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**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

End-Term Examination, December 2019

Program: MBA ET  
Subject (Course): Managerial Economics  
Course Code : ECON 7001

Semester : I  
Max. Marks : 100  
Duration : 3 Hrs

**Section A**

Note- Answer *all* the questions below. Each question has 2 marks.

1	When the average Product curve is rising ..... A. The marginal product curve lies above the average product curve. B. The marginal product cure lies below the average product curve. C. The marginal product curve cuts the average product curve. D. None of the above.	CO2
2	The Iso-quant curve reflects..... A. All the possible combinations of two inputs that give the same level of output. B. All the possible combinations of two inputs that give different levels of output. C. All the possible combinations of two product, where a producer is indifferent because it gives the same profit. D. None of the above.	CO3
3	In perfect competitive market a firm in the long- run operates at A. $AC = MC$ B. $MR = MC$ C. $AR = MR$ D. $P = AR = MR = AC = MC$	CO4
4	Cross elasticity of demand is: A. Negative for complementary goods B. Negative for substitute goods. C. Unitary for inferior goods. D. Positive for inferior goods	CO2
5	A perfectly competitive firm has control over A. price B. production as well as price	CO3

	<p>C. production, price and consumers</p> <p>D. none of the above</p>	
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### Section B

**Note- Answer *all* the questions below. Each question has 5 marks.**

<b>1</b>	Define and Explain Isoquant curve & Isocost curve with diagram. What are properties of Isoquant Curve?	<b>CO4</b>
<b>2</b>	Define the following different elasticity of demand <ol style="list-style-type: none"> <li>1. Arch elasticity &amp; Point Elasticity</li> <li>2. Price elasticity &amp; Cross Elasticity</li> </ol>	<b>CO2</b>
<b>3</b>	Explain the circular flow income under two sectors, three sectors & four sectors economy model.	<b>CO1</b>
<b>4</b>	Explain Marginal rate of Technical Substitution ( $MRT_{LK}$ ) (where L = Labor and K = Capital). Illustrate your answer with the help of diagram.	<b>CO3</b>

### Section C

**Note- Answer *all* the questions below. Each question has 10 marks.**

<b>1</b>	What is meant by production function? Explain briefly law of returns to variable proportion & law of returns to scale. Illustrate your answer graphically.	<b>CO2</b>
<b>2</b>	Explain the price & output determination under the monopoly in the short run & long run. Illustrate your answer graphically. How is the short run equilibrium of a firm different from its long run equilibrium?	<b>CO1</b>
<b>3</b>	Define the elasticity of demand. Distinguish between price elasticity, income elasticity & Cross elasticity of demand. Discuss the methods of measurement of elasticity of demand.	<b>CO3</b>
<b>4</b>	Define the market structure. Explain the price discrimination under monopoly market. Illustrate your answer graphically.	<b>CO4</b>

### Section D

**Note- Answer *all* the questions below. Each question has 15 marks.**

<p><b>1</b></p>	<p>For a firm under perfect competition it is given that <math>P=19</math> and <math>C= \frac{1}{3}x^3-5x^2+28x+27</math>, where <math>P</math> stands for price per unit, <math>x</math> units of output and <math>C</math> for total cost. Find</p> <ul style="list-style-type: none"> <li><b>i.</b> Quantity produced at which profit will be Maximum and the amount of maximum profit</li> <li><b>ii.</b> What happens to equilibrium output &amp; maximum profit when <math>P =12</math></li> </ul>	<p><b>CO3</b> <b>CO2</b></p>
<p><b>2</b></p>	<p>A firm has estimated the following demand function for its product: <math>Q = 100 - 5P + 5I + 15A</math> where <math>Q</math> is quantity demanded per month in thousands, <math>P</math> is product price, <math>I</math> is an index of consumer income, and <math>A</math> is advertising expenditures per month in thousands. Assume that <math>P = \\$200</math>, <math>I=150</math>, and <math>A = 30</math>. Use the point formulas to complete the elasticity calculations indicated below.</p> <ul style="list-style-type: none"> <li><b>A.</b> Calculate quantity demanded.</li> <li><b>B.</b> Calculate the price elasticity for demand. Is demand elastic, inelastic, or unit elastic?</li> <li><b>C.</b> Calculate the income elasticity of demand. Is the good normal or inferior? Is it a necessity or a luxury?</li> <li><b>D.</b> Calculate the advertising elasticity of demand</li> </ul>	<p><b>CO4</b> <b>CO3</b></p>