

# NERVOUS REGULATION

## 14-1 The Regulatory Process

### Part I: Vocabulary Review

Match the terms listed in Column II with the proper definition listed in Column I. Place the answer in the space provided.

#### COLUMN I

- \_\_\_\_\_ 1. specialized structures that are sensitive to certain changes both inside and outside the organism
- \_\_\_\_\_ 2. short, highly branched nerve fibers that receive impulses
- \_\_\_\_\_ 3. place between the terminal branch of a neuron and the membrane of another cell
- \_\_\_\_\_ 4. nerve cells that carry impulses from receptors to the spinal cord and brain
- \_\_\_\_\_ 5. anything that causes a receptor to start impulses in a nerve pathway
- \_\_\_\_\_ 6. ability of a cell to respond to its environment
- \_\_\_\_\_ 7. long, thin nerve fiber that usually carries impulses away from the cell body
- \_\_\_\_\_ 8. specialized group of nerve cells that controls and coordinates the activities of the nervous system
- \_\_\_\_\_ 9. part of the nerve cell that contains the nucleus and the cell organelles
- \_\_\_\_\_ 10. structures that surround many vertebrate axons
- \_\_\_\_\_ 11. nerve cells that relay impulses from one neuron to another in the brain and spinal cord
- \_\_\_\_\_ 12. white, fatty substance produced by cells that surround vertebrate axons
- \_\_\_\_\_ 13. nerve cell
- \_\_\_\_\_ 14. specialized structure that responds to the commands of the nervous system
- \_\_\_\_\_ 15. electrochemical messages carried by nerve cells
- \_\_\_\_\_ 16. bundles of nerve fibers bound together by connective tissues
- \_\_\_\_\_ 17. nerve cells that carry impulses from the brain and spinal cord to effectors

#### COLUMN II

- a. stimulus
- b. Schwann cells
- c. interneurons
- d. effector
- e. myelin
- f. nerves
- g. receptors
- h. neuron
- i. synapse
- j. brain
- k. axon
- l. sensory neurons
- m. cell body
- n. motor neurons
- o. irritability
- p. dendrites
- q. impulses

### Part II: Content Review

Complete each of the following sentences.

18. In complex multicellular animals, the regulation and coordination of responses are controlled by \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_