



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

**COURSE CODE: ESM 424**

**COURSE TITLE: FRESH WATER ECOLOGY**

**CREDIT: 2 Units**

**TIME ALLOWED: 2hrs**

**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.

1. In sufficient details, discuss aquatic macrophytes **(25 marks)**
2. Itemize any ten specific types of fresh water vertebrate and invertebrate organism **(5 marks)**
- 2b) Write short notes on molluscs **(10 marks)**.
3. Write short notes on the role of following components of temperature on an aquatic ecosystem:  
a. Aspect   b. Cloud cover.   C. Season.   D. Location   e. Altitude **(15 marks)**
4. How many regions exist in a still water ecosystem? Name them. **(4 marks)**  
4b. Discuss the animal community in the epineuston and hyponeuston niches **(11 marks)**.
5. Identify and write short notes on the different sources of running fresh water in a community **(8 marks)**  
5b. Write short notes on algae as members of the lotic community **(7 marks)**.