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EGERTON UNIVERSITY

UNIVERSITY EXAMINATIONS
REGULAR - NJORO CAMPUS

FIRST SEMESTER, 2025/2026 ACADEMIC YEAR

SECOND YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE

ZOOL 210: ECOLOGY

STREAMS: AGED, BSc. Gen; B.Ed Sci, ENSCI TIME: 2HRS

EXAMINATION SESSION: JANUARY YEAR: 2026

INSTRUCTIONS

i. **Answer ALL questions in Section A and any *ONE* question in *Section B*.**
ii. **Illustrate your answers with examples and diagrams where applicable.**
iii. **Do not write on the question paper.**

SECTION A: ANSWER ALL QUESTIONS (50 MARKS)

Question One
Citing suitable examples, explain the differences between the following;

(a). Ureotelism and Ammoniotelism **(2 mks)**

(b). Gaseous and sedimentary cycles. **(2 mks)**

(c). Keystone and Apex predator species. **(2 mks)**

Question Two
Briefly describe mechanisms and strategies through which;

a. Plants overcome water stress. **(3 mks)**

b. Animals overcome oxygen stress. **(3 mks)**

Question Three

Briefly describe how you would use the capture-recapture method in estimating populations of warthogs in Lake Nakuru Park. **(6 mks)**

Question Four

Briefly describe the types of dispersion exhibited by organisms in nature. **(6 mks)**

Question Five

Briefly describe how density-dependent factors regulate population size of organisms. **(5 mks)**

Question Six

Briefly explain ways through which organisms avoid predation. **(5 mks)**

Question Seven

Explain the processes that determine the rate of succession in a community. **(6 mks)**

Question Eight

Explain briefly any five ecosystem services that help sustain human life. **(5 mks)**

Question Nine

Briefly discuss three major outcomes of the Green House effect. **(5 mks)**

SECTION B: ANSWER ANY ONE QUESTION (20 MARKS)

Question Ten

Discuss the factors that determine net primary productivity of ecosystems. **(20 mks)**

Question Eleven

a. Describe the processes of the nitrogen cycle. **(10 mks)**

b. Discuss the impacts of man on the nitrogen cycle. **(10mks)**

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