



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**14/16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS**  
**SCHOOL OF EDUCATION**  
**EXAMINATION 2017\_2**

**EDU 323 : BASIC RESEARCH METHODS AND STATISTICS IN EDUCATION**  
**QUESTIONS**

**Answer 1 and any two others**

1. a. What is hypothesis? 3 marks  
b. What are the three characteristics of hypothesis? 6 marks  
c. Give a researchable topic in your area of study 5 marks  
d. State two alternative hypothesis  $H_a$  and two null hypothesis  $H_o$  from the topic given in C 12marks  
e. State two research questions from the topic 4 marks
2. a. Explain the four scientific attitudes which you need to apply in your research 10 marks  
b. Explain the four ethical considerations in research 10 marks
3. a. Differentiate between probability sampling and non-probability sampling  
b. Explain three types of probability sampling and three types of non-probability sampling.
4. a. Differentiate between these variables  
i). Independent and dependent variables  
ii). Discrete and continuous variables 10 marks  
b. i). What are the two types of validity in experimental studies  
ii). Mention four threats to each of the two types of validity 10 marks
5. Construct a ten item questionnaire as follows:  
i. It should be from a topic in your area of study  
ii. It should contain all this components  
iii. It should be for a named population 20 marks