COURSE CODE: MBF839   **CREDIT UNIT: 3**
COURSE TITLE: QUANTITATIVE TECHNIQUES FOR BANKING & FINANCE
TIME ALLOWED: $2^{1/2}$HRS
INSTRUCTIONS:
1. Attempt Question One (1) and any other three (3) questions
2. Question 1 carries 25 marks, while the other questions carry 15 marks each.
3. Present all points in coherent and orderly manner

1a. Describe the objective functions and the constraint of Linear Programming. **15marks**

1b. A company sells x units of an item each day at the rate of N50 per unit. The cost of manufacturing and selling these units is N35 per unit plus a fixed daily overhead cost of N1000. Determine the profit function.   **10marks**

2a. Discuss Net Present Value and how is it computed?   **10marks**

2b. Calculate the present value of N1,000 receivable in seven year's time, assuming a 5% rate of interest.   **5marks**

3a. Explain annuity and how it works   **5marks**

3b. Explain the fundamental characteristics of ordinary shares and preference shares. **10marks**

4a. Executives at all levels in business and industry make decisions at every course of daily activities. List and explain 5 advantages of the study of quantitative method for managers. **10marks**

b. if Mr. Richman deposits N100,000 in a bank account which pays interest at 60% compounded semi-annually, how much will he have at the end of 5 years ?   **5marks**

5a. Discuss linkage between earnings per share and dividends per share?   **10marks**

5b. In a firm of 1,250 employees, 575 are male. Find the percentage of female employees **5marks**

6a. A grocery store charges N100 for 5 packs of oranges. Assuming there is a no quantity discount, how much will be charged for 18 packs of oranges?   **5marks**

6b. Discuss extensively the following features:

i. Face Value   **2marks**

ii. Interest Rate   **2marks**

iii. Maturity   **2marks**

iv. Redemption Value   **2marks**

v. Market Value   **2marks**.