



**NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
2022_2 EXAMINATION**

COURSE TITLE: OPERATIONS RESEARCH

COURSE CODE: ECO 314

UNITS: 3

TIME ALLOWED: 3 HOURS

INSTRUCTION: ATTEMPT QUESTION ONE (1) AND ANY OTHER THREE (3) QUESTIONS

- 1a. Explain the scope of operations research in financial management (4 marks)
1b. Explain briefly some areas of management where operations research techniques have been successfully applied (21 marks)
- 2a Trace the history and evolution of operation research (9 marks)
2b. Explain the research phase of the scientific method of operations research (6 marks)
- 3a. List five (5) different decision making criteria (2.5 marks)
3b. Explain the five (5) different decision making criteria listed above (in 3a) (12.5 marks)
- 4a. Differentiate between a model and modelling (2.5 marks)
4b. Outline five characteristics of a good model. (5 marks)
4c. Explain the classification of models by structure. (7.5 marks)
- 5a. Describe transportation problem? (2.5 marks)
5b. List and explain are the major assumptions in using transportation model? (4.5 marks)
5c. Enumerate the steps in the use of the Vogel's Approximation Method (VAM) (8 marks)