



**NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
2023_2 EXAMINATIONS**

COURSE TITLE: MANAGERIAL ECONOMICS

COURSE CODE: ECO 824

UNITS: 3 UNITS

TIME ALLOWED: 3 HOURS

INSTRUCTION: ANSWER QUESTION ONE AND ANY OTHER THREE QUESTIONS

Question One

(a) Define the concept of elasticity of demand, and with appropriate graphical illustration, list and explain the two different types of price-elasticity of demand that are mostly used in business decisions. **(5 Marks)**

(b) Define the income-elasticity of demand.

For all normal goods, economists believe that the income-elasticity is positive. However, the degree or magnitude of income –elasticity varies in accordance with the nature and type of commodities. List and explain the three categories of consumer goods. Identify and explain the magnitude of income-elasticity for each of the different categories of consumer goods.

(20 Marks)

Question Two

(a) Explain briefly what economists refer to as constrained optimization. **(2 Marks)**

(b) List and explain the mostly used constrained optimization techniques **(3 Marks)**

(c) Let the profit function of a firm be given by: $\Pi = f(X, Y) = 100X - 2X^2 - XY + 180Y - 4Y^2$ where X and Y are two different products or commodities. You are required to maximize the profit function subject to the constraint that the sum of the output of the products X and Y equal to 30 units, so that $X + Y = 30$.

(10 Marks)

Question Three

(a) List and explain the major types of demand often encountered in business decisions **(7 Marks)**

(b) Enumerate and explain the factors affecting the market demand for a product **(8 Marks)**

Question Four

(a) Explain what demand forecasting is all about and the reason for demand forecasting as an entrepreneur. **(7 Marks)**

(b) Enumerate and explain the techniques of demand forecasting. **(8 Marks)**

Question Five

Explain graphically:

(a) Competitive pricing in the short run. **(8 Marks)**

(b) Monopoly pricing and output in the short run. **(7 Marks)**