



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

**COURSE CODE: EMT411**

**COURSE TITLE: WATER ANALYSIS**

**CREDIT: 1 Unit**

**TIME ALLOWED: 1 Hour**

**Instruction:** Attempt question number ONE (1) and any other TWO (2) questions. Question number one (1) carries 30 marks, while the other questions carry (20) marks each.

- 1a. Explain Silicates & Phosphate in water (5 marks)
- 1b. Explain the total dissolved solids (TDS) (6 marks)
- 1c. What can you say about the presence of potassium in water? (4 marks)
- 1d. Explain the Microbial analysis of water (9 marks)
- 1e. What is specific conductance? (6 marks)
  
- 2a. Briefly explain preponderance hydrogen ion (pH) (6 marks)
- 2b. Describe Biochemical Oxygen Demand (BOD) (4 marks)
- 2c. What are the major forces that tend to mix ground water? (7 marks)
- 2d. What is your understanding of Sulphate in water? (3 marks)
  
- 3a. Explain carbon dioxide in water (8 marks)
- 3b. Explain dissolved oxygen (7 marks)
- 3c. List the chemical tests normally conducted on water (5 marks).
  
- 4a. What are the major constituents or primary constituents in any natural groundwater sample? (4 marks)
- 4b. Write a short note on trace constituents of ground water sample (6 marks)
- 4c. List the Factors that are pertinent in selecting containers used to collect and store water sample (3 marks)
- 4d. What are the physical parameters usually performed on water? (3 marks)
- 4e. Briefly describe Carbonate presence in water (4marks)