



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI, ABUJA
FACULTY OF MANAGEMENT SCIENCES
2025_2 EXAMINATIONS

COURSE CODE: BUS406 **CREDIT UNIT:** 3
COURSE TITLE: ANALYSIS FOR BUSINESS DECISION
TIME ALLOWED: 3 Hours
INSTRUCTIONS: 1. Attempt question Number one (1) and any other three (3).

2. Question number 1 is compulsory and carries 25 marks, while the other questions carry 15 marks each

3. Present all your points in coherent and orderly manner

- 1a. Discuss what sequencing involves and the use of priority rules. **5Marks**
b. What are the errors that can occur in making decisions? **5Marks**
c. Consider the contingency Matrix Below

Contingency Matrix

States of Nature	Alternatives		Probability
	Stock Rice (A ₁)	Stock Maize (A ₂)	
High demand (S ₁) (₦)	8,000	12,000	0.6
Low demand (S ₂) (₦)	4,000	-3,000	0.4

Required: Represent the above payoff matrix on a decision tree and find the optimum contingency strategy. **15Marks**

2a. What is a Case Study **5marks**

b. A stock keeper has to supply 12000 units of a product per year to his customer. The demand is fixed and known and the shortage cost is assumed to be infinite. The inventory holding cost is ₦ 0.20k per unit per month, and the ordering cost per order is N350. Determine **10Marks**

- i. The optimum lot size q_0
- ii. Optimum scheduling period t_0
- iii. Minimum total variable yearly cost.

3. Formulate a linear programming model for the transportation problem. **15Marks**

	E	F	G	Supply
A	5	8	2	450
B	4	3	7	300
C	9	6	5	550
D	3	4	6	400
Demand	800	400	500	

4a. Discuss five (5) factors to be considered in inventory control. 2Marks each = 10Marks

**b. List five (5) key differences between an assignment problem and a transportation problem
5Marks**

5a. Describe the phases in decision analysis. 7Marks

b. Decision theory approach typically comprises four stages. Discuss 2Marks each= 8Marks