



NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF SCIENCES
DEPARTMENT OF ENVIRONMENTAL SCIENCE AND RESOURCE MANAGEMENT
Plot 91, Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja
2024 1 EXAMINATION

COURSE CODE: ES 424
COURSE TITLE: Fresh Water Ecology
CREDIT: 2 Units
TIME ALLOWED: 2½ Hours

Instruction: Attempt question number ONE (1) and any other TWO (2) questions. Question number one (1) carries 30 marks, while the other questions carry 20 marks each.

QUESTION 1 Explain the importance of the following in aquatic ecosystems

- a. Aquatic macrophytes
- b. Periphyton and biofilm
- c. Riparian vegetation
- d. Fungi
- e. Algae

QUESTION 2 State the importance of the following resources in the growth and productivity of aquatic ecosystem

- a. Water
- b. Nutrients
- c. Carbon

QUESTION 3 Explain the following habitats of organisms in lentic (still water) fresh water ecosystem

- a. The Profundal region
- b. The Pelagic region
- c. The Benthic region

QUESTION 4 a. Explain the adaption methods of animals in lotic water communities
b. Explain the division of plankton in lotic water communities.
c. Mention ways in which human action affects the fresh water ecosystem

QUESTION 5 a. Explain the significance of plants in still fresh water ecosystem.
b. Highlight the various ways of adaptation by plants in fresh water ecosystems.
c. Account for the factors responsible for the alteration of transpiration in freshwater plant