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(Knowledge for Development)

KIBABII UNIVERSITY
UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR

THIRD YEAR FIRST SEMESTER
MAIN EXAMINATIONS

FOR THE DEGREE OF BACHELOR OF SCIENCE

COURSE CODE: SZL 311

COURSE TITLE: COMPARATIVE ANIMAL PHYSIOLOGY

DATE: 19th January 2018 **TIME:** 9:00 – 11:00 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



KIBU observes ZERO tolerance to examination cheating

1. **Question 1**

a). Define the following terms as used in comparative animal physiology

i). comparative physiology (4 MARKS)

ii). Acclimation (3 MARKS)

iii). Qualifiers (3 MARKS)

iv). Evolutionary physiology (4 MARKS)

c). **Describe** the sub disciplines of comparative physiology (6 MARKS)

d). **Discuss the** functions of excretory organs used by various animal (4 MARKS)

b). **Explain** the three main requirements of a regulatory mechanism (6 MARKS)

2. **Question 2**

Discuss the variation in the methods of respiration that exists in animals
(20MARKS)

3. **Question 3**

Explain the circulatory systems of several vertebrates showing the evolution of the four chambered heart and pulmonary and systemic circuits (20 MARKS)

4. **Question 4**

i). **Explain** the three main requirements of the homeostatic mechanism (6 MARKS)

ii). Using the concept of balance in homeostasis, **compare** osmoregulation in animals
(14 MARKS)

5. **Question 5**

a). **Explain** the various types of nutrition in animals (10MARKS)

b). **Discuss** the stages in the digestive process of living organisms (10MARKS)