

## CHAPTER

31

## TEST PREP PRETEST

## Arthropods

*In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.*

- \_\_\_\_\_ 1. Subphylum Uniramia includes
- a. insects.
  - b. millipedes.
  - c. centipedes.
  - d. All of the above
- \_\_\_\_\_ 2. Living arthropods are traditionally separated into two large groups based on their
- a. mouthparts.
  - b. legs.
  - c. antennae.
  - d. eyes.
- \_\_\_\_\_ 3. Arthropods periodically shed and discard their exoskeletons as they grow in a process called
- a. reproduction.
  - b. segmentation.
  - c. ecdysis.
  - d. metamorphosis.
- \_\_\_\_\_ 4. Members of the arthropod subphylum Chelicerata include
- a. crabs and lobsters.
  - b. spiders and scorpions.
  - c. insects.
  - d. millipedes and centipedes.
- \_\_\_\_\_ 5. \_\_\_\_\_
- \_\_\_\_\_ 6. Most crustaceans have a distinctive larval form called a(n)
- a. egg.
  - b. juvenile.
  - c. pupa.
  - d. nauplius.
- \_\_\_\_\_ 7. Centipedes have a head region followed by up to about
- a. 15 segments.
  - b. 30 segments.
  - c. 170 segments.
  - d. 1,000 segments.
- \_\_\_\_\_ 8. Which of the following characteristics is NOT shared by all insects?
- a. three body sections
  - b. five-part radial symmetry
  - c. three pairs of legs
  - d. one pair of antennae
- \_\_\_\_\_ 9. In a young insect's final molt to the adult stage, it undergoes a process of physical change called
- a. segmentation.
  - b. reproduction.
  - c. metamorphosis.
  - d. ecdysis.
- \_\_\_\_\_ 10. The head, thorax, and abdomen of mites
- a. are separate segmented sections.
  - b. form two sections, the cephalothorax and the abdomen.
  - c. are fused to form a single body.
  - d. form two sections, the head and a fused thorax and abdomen.

- \_\_\_\_\_ 11. Insect wings are attached to the  
a. head. c. abdomen.  
b. appendages. d. thorax.

- \_\_\_\_\_ 13. Specialized structures in arthropods, called Malpighian tubules, are important in  
a. respiration. c. reproduction.  
b. excretion. d. sensing movement.

- \_\_\_\_\_ 14. The three main body segments of all arthropods are the  
a. cephalothorax, abdomen, and appendages.  
b. head, cephalothorax, and appendages.  
c. thorax, appendages, and spiracles.  
d. head, thorax, and abdomen.

.....  
*In the space provided, write the letter of the description that best matches the term or phrase.*

\_\_\_\_\_ 17. segmentation

\_\_\_\_\_ 18. cephalothorax

\_\_\_\_\_ 19. exoskeleton

\_\_\_\_\_ 21. compound eye

\_\_\_\_\_ 22. tracheae

\_\_\_\_\_ 23. spiracle

\_\_\_\_\_ 24. Malpighian tubules

\_\_\_\_\_ 25. pedipalps

\_\_\_\_\_ 26. carapace

\_\_\_\_\_ 27. swimmerets

\_\_\_\_\_ 28. uropods

\_\_\_\_\_ 29. telson

a. flattened, paddlelike appendages at the end of a decapod's abdomen

b. a body section of some arthropods formed by the fusion of the head with the thorax

d. a decapod's tail spine

e. a network of fine tubes used for respiration by many arthropods

f. the shell-like structure that encases the bodies of arthropods

i. a second pair of appendages used by arachnids to catch and handle prey

j. appendages attached along the underside of the abdomen that are used by lobsters and crayfish for swimming and reproduction

k. the term for having a body divided into sections

l. the shield that covers a decapod's cephalothorax

m. fingerlike excretory organs

o. an opening that functions during respiration in many arthropods

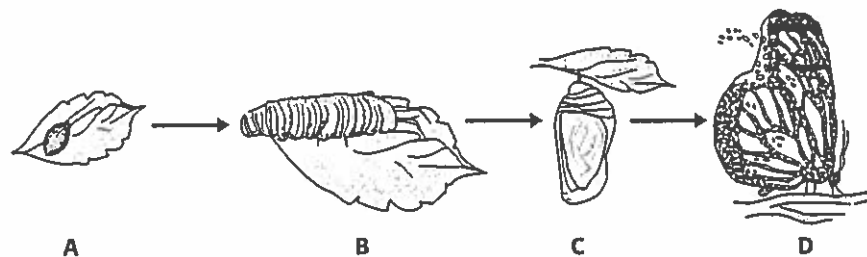
p. made of thousands of individual units, each with its own lens and retina

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Complete each statement by writing the correct term or phrase in the space provided.

31. The \_\_\_\_\_, early arthropods, were the first animals with eyes capable of forming images.
32. \_\_\_\_\_ were the first animals with wings to evolve.
33. An arthropod must shed its \_\_\_\_\_ to grow.
34. In the grasshopper, three fused ganglia serve as the \_\_\_\_\_.
35. In incomplete metamorphosis, the juvenile, or \_\_\_\_\_, is essentially a smaller version of the adult.
36. The role played by an individual ant in a colony is called its \_\_\_\_\_.
37. In the grasshopper, there are four kinds of mouthparts: labium and labrum, which function as \_\_\_\_\_; mandibles, which function as \_\_\_\_\_; and maxillas, which function as \_\_\_\_\_.
38. A compound eye sees \_\_\_\_\_ more quickly than the vertebrate eye but does not see as clearly.
39. Deer ticks may carry the virus that causes \_\_\_\_\_.

Questions 41–43 refer to the figure below.



41. The process taking place in the figure above is \_\_\_\_\_.
42. The stage labeled D shows the \_\_\_\_\_, while the stage labeled A shows the \_\_\_\_\_.
43. During this process, the \_\_\_\_\_ is closed within a protective capsule called a(n) \_\_\_\_\_, labeled C.

44. Crabs and lobsters are members of the subphylum of arthropods known as

47. In terms of diet, centipedes are \_\_\_\_\_, while millipedes are

.....

*Read each question, and write your answer in the space provided.*

49. List four important characteristics of arthropods.

51. Distinguish between centipedes and millipedes.

54. List the \_\_\_\_\_ in which the mouth