



NATIONAL OPEN UNIVERSITY OF NIGERIA  
Department of Agricultural Economics and Extension  
FACULTY OF AGRICULTURAL SCIENCES  
**2025\_1 EXAMINATION...**

**Programme: Agricultural Extension and Management**

**Course Title: Statistics and Research Methods**

**Course code: AEM501**

**Credit Unit: 3**

**Time Allowed: 3 Hours**

**INSTRUCTION: Answer Compulsory question 1 (30 marks) and 4 questions (10marks).**

**Question 1.**

- (a) What is research?
- (b) In social research state 5 kinds of data collected.
- (c) Highlight 5 guides to a researcher in problem identification.
- (d) Distinguish between Type II Error and Type I Error
- (e) Explain dependent and independent variables
- (f) State the differences between secondary and primary data in research

**Question 2**

- (a) Explain the following types of research
  - i. Historical research:
  - ii. Descriptive research:
  - iii. Experimental research:
- (b) Explain 2 factors that survey research are dependent upon
- (c) Outline 5 uses of Hypothesis

**Question 3.**

- (a) What are the unique features of a research problem?
- (b) Enumerate 6 essentially identified steps in a research process
- (c) Highlight 5 good hypothesis statement sources

**Question 4.**

- (a) Explain the following:
  - i. Null Hypothesis:
  - ii. Alternative Hypothesis
- (b) State 4 factors to be considered when stating a general objective of a study
- (c) Discuss comprehensive research report

**Question 5.**

- (a) i. What are the criteria for good statement of problem?
  - ii. State the rules that must be followed when constructing a table for tabulation of data
- (b) Consider 5 guidelines that must be contained in a questionnaire design
- (c) Give 5 importance of pre – test in survey