



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2010/2011

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE (ANIMAL PRODUCTION AND HEALTH MANAGEMENT,
AGRICULTURAL RESOURCE MANAGEMENT & DRYLAND AGRICULTURE AND
ENTERPRISE DEVELOPMENT)

KST 106: PHYSIOLOGY AND ANATOMY OF FARM ANIMALS

DATE: Tuesday 29th March 2011

TIME: 8.00a.m – 10.00a.m

INSTRUCTIONS

Time: 2hours

- Answer question **one** and any other **three** questions.

1.

- a) Differentiate the following terms as used in animal physiology and anatomy: (10marks)

- Positive feedback mechanism and Negative feedback mechanism
- Phagocytosis and pinocytosis
- Endosteum and Periosteum
- Growth and Differentiation
- Immunity and Resistance

b)

- i. State the processes by which substances move across the plasma membrane. (5marks)

- ii. Describe any two of the processes named in (i) above. (4marks)

- c) Describe the various levels of structural organization of organisms. (6marks)

2.

- a) Give the main functions of the bones. (4marks)

- b) What are the hormones that regulate blood calcium? (2marks)

- c) How do the hormones named in (b) above work together to control blood calcium levels? (6marks)

- d) Give the functions of antidiuretic hormone (3marks)

- 3.
- a) What are the functions of the kidney? (6marks)
 - b) Give the three basic processes performed by nephrons and collecting ducts (3marks)
 - c) Give the functions of the Pharynx (3marks)
 - d) Give the cell types of the alveoli (3marks)
- 4.
- a) Describe how the skin and mucous membranes provide resistance to diseases (5 marks)
 - b) B-cells provide immunity in the body of an animal by producing antibodies that act against the invading antigen. Explain the actions of antibodies to provide the immunity. (5marks)
 - c) Describe the regulation of gastric emptying (5marks)
- 5.
- a) Give the functional classes of neurons. (3marks)
 - b) What is Cryptorchidism? (2marks)
 - c) Describe hormonal control of spermatogenesis (5marks)
 - d) What are the differences between spontaneous and induced ovulators? (5marks)