



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)