Answers to Review of Chapter 7

1. (2) 2. (3) 3. (4) 4. (2) 5. (3) 6. (2) 13. (1) 14. (2) 15. (3) 16. (2) 17. (3) 18. (1)
7. (4) 8. (1) 9. (4) 10. (2) 11. (3) 12. (4) 19. (2) 20. (4)

Answers to Questions in Reviewing Intermediate-Level Science

ORGANIZATION, SUPPORT, AND MOVEMENT OF THE BODY

Review Questions Pages 201–203

Part I

1. (1) 2. (2) 3. (3) 4. (2) 5. (4) 6. (1)
7. (2) 8. (3)

Part II

9. An organ system contains organs that work together. Organs contain tissues that work together. Tissues contain similar cells that work together.
10. Note: Several answers are possible for each example.
    (a) circulatory: heart, arteries, veins
    (b) skeletal: skull, ribs, other bones
    (c) muscular: arm muscle, leg muscle
    (d) digestive: stomach, intestines
    (e) excretory: kidney, skin, lungs
11. The skeletal system
12. It supports and protects the organs of the body. It allows for movement.
13. bone, cartilage
14. skull, ribs, arm bones, leg bones, other bones
15. (a) smooth (c) voluntary
    (b) cardiac (d) smooth

REGULATION, DIGESTION, AND CIRCULATION

Pages 208–209—Process Skill: Interpreting a Diagram

1. (3) 2. (1) 3. (4)

Review Questions Pages 209–212

Part I

16. (2) 17. (1) 18. (2) 19. (2) 20. (3) 21. (4)
22. (2) 23. (3)

Part II

24. nervous and endocrine systems
25. nervous system—brain
    endocrine system—adrenal gland
    Other answers are possible.
26. In the nervous system, messages are transmitted through nerve cells. In the endocrine system, messages are carried by the blood.
    OR In the nervous system, the messages are nerve impulses, and in the endocrine system the messages are chemicals called hormones.
27. Food is broken down through physical and chemical digestion.
28. The liver, pancreas, and the gall bladder
    OR any other digestive system organ not labeled in the diagram
29. The main function of the digestive system is to break down food to a usable form.
30. The heart pumps blood through the body
31. Arteries carry blood away from the heart, veins carry blood to the heart, and capillaries bring food and oxygen to the cells and take wastes from the cells.
    (OR Capillaries connect arteries and veins.)
32. Hemoglobin is found in red blood cells. It carries oxygen to the body cells.

RESPIRATION, EXCRETION, AND REPRODUCTION

Pages 213–214—Laboratory Skill: Doing an Experiment

1. 20 breaths per minute
2. Exercising increases breathing rate
3. When the body is working harder, the cells need more oxygen, so the breathing rate increases.
4. Exercising increases breathing rate.

Review Questions Pages 217–220

Part I

33. (3) 34. (1) 35. (4) 36. (2) 37. (2) 38. (4) 39. (4)

Part II

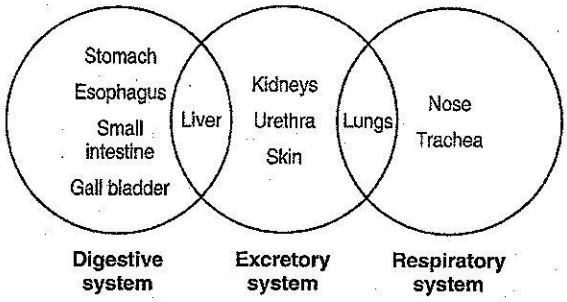
40. (1) Nervous system—Controls body activities, carries and interprets messages to and from the cells

    (2) Digestive system—Breaks food down to a form in which it can be used by the cells

    (3) Circulatory system—Brings food and oxygen to the cells, and carries wastes away from the cells

    (4) Skeletal—Supports and protects the body
41. excretory
42. kidney
43. water
44. (a) carbon dioxide: cell →blood →lungs

    (b) urea: cell →blood →kidney →bladder
45. (a) testes (b) sperm
46. A = lungs B = skin C = kidney D = liver
47. Digestive only—gallbladder, stomach, esophagus, small intestine



Note: The trachea and nose could also be included with excretory system since, when we breathe out, carbon dioxide leaves the body through the trachea and the nose.

48. (d) The diaphragm contracts.

    (b) Air enters the air sacs.

    (f) Oxygen enters the blood.

    (c) Oxygen moves to the body cells.

    (a) Sugar is burned, to make carbon dioxide.

    (g) Carbon dioxide enters the blood.

    (e) Carbon dioxide moves to the lungs.

    (h) Carbon dioxide leaves the blood
49. Transport—circulatory system

    Support—skeletal system

    Provide nutrients—digestive system

    Produce offspring—reproductive system

    Absorb water—digestive system