



NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
SEPTEMBER/OCTOBER 2015 EXAMINATION
SCHOOL OF SCIENCE AND TECHNOLOGY

COURSE CODE: BIO 405

COURSE TITLE: HYDROBIOLOGY

TIME ALLOWED: 2HOURS

INTRUCTION: ANSWER QUESTION 1 (COMPULSORY) AND ANY OTHER THREE QUESTIONS.

1. a. What do you understand by the term: Hydrobiology? **(5marks)**
b. Briefly describe the 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)**
2. a. Outline the general features of Kainji Lake. **(5marks)**.
b. Why is Lake Tangayinka an important biological resource for the study of speciation in evolution? **(5marks)**.
c. State five features of Lake Tangayinka **(2 ½ marks)**
c. Mention **five** major natural vegetation types of Lake Chilwa. **(2 ½ marks)**
3. a. What is 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)** causes of water pollution? **(3marks)**.
c. Outline the effects of water pollution on the ecosystem **(5marks)**.

d. Mention 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 the 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 diversity of benthic organisms in different communities. **(7marks)**.