NATIONAL OPENUNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESS WAY, JABI – ABUJA
FACULTY OF MANAGEMENT SCIENCES
DEPARTMENT OF FINANCIAL STUDIES
2021_2 EXAMINATION

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

1. A small project consists of seven activities for which the relevant data is given below:

Activity	Preceeding activities	Time duration (days)
A	-	4
B	-	7
C	-	6
D	A,B	5
E	A,B	7
F	C,D,E	6
G	C,D,E	5

i. Draw the network of the project and identify the activity paths in the project.   **15 marks**

ii. Calculate the time schedule, including the slack time of the activities of the project. **5 marks**

iii. What is the project completion time and what are the critical activities?   **5 marks**

2a. Talk on Net Present Value and how is it computed?   **5 marks**

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

c. Simplify the algebraic expression**:** $-3 (x -2y + 7z^3)$ **5 marks**

3a. Explain the objective functions and the constraint of LP;   **5 marks**

b. Differentiate the four costs associated with inventory

i. Cost of Holding Stock: **2.5 marks**

ii. Costs of Obtaining Stock: `   **2.5 marks**

iii. Stock-out Costs: **2.5 marks**

iv. Costs of Stock: **2.5 marks**

4a. Explain the basic assumption of Economic Order Quantity (EOQ)   **6 marks**

b. Decompose time series into its various components   **9 marks**

5a. What do you understand by the term correlation?   **9 marks**

b. Explain the need for linear regression in statistical analysis.   **6 marks**