



NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
MARCH/APRIL 2016 EXAMINATION

SCHOOL OF SCIENCE AND TECHNOLOGY

COURSE CODE: BIO405
COURSE TITLE: HYDROBIOLOGY
TIME ALLOWED: 2HOURS

INTRUCTION: ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER THREE QUESTIONS. PROVIDE ILLUSTRATIONS WHERE NECESSARY.

- 1a. Describe elaborately the term Hydrobiology? (5marks)
- b. Briefly describe the nature of fresh water ecosystem (5marks)
- c. Outline the physical and/or chemical nature of freshwater under the following characteristics;
 - i. Temperature (3marks)
 - ii. Light (3marks)
 - iii. Oxygen constituent (3marks)
 - iv. Carbon dioxide constituent (3marks)
 - v. pH (3marks)
- 2a. Outline the basic features of Kainji Lake. (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** features of Lake Tangayinka (2 ½ marks)
- d. Mention **five** major natural vegetation types of Lake Chilwa. (2 ½ marks)
3.
 - a. Explain the term Eutrophication? (5marks).
 - b. Outline the point and non-point sources of eutrophication (5marks)
- c. Identify any **five** (5) symptoms of eutrophication? (5marks).
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 diseases and their means of transmission (5marks).
5. a. Identify **three** (3) reasons for monitoring of environmental quality parameters (3marks)
- b. Briefly explain precisely the diverse parameters for the determination of water quality (12marks)
6. 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).