



KISII UNIVERSITY
UNIVERSITY EXAMINATIONS
FIRST YEAR EXAMINATION FOR THE AWARD OF THE
DEGREE OF BACHELOR OF SCIENCE IN BIOLOGY
SECOND SEMESTER 2022/2023
[JANUARY-APRIL, 2023]

ZOOL 103: VERTEBRATE ZOOLOGY

STREAM: Y1S2

TIME: 2 HOURS

DAY: FRIDAY, 12:00 – 2:00 PM

DATE: 31/03/2023

INSTRUCTIONS

- 1. Do not write anything on this question paper.**
- 2. Answer question ONE and any other TWO questions in Section B.**

SECTION A

1. Discuss the evolutionary scenarios of chordates (5marks)
2. In tabular format, compare and contrast the old and modern fish (amphibians) (5marks)
3. Discuss the trends that shaped chordate evolution (5marks)
4. Define the following terms (5marks)
 - a) Morphological convergence
 - b) Radiometric dating
 - c) Tetrapod
 - d) Cloaca
 - e) Monotreme
5. Give a detailed account on the general characters of chordates (5marks)
6. Explain the distinguishing features between reptiles and aves. (5marks)
7. Do similarities in body form and parts indicate on evolutionary relationship. (5marks)
8. What are amniotes. (5marks)

SECTION B

9. Discuss trends that shaped chordate evolution (15marks)
10. Explain Garstangs hypothesis and Paedomorphosis. How are the two related in evolution (15marks)
11. Explain the unifying invertebrate traits (15marks)