



NATIONAL OPEN UNIVERSITY OF NIGERIA
University Village, Nnamdi Azikwe Expressway, Jabi, Abuja
Faculty of Agricultural Sciences

June/July 2017 Examination

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:** 3 Hours
Instruction: Answer Question 1 (compulsory) and any other four (4)

1.
 - a. What is a Research Design? **4 marks**
 - b. State any four roles of pre – test survey **4 marks**
 - c. Calculate the variance for the population and sample size of cowpea farmers with these values; 9, 6, 4, 8, 7, 3, 2, 5 **12 marks**
2.
 - a. Enumerate on the different types of data collected in social science research. **8 marks**
 - b. Define the following terms;
 - i. Research Methodology **2.5 marks**
 - ii. Social Research **2.5 marks**
 - c. Trace the importance of research in development. **7 marks**
3.
 - a. In sequence, list the steps identified in the process of research **7.5 marks**
 - b. Discuss any five factors that determine the selection of a research problem? **10 marks**
 - c. State any two criteria for a good research problem **2.5 marks**
4.
 - a. Conceptualize the term Hypothesis. **4 marks**
 - b. Briefly discuss the types of hypothesis. **8 marks**
 - c. State the types of errors in research **4 marks**
 - d. State two important functions of hypothesis **4 marks**
5.
 - a. What do you understand by Research work plan? **5 marks**
 - b. Briefly discuss any four classes of variables in Research. **12 marks**
 - c. Why is hypothesis regarded as an important and indispensable tool of scientific research? **3 marks**
6.
 - a. Briefly discuss the types of data used in research. **5 marks**
 - b. What are the sources of data adopted in any research? **10 marks**
 - c. In a sample of 200 maize farmers, 120 were females as against 80 that were females. The knowledge level of the female farmers was 80% and the males 60%. Calculate the knowledge level of the farmers. **5 marks**
7. Write short notes on any four headings:
 - a. Field Studies **5 marks**
 - b. Survey research **5 marks**
 - c. Content/document analysis **5 marks**
 - d. Case study **5 marks**
 - e. Ethnographic studies **5 marks**