



*(Knowledge for Development)*

**KIBABII UNIVERSITY**  
**UNIVERSITY EXAMINATIONS**  
**2019/2020 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:** 3<sup>RD</sup> February, 2020      **TIME:** 11:00 – 1:00 p.m.

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**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

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**Question 1**

- a). Define the following terms as used in comparative animal physiology
- i). Fragmentation (3 MARKS)
  - ii). Osmoconformers (3 MARKS)
  - iii) Regulation (2 MARKS)
  - iv) Ecological physiology (3 MARKS)
- b). **Explain** the three main requirements of the homeostatic mechanism (6 MARKS)
- c). **List** the respiratory system principles (5 MARKS)
- d). **Describe** the functions of excretory systems in animals (4 MARKS)
- e). **State the** characteristics of respiratory surfaces in animal (4 MARKS)

**Question 2**

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

**Question 3**

Compare the types of circulatory systems that are exhibited by animal showing the progressive evolution of the four chambered heart and pulmonary and systemic circuits (20 MARKS)

**Question 4**

Using the concept of balance in homeostasis, **explain** how the body regulates its extracellular fluids (20 MARKS)

**Question 5**

**Discuss** the stages in the digestive process of living organisms (20MARKS)