

LAIKIPIA



ZOO/ZOOL 211

UNIVERSITY

UNIVERSITY EXAMINATIONS

FIRST SEMESTER 2025/2026 ACADEMIC YEAR

**SECOND YEAR EXAMINATION FOR THE DEGREES OF
BACHELOR OF EDUCATION (SCIENCE) AND BACHELOR
OF SCIENCE (GENERAL)**

ZOO/ZOOL 211: ECOLOGY

STREAM: R

TIME: 2 HRS

DAY: FRIDAY [2.30 – 4.30 P.M]

DATE: 06/02/2026

THIS QUESTION PAPER CONSISTS OF THREE (3) PAGES

PLEASE DO NOT OPEN UNTIL THE INVIGILATOR SAYS SO.

Answer **ALL** Questions in **Section A** and any **TWO** Questions in **Section B**.

SECTION A: 40 MARKS

QUESTION ONE

Define the following terms as used in the study of ecology

(6 Marks)

- a) Habitat
- b) Ecotone
- c) Ecosystem
- d) Synecology
- e) Detritivores
- f) Carrion feeders

QUESTION TWO

Differentiate between the following terms

(5 Marks)

- a) Abiotic factors and Biotic factors
- b) Food web and food chain
- c) Reproductive potential and environmental resistance
- d) Succession and Zonation
- e) Potential ecological niche and realized ecological niche

QUESTION THREE

Outline **four** approaches used in the study of ecology

(4 Marks)

QUESTION FOUR

Explain the effects of temperature on the distribution of animals on earth

(5 Marks)

QUESTION FIVE

Elaborate the importance of the sun in ecosystems

(5 Marks)

QUESTION SIX

Illustrate factors that influence the succession of organisms in an ecosystem

(5 Marks)

QUESTION SEVEN

Citing specific examples, explain the **Gaussian Exclusion Principle**

(5 Marks)

QUESTION EIGHT

Write short notes on types of aquatic ecosystems

(5 Marks)

SECTION B (30 MARKS): ANSWER ANY TWO QUESTIONS

QUESTION NINE (15 MARKS)

a) Using a well labeled diagram, describe **any two** population growth curves used in ecology

(8 Marks)

b) Describe the use of **survivorship curve** in explaining the survival of cohorts in a population

(7 Marks)

QUESTION TEN (15 MARKS)

Citing specific examples in Kenya, describe the influence of human activities on the **hydrological cycle**

(15 Marks)

QUESTION ELEVEN (15 MARKS)

Discuss the **occurrence and significance of succession** in development of communities in an ecosystem.

(15 Marks)