

**TECHNICAL UNIVERSITY OF MOMBASA**

**SCHOOL OF AGRICULTURAL AND FOOD SCIENCES**

**FOURTH YEAR FIRST SEMESTER UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN HORTICULTURE**

**2016/2017 ACADEMIC YEAR**

**REGULAR**

**COURSE CODE: SBI 3417**

**COURSE TITLE: BIODIVERSITY CONSERVATION AND UTILIZATION**

**EXAM VENUE: STREAMS**: **BSc. Horticulture**,

**DATE: EXAM SESSION:**

**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 genetic diversity and species diversity (4 Marks)
2. (i) By giving any 2 examples, explain how biodiversity allows ecosystems to adjust to ecological disturbances (4 marks)

(ii) State any four natural disturbances that cause ecosystems instability (2 marks)

1. Explain the benefits of biodiversity conservation to the following:
2. Agriculture (2marks)
3. 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)
6. Describe various human interventions that help in the conservation of a gene pool

(4 marks)

1. Explain the following methods of biodiversity conservation
2. In situ biodiversity conservation (2 marks)
3. Ex situ biodiversity conservation (2 marks)
4. 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.**

1. With specific reference to tropical ecosystems and East African communities, describe how human activities have contributed to loss of biodiversity (20 marks)
2. (i) Biodiversity generates myriads of economic benefits to mankind. Discuss (15marks)
3. Describe the current status of Kenyan Biodiversity (5 marks)
4. (i) State the advantages and disadvantages of non-renewable resources (10 marks)
5. Describe any FOUR renewable resources (10marks)