**

**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**FACULTY OF SCIENCES**

**DEPARTMENT OF ENVIRONMENTAL SCIENCE**

**Plot 91, Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja**

 **JULY 2018 EXAMINATIONS**

**COURSE CODE: ESM 304**

**COURSE TITLE: RESEARCH METHODS AND FIELD TRIPS IN ENVIRONMENTAL SCIENCE**

**TIME: 2: 30mins CREDIT UNIT: 3**

**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.

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1a. Explain the meaning of environment **(3marks)**

b. Identify and explain the types and components of the environment **(8marks)**

c. Write short notes on any three parts of the main body of a research thesis **(8marks)**

d. Explain the meaning of sampling **(3marks)**

2. With relevant examples identify and discuss five (5) objectives of a research on the impact of solid waste disposal on environmental quality **(12marks)**

3. Write short notes on these types of research (a) Explanatory Research (b) Exploratory Research and (c) Correlation research **(12marks)**

4a. With relevant examples, discuss the methods of data analysis in research **(7marks)**

b. Identify five common problems encountered in the analysis of data in research **(5marks)**

5. What does a research proposal means to you? Explain why it is relevant in the research process. **(12marks)**

6a. With examples, explain the differences between ordinal and ration data **(4marks)**

 b. identify and explain any three instruments used for data collection in environmental science research **(8marks)**