

LAIKIPIA



UNIVERSITY

UNIVERSITY EXAMINATIONS

SECOND SEMESTER 2023/2024 ACADEMIC YEAR

FIRST YEAR EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE(GENERAL) AND BACHELOR
OF EDUCATION (SCIENCE)

ZOOL 121: HIGHER INVERTEBRATES

STREAM: R

TIME: 2 HRS

DAY: THURSDAY[11.30A.M – 1.30P.M] DATE: 18/04/2024

THIS QUESTION PAPER CONSISTS OF TWO (2) PAGES

PLEASE DO NOT OPEN UNTIL THE INVIGILATOR SAYS SO.



INSTRUCTIONS: ANSWER ALL QUESTION IN SECTION A AND ANY TWO IN SECTION B

SECTION A: ANSWER ALL QUESTIONS (40 MARKS)

QUESTION ONE

Distinguish between the functions of coelom and coelomic fluid of coelomates (6 Marks)

QUESTION TWO

State the sensory structures found in Gastropods and their functions (6 Marks)

QUESTION THREE

Briefly explain the excretory system of Sipunculus (4 Marks)

QUESTION FOUR

Distinguish between prostomium and perstomium of polychaetes (6 Marks)

QUESTION FIVE

Briefly describe the embryonic development of the sea stars (Class Asteroidea) (6 Marks)

QUESTION SIX

Briefly describe the external structure of Leeches (6 Marks)

QUESTION SEVEN

How do the sea cucumbers (class Hoothuroidea) protect themselves? (6 Marks)

SECTION B : ANSWER ANY TWO QUESTIONS (30MARKS)

QUESTION EIGHT

Explain the physiology and structural functions of:

a) Feeding and digestive system of Oligocheates, using the earthworm as an example (10 Marks)

b) Nervous system of Echiurus (5 Marks)

QUESTION NINE

Describe the significance of torsion in Gastropods (15 Marks)

QUESTION TEN

a) Describe the structure and functions of tube feet of Echinoderms (10 Marks)

b) Using a well labeled diagram, describe the features found on Class Crinoidea (5 Marks)

