



# UNIVERSITY EXAMINATIONS

**FIRST SEMESTER 2025/2026 ACADEMIC YEAR**

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

**ZOO/ZOOL 112: LOWER INVERTEBRATES**

***STREAM: R***

***TIME: 2 HRS***

***DAY: FRIDAY [8.30 – 10.30 A.M]***

***DATE: 30/01/2026***

**THIS QUESTION PAPER CONSISTS OF TWO (2) PAGES**

**PLEASE DO NOT OPEN UNTIL THE INVIGILATOR SAYS SO.**

**SECTION A: ANSWER ALL QUESTIONS IN THIS SECTION (40 MARKS)****QUESTION ONE**

State the forms of pseudopodia found in the Amoebae (Sarcodina) (4 Marks)

**QUESTION TWO**

Explain the theories that support the evolution of multicellularity (6 Marks)

**QUESTION THREE**

Outline the development of a protostome animal (6 Marks)

**QUESTION FOUR**

Explain the functions of the coelom (4 Marks)

**QUESTION FIVE**

Write short notes on the mechanisms of nutrition in Zoomastigophora. (6 Marks)

**QUESTION SIX**

Explain reproduction in Cnidarians. (6 Marks)

**QUESTION SEVEN**

State the forms of pseudopodia found in the Amoebae (Sarcodina) (4 Marks)

**QUESTION EIGHT**

Outline the circulatory system of the Nemertean (4 Marks)

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

- a) Describe symmetry and discuss types of symmetry found in invertebrates (10 Marks)
- b) Describe the life cycle and reproduction of a sporozoan (5 Marks)

**QUESTION TEN**

- a) Describe the structure of the body wall of Turbellaria (10 Marks)
- b) Using a well labeled diagram, show the external anatomy of a Kinorhyncha (5 Marks)

**QUESTION ELEVEN**

- a) Discuss the cell types found in the phylum Porifera (Sponges) and their functions (6 Marks)
- b) Identify and discuss the coordination pathways utilized by the Ctenophores (9 Marks)