

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN
NATURAL RESOURCES MANAGEMENT**

NARE 221: NATURAL RESOURCES ECOLOGY

STREAMS: B.SC (NARE) Y2S2

TIME: 2 HOURS

DAY/DATE: FRIDAY 17/04/2020

2.30 P.M. – 4.30 P.M.

INSTRUCTIONS:

- Answer **ALL** the questions in section A and any other **TWO** questions in section B.
- Do not write anything on the question paper.

SECTION A: (30 MARKS)

1. Explain three factors that influence the size of a population in an ecosystem. (6 marks)
2. Briefly describe the flow of energy in an ecosystem. (6 marks)
3. Using a simple diagram, differentiate between food chain and food web. (6 marks)
4. Explain why biodiversity is greatest along the tropics. (6 marks)
5. Write short notes on the following
 - (a) Abiotic and biotic factors (2 marks)
 - (b) Biogeochemical cycles (2 marks)
 - (c) Carrying capacity (2 marks)

SECTION B: (40 MARKS)

6. Discuss five major threats to ecosystem along the tropical ecosystems. (20 marks)
7. (a) Discuss the process of primary ecological succession. (10 marks)

- (b) Discuss five types of interactions found within an ecosystem. (10 marks)
8. (a) Using examples, discuss five adaptations of plants in arid and semi-arid environment. (10 marks)
- (b) Using a labeled diagram, discuss the components hydrological cycle. (10 marks)
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