

**UNIVERSITY EXAMINATIONS****FIRST SEMESTER 2025/2026 ACADEMIC YEAR****THIRD YEAR EXAMINATION FOR THE DEGREE OF  
BACHELOR OF EDUCATION (SCIENCE)****ZOO 312: FUNDAMENTALS OF ENTOMOLOGY*****STREAM: R******TIME: 2 HRS******DAY: MONDAY [11.30 – 13.30 P.M]******DATE: 26/01/2026*****THIS QUESTION PAPER CONSISTS OF THREE (3) PAGES****PLEASE DO NOT OPEN UNTIL THE INVIGILATOR SAYS SO.**

**INSTRUCTIONS: Answer ALL Questions in section A and TWO from Section B**

**SECTION A: ANSWER ALL QUESTIONS (40 MARKS)**

**QUESTION ONE**

List primary functions of insect wing. (2 Marks)

**QUESTION TWO**

State characteristics of arthropods. (3 Marks)

**QUESTION THREE**

Outline functions of antennae. (5 Marks)

**QUESTION FOUR**

Write short notes on functions of insect saliva. (5 Marks)

**QUESTION FIVE**

Explain on types of cocoons in arthropod development. (5 Marks)

**QUESTION SIX**

Differentiate between simple and compound eyes in insects. (5 Marks)

**QUESTION SEVEN**

Explain the term “storage excretion” (5 Marks)

**QUESTION EIGHT**

Give a summary of components of the central nervous system in insects. (5 Marks)

**QUESTION NINE**

Highlight dietary specialization in insects. (5 Marks)

**SECTION B: ANSWER TWO QUESTIONS (30 MARKS)**

**QUESTION TEN**

- a) Explain the term “insect dominance” **(2 Marks)**
- b) Describe four parameters used to classify insect dominance. **(4 Marks)**
- c) Discuss factors that enhance insect dominance. **(9 Marks)**

**QUESTION ELEVEN**

- a) Explain the difference between mandibulate and haustellate types of mouth parts. **(3 Marks)**
- b) Describe types of insect mouth parts adapted for biting and chewing. **(12 Marks)**

**QUESTION TWELVE**

- a) Discuss functions of haemolymph in insects **(10 Marks)**
- b) Explain the difference between closed and Open Circulatory system. **(5 Marks)**