

ELIZADE UNIVERSITY
Ilara Mokin, Ondo State
Department of Economics and Development Studies
Faculty of Humanities, Social and Management Sciences
First (1st) Semester Examination
2020/2021 Academic Session



Course Code: ECN 201

Course Title: Introduction to Microeconomics I

Instruction: Answer any THREE questions. Each question carries 20 marks.

Time Allowed: 2 hours

Q1. Suppose the demand for a commodity is given by the following equation:

$$Q_x = 34 - 0.8P_x^2 + 0.3P_y + 0.04I$$

Where:

Q_x is the demand for good "x"

P_x is the price of good "x"

P_y is the price of good "Y"

I is income

- What is the price elasticity of demand when $P_x = \text{N}10$, $P_y = \text{N}20$, and $I = \text{N}5000$?
- What is the cross price elasticity of demand for X with respect to good Y (evaluate the cross price elasticity using the values from part a)? Are these goods substitutes or complements? Explain your answer.
- What is the income elasticity of demand for this good? Is this good normal or inferior? Explain your answer.

Q2. Suppose the market for a bag of rice is characterized by the following demand and supply functions:

$$Q_D = 2,200 - 15P \text{ and } Q_S = 10P - 800$$

- What are the equilibrium price and quantity exchanged?
- What are the elasticity of demand and supply?
- Graph the demand and supply functions.

Q3. Explain the following concepts:

- I. Marginal product of the variable input
- II. Average product of the variable input
- III. The law of diminishing marginal returns
- IV. Constant returns to variable inputs
- V. Decreasing returns to variable input

Q4. With the aid of utility concept, explain the assertion which says that "consumers will ration their resources in the purchase of commodities that will give the highest possible pleasure and as little pain as possible"

Q5a. With the aid of a diagram, explain the movement along demand curve

Q5b. From the table below, fill in the missing figures. Assumed $P_x = \text{₦}20$, $P_y = \text{₦}10$

Q_x	T_{U_x}	M_{U_x}	$\frac{M_{U_x}}{P_x}$	Q_y	T_{U_y}	M_{U_y}	$\frac{M_{U_y}}{P_y}$
1	100	100	5	1	80	80	8
2	190			2	150	70	7
3	270	80	4	3	210	60	6
4	340	70	3.5	4	260		

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