



**KISII UNIVERSITY**  
**UNIVERSITY EXAMINATIONS**

**FIRST YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF  
BACHELOR OF SCIENCE MICROBIOLOGY, BACHELOR OF SCIENCE  
EDUCATION**  
**SECOND SEMESTER 2021/2022**  
**(FEBRUARY-JUNE, 2022)**

**ZOOL 102: HIGHER INVERTABRATES**

**STREAM: Y1 S2**

**TIME: 2 HOURS**

**DAY: FRIDAY, 9:00AM – 11:00 AM**

**DATE: 27/05/2022**

**INSTRUCTIONS:**

- 1. Do not write anything on this question paper.***
- 2. Answer all questions in section A and any TWO in section B.***

**SECTION A (40 MARKS)**

1. Explain the biological significance of a coelom. [5 marks]
2. Briefly justify habitat diversification in class insect. [5marks]
3. Briefly describe embryonic development of the larva in annelids. [5 marks]
4. Outline the distinguishing features of the class Bivalvia. [5 marks]
5. Briefly describe distinguishing features of class annelida [5 marks]
6. Write brief notes on oligochaetes and hirudinea. [5marks]
7. Briefly describe the significance and disadvantages of an exoskeleton in arthropoda. [5marks]
8. Briefly describe locomotion in class Arachnida. [5marks]

**SECTION B**

1. In detail differentiate Protostomes and Deuterostomes. [15 marks]
2. Describe the digestive and reproductive systems in members of Phylum Echinodermata. [15 marks]

3. With reference to Class Insecta, describe the following; (15 marks)
- a) Sense organs
  - b) Circulatory system
  - c) Digestive system
  - d) Reproductive system
  - e) Excretory system