



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY

SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES

**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF EDUCATION
SCIENCE /SNEWITH IT**

2ND YEAR 1st SEMESTER 2016/2017 ACADEMIC YEAR

MAIN CAMPUS - REGULAR

COURSE CODE: SZL 202

COURSE TITLE: BASIC ECOLOGY

EXAM VENUE: LAB 11

STREAM: (BED. SC. /SNE)

DATE: 22/04/16

EXAM SESSION: 9.00 – 11.00 AM

TIME: 2 HOURS

Instructions:

- 1. Answer ALL questions in Section A and Any two questions in Section B**
 - 2. Candidates are advised not to write on question paper**
 - 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**
-

SECTION A: ANSWER ALL QUESTIONS (30 MARKS)

1. Define the following terms: (3 marks)
 - i) primary production
 - ii) Population
 - iii) Ecosystem
2. Explain why food chains are relatively limited to between three to five levels. (3 marks)
3. Differentiate between Autecology and Synecology. (3 marks)
4. List three methods of measuring terrestrial primary production. (3 marks)
5. State three factors that affect population size. (3 marks)
6. Explain any three characteristics that affect distribution of antelopes in a savanna ecosystem. (3 marks)
7. Explain the rationale for conservation biology. (3 marks)
8. State the characteristics that distinguish r-strategists and k-strategists species. (3 marks)
9. Differentiate species richness and species evenness. (3 marks)
10. State any three properties of a population which are important in ecological studies. (3 marks)

SECTION B: ANSWER ANY TWO QUESTIONS (40 Marks)

11. Discuss adaptations of organisms in a desert biome. (20 marks)
12. Discuss the different patterns of population distribution exhibited in natural habitats. (20 marks)
13. Give an account of human factors that affect biodiversity in natural environments. (20 marks)
14. Describe the approaches you would use to conserve and manage ecological resources in Kenya. (20 marks)