

CHUKA



UNIVERSITY

**UNIVERSITY EXAMINATIONS**

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN  
BOTA 361: PLANT ECOLOGY**

**STREAMS:**

**TIME: 2 HOURS**

**DAY/DATE: THURSDAY 08/07/2021**

**8.30 A.M – 10.30 A.M**

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**INSTRUCTIONS:**

**Answer all questions in section A and any other two in section B**

**SECTION A (30 MARKS)**

1. Define the following terms;
  - (a) Synecology [1 mark]
  - (b) Community ecology [1 mark]
  - (c) Biodiversity [1 mark]
  - (d) Ecosystem [1 mark]
  - (e) Ecological efficiency [1 mark]
2. Classify hydrophytes based on habitat and location in ponds. [5 marks]
3. Differentiate between r- and k- strategies of species reproductive patterns. [5 marks]
4. Explain the reasons why ecological pyramids are not often used in research. [5 marks]
5. With help of a diagram describe the logistic population growth curve. [5 marks]
6. Describe the types of plant life forms based on position of perennating bud. [5 marks]

**SECTION B (40 MARKS)**

7. Discuss a tropical rain forest in terms of climate, stratification and adaptations. [20 marks]
8. Discuss the following:
- (a) Parameters of assessing plant structure and function. [10 marks]
  - (b) Methods of sampling plant communities. [10 marks]
9. Discuss plant species interactions in a community. [20 marks]
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