



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
Nnamdi Azikiwe Expressway, Plot 91, Cadastral Zone, Jabi, Abuja  
Faculty Agricultural Sciences  
October/November, 2016

**Programme: Agricultural Extension and Management**  
**Course Code: AEM 501**  
**Course Title: Statistics and Research Methods in Extension**  
**Credit Unit: 3**  
**Total Score: 100 Marks**  
**Time Allowed: 2 Hours**  
**Instruction: Answer any five (5) Question**

- 1i. What is research (12marks)?**
- ii. List the types of data collected in social research (5marks)**
  - b. List the limitations in cross-cultural research (3marks)**
- 2a. List the criteria for good problem statement (6marks)**
  - b. What are the steps in problem formulation (6marks)?**
  - c. List the points to consider in problem evaluation (8marks)**
- 3ai. What is a variable (3marks)?**
- ii. List the different types of variables (5marks)**
- bi. Define hypothesis (5marks)**
- ii. List the functions of hypothesis (5marks)**
- iii. List the different types of hypothesis (2marks)**
- 4a. List 15 essential steps in the research process (15marks)**
- b. What are the factors that can determine the choice of a problem by a researcher (4marks)?**
- c. Give an example of problem statement in agricultural extension (1mark)**
- 5. Explain with diagrams the different distribution shapes (20marks)**
- 6i. Outline three points to note during sampling**
  - ii What is statistics**
  - iii Briefly explain the term descriptive statistics**
- 7 Vividly explain the following**
  - a. Coefficient of correlation**
  - b. Inferential Statistics**
  - c. Qualitative analysis**