

CHUKA



UNIVERSITY

**UNIVERSITY EXAMINATIONS**

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

**ENSC 212: GLOBAL ECOSYSTEMS**

**STREAMS: BSC ENSC Y2S2**

**TIME: 2 HOURS**

**DAY/DATE: MONDAY 08/04/2024**

**11.30 A.M – 1.30 P.M.**

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**INSTRUCTIONS:**

- Answer ALL questions in SECTION A and any OTHER TWO in SECTION B.
- Do NOT write anything on the question paper.

**SECTION A: (30 MARKS)**

1. Briefly discuss the importance of identifying global ecosystem typologies. (5 marks)
2. (a) Illustrate and explain the energy pyramid. (5 marks)  
(b) Explain the cycling of carbon element in all spheres. (5 marks)
3. Briefly discuss five edaphic factors contributing to succession and productivity of terrestrial ecosystem. (5 marks)
4. Resilience rather stability is the sign of a healthy ecosystem. Elaborate. (5 marks)
5. Elaborate on the need for ecosystems approach in environmental management. (5 marks)

**SECTION B: (40 MARKS)**

6. Discuss seven factors influencing survival and productivity of various marine ecosystem. (20 marks)
7. Discuss ecosystem services that are critical to human survival. (20 marks)
8. (a) Discuss the River Continuum Concept (RCC) and its importance of the fresh water management. (10 marks)

(b) Discuss various approaches of wetland conservation.

(10 marks)

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