



(Knowledge for development)

KIBABII UNIVERSITY
UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR
SECOND YEAR FIRST SEMESTER
(MAIN EXAMINATION)

**FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIORESOURCES
MANAGEMENT AND CONSERVATION**

COURSE CODE : SBC 214

COURSE TITLE : ANIMAL SAMPLING TECHNIQUES

DATE: 15th January 2018

TIME: 2:00 -4:00 p.m.

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

1. a) Define the following terms applied in ecology.

(5marks)

i) A community.

ii) Population.

iii) Sampling

iv) A frame quadrat.

v) Biomass.

b) Assume that you sampled a strip of 1000 m long and a width of your strip was 200m. What was the sampled area? (5marks)

c) Briefly describe a model with population with discrete generations that can also be summarized with two equations. (5marks)

d) State **FIVE** reasons why ecologists are fond of constructing mathematical or graphical models. (5marks)

e) What is meant by “remote sensing”? (5marks)

f) Explain the meaning of animal population dynamics and state its importance (5marks)

2. Discuss the technique of “mark- release-recapture” as used in estimation of a population (20marks)

3. Discuss “biogeochemical cycling” and cite a suitable example (20marks)

4. Discuss the procedure of using quadrats in the estimation of population sizes. (20marks)

5. Discuss methods used in sampling of benthic organisms. (20marks)