

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF
BACHELOR OF SCIENCE, BACHELOR OF EDUCATION SCIENCE, BACHELOR OF
SCIENCE ENVIRONMENTAL SCIENCE**

ZOOL 210: ECOLOGY

STREAMS: BED (SCI), BSC (ENSC)

TIME: 2 HOURS

DAY/DATE: MONDAY 10/12/2018

11.30 AM – 1.30 PM

INSTRUCTIONS:

- **Answer ALL Questions in Section A and any One in Section B**
- **Do not write anything on the question paper**

SECTION A (50 MARKS)

1. Outline factors that can result in a clustered population pattern. [5 marks]
2. Explain briefly mechanism employed by predators to cope with declining prey population. [5 marks]
3. Describe three processes by which carbon in the ecosystem returns into the atmospheres. [6 marks]
4. Outline the major steps in the nitrogen cycle. [5 marks]
5. Compare and contrast the characteristics of tropical and temperate grasslands. [5 marks]
6. Explain the value of water to biotic communities. [5 marks]
7. Outline the differences between primary and secondary succession. [4 marks]
8. Explain briefly and give specific examples the influence of density dependent factors on population size. [5 marks]

9. Using a diagram, describe zonation in tropical lakes. [5 marks]
10. Account for the shape of ecological pyramids. [5 marks].

SECTION B (20 MARKS)

11. Discuss the effect of human activities on the hydrological cycle. [20 marks]
12. Discuss ecosystem resiliency with emphasis on the role of human activities. [20 marks]
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