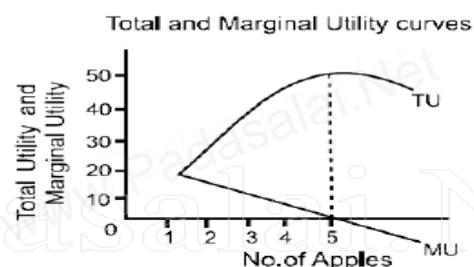
According to Marshall, “The **additional benefit** which a person derives from a given increase of his stock of a thing **diminishes with every increase in the stock that he already has**”.

#### Assumptions of the Law

1. The units of consumption must be in **standard units** e.g., a cup of tea, a bottle of cool drink etc.
2. All the units of the commodity must be **identical** in all aspects like taste, quality, colour and size.
3. The law holds good only when the process of consumption **continues** without any time gap.
4. The consumer’s **taste, habit or preference must** remain the same during the process of consumption.
5. The **income** of the consumer remains constant.
6. The prices of the commodity consumed and its **substitutes** are constant.
7. The consumer is assumed to be a **rational economic man**. As a rational consumer he wants to maximise the total utility.
8. Utility is **measurable**.

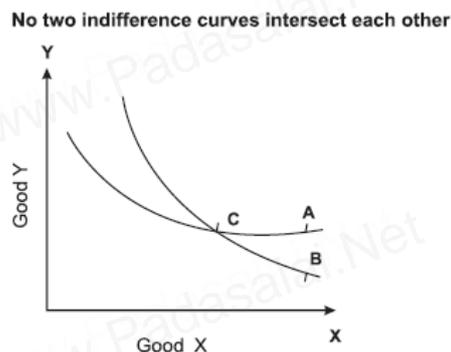
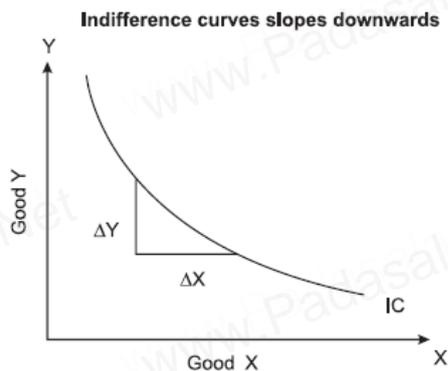
#### Total and Marginal utility schedule

Units of apple	Total utility	Marginal utility
1	20	20
2	35	15
3	45	10
4	50	5
5	50	0
6	45	-5
7	35	-10



5

	<p><b>Explanation of Table and Diagram:</b> Table gives the utility derived by a person from successive units of consumption of apples. From Table and figure it is very clear that the marginal utility (addition made to the total utility) goes on declining. The consumer derives 20 units of utility from the first apple he consumes. When he consumes the apples continuously, the marginal utility falls to 5 units for the fourth apple and becomes zero for the fifth apple. The marginal utilities are negative for the 6th and 7th apples. Thus when the consumer consumes a commodity continuously, the marginal utility declines, reaches zero and then becomes negative.</p> <p><b>Importance of Law of DMU</b></p> <p>i) The Law of Diminishing Marginal Utility (DMU) is the <b>foundation for various other economic laws.</b></p> <p>(ii) The Law of DMU <b>operates in the case of money also.</b></p> <p>(iii) This law is a handy tool for the <b>Finance Minister for increasing tax rate</b> on the rich.</p> <p>(iv) <b>Producers are guided by the operation the Law of DMU,</b> unconsciously.</p> <p><b>Criticism</b></p> <p>(i) Deriving utility is a psychological experience, In reality, <b>utility cannot be measured.</b></p> <p>(ii) a single commodity consumption mode is <b>an unrealistic assumption.</b> In real life, a consumer consumes more than one good at a time.</p> <p>(iii) According to the Law, a consumer should <b>consume successive units</b> of the same good continuously. In real life it is not so.</p> <p>(iv) In real life, the marginal utility derived from the consumption of a good <b>cannot be measured precisely in monetary terms.</b></p> <p>(v) As <b>utility itself is capable of varying from person to person,</b> marginal utility derived from the consumption of a good cannot be measured precisely.</p>	
OR	<p><b>Indifference curve: Definition</b></p> <p>An indifference curve is the locus of different combinations of two commodities giving the same level of satisfaction.</p> <p><b>Properties of an Indifference curve</b></p> <ol style="list-style-type: none"> <li>1. Indifference curves slope downwards to the right</li> <li>2. Indifference curves are convex to the origin</li> <li>3. No two indifference curves can ever cut each other.</li> </ol> <p><b>All indifference curves slope downwards from left to right</b></p> <p>The downward slope of indifference curve must be attributed to the fact that the consumer is substituting good X by good Y, increases the amount of Y and reduces the amount of X. If the indifference curve were horizontal line running parallel to X axis then the combination 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. For the same reason, it can be said that indifference curve will not be vertical.</p> <p><b>All indifference curves are convex to the origin</b></p> <p>This is because of the operation of a principle known as 'Diminishing Marginal Rate of Substitution'. The indifference curves are based on this principle. If they are concave to the origin, then it will mean that MRS is increasing. Indifference curve cannot be straight line except when the goods are perfect substitutes.</p>	5



43.

**Cross-elasticity of demand:**

The responsiveness of demand to changes in prices of related goods is called cross-elasticity of demand (related goods may be substitutes or complementary goods). In other words, it is the responsiveness of demand for commodity x to the change in the price of commodity y.

$$e_c = \frac{\text{Percentage change in the quantity demanded of commodity X}}{\text{Percentage change in the price of commodity y}}$$

$$e_c = \frac{\Delta q_x}{\Delta p_y} \times \frac{p_y}{q_x}$$

The relationship between x and y commodities may be substitutive as in the case of tea and coffee (or) complementary as in the case of pen and ink

**Measures of cross-elasticity of demand**

Infinity - Commodity x is nearly a perfect substitute for commodity y

Zero - Commodities x and y are not related.

Negative - Commodities x and y are complementary.

5

OR

**Law of Demand**

The law of demand states that there is a negative or inverse relationship between the price and quantity demanded of a commodity over a period of time.

**Definition:** Alfred Marshall stated that "the greater the amount sold, the smaller must be the price at which it is offered, in order that it may find purchasers;

In other words, the amount demanded increases with a fall in price and diminishes with rise in price". According to Ferguson, the law of demand is that the quantity demanded varies inversely with price.

The demand for any commodity mainly depends on the price of that commodity. The other determinants include price of related commodities, the income of consumers, tastes and preferences of consumers, and the wealth of consumers.

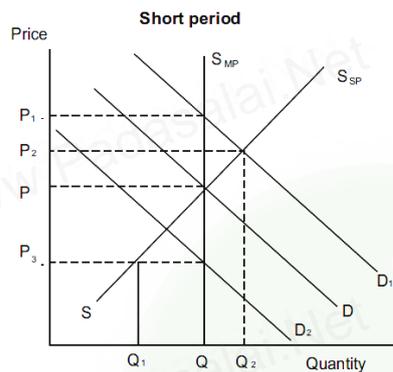
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Hence the demand function can be written as  
 $D_x = F(P_x, P_s, Y, T, W)$   
 where  $D_x$  represents demand for good  $x$   
 $P_x$  is price of good  $X$   
 $P_s$  is price of related goods  
 $Y$  is income  
 $T$  refers to tastes and preferences of the consumers  
 $W$  refers to wealth of the consumer.

44.

**The short period:**

As mentioned earlier short period is the one during which at least one of the factors will be a fixed input and the supply will be adjusted by changing the variable inputs.

**Explanation**

1. Increase in price from  $P$  to  $P_1$  for a given increase in demand from  $D$  to  $D_1$  is less than that of the market period.
2. It is because, increase in demand is partially met by the increase in supply from  $q$  to  $q_1$ .

**The flatter long run supply curve.**

1. In the long period supply can be changed by changing all the inputs (both the fixed and variable inputs).
2. Any amount of change in demand will be met by changing the supply, to the extent of changing the plant, machinery and the quantum of technology.

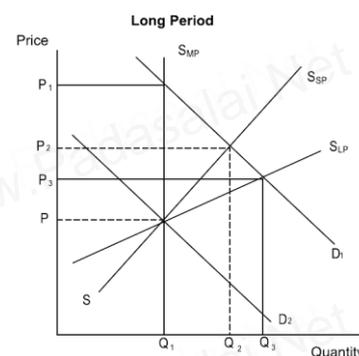
SMP - supply curve of the market period

SSP - supply curve of the short period

SLP - supply curve of the long period

**Explanation**

1. The price increases from  $P$  to  $P_2$  in response to an increase in demand from  $D$  to  $D_1$  and it is less than that of the market period ( $P_1$ ) and short period ( $P_2$ ).
2. It is because the increase in demand is fully met by the required increase in supply.



5

OR

**The law of variable proportions:****Definition**

As the proportion of one factor in a combination of factors is increased, after a point, first the marginal and then the average product of that factor will diminish.

**Assumptions of the law**

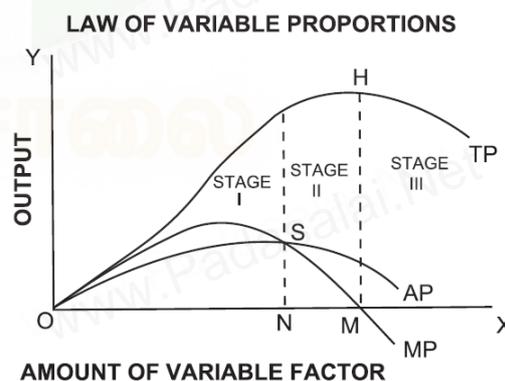
- (i) Only one factor is made variable and other factors are kept constant.
- (ii) This law does not apply in case all factors are proportionately varied.
- (iii) The variable factor units are homogenous
- (iv) Input prices remain unchanged

**Stages of Law of Variable Proportions**

Fixed factor Machine 1	Variable factor labour 2	Total product in units 3	Average product in units 4	Marginal product in units 5	Stages
1+	1	10	10	10	Increasing Returns
1+	2	22	11	12	
1+	3	36	12	14	
1+	4	52	13	16	
1+	5	66	13.2	14	Decreasing Returns
1+	6	76	12.6	10	
1+	7	80	11.4	4	
1+	8	82	10.2	2	
1+	9	82	9.1	0	Negative Returns
1+	10	78	7.8	- 4	

**Explanation**

- ❖ In stage I the fixed factor is too much in relation to the variable factor.
- ❖ Therefore in stage I, marginal product of the fixed factor is negative.
- ❖ On the other hand, in stage III the marginal product of the variable factor is negative.
- ❖ Therefore a rational producer will not choose to produce in stages I and III.
- ❖ He will **choose only the second stage to produce where the marginal product of both the fixed factor and variable factor are positive.**



45.

**The price and output determined in the short run under perfect competition:****Perfect Competition – Meaning:**

Perfect competition is a market situation where there are infinite number of sellers that no one is big enough to have any appreciable influence over market price.

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### Important Features and Conditions of perfect competition

1. Large number of buyers and sellers
2. Homogeneous Product
3. Perfect knowledge about market conditions
4. Free entry and Free exit

### Nature of Revenue curves

1. Under perfect competition, the market price is determined by the market forces namely the demand for and the supply of the products.
2. Hence there is uniform price in the market and all the units of the output are sold at the same price.
3. As a result the average revenue is perfectly elastic.
4. The average revenue curve is horizontally parallel to X-axis.

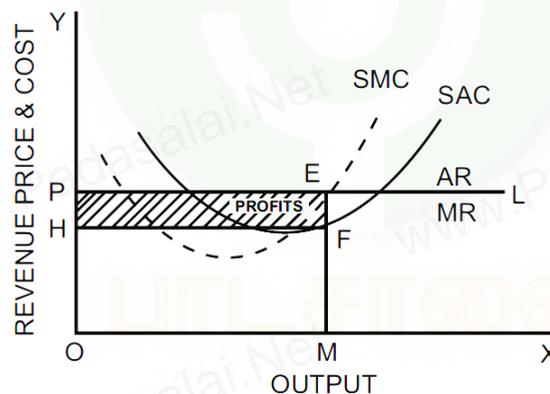
### Short run equilibrium price and output determination under perfect competition

1. Since a firm in the perfectly competitive market is a price-taker, it has to adjust its level of output to maximise its profit.
2. The short run is a period the firm can produce more only by increasing the variable inputs.
3. The firm in the perfectly competitive market can either earn supernormal profit or normal profit or incur loss in the short period.

### Super-normal Profit

When the average revenue of the firm is greater than its average cost, the firm is earning super-normal profit.

### Short-run equilibrium with super-normal profits



### Diagrammatic Explanation:

In figure, output is measured along the x-axis and price, revenue and cost along the y-axis. **OP is the prevailing price** in the market. **PL is the demand curve** or average and the marginal revenue curve. SAC and SMC are the short run average and marginal cost curves. The firm is in equilibrium at point 'E' where **MR = MC** and MC curve cuts MR curve from below at the point of equilibrium. Therefore the firm will be producing **OM level of output**. At the OM level of output ME is the AR and MF is the average cost. **The profit per unit of output is EF (the difference between ME and MF)**. The total profits earned by the firm will be equal to EF (profit per unit) multiplied by OM or HF (total output). Thus the total profits will be equal to the area HFEF. **HFEF is the supernormal profits** earned by the firm.

OR

**Perfect competition from monopoly:**

Perfect Competition	Monopoly
1. Average revenue curve is a horizontal straight line parallel to X axis .Marginal revenue is equal to average revenue and price	Both average revenue curve and marginal revenue curve are downward falling curves. Marginal revenue is less than average revenue and price.
2. At the equilibrium, $MC = MR = AR$ . That is price charged is equal to marginal cost of production	At the equilibrium, $MC = MR < AR$ that is price charged is above marginal cost
3. The firm in the long run comes to equilibrium at the minimum point or the lowest point of the long run average cost curve. The firm tends to be of optimum size operating at the minimum average cost.	Even in the long run equilibrium the firm will be operating at a higher level of average cost. The firm stops short of optimum size.
4. Equilibrium can be conceived only under increasing cost and not under decreasing or constant cost conditions	Equilibrium situation is possible at increasing, decreasing or constant cost conditions.
5. The firm can earn only normal profit in the long run and may earn super profit in the short run	But monopoly firm earns super normal profit both in short run and long run
6. Price will be lower and the output is larger	Price is higher and the output will be smaller

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46.

**Ricardian theory of Rent:**

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".

Rent may also arise on account of situational advantage. For example, some lands may be nearer to the market. The producer can save a lot of transport costs. Even if all lands are equally fertile, lands which enjoy situational advantage will earn rent.

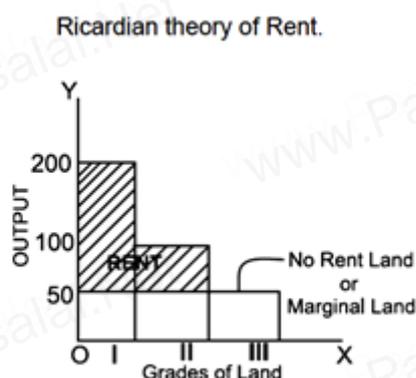
**Explanation of Rent Theory:**

Ricardo explained his theory by **taking the example of colonization**. If some people go and settle down in a place, first they will **cultivate the best lands**. If more people go and settle down, the demand for land will increase and they will **cultivate the second-grade lands**. The **cost of production will go up**. So the price of grain in the market must cover the cost of cultivation. In this case, the first grade land will get rent.

After some time, **if there is increase in population, even third grade lands will be cultivated**. Now, even second grade lands will get rent and first grade lands will get more rent but the **third grade land will not get rent**. It is known as no - rent land.

According to Ricardo, rent is price determined, that is, it is determined by price of the grains produced in the land. He also believed that rent is high because price is high and not the other way round. **Ricardo came to the conclusion that rent did not enter price because there are some no - rent or marginal lands**. As the produce of no-rent land gets a price, Ricardo argued that rent did not enter price.

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Grades of land are shown along the X axis and the output up the y- axis. The shaded area in the diagram indicates rent. In this case, grade I and grade II lands get rent. The grade III land will not get rent.

### Criticism of the Ricardian Theory of Rent

1. According to Ricardo, land has “original and indestructible powers”. But the fertility of land may decline after some time because of continuous cultivation.
2. 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. Rent arises whenever the supply of a factor is inelastic in relation to the demand for it.
3. Ricardo is of the view that rent does not enter the price of the commodity produced in it. But rent enters the price from the point of view of a single firm.
4. Ricardian theory does not take note of scarcity rent.
5. It is based on perfect competition. Only under perfect competition, there will be one price for a good. But in the real world, we don't have imperfect competition.

### Conclusion:

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

### OR Say's Law of Market

According to Say, “supply creates its own demand”.

- ❖ This means that production of every good generates sufficient income to ensure that there is enough demand for the goods produced.

### Assumptions

1. All incomes of the households are spent on consumption of goods and services.
2. There is no government activity (no taxation, public spending, price control etc.).
3. It is a closed economy i.e. no relationship with other economies.

The **Essential Aspects** of Say's Law can be summarized as:

1. Economy is self-adjusting
2. No general over-production or unemployment is possible
3. All idle resources are fully employed
4. There is economic interdependence between nations
5. Flexible wage rate prevails in the economy



**1. Public expenditure**

Since the modern government represents a welfare state, the responsibility of the government is to bring about maximum social welfare. In addition to this, it has to perform various other functions, which require heavy expenditures.

**2. Public Revenue**

Public revenue means different sources of government's income. It deals with the methods of raising revenue for the government, principles of taxation and other related problems.

**3. Public debt**

The problem relating to the raising and repayment of public loans is studied under this sub-division. Borrowing by the government from the public is called public debt.

**4. Financial administration**

Financial administration is concerned with the organisation and functioning of the government machinery that is responsible for performing various financial activities of the state.

**5. Federal finance**

Federal finance is a part of the study of public finance. A federation is an association of two or more states. In a federal form of government, there are: Central, State, and local governments.

## Department of Economics

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