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(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017 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: 19/09/2017

TIME: 3:00 – 5:00 P.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



KIBU observes ZERO tolerance to examination cheating

1. Question 1

a). Define the following terms as used in physiology

- i). Receptors (4 MARKS)
- ii). Acclimatization (2 MARKS)
- iii). Hypotonic intracellular fluid (3 MARKS)
- iv). Adaptation (3 MARKS)

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

c). Explain the osmoregulation of aquatic animals (8 MARKS)

c). Give two reasons why the homeostatic mechanism is referred to as a negative feedback (4 MARKS)

2. Question 2

Explain the main types of circulation and clearly stating their specific functions in the body of specific animals. (20 MARKS)

3. Question 3

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)

4. Question 5

Digestive system is one of the distinct principal organ systems in physiological systems. **Explain** the physiological differences in digestion 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)