



National Open University of Nigeria
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
Department of Biological Sciences
2022_2 EXAMINATION

COURSE CODE: BIO405

COURSE TITLE: HYDROBIOLOGY

CREDIT UNIT: 2

TIME ALLOWED: 2HOURS

INSTRUCTION: ANSWER QUESTION ONE (1) AND ANY OTHER TWO (2) QUESTIONS

1. (a) Write a short note on water related diseases. (4 marks)
(b) List the Major Habitat Types (MHTs) of freshwater reflecting groups of ecoregions (5 marks)
(c) Describe elaborately the term Hydrobiology? (5marks)
(d) Describe the measurement of primary production in aquatic systems using the following techniques:
 - (i) Variation in oxygen (8 mks)
 - (ii) Incorporation of inorganic carbon-14 (8 mks)

2. (a) List the importance of benthic invertebrates as indicators of environmental conditions. (4 mks)
(b) Outline the basic features of Kainji Lake. (5marks)
(c) Give a detailed description of the general nature of benthic invertebrates with emphasis on their mode of feeding. (11mks)

3. (a) Enumerate the four (4) macrophytes in freshwater system that lives in both benthic and pelagic zones. (3marks)
(b) Briefly describe the sources of fresh water (6 marks)
(c) Highlight any **ten (10)** water-related parasitic diseases and their means of transmission in A Tabular form (10marks)

4. (a) Summarize how the following water quality parameters can be determined:
 - (i) pH (3 marks)
 - (ii) Nitrite (3 marks)
(b) Describe the various groups of macrophytes in freshwater systems and their distribution. (7 marks)
(c) Briefly describe the distinct communities of benthic organisms (7 marks)

5. (a) Write a short note on the freshwater ecosystem of Yankari National Park with emphasis on Wikki spring. (10 marks)
(b) Write a short note on diarrhoea as a water-related disease. (10 marks)