



**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja  
Faculty of Sciences**

**2024 1 EXAMINATION**

**Course Code: ESM 341**

**Course Title: Introduction to Instrumentation Measurements and Field Methods in Environmental Science**

**Course Unit: 2 Credit Units**

**Time Allowed: 2<sup>1</sup>/<sub>2</sub> Hours**

**Total Score: 70 Marks**

**Instructions: Answer question ONE and any other TWO questions**

1. a. What is remote sensing?  
b. Outline and explain the process of data acquisition in remote sensing
  
2. Write short notes on the following:
  - i. Stratified sampling
  - ii. Stratified systematic sampling
  - iii. Purposive sampling
  - iv. Convenience sampling
  
3. Describe the following:
  - i. Sound level meter
  - ii. Noise dosimeter
  
4. Explain the importance of instrumentation in environmental fieldwork.
  
5. Write explanatory notes on any two (2) of the following meteorological variables:
  - i. Wind
  - ii. Temperature
  - iii. Precipitation