



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**FACULTY OF SCIENCES**  
**DEPARTMENT OF ENVIRONMENTAL SCIENCE**  
**Plot 91, Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja**  
**2021\_2 EXAMINATIONS**

**COURSE CODE: ESM304**

**CREDIT UNIT: 3**

**TIME: 3 Hours**

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

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

- 1a. What does the term quasi- experimental design mean [1 mark]
- 1b. What is a research design [1 mark]
- 1c. State the essence of other people in research proposal work [2 marks]
- 1d. What constitutes failure in proposal writing [3 marks]
- 1e. The method section is important to a researcher. Why? [4 marks]
- 1f. Enumerate the importance of restatement in environmental research work. [2 marks]
- 1g. What does the term longitudinal survey mean [2 marks]
- 1h. State the types of longitudinal design [3 marks]
- 1i. What are the characteristics of library research? [4 marks]
  
- 2a. Enumerate the ways involved in samples collection during a research. [2marks]
- 2b. Explain briefly the principles of sampling theory. [3 marks]
- 2c. What are the categories of sampling design [4 marks]
- 2d. List the components of sampling strategies. [2 marks]
- 2e. What are the steps in research proposal writing? [1mark]
- 3a. State the functions of spatial analysis [2 marks]
- 3b. What are the characteristics of spatial data [3 marks]
- 3c. Describe geographical analysis [4 marks]
- 3d. What are the options available at various stages of a research project [2 marks]
- 3e. State briefly the modification of a real unit problem. [1 mark]
  
- 4a. State the information needed in a research proposal [2 marks]
- 4b. State the information needed in your study [3 marks]
- 4c. State the principles of sampling theory. [4 marks]
- 4d. Enumerate two categories of sampling design [2 marks]
- 4e. What is the information needed in writing research proposal. [1mark]

- 5a. Define the term Environmental Research [2 marks]
- 5b. List some of the aspects of the environment [3 marks]
- 5c. What are the best strategies to promote hygienic environment [4 marks]
- 5d. Enumerate the problems of a professional Environmentalist [2 marks]
- 5e. State the definitions of conclusion [1 mark]
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- 6a. What are the characteristics of experimental designs [2 marks]
- 6b Outline any five procedures that govern data analysis [10 marks]