**** **NATIONAL OPEN UNIVERSITY OF NIGERIA**

**FACULTY OF AGRICULTURAL SCIENCES**

**FIRST SEMESTER EXAMINATION**

 **NOVEMBER/DECEMBER, 2018**

**Programme: Agricultural Extension and Management**

**Course Title: Statistics Research Methods in Extension**

**Course code: AEM501**

**Credit Unit: 3**

**Time Allowed: 3 Hours**

**INSTRUCTION:**

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

**Question 1**

**(a)** State Two criteria for good problem statement and Two conditions that are conducive to the formulation of significant of problem. 4marks

(b) Define inferential statistics. 2marks

 (c) State Four rules for tabulation of data. 4marks

  **(d)** State five essential steps identified in a research process *5marks*

1. Discuss Five functions of hypothesis 5marks
2. Discuss the twotypes ofhypothesis ***6marks***
3. What factors should be consider by the researcher when stating the general objectives of the study ***4marks***

**Question 2.**

 **(a)** Discuss the following types educational research

i. Historical research 2marks

 ii. Descriptive research 2marks

 iii. Experimental research 3marks

 iv. Survey research  *3marks*

**Question 3.**

**(a)** Discuss guidelines that should be considered in the content of a questionnaire design *5marks*

**(b) Discuss** Five roles of pre – test survey 5marks

**Question 4.**

1. **Dis**cuss Five sources of good hypothesis 5marks
2. **Discuss briefly** the writing of a comprehensive report. 5marks

**Question 5.**

 **(a)** Distinguish between dependent and independent variables 4marks

 (b) Summarise the primary and secondary data in research 6marks

Question 6.

1. Explain briefly research as a concept 3 marks
2. Explain research problem ***3marks***
3. Explain type 1 error and type 11 error in statement of hypothesis 4marks

Question 7.

 **(a)** Discuss the following types educational research

i. Historical research 2marks

 ii. Descriptive research 2marks

 iii. Experimental research 3marks

iv. Survey research  *3marks*