



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI, ABUJA
FACULTY OF MANAGEMENT SCIENCES
2025_1 EXAMINATION...

COURSE CODE: BUS 800 **CREDIT UNIT: 2**

COURSE TITLE: Quantitative Analysis

TIME ALLOWED: 2Hrs

- INSTRUCTION:**
- 1. Attempt question number one (1) and any other (2) questions.**
 - 2. Question number 1 carries 30 marks, while the other two (2) questions carry 20 marks each.**
 - 3. Present all your points in coherent and orderly manner.**

1a. In the table below, items supplied from origins A, B, C and D and those demanded in locations 1, 2, 3 and 4 are shown. The figures in the boxes are the unit cost of moving an item from an origin to a destination, use the VAM method to allocate the material in order to minimize cost of transportation. **15Marks**

Origin	1	2	3	4	Supply
A	10	13	7	9	1000
B	6	11	15	18	2000
C	2	6	9	5	2500
D	11	15	10	1	3500
Demand	1500	2500	3000	2000	

b. Discuss the following basic types of sets with examples **2marks each = 10marks**

i. Singleton Sets or Unit Sets

ii. Finite Sets

iii. Unequal Sets

iv. Infinite Sets

v. Disjoint Sets

c. Differentiate between Equal Set and Equivalent Set **5marks**

2a. Discuss five (5) Components of Decision Making **2marks each = 10marks**

b. Differentiate between model and modelling **10marks.**

3a. Discuss the following forms of system **10marks**

i. Conceptual system

ii. Mechanical system

iii. Social system

iv. Deterministic system

v. Probabilistic system

b. Discuss development of Operations Research before World War II and Post World War II

10marks

4a. Explain what scheduling involves and the nature of scheduling. **10marks**

b. Discuss five (5) Priority Rules for Job Sequencing **2marks each = 10marks**