



**NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
2022_1 EXAMINATION**

COURSE TITLE: ECONOMIC THEORY

COURSE CODE: ECO 802

UNIT: 3 UNITS

TIME ALLOWED: 3 HOURS

INSTRUCTION: ANSWER QUESTION ONE AND ANY OTHER THREE QUESTIONS

Question One

(a) Explain graphically the use of Lorenz curve in the analysis of a country's income distribution, with emphasis on the **Gini Coefficient**.

(10 Marks)

(b) Economists often begin the analysis of individual's choices by specifying a basic set of axioms that characterize rational behavior, beginning with the concept of preferences. When an individual prefers choice A to choice B, all things being equal, he/she feels better off with choice A than B. Such preference relation is assumed to have two basic properties. You are required to list and explain briefly the two basic properties. **(15 Marks)**

Question Two

(a) Define and explain symbolically the price-elasticity of demand for:

- (i) When price is the independent variable
- (ii) When quantity is the independent variable

(5 Marks)

(b) Given the linear demand function: $Q = 210 - 0.1P$, compute the point elasticity of demand for $P = N5/\text{unit}$ **(10 Marks)**

Question Three

Define and explain graphically the optimal input combination, with emphasis on least-cost combination of inputs. **(15 Marks)**

Question Four

(a) In the linear programming methods of profit maximization, there are five important assumptions. List and explain briefly each of these assumptions **(7 Marks)**

(b) With appropriate graphical illustration, explain briefly how output, income and price levels can affect the level of employment in a given economy. **(8 Marks)**

Question Five

Using the expenditure and income multipliers, explain briefly:

(a) The effect of government expenditure on national income **(7.5 Marks)**

(b) The effect of tax multiplier on national income **(7.5 Marks)**