

CHAPTER REVIEWChapter **8****Controlling the Body Machine****I. Vocabulary Review**

In the space provided, write the word that does not belong in each group of words.

- _____ 1. cell body, interneuron, dendrites, axon
- _____ 2. target tissue, hormone, impulse, ductless gland
- _____ 3. cerebellum, neuron, brainstem, cerebrum
- _____ 4. brain, reflex, automatic, spinal cord
- _____ 5. impulse, synapse, axon, target tissue

In the space provided, write the word or phrase from the following list that best matches the statement given: spinal cord, cerebrum, synapse, cerebellum, brainstem

6. At a _____, electrical impulses release chemicals that stimulate an electrical impulse in the next neuron.
7. Involuntary activities, such as breathing, are controlled by the _____.
8. The _____ acts as a connection between the brain and parts of the body.
9. Complex functions such as memory and speech occur in the _____.
10. The _____ coordinates muscular activity.

II. Concept Review

In the blank at the left, write the letter of the choice that best completes the statement or answers the question.

- _____ 11. PET scans show where radioactive sugar is used in the brain. How can this help locate tumors?
- a. Tumors don't need sugar.
 - b. Tumors are more dense, so they show up.
 - c. Tumors decrease the overall brain activity.
 - d. Tumors use sugar rapidly because they grow quickly.
- _____ 12. If you don't get enough calcium, what causes your stored calcium to be released?
- a. Your body chemistry changes, and calcium is released from bones as the pH changes.
 - b. The thyroid gland begins to regulate calcium balance.
 - c. The decreased levels of calcium signal the parathyroid to secrete a hormone to partly dissolve bone.
 - d. Blood pressure increases, causing calcium to move out of the bones.
- _____ 13. When a sprinkler system is activated, it sends a signal to the fire department dispatcher. The sprinkler is most like _____.
- a. a sensory nerve
 - b. a motor nerve
 - c. the brain
 - d. an interneuron

Chapter Review 8 (continued)

If the underscored word or phrase makes the sentence true, write “TRUE” in the space provided. If the underscored word or phrase makes the sentence false, write the correct term or phrase in the space provided.

- _____ 14. The reactions you make to stimuli from outside and inside your body are called behaviors.
- _____ 15. Damage in any part of the cerebrum would affect your ability to coordinate muscles and maintain balance.
- _____ 16. During puberty, hormones from the pituitary gland cause the ovaries and testes to produce sex hormones.
- _____ 17. The effect of hormones is generally more rapid than the effect of nervous impulses.
- _____ 18. Motor and sensory nerves are part of the peripheral nervous system.

III. Skills/Process Review

In the Investigate! you asked your partner whether the points of a paper clip felt like one or two points as they were moved apart. Use the table below to answer the following.

19. What do the data tell you about the spacing of pressure receptors on the back? _____

Distance between points				
Body part	1 cm	3 cm	5 cm	7 cm
palm	1	2	2	2
back	1	1	1	2
foot	1	1	2	2

20. Which area is more sensitive, the palm or the foot? Explain. _____

IV. EYV Review

21. Science and Society: Alzheimer’s Disease Explain why scientists are interested in acetylcholine as a treatment for Alzheimer’s disease. _____
