

**W1-2-60-1-6**

## JOMO KENYATTA UNIVERSITY

**OF**

**AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2016/2017**

**EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOSTATISTICS/BIOTECHNOLOGY/APPLIED BIOLOGY/GENOMICS/ZOOLOGY/BIOLOGICAL SCIENCE**

**SZL 2102: ANIMAL PHYSIOLOGY**

**DATE: JUNE 2017 TIME: 2 HOURS**

INSTRUCTIONS: ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

1a) Outline the structural and functional/anatomical and physiological differences between arteries and veins (6 marks)

b) Explain the mechanisms of gastric gland secretion in the human stomach (6 marks)

c) Describe briefly the mechanisms of impulse transmission across a synaptic function (6 marks)

d) Name the hormones produced in the anterior pituitary gland, stating their respective functions (6 marks)

e) Outline the factors that influence gaseous exchange in the lungs

(6 marks)

2) Describe the process of urine formation in a mammalian excretory system (20 marks)

3) Describe the molecular structure and the mechanisms of skeletal muscle contraction (20 marks)

4) Give a detailed account of thermoregulation in homeotherms (20 marks)

5) Describe the animal cell structure and function of the various components (20 marks)