



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
Plot 91, Cadastral Zone, Nnamdi Azikiwe Express Way, Jabi, Abuja  
**Faculty of Education**  
**2020\_1 Semester**

**PROGRAMME:** PGDE  
**COURSE TITLE:** Basic Research Methods in Education  
**COURSE CODE:** EDU723  
**CREDIT UNIT(s):** 2  
**TIME ALLOWED:** 2 HOURS  
**INSTRUCTION:** Answer question one and any other two

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**Question 1**

- (a). What benefits do you derive when you study statistics? (12 marks).
- (b). As a class teacher, your class students took test in both statistics and mathematics. The results are as follows:- mean performance in (i) statistics=52, and (ii) mathematics=48. The students are 20 in number. Standard deviation=16.05,  $t_{cal}=0.515$ ,  $t_{tab}=2.121$ ,  $p=0.05$
- i. Formulate one null hypothesis  $H_0$  and one alternative hypothesis  $H_a$  on the students' performances in both statistics and mathematics. (6marks)
  - ii. What is the degree of freedom in this situation? (3marks)
  - iii. State the decision rules to guide you here. (5marks)
  - iv. What decision can you make based on your null hypothesis? (2marks)
  - v. What is your decision based on your alternative hypothesis? (2 marks).

**Question 2**

- (a). What do you understand by a research project report? (2 ½ marks)
- (b). You are about to write your research proposal. The chapter 1 of this proposal is called introduction. Explain what you will write on the components of the introduction. (17½ marks).

**Question 3**

- (a). The wish of the educational researcher is to apply scientific methods in research. Explain the limitations to this wish. (14 marks).

- (b). Explain the characteristics you will consider when you want to select your research problem.  
(6 marks).

**Question 4**

- (a) What do you understand by historical research? (4 marks).
- (b) What are the two sources of historical data? (4 marks).
- (c) Give three examples of each of the sources of historical data. (6 marks).
- (d) Explain the two ways of determining the authenticity of historical data. (6 marks)