

CHUKA



UNIVERSITY

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**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF
SCIENCE IN ENVIRONMENTAL SCIENCE**

ENSC 253: BIODIVERSITY CONSERVATION

STREAMS: BSc. (ENSC)

TIME: 2 HOURS

DAY/DATE: MONDAY 14/04/2025

2.30 P.M. – 4.30 P.M.

INSTRUCTIONS

- Answer ALL Questions in section A and any TWO Questions in section B
- Do not write anything on the question paper

SECTION A (30 MARKS)

1. Define biodiversity and briefly explain its importance in maintaining ecological balance. (5 Marks)
2. Explain the difference between in-situ and ex-situ conservation methods and provide example(s) in each method. (5 Marks)
3. Briefly explain why biodiversity hotspots are crucial for conservation efforts. (5 Marks)
4. Briefly explain the effects of deforestation on ecosystem functions in Mt. Kenya Forest. (5 Marks)
5. Briefly explain the concept of ecological succession and its significance in ecosystem dynamics. (5 Marks)

SECTION B (40 Marks)

6. With well labelled diagrams, describe TWO biogeochemical cycles of your choice, their significance in ecosystem functioning and show how human activities have interfered with the biogeochemical cycles you have identified. (20 Marks)
7. Discuss the importance of biodiversity and provide examples of how the biodiversity and its components benefit human societies. (20 Marks)

8. a) Discuss the consequences of declining biodiversity loss on human health, well-being and for future generations. (10 Marks)
- b) Discuss the significance of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in regulating international trade in endangered species, highlighting both the challenges and successes associated with its implementation (10 Marks)

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