JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY

SCHOOL OF AGRICULTURE AND FOOD SCIENCE

UNIVERSITY EXAMINATIONS FOR BACHELOR OF SCIENCE IN ANIMAL SCIENCE

1ST SEMESTER 2016/2017 ACADEMIC YEAR

REGULAR

COURSE CODE: AAS 3217

COURSE CODE TITLE: ANIMAL HOUSING, FARM STRUCTURES AND BIOCLIMATOLOGY

EXAM VENUE: **STREAM:**

DATE: **EXAM SESSION: ANIMAL SCIENCE**

TIME: 2 HOURS

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]

1. Discuss the following:
    a. Loose fill insulation (2 marks)
    b. Rigid insulation (3 marks)
    c. Formed in place insulation (2 marks)

2. Describe the benefits of appropriate waste management on a farm (6 marks)
3. Discuss options for effective waste disposal in the farm (5 marks)
4. Describe design factors that must be considered in planning of farm structures? (7 marks)
5. Citing relevant examples, state the functions of 5 types of farm buildings. [5 marks]

SECTION B [40 MARKS]

1. a) . Define the following terminologies:
    i. R-value (3 marks)
    ii. Primary enclosures (4 marks)
    iii. Bio climatic design (3 marks)

    b) . Describe any three ways through which heat exchange between animals and its environment occurs (10 marks)
2. Discuss the critical aspects for confinement housing (20 marks)
3. Explain the importance of the following on farm structures (20 marks)
    a. Ventilation (8 marks)
    b. Sanitation (5 marks)
    c. Noise control (7 marks)

4. a) Discuss the five factors that affect the animal's microenvironment. [10 marks].
    b) Discuss the approaches to the mechanical ventilation in dairy farming. [10 marks].