

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA  
SCHOOL OF SCIENCE AND TECHNOLOGY EDUCATION  
DEPARTMENT OF SCIENCE EDUCATION

SECOND SEMESTER EXAMINATION 2018/2019 SESSION COURSE CODE: - EDU322  
CREDIT UNITS: - 3 COURSE TITLE: RESEARCH METHOD AND DATA PROCESSING  
DURATION: 2 1/2 HOURS

**INSTRUCTION:** Answer **QUESTION ONE AND ANY THREE (3)** questions. Each Question Carries 15 Marks

- 1) Define and distinguish between the following in educational research with an example in each
  - a) Cross-sectional study and a longitudinal study.
  - b) Independent variable and dependent variable.
  - c) Population and Sample.
  - d) Alternative hypothesis and null hypothesis.
  - e) Quasi-experimental design and Pure Experimental design.
2.
  - a) Discuss in detail any three justifications for Literature Review in educational research.
  - b) List and explain any three types of research you know
3. If a researcher wants to know what percentage of the population would vote for APC or PDP candidate in the next election in Niger State,
  - a) State and discuss the kind of research the researcher is simply interested
  - b) State a proposed topic and a research for undergraduate student on the above research in not more than 22 words.
  - c) State an example of a research question for the topic.
4. Explain how to use the 6<sup>th</sup> edition APA style (in text citation) with one example each in the case of the following:
  - a) Citing a work that has up to seven (7) or more authors at second or subsequent citations.
  - b) A work with one author Dr. Bashir, A.U and published in 2019 at the end of a sentence.
  - c) A work by Prof. V.I. Ezenwa, Dr. A.A. Hassan, Dr. A.U. Bashir and Dr (Mrs.) R.W. Gimba, published in 2018 with the authors as part of a sentence.
  - d) When citing the work of a group such as World Health Organisation in 2017
    - (i) At first in text citation
    - (ii) At second & subsequent citations.
5.
  - a) List three measures of central tendencies and the three most commonly used frequencies in educational research you know.
  - b) State the appropriate measure of variability for Nominal Data and Ordinal data
  - c) State when t-test is the most appropriate test to use and mention the two types of t- test you know.
  - d) What is your opinion on two sets of students' scores that are widely divergent and reported to have identical means or medians?