



*(Knowledge for Development)*

**KIBABII UNIVERSITY**  
**UNIVERSITY EXAMINATIONS**  
**2022/2023 ACADEMIC YEAR**

**THIRD YEAR FIRST SEMESTER**  
**MAIN EXAMINATIONS**

FOR THE DEGREE OF BACHELOR OF SCIENCE

**COURSE CODE:** SZL 313

**COURSE TITLE:** COMPARATIVE ANIMAL PHYSIOLOGY

**DATE: 14<sup>TH</sup> DECEMBER 2022**      **TIME: 2.00 – 4.00 PM**

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**INSTRUCTIONS TO CANDIDATES**

Answer questions **ONE** [1] and **ANY** other **TWO** [2] questions. Question one carries 30 marks ; the other questions carry 20 marks each

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over



KIBU observes ZERO tolerance to examination cheating

### Question 1

- a). **Define** the following terms as used in physiology
- i). Feedback (3 MARKS)
  - ii). Acclimatization (3 MARKS)
  - iii). parthenogenesis (3 MARKS)
  - iv). Adaptation (2 MARKS)
- b). **State** the main differences between acclimation and adaptation (4 MARKS)
- c). **Explain** the main differences between external and internal fertilization (6 MARKS)
- e). **Give** two reasons why the homeostatic mechanism is referred to as a negative feedback (4 MARKS)
- e). **State the** characteristics of respiratory surfaces in animal (4 MARKS)

### Question 2

**Explain** the main types of circulation in animals and clearly stating their effects of each type in the body of specific animals. (20 MARKS)

### Question 3

**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)

### Question 5

Discuss various processes used by heterotrophs to ingest and absorb nutrients from the environment. (20MARKS)

### Question 5

Discuss different excretory methods exhibited by various specified animals (20MARKS)