



(Knowledge for Development)
KIBABII UNIVERSITY

**UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR**

FIRST YEAR SECOND SEMESTER

SUPPLEMENTARY EXAMINATION

FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOLOGY

COURSE CODE: SBT 221

COURSE TITLE: PLANT ECOLOGY 1

DATE: 18TH JULY 2022

TIME: 11.00 -1.00 PM

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



QUESTION ONE

- a) Explain the sequence of succession that occur in an ecosystem (5 marks)
- b) What are the critical roles of the government in biodiversity conservation in Kenya (5 marks)
- c) Describe the various trophic levels found in an ecosystem (5 marks)
- d) What are the ecological benefits of wetlands? (5 marks)
- e) What are the main characteristics of forest ecosystem? (5 marks)
- f) Define the following terms (5 marks)
- i. *In-situ* conservation
 - ii. Alpha diversity
 - iii. Gamma diversity
 - iv. Beta diversity
 - v. Biodiversity

QUESTION TWO

Explain why from the conservation perspective, the importance of high species richness and diversity in an ecosystem (20 marks)

QUESTION THREE

What are the differences between forests and grassland vegetation types (20 marks)

QUESTION FOUR

Discuss briefly how secondary succession takes place in a forest ecosystem (20 marks)

QUESTION FIVE

Discuss the various ecological methods of vegetation sampling and analysis (20 marks)