



**JARAMOGI OGINGA ODINGA UNIVERSITY
OF SCIENCE & TECHNOLOGY
UNIVERSITY EXAMINATIONS 2012/2013
2ND YEAR 1ST SEMESTER EXAMINATION FOR THE DEGREE
OF BACHELOR OF EDUCATION (SCIENCE) WITH IT
(MAIN)**

COURSE CODE: SZL 202

COURSE TITLE: BASIC ECOLOGY

DATE: 23/8/2013

TIME: 9.00 - 11.00 AM

DURATION: 2 HOURS

INSTRUCTIONS

- 1. This paper contains two sections (A and B).**
- 2. Answer ALL questions in Section A and any Two (2) questions in Section B.**
- 3. Write ALL answers in the booklet provided.**
- 4. You may use illustrations in your answers as you deem necessary.**

SECTION A: ANSWER ALL QUESTIONS (30 MARKS)

1. Explain the meaning of the term ecology. (3 marks)
2. Differentiate between autecology and synecology. (3 marks)
3. Identify three parameters that determine age structure in a population. (3 marks)
4. Define the following terms:
 - (i) Habitat
 - (ii) Biome
 - (iii) Community (3 marks)
5. State any three properties of a population which are important in ecological studies. (3 marks)
6. Differentiate species richness and species evenness. (3 marks)
7. Briefly describe the three growth phases observed in a logistic growth curve. (3 marks)
8. What are the characteristics that distinguish r-strategists and k-strategists species? (3 marks)
9. Identify the types and characteristics of grassland biomes. (3 marks)
10. Explain the rationale for conservation biology. (3 marks)

SECTION B: ANSWER ANY TWO QUESTIONS (40 MARKS)

11. Discuss the different patterns of population distribution exhibited in natural habitats. (20 marks)
12. With relevant examples explain the factors that would affect the distribution of antelopes in a named grassland ecosystem. (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)