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**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS**

**SCHOOL OF SCIENCE AND TECHNOLOGY**

**MAY/JUNE 2012 EXAMINATION**

AEM 672RESEARCH METHODS AND SOCIAL STATISTICS

TIME ALLOWED: 3.00hrs

INSRUCTIONS: Answer FIVE (5) questions only. All questions carry equal marks

1a. Differentiate between basic research and farming system research. (5Marks)

1b. Briefly discuss the principles underlying the farming system research. (10marks)

1c. List the basic stages in the conduct of farming system research. (5Marks)

2a. Highlight the relevance of literature review in the conduct of research. (10 Marks)

2b. What do you understand by a research proposal? (2marks)

2c. Give reasons why developing a research proposal is necessary for the success of a research work. (8Marks)

3a. Differentiate between:

1. The null hypothesis and the alternative hypothesis
2. Historical research and experimental research
3. Open-ended and close-ended questionnaires
4. Participatory rural appraisal (PPR) and diagnostic surveys (20Marks)

4. Given the following group data

25, 30, 25, 38, 42, 39, 68

11, 11, 11, 25, 28, 25, 38

39, 30, 38, 42, 25, 68, 42

1. Arrange an array.
2. Arrange and determine the frequency distribution.
3. Determine the mean and median of the data set. (4 Marks each)
4. Assuming the data represents the examination results of 21 students what will be your conclusion. (8Marks)