



Cypress Creek FFA Invitational Entomology Exam

1. **Dichotomous keys are primarily based on differences and similarities in insects _____.**
 - A. pest status
 - B. physiology
 - C. morphology
 - D. behavior

2. **Giant water bugs belong to the order Hemiptera and are in the family _____.**
 - A. Belostomatidae
 - B. Dytiscidae
 - C. Muscidae
 - D. Danaidae

3. **Which abdominal structure of an insect is unpaired?**
 - A. valvifer
 - B. paraproct
 - C. cerci
 - D. epiproct

4. **Which structures of insects are part of the ovipositor?**
 - A. aedeagus
 - B. cerci
 - C. valvulae
 - D. paraprocts

5. **An insect's cuticle is primarily made of _____, which has also been studied for its medicinal properties.**
 - A. **A** chitin
 - B. **B** hemolymph
 - C. **C** melatonin
 - D. **D** melanin

6. **Some factors contributing to the success of insects are:**
 - A. size, a protective cuticle, an efficient nervous system, four pair of legs
 - B. size, the evolution of flight, lack of wings
 - C. high reproductive rate, the evolution of flight, ability to live without a brain
 - D. high reproductive rate, the evolution of flight, size

7. The “powder” left over from being in contact with moths or butterflies is actually tiny _____.
- A. trichomes
 - B. filaments
 - C. wax crystals
 - D. scales
8. Webspinners belong to which insect order?
- A. Psocoptera
 - B. Orthoptera
 - C. Embioptera
 - D. Dermaptera
9. _____ are not considered a biological control agent for killing insect pests.
- A. pheromones
 - B. predators or parasites
 - C. parasitoids
 - D. microbes
10. What are some reasons that could have influenced the large size of insects prehistorically?
- A. higher oxygen levels in the atmosphere and more aerial predators
 - B. lower oxygen levels in the atmosphere and more aerial predators
 - C. lower oxygen levels in the atmosphere and fewer aerial predators
 - D. higher oxygen levels in the atmosphere and fewer aerial predators
11. What is the principle energy source for most insects?
- A. proteins
 - B. carbohydrates
 - C. vitamins
 - D. cellulose
12. Urticating hairs are associated with plants, tarantulas and what insect order?
- A. Lepidoptera
 - B. Strepsiptera
 - C. Blattodea
 - D. Mecoptera
13. The whirligig beetle has how many pairs of eyes?
- A. two
 - B. one
 - C. Four
 - D. three
14. In which of the following insects do only the females suck blood?
- A. mosquito
 - B. bedbug
 - C. louse
 - D. flea

15. **Most digestion in insects occurs in the:**
- A. hindgut
 - B. midgut
 - C. foregut
 - D. crop
16. **Collophore and furcula are morphological terms associated with which order of insects?**
- A. Lepidoptera
 - B. Collembola
 - C. Odonata
 - D. Ephemeroptera
17. **What is the name for the "shell" of an insect egg?**
- A. **blastula**
 - B. serosa
 - C. chorion
 - D. morula
18. **Approximately how many species of insects have been described to date?**
- A. 5 million
 - B. 1 million
 - C. 12 million
 - D. 500 thousand
19. **If an insect's subesophageal ganglion were paralyzed, it would be unable to _____.**
- A. eat
 - B. walk
 - C. see
 - D. fly
20. **An insect has a protective cuticle that allows it to _____.**
- A. self-repair (if damaged)
 - B. produce biological defense compounds (immune response)
 - C. all of the above
 - D. use chemo-and mechano-receptors
21. **The order Phthiraptera contains _____.**
- A. chewing and sucking lice
 - B. dragonflies and damselflies
 - C. bristletails and silverfish.
 - D. roaches and mantids
22. **All of the following insects have holometabolous development, except _____.**
- A. Neuroptera
 - B. Mecoptera
 - C. Thysanoptera
 - D. Coleoptera

23. Which of these is not a longitudinal wing vein?
- A. costa
 - B. furca
 - C. radius
 - D. cubitus
24. Which of the following is the common name of the order Mecoptera?
- A. caddisfly
 - B. dragonfly
 - C. scorpionfly
 - D. firefly
25. Which insect orders are exclusively herbivorous?
- A. Lepidoptera and Hemiptera
 - B. Thysanoptera and Neuroptera
 - C. Orthoptera and Phasmatodea
 - D. Psocoptera and Trichoptera
26. Junctions between abdominal segments are best described as _____.
- A. dovetailed
 - B. hinged
 - C. ball and socket
 - D. telescoping
27. Very few insects are found in this habitat.
- A. ocean
 - B. lakes
 - C. soil
 - D. trees
28. Caddisflies belong to the order _____.
- A. Isoptera
 - B. Trichoptera
 - C. Lepidoptera
 - D. Neuroptera
29. _____ are regarded as the most important group of insect pollinators.
- A. Hymenoptera, Ichneumonidae
 - B. Diptera, Syrphidae
 - C. Hymenoptera, Apoidea
 - D. Coleoptera, Cantharidae
30. An apodeme could NOT be described as _____.
- A. An internal ridge of the exoskeleton.
 - B. a brace to strengthen the exoskeleton.
 - C. a flexible joint in the exoskeleton.
 - D. a point of attachment for muscles.