



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**14/16 AHMADU BELLO WAY, VICTORIA ISLAND, LAGOS**  
**SCHOOL OF SCIENCE AND TECHNOLOGY**  
**MARCH/APRIL 2014 EXAMINATION**

**COURSE CODE: AEM772**

**COURSE TITLE: RESEARCH METHODS AND SOCIAL STATISTICS**  
**EXAMINATION**

**TIME ALLOWED: 3HOURS**

**INSTRUCTION: ANSWER 5 QUESTIONS ONLY. ALL QUESTIONS CARRY**  
**EQUAL MARKS**

1a. Discuss fully the relevance of interviews as a means of generating information (10 Marks)

1b. Highlight the significance of observation surveys in the conduct of research. (10 Marks)

2. Write short notes on the following:

- a) On-farm Research;
- b) Basic research;
- c) Action research. (20 Marks)

3a. Discuss the merits and demerits of obtaining data from public or private sources. (10 Marks)

3b. Discuss the factors to be considered in the development of a theory. (10 Marks)

4. Briefly discuss the role of the Mean, Median and Mode as measures of central tendency and use the data below to calculate the variables mention above

25, 30, 25, 38, 42, 39, 68, 11, 11, 11, 25, 28, 25, 38, 39, 30, 38, 20, 20, 20, 20.  
(20 Marks)

5. Define the following terms:

- a) Variable
- b) Appendix
- c) References
- d) Element (20 Marks)

6a. With the aid of a diagram differentiate between a Bar chart and a Pie chart. (10 Marks)

6b. Distinguish between an open ended and a close ended questionnaire highlighting the advantages and disadvantages of each (10 Marks)

7. Define the following terms

- a) Critical Region
- b) Type 1 Error ( $\alpha$ )
- c) Type 2 Error ( $\beta$ )
- d) Level of significance
- e) Power of a test