



NATIONAL OPEN UNIVERSITY OF NIGERIA
UNIVERSITY VILLAGE, PLOT 91 CADASTRAL ZONE, NNAMDI AZIKWE
FACULTY OF SCIENCES
DEPARTMENT OF ENVIRONMENTAL SCIENCE

2025_2 EXAMINATIONS

COURSE CODE: ESM 322
TIME: 2 HOURS
COURSE TITLE: Water And Wastewater Management
CREDIT UNIT: 2

INSTRUCTION: Attempt question number ONE (1) and any other Two (2) questions. *Question number one (1) is compulsory and carries 30 marks, while the other questions carry equal marks (20marks) each.*

1a. Define potable water **(5mks)**

1b. Differentiate between palatable and potable water **(5mks)**

1c. Discuss wastewater techniques classification under the following sub – headings:

- i. Preliminary Treatment **(5mks)**
- ii. Primary Treatment **(5mks)**
- iii. Secondary Treatment **(5mks)**
- iv. Advanced Wastewater Treatment **(5mks)**

Total = **(30mks)**

2. List any five **(5)** and briefly discuss the treatment of drinking water by municipal water systems **(20mks)**

3a. Identify and briefly discuss FIVE (5) of fresh water pollutants. **(10mks)**

3b. List five (5) types of wastewater and their sources **(10marks)**

4a. Define freshwater- **(10marks)**

4b. Identify types five (5) of fresh water pollutants. **(10mks)**

5a. What is eutrophication? **(10mks)**

5b. Briefly discuss the consequences of eutrophication. **(10mks)**