

UNIVERSITY EXAMINATIONS

1ST SEMESTER 2022/2023 ACADEMIC YEAR

**SECOND YEAR EXAMINATION FOR THE DEGREES
BACHELOR OF SCIENCE (GENERAL)/BACHELOR OF
EDUCATION (SCIENCE)**

ZOOL 112: LOWER INVERTEBRATES

STREAM: R

TIME: 2 HRS

DAY: FRIDAY [8.30AM – 10.30AM] DATE: 09/12/2022

THIS QUESTION PAPER CONSISTS OF TWO (2) PAGES

PLEASE DO NOT OPEN UNTIL THE INVIGILATOR SAYS SO.

SECTION A: ANSWER ALL QUESTIONS (40MKS)**QUESTION ONE**

Explain how the symbiotic theory could have led to evolution of multicellularity in animals.
(3 marks)

QUESTION TWO

Using examples, describe a body design in which the animal exhibits radial symmetry.
(3 marks)

QUESTION THREE

Describe the reproductive life cycle of the Ciliophora.
(8 marks)

QUESTION FOUR

Explain how the Sponges (Porifera) feed.
(4 marks)

QUESTION FIVE

Distinguish between locomotion of the Polyps and Medusae.
(6 marks)

QUESTION SIX

Describe the pathways of coordination in Ctenophores.
(8 marks)

QUESTION SEVEN

Explain the layout of a Turbellarian body wall.
(6 marks)

QUESTION EIGHT

Which systems are utilized by the Nematodes to accomplish osmoregulation and excretion of nitrogenous waste products.
(2 marks)

SECTION B: ANSWER ANY TWO QUESTIONS (30MKS)**QUESTION NINE**

- (a) Describe the body of an Entoproct. (5 marks)
- (b) Explain reproduction in Phylum Nematomorpha. (5 marks)
- (c) Explain feeding and the digestive system of the Phylum Rotifera. (5 marks)

QUESTION TEN

- (a) Describe the asexual phase in the life cycle of the Sporozoa. (9 marks)
- (b) State some characteristics of the phylum Nemertea. (6 marks)

QUESTION ELEVEN

- (a) Explain how the Deuterostomes can be identified. (11 marks)
- (b) Describe the Ascon body form of a Sponge. (4 marks)