CHUKA  **UNIVERSITY**

UNIVERSITY EXAMINATIONS

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

ENSC 253: BIODIVERSITY CONSERVATION

STREAMS: ENSC Y2S1 **TIME: 2 HOURS**

DAY/DATE: FRIDAY 12/4/2024 **11.30 A.M. – 1.30 P.M.**

INSTRUCTIONS:

- **Answer ALL questions in Section A and ANY TWO from Section B**
- **Do not write on the question paper**

SECTION A (30 MARKS)

Q1. Define biodiversity hotspots and outline their characteristics. (5 marks)

Q2. Briefly explain how the following affect biodiversity resources;

(a) Poverty (2 marks)

(b) Modern agricultural practices (2 marks)

(c) Climate change (2 marks)

Q3. Briefly highlight why 'vulnerability of a species is a critical component to be considered before placing a species under ex-situ conservation. (5 marks)

Q4. Briefly explain how the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is contributing to conservation and management of biodiversity in Kenya.

(5 marks)

Q5. Briefly explain benefits of diverse communities in stable and healthy ecosystems.

(4 marks)

Q6. Differentiate between primary and secondary succession. (5 marks)

SECTION B (40 MARKS)

Q7. Discuss the importance of conserving biodiversity for human well-being and the environment. (20 marks)

Q8. With relevant examples, discuss FIVE major species interactions that may occur in a functional ecosystem. (20 marks)

Q9. With well labeled diagrams, discuss TWO biogeochemical cycles that occur in complete functional ecosystem (s). (20 marks)

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