

Advanced Entomology Fundamentals

Entomology · Practice Test · 15 Questions

1. What is the primary function of the insect's proventriculus within the digestive system?

- A) Absorption of nutrients
- B) Mechanical grinding of food
- C) Excretion of nitrogenous waste
- D) Secretion of digestive enzymes

2. Which insect order is characterized by having forewings that are modified into hardened covers known as elytra?

- A) Hymenoptera
- B) Diptera
- C) Coleoptera
- D) Lepidoptera

3. In the insect respiratory system, what is the specific term for the external openings that allow for gas exchange?

- A) Spiracles
- B) Tracheoles
- C) Ostia
- D) Malpighian tubules

4. What substance serves as the primary nitrogenous waste product excreted by most terrestrial insects?

- A) Urea
- B) Ammonia
- C) Uric acid
- D) Creatinine

5. What is the specific name for the developmental stage between molts in insects undergoing incomplete or complete metamorphosis?

- A) Pupa
- B) Instar
- C) Imago
- D) Nymph

6. Which of the following insect hormones is responsible for maintaining juvenile characteristics and preventing premature metamorphosis?

- A) Ecdysone
- B) Prothoracicotropic hormone
- C) Juvenile hormone
- D) Bursicon

7. In the context of insect vision, what are the individual light-sensing units that compose a compound eye called?

- A) Ocelli
- B) Ommatidia
- C) Rhabdoms
- D) Crystalline cones

8. Which anatomical structure is responsible for the production of silk in the larvae of many Lepidoptera species?

- A) Salivary glands
- B) Malpighian tubules
- C) Accessory glands
- D) Cryptonephridial system

9. What is the functional purpose of the insect's hemolymph in relation to internal transport?

- A) Oxygen transport via hemoglobin
- B) Transport of nutrients and hormones
- C) Maintenance of blood pressure for movement
- D) Both B and C

10. Which taxonomic order includes insects that possess a 'hamulus' (hook) to join the forewing and hindwing during flight?

- A) Hymenoptera
- B) Hemiptera
- C) Orthoptera
- D) Neuroptera

11. What is the process called when an insect sheds its exoskeleton to allow for growth?

- A) Ecdysis
- B) Apolysis
- C) Metamorphosis
- D) Diapause

12. Which specialized sensory structures located on an insect's antennae or palps are primarily responsible for chemoreception?

- A) Sensilla
- B) Styli
- C) Cerci
- D) Tegulae

13. What is the name of the 'dorsal vessel' that acts as the heart in the insect circulatory system?

- A) Aorta
- B) Pericardial sinus
- C) Dorsal aorta and heart
- D) Ventrical sinus

14. Which group of insects is defined by their unique 'sucking-piercing' mouthparts modified into a rostrum or beak?

- A) Coleoptera
- B) Hemiptera
- C) Odonata
- D) Isoptera

15. What is the term for a state of physiological dormancy in insects, often triggered by unfavorable environmental conditions?

- A) Estivation
- B) Diapause
- C) Hibernation
- D) Quiescence