JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF AGRICULTURAL AND FOOD SCIENCES

UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION AND BACHELOR OF SCIENCE IN ANIMAL SCIENCE

2ND YEAR 1ST SEMESTER 2018/2019 ACADEMIC YEAR

REGULAR

COURSE CODE: AAS 3213

COURSE TITLE: ANIMAL PHYSIOLOGY

EXAM VENUE: **STREAM: (BSc. Agricultural Education and Extension BSc. Animal Science)**

DATE: **EXAM SESSION:**

TIME: 2HOURS

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 in this section

1. Distinguish between intracellular fluid and extracellular fluid in terms of ionic composition. **(3 marks)**

. 2. Explain, with examples, the concept of positive feedback mechanism. **(3 marks)**

3. Give functions of the four morphologically defined parts of a neuron**.** **(3 marks)**

4. Explain the importance of taste reception in the animal kingdom. **(3 marks)**

5. Distinguish between isotonic and isometric contraction of muscles. **(4 marks)**

6. Give the stimulus for the release of insulin and name three target tissues for this hormone. **(4 marks)**

7. Describe the general patterns of courtship in cattle **(3 marks)**

8. Give the name of the complex formed between the following:
   a. Oxygen and hemoglobin
   b. Carbon monoxide and hemoglobin
   c. Carbon dioxide and hemoglobin
   indicate which of the above complexes is stable**.** **(4 marks)**

9. Describe activity of pancreatic enzyme α amylase. **(3 marks)**

SECTION B [40 MARKS]

Answer ANY TWO questions from this section

10. Explore basic lipid metabolism in mammals. **(20 marks)**

12. Egg formation and laying is an important process in birds. Evaluate the physiology of this process. **(20 marks)**

13. Fully describe the anatomy and physiology of fish digestive system. **(20 marks)**

14. Describe functional organization of mammalian circulatory system. **(20 marks)**