

Mount Kenya



University

UNIVERSITY EXAMINATION 2014/2015

SCHOOL OF PURE AND APPLIED SCIENCES  
DEPARTMENT OF BIOLOGICAL SCIENCES

BACHELOR OF EDUCATION SCIENCE  
SCHOOL BASED

UNIT CODE: BBY4215

UNIT TITLE: AQUATIC ECOLOGY

DATE: DECEMBER 2014

MAIN EXAM

TIME: 2 HOURS

**INSTRUCTIONS:** Answer question one in section A and any other two questions in section B.

**SECTION A.**

1. a) Distinguish between the following terms as used in aquatic ecology.

- i) Benthic and Pelagic
- ii) Littoral zone and Limnetic zone
- iii) Holomictic and monomictic lakes (6 Marks)

b) Describe four properties of water that influences aquatic ecosystems, (4 Marks)

c) Outline reasons why benthic invertebrates are used as prime indicators of environmental conditions. (6 Marks)

d) Explain the possible strategies for the management of fresh water ecosystems. (6 Marks)

e) State three regions in which the body of water in oceans can be divided based on the depth of light penetration. (3 Marks)

f) Give an account of algal succession.

(5 Marks)

SECTION B

2. Give an account on the causes of water pollution and its effects on ecosystems. (20 Marks)

3. Discuss the problem of eutrophication to human beings. (20 Marks)

4. Give an account of biotic and abiotic factors affecting fresh water ecosystems. (20 Marks)

5. a) Name three basic types of fresh water ecosystems. (3 Marks)

b) Give an account of fresh water organisms (17 Marks)