



MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

SECOND YEAR FIRST SEMESTER EXAMINATION FOR
BACHELOR OF AGRICULTURAL EDUCATION AND EXTENSION

BACHELOR OF EDUCATION (SCIENCE)

BACHELOR OF SCIENCE (BIOLOGY)

SZL 201: INVERTEBRATE ZOOLOGY

DATE: 18/8/2021

TIME: 2:00 – 4:00 PM

INSTRUCTIONS

Answer Question One and Any two other questions in section B

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Describe coelom and its significances (3 marks)
- b) Describe three KEY factors used to compare invertebrates (3 marks)
- c) Describe the tissue structure of an Arthropoda (3 marks)
- d) Describe reproduction in sponges (3 marks)
- e) Describe the dorsal and cross section coelom formation in Annelids. (3 marks)
- f) Describe three cell types found in sponges. (3 marks)
- g) Distinguish between Monogenean and Cestode tegument. (3 marks)
- h) Describe three key features of the Gastropod (3 marks)
- i) Describe the compound eye of an arthropod (3 marks)
- j) Describe the preying process in the Coelenterata (3 marks)

SECTION B: ANSWER ANY OTHER TWO QUESTIONS

QUESTION TWO (20 MARKS)

- a) Discuss morphological and physiological features of phylum Annelida. (10 marks)
- b) Discuss the internal morphology of Brachiopoda (10 marks)

QUESTION THREE (20 MARKS)

- a) Draw a well labelled diagram of a Cephalopoda (6 marks)
- b) Discuss the classifications of poriferans. (14 marks)

QUESTION FOUR (20 MARKS)

- a) Discuss the major subphylum of the phylum arthropoda (5 marks)
- b) Discuss the grades and cellular organisation of sponges (15 marks)

QUESTION FIVE (20 MARKS)

Discuss the evolution of Coelom in the invertebrates