



NATIONAL OPEN UNIVERSITY OF NIGERIA
14/16, Ahmadu Bello Way, Victoria Island

SCHOOL OF SCIENCE AND TECHNOLOGY
October, 2013 Examination

Course Code: AEM 501

TME Allowed: 3 hrs.

Course Title: STATISTIC AND RESEARCH METHODS IN EXTENSION

INSTRUCTIONS: Answer five (5) questions only. All questions carry equal marks.

- 1a. Highlight the objectives of conducting research.
(5marks)
- 1b. Briefly describe the following types of educational research:
 - I. Historical research;
 - II. Descriptive research;
 - III. Experimental research. (5marks each)
- 2a. List the steps that a scientist needs to identify in a research process.
(8marks)
- 2b. Discuss fully any three of the steps listed in 2a above. (12 marks)
3. Outline the characteristics of problems and state the criteria for good problem statement.
(20Marks)
4. Briefly discuss the criteria for a good hypothesis statement stating the functions of hypothesis in the conduct and analysis of a research.
(20marks)
- 5a. Outline the steps involved in Ex-post facto design. (4 marks)
- 5b. Give reasons why it is necessary to pre - test a questionnaire.
(10marks)
- 5c. What are the characteristics of inadequate responses?
(6marks)
- 6a. Write short notes on the following:
 - I. Pie chart;
 - II. Histogram;
 - III. Positively skewed distribution;
 - IV. Bar chart. (5marks each)

7. Supposing the data below represents the scores of students in a class, arrange a frequency distribution and calculate the Mean, Median, Mode and give your observation on the class scores.
20, 24, 30, 15, 17, 31, 38, 20, 38, 38, 17, 24, 30.
(20 marks)