



(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018 ACADEMIC YEAR

THIRD YEAR FIRST SEMESTER SPECIAL/SUPPLEMENTARY EXAMINATIONS

FOR THE DEGREE OF BACHELOR OF SCIENCE

COURSE CODE: SZL 311

COURSE TITLE: COMPARATIVE ANIMAL PHYSIOLOGY

DATE: 2/10/2018

TIME: 8:00-10:00 A.M.

INSTRUCTIONS TO CANDIDATES

Answer question **ONE** [1] and **ANY** other **TWO** [2] questions

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over



KIBUCO observes ZERO tolerance to examination cheating

1. **Question 1**

a). **Define** the following terms as used in physiology

- i). Positive feedback (4 MARKS)
- ii). Acclimatization (2 MARKS)
- iii). Homeostasis (3 MARKS)
- iv). Adaptation (4 MARKS)

c). **Give** three differences between adaptation and acclimation (6 MARKS)

b). **Explain** the adaptive approaches to environmental change (6 MARKS)

c). **Explain** the osmoregulation of aquatic animals (5 MARKS)

2. **Question 2**

a) **Explain** the physiology of female hormonal control in the process of menstruation. (10MARKS)

b) Clearly state the effects of estrogen and progesterone during pregnancy (10MARKS)

3. **Question 3**

Explain the main types of cardiovascular circulation exhibited by various specific animals. (20 MARKS)

4. **Question 5**

Digestive system is one of the distinct principal organ systems in physiological systems. **Explain** the physiological differences in digestive systems between various animals (20MARKS)

5. **Question 5**

Explain the difference in respiration in annelids and mammals in relation to

- i) Body size (5 MARKS)
- ii) Respiratory surfaces (5 MARKS)
- iii) Methods of respiration (10MARKS)