



**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja**

**Faculty of Sciences**

**Department of Pure and Applied Sciences**

**COURSE CODE: BIO 405 (2 CREDIT UNITS) TIME ALLOWED: 2HOURS**

**COURSE TITLE: HYDROBIOLOGY**

**INSTRUCTION: Answer question ONE (1) and any other THREE (3) questions only**

1a Define each of the following freshwater habitats:

- i Montane Freshwaters **(2marks)**
- ii Xeric Freshwaters and Endorheic (Closed) Basins **(2marks)**
- iii Temperate Coastal Rivers **(2marks)**

1b Explain why benthic Invertebrate communities are regarded as prime indicators of environmental conditions? **(8marks)**

1c Outline any five problems of eutrophication on human societies. **(5 marks)**

1d Outline and explain the major sources of variation of water quality **(6 marks)**

2a Briefly explain how to determine each the following water quality parameters **(6 marks)**

- i pH of Water Samples
- ii Water Current
- iii Total Suspended Solid

2b Describe how to enumerate sediment of Microfauna **(9 marks)**

3a Explain how to determine the major zones in a river ecosystem? **(5marks)**

3b List the four main techniques for the determination of primary production in an aquatic system **(4marks)**

3c Outline and describe briefly any 6 major natural vegetation types of Lake Chilwa wetland **(6Marks)**

4a List any four problems of eutrophication on human societies in Nigeria **(4marks)**

4b Outline and define the various group of macrophytes of freshwater systems that live in both the benthic and pelagic zones according to the manner of their growth **(8 marks)**

4c List the three distinct communities to which benthic organisms can be grouped into (3 marks)

5a Outline any seven problems of restoration of eutrophic lakes **(8 marks)**

5b Outline the Key measures to reduce the number of cases of diarrhoea **(7marks)**

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