

**NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF AGRICULTURAL SCIENCES
SECOND SEMESTER EXAMINATION
JANUARY/FEBRUARY, 2018**

Programme: Agricultural Extension and Management

Course Title: STATISTICS AND RESEARCH METHODS IN EXTENSION

Course Code: AEM 501

Credit Unit: 3

Total Score: 70 Marks

Time Allowed: 2½Hours

INSTRUCTION:

Answer Compulsory question 1 (30 marks) and any 4 questions (10 marks each).

1. (a) What is a research? **3 marks**
(b) Explain the three (3) classifications of research. **6 marks**
(c) In what ways do exploratory, descriptive and causal research designs differ? **6 marks**
(d) Briefly comment on simple random sampling and systematic sampling methods with examples. **5 marks**
(e) Explain Ex-post-facto-research with a clear example. **5 marks**
(f) Differentiate between Case and Ethnographic studies. **5 marks**
2. (a) Identify five (5) characteristics of research problems. **5 marks**
(b) Define hypothesis and list its types. **5 marks**
3. (a) What are intervening variables? **4 marks**
(b) Differentiate between continuous and discrete variables. **6 marks**
4. (a) What are the characteristics of inadequate response in questionnaire administration? **5 marks**
(b) Define the followings:
 - i. Sample
 - ii. Statistic
 - iii. Sample frame
 - iv. Sampling error
 - v. Probability**5 marks**
5. (a) i. What is a pie chart? **2 mark**
ii. What are the steps in drawing a pie chart? **2 marks**
(b) If there are 85 students in a faculty, 20 students in Agric. Extension Department, 10 students in Agronomy, 35 students in Agric. Economics, 15 students in Animal Science and 5 students in Agric. Biology. Present this information on a bar chart. **6 marks**
6. (a) What is a report writing? **2 marks**
(b) Write short notes on the followings:
- Forward

- Introduction
 - Methodology
 - Discussion and interpretation
- 8 marks**

7. (a) Write five (5) tips for constructing a bar. **5 marks**
- (b) Write short notes on quartiles and mean deviation. **5 marks**