



KENYATTA UNIVERSITY

**EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN ANIMAL
HEALTH AND PRODUCTION**

KAS 109: ANIMAL PHYSIOLOGY II

2ND SEMESTER 2020/2021

TIME: 2 HOURS

INSTRUCTIONS:

Answer ALL Questions in Section A and Any Other TWO Questions in Section B.

SECTION A: Answer ALL Questions in this Section. (40 marks)

1. Define the following terms in relation to digestive physiology. (5 marks)
 - a. Prehension
 - b. Mastication
 - c. Peristalsis
 - d. Digestion
 - e. Volatile fatty acids
2. Briefly explain the following terms: (5 marks)
 - a. Pulmonary circulation (1 mark)
 - b. Systemic circulation (2 marks)
 - c. Cardiac cycle (2 marks)
3. List any FIVE nutritive products of fermentative digestion in rumen. (5 marks)
4. Briefly explain the process of glomerular filtration. (5 marks)
5. Briefly explain the process of degeneration of erythrocytes. (5 marks)
6. Briefly explain filtration and reabsorption in the arterial and venous ends of the blood capillaries in the kidney. (5 marks)

7. Briefly discuss ventilation in relation to mammalian respiration. (5 marks)
8. Briefly discuss the digestive functions of the proventriculus. (5 marks)

Section B: Answer Any TWO Questions in this Section.

9. Discuss the digestion and absorption of proteins in the small intestines. (15 marks)
10. Describe the following processes in relation to respiratory system. (15 marks)
- a. Gaseous exchange in the lungs (5 marks)
 - b. Gas transport in the blood (5 marks)
 - c. Gaseous exchange in tissues (5 marks)
11. Explain in detail the following concepts in relation to homeostasis: (15 marks)
- a. Definition (2 marks)
 - b. Concept of negative feedback (3 marks)
 - c. Mechanisms of temperature regulation in mammals (10 marks)