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**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**End Semester Examination, December 2018**

**Program: BA Energy Economics**

**Subject (Course): Microeconomics-I**

**Course Code : ECON1002**

**Semester : I**

**Max. Marks : 100**

**Duration : 3 Hrs**

**Section A**

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

<b>1</b>	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.	<b>CO3</b>
<b>2</b>	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.	<b>CO4</b>
<b>3</b>	Which of the following statements is possible A. Total Utility decreases when marginal utility is zero B. Total utility increases when marginal utility is positive C. Total utility decreases when marginal utility is positive D. Total utility increases when marginal utility is negative.	<b>CO2</b>
<b>4</b>	In case of inferior goods, income elasticity is : A. Zero B. Positive C. Negative D. None	<b>CO1</b>
<b>5</b>	Which of the following is a property of the indifference curve ? A. Indifference curves are convex to the origin B. Indifference curves slope downwards from left to right C. No two indifference curves can cut each other D. All of the above are the properties of Indifference curves	<b>CO2</b>

### Section B

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

<b>1</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>
<b>2</b>	Explain Price Consumption Curve (PCC) and Income Consumption Curve (ICC). Illustrate your answer with help of diagram.	<b>CO4</b>
<b>3</b>	Draw the diagram that shows relationship between TP, MP and AP.	<b>CO3</b>
<b>4</b>	Explain each of the following concepts with the help of a diagram. 1. Ceiling Price 2. Floor Price	<b>CO1</b>
<b>5</b>	Explain Cobb-Douglas Production function.	<b>CO3</b>
<b>6</b>	Write a short note on Law of Equi- Marginal Utility approach of consumer equilibrium	<b>CO2</b>

### Section C

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

<b>1</b>	Using the Isoquant –Isocost analysis, Explain how a producer can achieve the equilibrium level.	<b>CO3</b>
<b>2</b>	Using an indifference curve and the budget line, explain how a consumer can achieve equilibrium level.	<b>CO2</b>
<b>3</b>	Define the short run production function. Explain the law of production, which explains the relationship between output & its production factor in the short run production function.	<b>CO4</b>
<b>4</b>	What is Price elasticity of Demand and Cross elasticity of demand? Explain different degrees of price elasticity of demand. Illustrate your answer with the help of Diagram	<b>CO1</b>

### Section D

**Note- Answer all the questions below. Each question has 20 marks.**

<b>1</b>	<p>Rubicon &amp; Styx has estimated the following demand function for its world-famous hot sauce, Sergeant Garcia's Revenge, <math>Q = 62 - 2P + .2I + 25A</math>. where <b>Q</b> is the quantity demanded per month, <b>P</b> is the price per bottle I is an index of consumer income, and A is the company's advertising expenditures per month Assume that <math>P = 4</math>, <math>I = 150</math>, and <math>A = \\$4</math>.</p> <p><b>A.</b> Calculate the number of bottles of Sergeant Garcia's Revenge demanded.</p> <p><b>B.</b> Calculate the price elasticity of demand. According to your calculations, is the demand for this product elastic, inelastic, or unit elastic? What, if anything, can you say about the demand for this product?</p> <p><b>C.</b> Calculate the income elasticity of demand. Is Sergeant Garcia's Revenge a normal good or an inferior good? Is it a luxury or a necessity?</p> <p><b>D.</b> Calculate the advertising elasticity of demand. Explain your result.</p>	<b>CO3</b> <b>CO4</b>
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