



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

**SCHOOL OF AGRICULTURAL AND FOOD SCIENCES**

**THIRD YEAR SECOND SEMESTER UNIVERSITY EXAMINATION FOR  
THE DEGREE OF BACHELOR OF SCIENCE IN ANIMAL SCIENCE**

**2016/2017 ACADEMIC YEAR**

**REGULAR**

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**COURSE CODE: AAS 3322**

**COURSE TITLE: GENERAL RANGE MANAGEMENT**

**EXAM VENUE:**

**STREAM: BSc. ANIMAL SCIENCE**

**DATE:**

**EXAM SESSION:**

**TIME: 2 HOURS**

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**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. Define the following terms with examples:
  - a. Rangelands (2 marks)
  - b. Range management (2 Marks)
  - c. Range science (2 Marks)
2. Briefly explain the principle practices that are employed in the management of range lands ( 6 marks)
3. Explain the following giving examples
  - a. The prairie (3 marks)
  - b. Grasslands (3 marks)
  - c. Shrub lands (3 Marks)
4. Discuss the following
  - a. Range utilization (3 Marks)
  - b. Range land resources ( 3 marks)
  - c. Tragedy of the commons (3 Marks)

**SECTION B [40 MARKS]**

**Answer ANY TWO questions from this Section.**

5. Range land classification in Kenya has been based on three main characteristics, state them and discuss the ecological zones classified. (20 Marks)
6. Livestock has been used as a tool in range management; discuss clearly outlining the production systems. (20 Marks)
7. Define the term defoliation and discuss the following (20 marks)
  - a. plant physiological effects of defoliation
  - b. plants morphological effects of defoliation
  - c. defoliation effect on the physical environment
8. Discuss the general factors considered in range improvement (20 marks)