

**UNIVERSITY OF KABIANGA**

**UNIVERSITY EXAMINATIONS**

**2016/2017 ACADEMIC YEAR**

**SECOND YEAR SECOND SEMESTER EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURAL BIOSYSTEMS AND MANAGEMENT**

**COURSE CODE: ANS 201**

**COURSE TITLE: ANIMAL ANATOMY AND PHYSIOLOGY**

**DATE: 23RD JUNE, 2017**

**TIME: 9.00 A.M-12.00 NOON**

**INSTRUCTIONS:**

Answer any **FIVE** Questions.

**Question One**

1. Define the following terms as used in the course: (3 marks)
2. Physiology.
3. Blood
4. Organ
5. Explain how the under-mentioned equipment are used to examine ruminants. State the purpose(s) for the use of each equipment.
6. Clinical thermometer. (3 marks)
7. Stethoscope. (6 marks)
8. Outline the procedure of making the following samples from a restrained animal.
9. Thin blood smear. (4 marks)
10. Serum. (4 marks)

**Question Two**

Describe the generation and distribution of cardiac electric signals in a cardiac cycle. Use a well labelled diagram of a cross-section of the heart in the description. (20 marks)

**Question Three**

1. Describe the chronological developments of a zygote from fertilization to a bilaminar disk. (10 marks)
2. Outline the process of spermatogenesis in a seminiferous tubule. (10 marks)

**Question Four**

1. List any two structures that bind cells together. (2 marks)
2. With the help of a drawing, identify the parts of a molar tooth. (8 marks)
3. Describe the anatomical structure of a gastric gland and list its cells and their secretions. (10 marks)

**Question Five**

1. Name the bones of the appendicular skeleton in a ruminant. (10 marks)
2. Differentiate the functions of the tendons and ligaments in the body of an animal. (2 marks)
3. Describe the characteristics of smooth muscles in the body. (3 marks)
4. Briefly describe the generation of force in a striated muscle fiber. (5 marks)

**Question Six**

1. Draw a neuron and label its parts. (8 marks)
2. Describe the generation and saltatory movement of an impulse across a neuron. (12 marks)