

**CHUKA**



**UNIVERSITY**

**UNIVERSITY EXAMINATIONS**

**FOURTH YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR  
OF SCIENCE IN WILDLIFE ENTERPRISE AND MANAGEMENT**

**WIEM 121: FUNDAMENTALS OF ECOLOGY**

**STREAMS: WIEM Y1S2**

**TIME: 2 HOURS**

**DAY/DATE: WEDNESDAY 08/04/2020**

**2.30 P.M. – 4.30 P.M.**

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**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 the following terms:
  - (i) Fundamental Niche (2 marks)
  - (ii) Ecosystem (2 marks)
  - (iii) Food web (2 marks)
2. Outline four ways being adopted to mitigate the effects of the changing climate. (4 marks)
3. Describe the three main types of ecological pyramids. (6 marks)
4. Outline four main sources of greenhouse gases. (4 marks)
5. Explain the hydrological cycle process. (6 marks)
6. Briefly discuss the three main stages of an ecological succession. (6 marks)

**SECTION B (40 MARKS)**

7. Using relevant examples, explain the various types of biotic interactions in ecosystems (20 mark)
  8. Discuss the benefits of biodiversity conservation. (20 marks)
  9. (a) Using relevant examples, describe the characteristics of four biomes found in Africa. (8 marks)
  - (b) Explain the various categories used by IUCN to group species according to their conservation status. (12 marks)
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