



**National Open University of Nigeria**  
**Plot 91, Cadastral Zone, NnamdiAzikiwe Expressway, Jabi - Abuja**  
**Faculty of Science**  
**2020\_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) Discuss the role of the following aquatic organisms in the fresh water ecosystem **(21marks)**
- i. Fish
  - ii. Amphibians
  - iii. Reptiles
- 1b) Outline the four main constituents of the living environment that form the fresh water ecosystem **(4marks)**
- 2) Highlight the factors which can affect the intensity and length of time that the ecosystem is exposed to sunlight **(15marks)**
- 3a) Elucidate on the physical and chemical factors that provide the framework of a running water community **(9marks)**
- 3b) Explain the adaptations that help lotic water communities' animals cope in their environment **(6marks)**
- 4) Succinctly discuss the floating aquatic macrophytes **(15marks)**
- 5a) List the four major group of organisms found in fresh water ecosystems **(2marks)**
- 5b) Discuss the activities of man in the management of fresh water ecosystem **(13marks)**