



National Open University of Nigeria
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
Department of Biological Sciences

2025_2 EXAMINATIONS

BIO405: Hydrobiology

Time: 2 Hours

Credit Unit: 2

Instruction: Attempt THREE (3) questions only. QUESTION 1 is compulsory.

QUESTIONS

1.
 - (a.) Explain the following:
 - (i) Dependence of life on earth upon water (2 marks)
 - (ii) How water serves as a habitat for various organisms (2 marks)
 - (iii) Significance of water in photosynthesis (2 marks)
 - (b.) Write short notes on lentic and lotic freshwater ecosystems (8 marks)
 - (c.) Mention five major threats to freshwater biodiversity (5 marks)
 - (d.) Define wetlands, and their significance in freshwater ecosystems (5 marks)
 - (e.) List the major habitat types within freshwater ecosystems (6 marks)
2.
 - (a.) List and explain the different types of macrophytes found in freshwater systems (5 marks)
 - (b.) Mention the differences between euryhaline and stenohaline species in terms of their habitat tolerance (4 marks)
 - (c.) Explain the biological pump process in the carbon cycle (11 marks)
3.
 - (a.) Write notes on the general concepts of production (10 marks)
 - (b.) List factors that affect productivity in freshwater ecosystems (5 marks)
 - (c.) Briefly explain dissolved solids as one of the chemical characteristics of freshwater (5 marks)
4.
 - (a.) List the major vegetation types found in and around Lake Chilwa (5 marks)
 - (b.) Write notes on Wikki Warm Springs (10 marks)
 - (c.) Briefly explain ecological tourism promoting sustainable development in Yankari National Park (5 marks)
5.
 - (a.) List any 6 plant species that dominates the Borgu sector of Kainji Lake (6 marks)
 - (b.) Briefly describe Lake Tanganyika (6 marks)
 - (c.) Discuss the impact of poor personal and food hygiene on the spread of diarrhea (8marks)