



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND
TECHNOLOGY**

SCHOOL OF AGRICULTURAL AND FOOD SCIENCES

FOURTH YEAR FIRST SEMESTER UNIVERSITY EXAMINATION

2017/2018 ACADEMIC YEAR

REGULAR

COURSE CODE: SBI 3417

COURSE TITLE: BIODIVERSITY CONSERVATION AND UTILIZATION

EXAM VENUE: LR 7

STREAM: BSc. (Food Security)

DATE: 19/12/17

EXAM SESSION: 2.00 – 4.00PM

TIME: 2 HOURS

Instructions:

- 1. Answer ALL questions in section A and ANY other 2 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 [30 MARKS]

Answer ALL questions from this Section.

1. Distinguish between species biodiversity and ecological biodiversity (4 Marks)
2. (i) Explain how an ecosystem adjusts to natural disturbances (4 marks)
(ii) State any four natural disturbances that cause ecosystems instability (2 marks)
3. Explain the benefits of biodiversity conservation to the following:
(i) Agriculture (2marks)
(ii) Human health and nutrition (2marks)
4. Each species has a role in maintenance of biodiversity. Explain (4 marks)
5. (i) Explain how genetic erosion disrupts a gene pool in the ecosystem (2marks)
(ii) Describe various human interventions that help in the conservation of a gene pool (4 marks)
6. Explain the main methods of biodiversity conservation (4 marks)
7. Discuss how human activities aimed at achieving economic development lead to deforestation (2 marks)

SECTION B [40 MARKS]

Answer ANY TWO questions from this Section.

8. State and explain the human activities that contribute to loss of biodiversity (20 marks)
9. (i) Biodiversity generates myriads of economic benefits to mankind. Discuss (15marks)
(ii) Describe the current status of Kenyan Biodiversity (5 marks)
10. (i) State the advantages and disadvantages of non-renewable resources (10 marks)
(ii) Describe any FOUR renewable resources (10marks)