



# KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2010/2011

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF  
SCIENCE (CROP IMPROVEMENT AND PROTECTION)

KST 101: AGRICULTURAL ZOOLOGY

DATE: TUESDAY, 30<sup>TH</sup> NOVEMBER 2010

TIME: 8.00 A.M. - 10.00 A.M.

**Instructions**

Answer ALL Questions in Section A and TWO Questions in Section B

**SECTION A (40 MARKS)**

1. Define the following terms
  - a. Segmentation (1 mark)
  - b. Open circulatory system (1 Mark)
  - c. Binary fission (1 Mark)
  - d. Multicellular organisms (1 Mark)
  - e. Tagmosis (1 Mark)
2. Describe the morphological characteristics that place a house fly in class insecta  
(5 Marks)
3. Write short notes on the following
  - a. Squamous epithelium.
  - b. Columnal epithelium  
(5 Marks)
4. Explain the functional adaptation of red blood cells  
(5 Marks)
5. Distinguish between the various types of animal symmetry and give an example of each  
(5 Marks)
6. List down the major functions of connective tissue in multicellular organisms  
(5 Marks)
7. Briefly discuss breathing mechanism in human beings  
(5 Marks)

8. Enumerate down the economic importance of domesticated animals (5 Marks)

**Section B (30 Marks)**

9. Using a well labelled diagram describe how the skin is adapted to perform its functions. (15 Marks)
10. Describe the characteristics of the following taxa
- a. Arthropoda
  - b. Aves
  - c. Arachnida
  - d. Mammalia
- (15 Marks)
11. Blood is an essential tissue for the survival of organisms. Discuss. (15 Marks)
12. Describe mechanisms of temperature regulation in ectothermic organisms (15 Marks)