



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2018/2019

FIRST SEMESTER EXAMINATION FOR THE BACHELOR OF SCIENCE

KAS 104: ANIMAL PHYSIOLOGY 1

DATE: Thursday 22nd November 2018

TIME: 4.30 p.m. – 6.30 p.m.

INSTRUCTIONS:

Answer **ALL** questions in Section A and any **TWO** questions in Section B. Within a Section **ALL** questions carry equal marks. Illustrate your answers with diagrams and give examples where appropriate.

SECTION A: (40 marks) Answer all questions in this Section

1. Explain the following terms:
 - a) Transmembrane potential
 - e) Tonicity (5 marks)
2. List five functions of the skin. (5 marks)
3. Explain the mechanisms that control respiration in mammals. (5 marks)
4. Differentiate the following:
 - a) Active transport and Carrier mediated transport
 - b) Extracellular space and intracellular space (5 marks)
5. Describe the effect of high altitude on blood pressure in farm animals. (5 marks)
6. Describe the concept of positive feedback mechanism in animal body. (5 marks)
7. Explain how blood is an important transport system in the animal body. (5 marks)
8. Describe the mechanism that controls milk production in farm animals. (5 marks)

SECTION B: Answer any two questions.

9. Describe the physiology of the digestive system. (15 marks)
10. Explain the processes:
 - a) Homeostasis
 - b) Respiration
 - c) Thermoregulation (15 marks)
11. Describe the functions of the central nervous system. (15 marks)