



*(Knowledge for Development)*

# **KIBABII UNIVERSITY**

## **UNIVERSITY EXAMINATIONS 2017/2018 ACADEMIC YEAR**

### **FIRST YEAR SECOND SEMESTER MAIN EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF BIO-RESOURCE  
MANAGEMENT AND CONSERVATION**

**COURSE CODE:** SZL 123

**COURSE TITLE:** FUNDAMENTALS OF ECOLOGY

**DATE:** 16<sup>th</sup> January, 2018.

**TIME:** 2:00 – 4:00 p.m.

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#### **INSTRUCTIONS TO CANDIDATES**

Answer Question one (1) and any other two (2) Questions. Question one is compulsory and carries 30 marks, the other Questions carry 20 marks each.

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over



KIBU observes ZERO tolerance to examination cheating

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*Done*

1. a) Define the following terminologies as used in ecology (5 marks)
- i) Ecology
  - ii) Habitat
  - iii) Ecological niche
  - iv) Autecology
  - v) Biomass
- b) Using a well labeled diagram, describe the HYDROLOGIC CYCLE. (5 marks)
- c) Define an ecosystem and state any THREE components of an ecosystem (5 marks)
- d) Briefly describe energy flow through a food web in an ecosystem. (5 marks)
- e) Differentiate between systematic sampling and stratified sampling. (5 marks)
- f) How do organisms deal with changes in their physical environment? (5 marks)
2. Describe the demographic factors of a population (20 marks)
3. Discuss the abiotic factors and how they affect organisms in the environment. (20 marks)
4. Describe the forms of interaction that exist between organisms in the ecosystem. (20marks)
5. Discuss the concept carrying capacity as applied in population ecology. (20 marks)