



**National Open University of Nigeria**  
**Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja**  
**Faculty of Science**  
**2021\_2 EXAMINATIONS**

**COURSE CODE: ESM424**

**COURSE TITLE: FRESH WATER ECOLOGY**

**CREDIT: 2 Units**

**TIME ALLOWED: 2 Hours**

Instruction: Attempt question number ONE (1) and any other THREE (3) questions. Question number one (1) carries 25 marks, while the other questions carry (15) marks each.

- 1a. Describe the benthic region (6 marks)
- 1b. Explain the effect of temperature on still water (10 marks)
- 1c. Attempt a classification of heterotrophs based on what they eat. (5 marks)
- 1d. What are autotrophs? (4 marks)
  
- 2a. Discuss in detail the nekton family. (10 marks)
- 2b. Explain the symbiotic relationship among hydrophytes, algae and other organisms in fresh water lentic communities. (5 marks)
  
- 3a. Highlight three adaptations for survival by plants in still freshwater. (6 marks)
- 3b. Discuss the significance of riparian vegetation (7 marks).
- 3c. What are macrophytes? (2 marks)
  
- 4a. Discuss the negative effects of large aquatic macrophytes population on aquatic ecosystem. (9 marks)
- 4b. Describe zooplanktons (6 marks)
  
- 5a. List five characteristics of reptiles (5 marks)
- 5b. Explain how abiotic factor influences the freshwater ecosystem. (5 marks)
- 5c. Discuss how plants make use of solar energy in producing their own food and how animals depend on plant for their food. (5 marks)