

LAIKIPIA



UNIVERSITY

UNIVERSITY EXAMINATIONS

SECOND SEMESTER 2023/2023 ACADEMIC YEAR

**SECOND YEAR EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION
AND EXTENSION (AGED)**

ZOOL 211: ECOLOGY

STREAM: R

TIME: 2 HRS

DAY: FRIDAY [11.30A.M – 1.30 P.M]

DATE: 12/04/2024

THIS QUESTION PAPER CONSISTS OF THREE (3) PAGES

PLEASE DO NOT OPEN UNTIL THE INVIGILATOR SAYS SO.



INSTRUCTION: Answer **All** Questions in Section A, and only **TWO** questions in Section B

SECTION A (40 MARKS)

QUESTION ONE

List any **FIVE** importance of understanding basic ecological principles **(5 Marks)**

QUESTION TWO

Distinguish between primary and secondary successions in ecological studies **(2 Marks)**

QUESTION THREE

Outline the **FOUR** fundamental concepts of a population approach strategy **(4 Marks)**

QUESTION FOUR

Name the two main producers in aquatic ecosystems **(2 Marks)**

QUESTION FIVE

Distinguish between food chains and food webs, demonstrating with two illustrations in terrestrial ecosystems **(4 Marks)**

QUESTION SIX

Distinguish between soil air and atmospheric air **(2 Marks)**

QUESTION SEVEN

Name the fundamental and ideal way of representing relationships between organisms in different trophic levels and outline its advantages **(5 Marks)**

QUESTION EIGHT

a) List any **two** important contributions of weathering activities and burning of fossil fuels in ecosystems? **(2 Marks)**

b) State the form in which energy is returned into the atmosphere in the underlined latter process? **(1 Mark)**



QUESTION NINE

Briefly explain the process of nitrogen uptake by plants (5 Marks)

QUESTION TEN

List and briefly explain any 3 ways through which atmospheric nitrogen can be fixed, giving examples where appropriate (6 Marks)

QUESTION ELEVEN

In a two-point summary, briefly explain the concept of a climax community (2 Marks)

SECTION B (30 MARKS)

QUESTION TWELVE

In detail and using appropriate examples where necessary, discuss the process of succession. (15 Marks)

QUESTION THIRTEEN

Comprehensively, discuss the possible factors that influence population size in a given ecosystem. (15 Marks)

QUESTION FOURTEEN

Discuss the overall concept and impact of acid rain giving appropriate examples and clear illustrations if applicable (15 Marks)

