



NATIONAL OPEN UNIVERSITY OF NIGERIA
91, Cadastral Zone, Nnamdi Azikiwe Express Way, Jabi-Abuja
FACULTY OF MANAGEMENT SCIENCES
JUNE 2017 EXAMINATION

COURSE CODE: MBA824 **CREDIT UNIT:** 3
COURSE TITLE: Managerial Economics
TIME ALLOWED: 2^{1/2} Hours
INSTRUCTIONS: 1. Attempt question 1 and any other 3 questions of your choice
2. Question 1 carries 25 marks while the other three carry 15 marks each.
3. Present all points in a coherent and orderly manner

1a. Suppose that the unit price of a commodity is defined by:

$$P = 100 - 2Q$$

$$\text{Then, } TR = PQ = (100 - 2Q)Q \\ 100Q - 2Q^2$$

Suppose that the total cost of producing this commodity is defined by the cost function $TC = 100 + 0.5Q^2$

- a. You are required to apply the first-order condition for profit maximization.
- b. Determine the profit-maximizing level of output. **15marks**

1b. State and Describe the two Scope of Managerial Economics. **10marks**

2. Let the profit of an hypothetical firm be given as:

$$\Pi = f(X, Y) = 100X - 2X^2 - XY + 180Y - 4Y^2$$

Where X and Y represent to products, $X + Y = 30$

Hint:

- a. Express one of the variables (X or Y in this case) in terms of the other and solve the constraint equation for one of them (X or Y).
- b. Substitute the solution obtained into the objective function (that is, the function to be maximized or the profit function) and solve the outcome for the other variable. **15marks**

3a. List and explain the important features of Decision Making in Business. **10marks**

b. What is decision analysis **5marks**

4. State and discuss the five (5) theories of Profit. **15marks**

5a. Define Market Demand **5marks**

b. Explain the Marginal conditions of Profit Maximization. **10marks**

6. List and Describe the 4 types of Demand encountered in Business. **15marks**