



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2015/2016

**SECOND YEAR FIRST SEMESTER EXAMINATIONS FOR THE
DEGREE OF BACHELOR OF SCIENCE IN ENVIRONMENTAL
SCIENCE WITH INFORMATION TECHNOLOGY**

MAIN CAMPUS

NES 202: ELEMENTS OF ECOLOGY

Date: 6th January, 2016

Time: 2.30 - 4.30 pm

INSTRUCTIONS:

- Answer Question ONE and any other TWO Questions.



1. a. The following organisms were found in a certain ecosystem: Rabbit, lizard, grass, mouse, grasshopper, hawk and snake:
 - i. Sketch and label a generalized food web. [5 marks]
 - ii. Describe how primary producers and consumers control the above ecosystem. [5 marks]
- b. Describe the different age groups that can be found in the population of any organism. [12 marks]
- c. Explain the factors that control the rate of nutrient cycling. [8 marks]
2. Discuss the ecological adaptation of animals to temperature variation. [20 marks]
3. Describe the process of ecological succession on a bare rock. [20 marks]
4. Explain the flow of energy and materials in the following ecosystems:
 - a. Ocean floor [10 marks]
 - b. Pond [10 marks]
5. Discuss the factors influencing species diversity in ecosystems. [20 marks]
6. Describe the various forms of interactions in plant communities. [20 marks]

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