



**National Open University of Nigeria**  
**Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja**  
**Faculty of Science**  
**September, 2020\_1 EXAMINATIONS**

**COURSE CODE: ESM 304**

**COURSE TITLE: RESEARCH METHODS AND FIELD TRIP**

**CREDIT: 3 Units**

**TIME ALLOWED: 2 ½ Hours**

**Instruction:** Attempt question number ONE (1) and any other FOUR (4) questions. Question number one (1) carries 22 marks, while the other questions carry (12) marks each.

1. If you are carrying out an empirical research on water quality assessment of River Usman, write a detail abstract of not more than 250 words depicting its true content. (22 marks)
2. Explain the following terms
  - i. Discussion (4 marks)
  - ii. Conclusion (4 marks)
  - iii. References (4 marks)
3. Write detail note on the following
  - a) Pure research (4 marks)
  - b) Applied Research (4 marks)
  - c) Correlation Research (4 marks)
4. a. Explain the term research proposal? (5 marks)
  - b. What are the benefits of the following in proposal writing?
    - i. Generating ideas (1 marks)
    - ii. Reading widely (1 marks)
    - iii. Been creative (1 marks)
    - iv. Writing Style (1 marks)
    - v. Seeking help from others (1 marks)
    - vi. Method and /or Procedure (1 marks)
    - vii. Restatement of the Major Research Hypothesis or Question (1 marks)
5. Differentiate between validity and reliability of an instrument (12 marks)
6. Discuss the things to do with the Proposal when the Research is Complete (12 marks)