



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR
FIRST YEAR FIRST SEMESTER**

**SCHOOL OF NATURAL RESOURCE, TOURISM
AND HOSPITALITY
BACHELOR OF SCIENCE IN ANIMAL HEALTH
AND PRODUCTION**

**COURSE CODE: AHP 1107-1
COURSE TITLE: ECOLOGY AND
ENVIRONMENTAL
MANAGEMENT**

DATE: 30/1/2024

TIME: 0830-1030 HRS

INSTRUCTIONS TO CANDIDATES

Answer **ALL** questions in section **A** and any other **THREE** in section **B**.

This paper consists of 2 printed pages. Please turn over

SECTION A: Answer all questions (20 marks)

QUESTION ONE

- a) Explain the following:
- i. Autecology (2 marks)
 - ii. Environmental Conservation (2 marks)
 - iii. Vegetation retrogression (2 marks)
 - iv. Ecological succession (2 marks)
 - v. Competitive Exclusions Principle (2 marks)
- b) Outline three plants' defenses against herbivory (3 marks)
- c) Calculate the approximate amount of energy available to the organisms at the third trophic level if the energy available to the organisms at the first trophic level is 4000J. (4 marks)
- d) Briefly describe the phosphorus cycle (3 marks)

SECTION B: Answer any three questions (30 marks)

QUESTION TWO

- a) Climate change is a phenomenon that affects various sectors of the society. Describe how climate change affects the livestock sector (6 marks)
- b) Highlight climate change adaptation strategies for the livestock sector (4 marks)

QUESTION THREE

- a) Explain three (3) classes of plants based on growth forms (3 marks)
- b) Discuss the characteristics of savanna grassland plant communities (7 marks)

QUESTION FOUR

- a) Outline two (2) characteristics of Seral community (2 marks)
- b) Discuss how the livestock sector can contribute to ecosystem degradation (8 Marks)

QUESTION FIVE

- a) Discuss three (3) environmental conservation strategies that can be adopted by the livestock sector to avoid ecosystem degradation (6 marks)
- b) Discuss the types of ecological succession (4 marks)

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