

Porifera, Cnidaria & Worms Test Review

Porifera & Cnidaria (Ch. 26)

Multiple Choice: (p. 679)

1. C 2. C 3. A 4. B 7. C 8. B 9. A 10. B

Understanding Concepts

11. All members of the animal kingdom are multicellular, eukaryotic heterotrophs whose cells lack cell walls. Animals are specialized to carry out the functions of feeding, respiration, circulation, excretion, response, movement, and reproduction.

14. The terms *anterior*, *posterior*, *dorsal*, *lateral*, *ventral*, *bilateral symmetry*, and *motile* should be used on the drawings of a fish. The terms *radial symmetry* and *motile* should be used as titles on the jellyfish. The term *sessile* should be used to label the sponge.

15. Because cephalization involves the location of sense organs and nerve cells that process information at its anterior end, the animal can respond to the environment more quickly and in more sophisticated ways than simpler animals can.

18. Specialized cells that move around within the walls of sponges

19. Choanocytes trap and engulf food particles sifted from water that flows into the pores, and digestion is completed by archaeocytes. From water that flows inside the body cavity, oxygen diffuses into the cells, and wastes, including carbon dioxide, are carried away.

22. The cnidarian paralyzes its prey and pulls it into its gastrovascular cavity.

23. In one type, a bud grows from the side of an existing polyp. In another type, polyps produce tiny medusas that become new individuals.

Critical Thinking

25. Like other animals, sponges are multicellular, are heterotrophic, have some specialized cells, and lack cell walls. Unlike most other animals, sponges have pores all over their bodies and are sessile, and most lack symmetry.

27. Cnidarians have radial symmetry. Since radially symmetrical animals lack a front end, they do not usually move forward in one direction.

Worms (Ch. 27)

Multiple Choice p. 711

1. D 3. B 4. C 6. B 7. C

Understanding Concepts

11. A coelomate has a body cavity lined with mesoderm; an acoelomate does not.

12. Oxygen and nutrients are taken in through the skin and diffuse to internal cells; wastes are removed by diffusion or excreted through skin pores.

13. The pharynx takes food into the gastrovascular cavity. Inside the gut, digestion and absorption occur.

14. Flatworms have nerve ganglia, one or more long nerve cords, and short cords across the body; some have eyespots and other cells that detect and respond to stimuli. Cnidarians lack ganglia or nerve cords.

16. A tapeworm uses its scolex to attach to its host's intestinal wall; it lacks a digestive tract and absorbs nutrients from the intestine.

18. Roundworms respire and excrete metabolic wastes through their body walls. Nutrients and wastes are transported through their bodies by diffusion.

22. Sample answer: sharp jaws; pharynx covered with mucus to which food particles stick; mucous bag for catching food particles

23. By contracting longitudinal and circular muscles alternately and using its setae to prevent slipping

24. A hermaphrodite such as an earthworm is an animal that produces both sperm and eggs.