



(Knowledge for Development)

KIBABII UNIVERSITY

**UNIVERSITY EXAMINATIONS
2020/2021 ACADEMIC YEAR**

**FOURTH YEAR FIRST SEMESTER
MAIN EXAMINATIONS**

**FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOLOGY AND
BACHELOR OF SCIENCE IN BIORESOURCE CONSERVATION AND
MANAGEMENT**

COURSE CODE: SBT 413

COURSE TITLE: ECOLOGICAL MONITORING

DATE: Wednesday 21st July, 2021.

TIME: 8:00 – 10:00 a.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 3 printed pages. Please Turn Over



KIBU observes ZERO tolerance to examination cheating

QUESTION 1

- a) Define indicator species and give examples (3 Marks)
- b) State the **Main** types of ecological monitoring (3 Marks)
- c) Distinguish between:
- i. Salinity Monitoring and Contamination monitoring (4 Marks)
 - ii. Primary treatment and Secondary treatment (4 Marks)
- d) State the advantages of simple sampling technique (3 Marks)
- e) Describe the monitoring programmes commonly employed (4 Marks)
- f) Define the following forms of monitoring (3 Marks)
- i. Biological
 - ii. Radiological
 - iii. Microbiological
- g) Explain steps on how to attain biomonitoring (4 Marks)
- h) State remote sensing and geographical positioning system as used in ecological monitoring (2 Marks)
- i) Distinguish between systematic sampling and grid sampling (3 Marks)

QUESTION 2

Describe the importance of Ecological monitoring in an ecosystem (20 Marks)

QUESTION 3

Give the advantages of aerial monitoring and state its application (20 Marks)

QUESTION 4

Explain the different sampling methods used in monitoring (20 marks)

QUESTION 5

Describe the water parameters and testing procedures in water investigative analysis. (20 Marks)