

ECONOMICS (030)

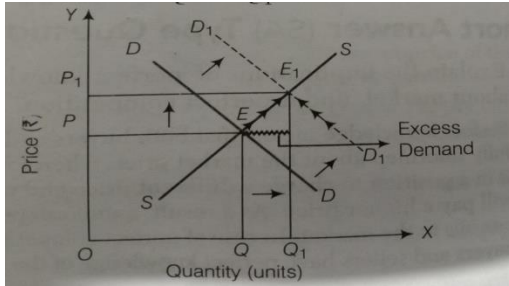
CLASS XI TERM –II (2021-22)

MARKING SCHEME

Q.No.	ANSWERS	MARKS
1	<p>In the above example, interest paid on borrowed money will be explicit cost, whereas, the imputed rent of the shop premises is implicit cost.</p> <p>Explicit Cost These are those cash payments, which firms make to others for their services and goods. e.g. wages, payment for raw material, rent, interest, etc.</p> <p>Implicit Cost These are the costs of self-owned and self-employed resources. e.g. entrepreneur may utilise his own building for factory use, interest on self-capital, etc.</p> <p style="text-align: center;">OR</p> <p>Short-run: Short-run refers to a period of which output can be changed by changing only variable factors.. In the short – run fixed inputs like land, building, plant, machinery etc, cannot be changed. It means production can be raised by increasing only variable factors, with optimum use of fixed factors.</p> <p>Long- run: Long-run refers to a period in which output can be changed by changing all factors of production. In the long run, firm can change its factory size, techniques of production, purchase new plant and machinery, patents etc.</p>	2
2	<p>(i) False, because when Marginal Revenue is positive and constant, Total Revenue increases at constant rate but Average Revenue is equal to Marginal Revenue.</p> <p>(ii) False, when Marginal Revenue is zero, Average Revenue will be</p>	1

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3	<p>Use formula.</p> <table border="1"> <thead> <tr> <th>Units of our</th><th>Average duct (units)</th><th>Marginal duct (units)</th></tr> </thead> <tbody> <tr> <td>1</td><td>8</td><td>----</td></tr> <tr> <td>2</td><td>10</td><td>----(12)</td></tr> <tr> <td>3</td><td>---- (10)</td><td>10</td></tr> <tr> <td>4</td><td>9</td><td>----(6)</td></tr> <tr> <td>5</td><td>---(8)</td><td>4</td></tr> <tr> <td>6</td><td>7</td><td>----(2)</td></tr> </tbody> </table> <p>OR</p> <p>Returns to a Factor: It refers to the behaviour of output, when only variable factor of production is increased in short-run and fixed factors remains constant.</p> <p>Law of Diminishing Returns to a Factor: It refers to a situation in which total output increases at a diminishing rate when more and more variable factor is combined with the fixed factor of production. In this situation, Marginal Product of the variable factor must be diminishing.</p>	Units of our	Average duct (units)	Marginal duct (units)	1	8	----	2	10	----(12)	3	---- (10)	10	4	9	----(6)	5	---(8)	4	6	7	----(2)	2
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4	<p>A firm under perfect competition is a price taker because of the following reasons</p> <p>(i) A firm under perfect competition is contributing such a small fragment to the market supply that total supply schedule remains</p>	2																					

	<p>affected by any change in individual firm's supply.</p> <p>(ii) All firms are selling homogeneous product. Accordingly, no partial control over price is not possible.</p> <p>(iii) If any firm tries to fix its own price, it won't succeed. Higher price would drive the buyers to a large number of other sellers. Lower price would bring so many buyers to a firm that it cannot cope with the demand.</p> <p style="text-align: center;">OR</p> <p>A firm can enter or leave the industry any time. Because of free entry and exit, firms in the long-run can earn only normal profits ($TR = TC$ or $AR = AC$). In case extra normal profits are earned in the short-run, new firms will join the industry. Market supply will increase and market price will fall. Extra profits will be wiped out. In case of extra normal losses or abnormal losses, some of the existing firms will leave the industry. Market supply will decrease. Hence, market price will increase and extra normal losses will be wiped out. So, we can say that firms under perfect competition can earn only normal profits in the long-run.</p>	2
5	<p>$P = ₹10$, $P_1 = ₹9$ $\Delta P = 9 - 10 = - ₹1$ $Q = ?$ $\Delta Q = -10$ $E_s = 1$ Price Elasticity of supply (E_s) = $\frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$ $1 = \frac{-10}{-1} \times \frac{10}{Q}$ $= 100$ units.</p>	2
6	<p>Equilibrium refers to the situation in which market demand is equal to market supply. The given diagram shows a situation of increase in demand. The demand curve shifts to the right from DD to DD1. The equilibrium point shifts from E to E1. Consequently, equilibrium price rises from OP to OP1 and equilibrium quantity increases from OQ to OQ1.</p>	3



7 The first example involves only two variables, viz. price and demand, therefore, it relates to simple correlation.

The second example involves more than two variables, i.e., how the productivity of wheat is affected by use of irrigation facilities, fertilisers and pesticides. Therefore, it relates to multiple correlation.

Simple Correlation: When the relationship only two variables is studied, it is called simple correlation.

Multiple Correlation: When the relationship among three or more variables is studied simultaneously, it is called multiple correlation.

3

8 $\Sigma f = 42$, Assumed Mean = 30, $\Sigma fd = 340$, $\Sigma fd^2 = 14,000$

$$\sigma = \sqrt{(\Sigma fd^2 / \Sigma f) - (\Sigma fd / \Sigma f)^2}$$

$$\sigma = 16.37 \quad \text{And C.V} = (\text{SD} / \bar{x}) \times 100. \text{C.V} = 16.37 / 38.09 \times 100 = 42.97$$

OR

(i) For first series, CV

$$\text{CV} = (\text{SD} / \bar{x}) \times 100.$$

$$58 = 21.2 / 58 \times 100 = 36.55$$

1.5

+

	<p>(ii) For second series, CV</p> $CV = (SD/\bar{x}) \times 100.$ $69 = 15.6 / 69 \times 100 = 22.6$	1.5
9	<p>An Index Number is a statistical measure designed to show changes in a variable or group of related variables with respect to time, geographic location or other characteristics.</p> <ol style="list-style-type: none"> 1.Measurement of change in the price level or the value of money. 2.Knowledge of the change in Standard of living 3.Useful to Business Community 4.Information regarding production 5.Information regarding foreign trade. <p>(Brief Explanation) Any relevant point.</p>	1 + 2
10	<p>Base period should have the following properties</p> <ol style="list-style-type: none"> (i) The base year should be a normal year in which extraordinary events such as earthquake, flood, war, elections, etc should not have occurred. (ii) The period should not be too far in the past as comparison cannot be done with such a base year because policies, economic and social conditions change with time. (iii) Base period should be updated periodically. 	1 + 1 + 1
11	<p>(i) Yes, it is true that the market absorbs the impact of increase or decrease in demand only through the process of 'extension and contraction of demand and supply'.</p> <p>Reason: When there is increase in demand, demand curve shifts to the right. Excess demand emerges in the market. Price tends to be higher than the equilibrium price. It leads to extension of supply and contraction of demand. It is through this process of extension and contraction that excess demand is eliminated and new equilibrium is established in the market.</p>	3

	<p>wise, when there is decrease in demand, demand curve shifts to the left. Excess supply emerges in the market. Price tends to be lower than the equilibrium price. It leads to extension of demand and contraction of supply. It is through this process of extension and contraction that excess supply is eliminated and new equilibrium is established in the market.</p> <p>Show with diagram.</p> <p>(ii) Owing to their poverty (and immediate need for cash) farmers are often driven to a distressed sale of their produce. Accordingly, good weather often leads to excess supply in the market. This causes a price fall. The price may fall to such an extent that the total revenue of the farmer decreases even when his output/sale is more than before.</p>	2
12	<p>Total Cost is the sum of total fixed cost and total variable cost.</p> <p>Marginal cost can also be defined as the addition to total cost when an extra unit of output is produced.</p> <p>Average Cost (AC) or Average Total Cost (ATC) is defined as per unit of output.</p> <p>Relationship between MC and AC</p> <ol style="list-style-type: none"> 1. When $MC < AC$, AC falls. 2. When $MC = AC$, AC is constant. 3. When $MC > AC$, AC rises. <p>Table</p> <p>Diagram</p> <p style="text-align: center;">OR</p> <p>Increase in the price of substitute goods makes them more profitable in comparison to the given commodity.</p> <p>As a result, the firm shifts its limited resources from production of the given commodity to production of other good. e.g. increase in the price of wheat will induce the farmer to use land for cultivation of wheat in place of rice.</p> <p>Decrease in price of substitute good will shift the supply curve to the left and vice-versa.</p> <p>In case of complementary goods, if price of one good increases, then supply of its complementary good also increases, conveying a direct relationship. So, rise in the price of car, will cause the supply of petrol to increase.</p>	<p>2</p> <p>1</p> <p>1</p> <p>1</p> <p>2.5 + 2.5</p>

	rise and the supply curve shifts to the rightward and vice-versa. (Show diagram.)	
13.	<p>Calculation</p> <p>N=5</p> <p>$\sum dx=13$</p> <p>$\sum dx^2 = 213$</p> <p>$\sum dy =0$</p> <p>$\sum dy^2 =250$</p> <p>$\sum dxdy=205$</p> <p> $r = \frac{\sum dxdy - (\sum dx) \times (\sum dy) / N}{\sqrt{\sum dx^2 - (\sum dx)^2 / N} \times \sqrt{\sum dy^2 - (\sum dy)^2 / N}}$ </p> <p>$r = +0.97$</p> <p>This is a situation of a high degree of positive correlation.</p>	<p>2.5</p> <p>+</p> <p>2.5</p>