



NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science

JULY 2017 EXAMINATION

COURSE CODE: BIO 405

COURSE TITLE: HYDROBIOLOGY

TIME ALLOWED: 2HOURS

INTSRUCTION: QUESTION ONE IS COMPULSORY AND ANY OTHER THREE QUESTIONS. PROVIDE ILLUSTRATIONS WHERE NECESSARY.

1. a. Identify **three (3)** reasons for monitoring of environmental quality parameters **(3marks)**
b. Briefly explain the diverse parameters for the determination of water quality **(11marks)**
c. What do you understand by the term: Freshwater Major Habitat Types (MHTs)? **(5marks)**
 - d. Write short notes on the following:
 - i. Large lakes **(2marks)**
 - ii. Montane freshwaters **(2marks)**
 - iii. Xeric freshwaters **(2marks)**
2. a. Briefly discuss the nature of fresh water ecosystem **(5marks)**
b. Outline the physical and/or chemical nature of freshwater under the following characteristics;
 - i. Colour and Turbidity **(2marks)**
 - ii. Organic constituents **(2marks)**
 - iii. Temperature **(2marks)**
 - iv. Pressure, Density and Buoyancy **(2marks)**
 - v. pH **(2marks)**

3. a. Outline the basic features of Wikki spring. **(5marks)**.

b. Provide reasons why Lake Tangayinka in Africa is an important biological resource for the study of speciation in evolution? **(5marks)**.

c. State **five** chemical nature of Lake Tangayinka **(2 ½ marks)**

d. Mention **five** major natural vegetation types of Lake Chilwa. **(2 ½ marks)**
4. a. Define water pollution? **(2marks)**.

b. State any **three (3)** major causes of water pollution? **(3marks)**.

c. Explain the effects of water pollution on the ecosystem **(5marks)**.

d. State any **five (5)** water-related parasitic diseases and their means of transmission **(5marks)**.
5. a. Outline **four (4)** techniques for measuring primary production in aquatic systems **(4marks)**

b. State **four (4)** importances of benthic invertebrates **(4marks)**.

c. Describe the general nature benthic invertebrates **(7marks)**.

