**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**FACULTY OF AGRICULTURAL SCIENCES**

**DEPARTMENT OF AGRICULTURAL ECONOMICS AND EXTENSION**

**FIRST SEMESTER EXAMINATION, APRIL/MAY, 2019**

**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**

1. Define research 3 mark
2. Why are researches designed in some cases? 3 marks

( c) Discuss:

(i) Exploratory field studies 3 marks

(ii) Hypothesis testing field studies. 3 marks

(d) Explain 3 factors that survey research is dependent upon? 6 marks

(e)Explain the limitations of cross-cultural research 3 marks

(f) Describe 4 general, types of data that are collected in social science research. 4 marks

(g) State 5 essential steps identified in the research process. 5 marks

**Total = 3 +3 + 6 + 6 +3 +4 + 5 = 30 marks**

**Question 2**

1. Outline 4 points that should guide the researcher in problem identification? 4 marks
2. Discuss 2 types of errors made by researchers when testing hypothesis . 4 marks

**Question 3**

(a). Give the scope in which selecting a topic for research depends 4 marks

(b) Explain 3 types of data collected in social research? 6 marks

**Question 4**

1. Define hypothesis 2 marks

(b) Discuss the 2 types of Hypotheses 4 marks

( c) In not less than four sentences explain the characteristics of research objectives 4 marks

**Question 5**

1. Differentiate Moderator variable and Control variable 4 marks
2. Give 3 benefits of a research design 3 marks
3. Briefly explain laboratory experimental design 3 marks

**Question 6**

1. Discuss 3 factors to be considered in the contents of a questionnaire. 6marks
2. Explain 2 principal sources of data 4 marks

**Question 7**

1. Construct a bar chart using the following table 10 marks

**Table 1**

