



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF AGRICULTURAL AND FOOD SCIENCES

**SECOND YEAR SECOND SEMESTER UNIVERSITY EXAMINATION FOR THE
DEGREE OF BACHELOR OF SCIENCE IN FOOD SECURITY AND
BACHELOR OF SCIENCE IN ANIMAL SCIENCE**

2022/2023 ACADEMIC YEAR

REGULAR

COURSE CODE: AAS 3223:

COURSE TITLE: Utilization and Conservation of Animal Genetic Resources

EXAM VENUE:

STREAM: BSc. Food Security and BSc. Animal Science

DATE:

EXAM SESSION:

TIME: 2 HOURS

Instructions:

- 1. Answer ALL the questions in section A and any TWO 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.io**
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SECTION A [30 MARKS]

Answer ALL questions from this Section.

- 1 a. Define bioprospecting. **(2 marks)**
 - b. What are the components of biodiversity? **(2 marks)**
 - c. What are some of the application of microorganisms in any ecosystem? **(3 marks)**
 - d. State categories of threat that have been recognized by IUCN (International Union for Conservation of Nature and Natural Resources) **(3 marks)**
2. a. State some of the legal framework put in place towards management of biodiversity **(4 marks)**
 - b. Explain the measures that can be adopted to avoid or minimize adverse impacts on animal biodiversity **(6 marks)**
3. a. State the main aims of the *Global Plan of Action for Animal Genetic Resources* **(4 marks)**
 - b. Explain the impact of Genetically Modified Organisms (GMOs) in animal genetic diversity. **(4 marks)**
 - c. What are the advantages of cryogenic storage? **(2 marks)**

SECTION B [40 MARKS]

Answer any TWO QUESTIONS from this Section.

- Q4. Discuss threats to animal genetic diversity **(20 marks)**
- Q5. Discuss conservation approaches available for animal genetic resources **(20 marks)**
- Q6 (a) What are the drivers of the loss of animal genetic diversity? **(10 marks)**
 - (b) What are the advantages and disadvantages of bioprospecting? **(10 marks)**