



(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS 2021/2022 ACADEMIC YEAR

SECOND YEAR 1ST SEMESTER MAIN EXAMINATIONS

**FOR THE DEGREE OF BACHELOR OF SCIENCE AGRICULTURE AND
BIOTECHNOLOGY & BACHELOR OF SCIENCE AGRICULTURE
ECONOMICS AND RESOURCE MANAGEMENT**

COURSE CODE: AAP 211/SAB 220
COURSE TITLE: ANIMAL PHYSIOLOGY

DATE: 1ST FEBRUARY 2022

TIME: 8 – 10 AM

INSTRUCTIONS TO CANDIDATES

Answer Question ONE and any other TWO Questions.

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over



KIBU observes ZERO tolerance to examination cheating

QUESTION ONE

(a) State the functions of the following cellular organelles

- i. Mitochondria (2mks)
- ii. Ribosomes (2mks)
- iii. Golgi apparatus (2mks)
- iv. rough and smooth endoplasmic reticulum (3mks)

(b) Outline how the sympathetic system stimulates the "fight or flight" response that allows an animal to either fight or flee from the attacker (5mks)

(c) State the meaning of the following terms used in animal physiology

- i. Homeostasis (2mks)
- ii. Peristalsis (2mks)
- iii. Pulmonary ventilation (2mks)

(d) Briefly describe the movement of the ribs and diaphragm during expiration and inspiration (6mks)

(e) Differentiate between the following

- i. Blood plasma and serum (2mks)
- i. Red blood cells and Platelets (2mks)

2. Briefly describe characteristics of 3 major types of muscles outlining how they are adapted to their functions (20mks)

3. Discuss the animal body adaptation to cold and heat (20mks)

4. Describe briefly digestion process in ruminating animals (20mks)

5. Briefly discuss how respiratory system in birds is organized for efficient gaseous exchange to meet oxygen demand during flight (20mks)