



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY

SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE
IN BIOLOGICAL SCIENCES**

4th YEAR 2nd SEMESTER 2016/2017 ACADEMIC YEAR

MAIN CAMPUS - REGULAR

COURSE CODE: SBI 3436

COURSE TITLE: BIODIVERSITY CONSERVATION & UTILIZATION

EXAM VENUE: STREAM (BSC BIO)

DATE:19/12/16 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**
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SECTION A: SHORT ANSWER QUESTIONS (30 MARKS)

1. Explain the meaning of *Lazarus tax* phenomena as used in biodiversity conservation (3 marks)
2. Describe genetic diversity and explain its importance (3 marks)
3. Explain the Ramsar Convention. (3 marks)
4. Explain meaning of invasive species citing relevant examples in Kenya (3 marks)
5. List at least 5 biodiversity hotspots in Africa (3 marks)
6. Explain any three ecosystem services giving relevant examples. (3 marks)
7. Explain eco-tourism as an important biodiversity service (3 marks)
8. List the 5 water towers in Kenya (3 marks)
9. Using the IUCN Red List there are 3 categories under Threatened Species. List the categories. (3 marks)
10. Explain at least two theories used to explain why there are more species diversity in the tropical forests compared to temperate forests (3 marks)

SECTION B: ESSAY QUESTIONS (40 MARKS)

11. Describe nonmaterial values of biodiversity and explain with relevant examples how it has been used in biodiversity conservation in Kenya. (20 marks)
12. Describe with relevant examples ex-situ conservation giving advantages and disadvantages (20 marks)
13. Describe agroforestry systems and practices and explain importance of agroforestry in providing biodiversity services and goods. (20 marks)
14. Describe with relevant examples the main causes of biodiversity loss. (20 marks)