



THE UNIVERSITY OF ZAMBIA  
SCHOOL OF AGRICULTURAL SCIENCES  
DEPARTMENT OF PLANT SCIENCE

AGC 3342: TEST 2 (25 Marks)

DURATION: 1 hour

INSTRUCTIONS: Answer all questions and illustrate your answers where necessary

Section A

1. What body features do all insects have in common?
  - a. Three body regions, six legs, wings
  - b. Hardened body regions, antennae, compound eyes
  - c. Three body regions, antennae, six legs
  - d. Hardened skeleton, antennae, wings
2. What are the four groups of insect control methods?
  - a. Cultural, environmental, physical, and chemical
  - b. Biological, cultural, environmental, and genetic
  - c. Biological, cultural, physical and mechanical, and chemical
  - d. Physical and mechanical, chemical, insecticides, and biological
3. What are two types of insect mouth parts?
  - a. Chewing and sucking
  - b. Sucking and slurping
  - c. Grinding and tearing
  - d. Tearing and siphon
4. Which two phases is an insect between when it is a larva?
  - a. Nymph and adult
  - b. Pupa and egg
  - c. Larva and pupa
  - d. Egg and pupa
5. In which stage are insects identified by instars and molting?
  - a. Immatures
  - b. Embryos
  - c. Adults
  - d. Pupa

6. What is molting?
- The stage when an insect begins its life as an adult
  - The stage when an insect emerges from the egg to become an embryo
  - The shedding of the hard, outer layer of skin between instars
  - The shedding of the soft, inner layer of skin between instars
7. What are the two parts of the scientific name of an insect?
- Order and family name
  - Genus and species name
  - First and last name
  - Incomplete and complete name
8. What are the four groups of insect control methods?
- Cultural, environmental, physical, and chemical
  - Biological, cultural, environmental, and genetic
  - Biological, cultural, physical and mechanical, and chemical
  - Physical and mechanical, chemical, insecticides, and biological

## SECTION B

Write **True** or **False** against the following statement:-

- 5
- Insects have a closed circulatory system *False* ✓
  - The incurrent and excurrent ostia are found in the aorta of insects *False* ✓
  - The key function of the insect circulatory system is to transport oxygen *False* ✓
  - The Dorsal vessel is located ventrally in insects *False* ✓
  - The only abdominal appendage in adult insects are a terminal pair of cerci *False* ✓

## SECTION C

- Describe the following terms, and name particular insects that have them; (3 marks)
  - Haltare
  - Fossorial legs
  - Natatorial legs
- Distinguish with named examples, two (2) major types of Insect metamorphosis (6 marks)
- In which orders do the following insects belong; (3 marks)
  - Dragonflies
  - Thrips
  - Moths