



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF AGRICULTURE AND FOOD SCIENCES**  
**SECOND SEMESTER SECOND YEAR EXAMINATION FOR THE DEGREE OF**  
**BACHELOR OF SCIENCE IN AGRIBUSINESS MANAGEMENT AND BACHELOR**  
**OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION 2019/2020**  
**ACADEMIC YEAR**

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**COURSE CODE: AAS 3221**

**COURSE TITLE: Principles of Animal production**

**EXAM VENUE:**

**STREAM: (BSc. Agribusiness Management;  
BSc. Agricultural Education and Extension)**

**DATE:**

**EXAM SESSION:**

**TIME: 2HOURS**

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**Instructions:**

- 1. Answer ALL questions in Section A (compulsory) and ANY TWO questions in Section B**
- 2. Candidates are advised not to write on the 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. What is Ecology? [5 marks]
2. State two major ecological concepts and two main ecological principles related to each concept. [5 marks]
3. Distinguish between “coarse filter” and “fine filter” approaches in relation to conservation of ecological communities . [5 marks]
4. In what ways does climate change affect livestock production. [5marks]
5. Define feed conversion ratio and explain how it is calculated. [5marks]
6. In what ways does thermoregulation in poultry differ from that in mammals. [5marks]

**SECTION B [40 MARKS]**

**Answer any TWO QUESTIONS in this Section.**

7. Define an “ecosystem” indicating the largest ecosystem and its components. [20 marks]
8. Discuss the three major trends relating to pasturelands and how these are affecting the productivity gains from pasture-based livestock production systems. [20 marks]
9. Discuss the ways in which the adaptation capacity of the traditional livestock producers in extensive systems can be increased to deal with the impacts of climate change on livestock. [20marks]