

1. The study of how the body functions is
  - A) physiology
  - B) anatomy
  - C) pathology
  - D) metabolism
  
2. The study of disease is
  - A) physiology
  - B) anatomy
  - C) pathology
  - D) metabolism
  
3. Which of the following would be the most suitable field of study for an anatomist?
  - A) the structure of the stomach
  - B) the mechanism of protein digestion
  - C) stomach cancer
  - D) anabolic reactions
  
4. Dr. L is interested in diseases of the retina. The field of study best suited to his interests is
  - A) physiology
  - B) anatomy
  - C) pathology
  - D) bowling
  
5. Dr. A is interested in the structure of the inner ear. The field of study best suited to her interests is
  - A) physiology
  - B) anatomy
  - C) pathology
  - D) wind-surfing
  
6. There are numerous levels of organization in the body. The correct order from simplest to most complex is
  - A) organ, tissue, cell, organism, system
  - B) cell, tissue, organ, system, organism
  - C) system, cell, organ, organism, tissue
  - D) cell, system, tissue, organ, organism

7. The system that transports blood to and from the cells is the
  - A) integumentary system
  - B) skeletal system
  - C) respiratory system
  - D) circulatory system
  
8. The system comprised of the bones and the joints is the
  - A) skeletal system
  - B) nervous system
  - C) immune system
  - D) muscular system
  
9. A term for all the reactions that sustain life is
  - A) anabolism
  - B) catabolism
  - C) metabolism
  - D) cannibalism
  
10. A reaction in which simple compounds are assembled into more complex compounds is **most accurately** described as a(n)
  - A) anabolic reaction
  - B) metabolic reaction
  - C) catabolic reaction
  - D) homeostatic reaction
  
11. The breakdown of complex glycogen molecules into simple glucose molecules is **most accurately** described as a(n)
  - A) anabolic reaction
  - B) metabolic reaction
  - C) catabolic reaction
  - D) homeostatic reaction

12. Which of the following examples demonstrates the principle of positive feedback?
- A) A decrease in blood sugar stimulates the release of a hormone that increases blood sugar.
  - B) A decrease in room temperature activates a thermostat, which increases heat output by a furnace.
  - C) A rise in blood calcium levels stimulates the release of a hormone that lowers blood calcium levels.
  - D) A rise in estrogen levels stimulates the production of a hormone that stimulates estrogen production.
13. Which of the following examples does NOT demonstrate the principle of homeostasis?
- A) A rise in plasma sodium stimulates the release of a hormone that increases sodium loss in the urine.
  - B) An increase in plasma volume increases urination.
  - C) The activation of a clotting factor stimulates the production of the enzyme that activates the clotting factor.
  - D) An increase in body temperature induces sweating, which reduces body temperature.
14. A term that means *farther from the midline of the body* is
- A) sagittal
  - B) lateral
  - C) distal
  - D) transverse
15. A term that describes the position of the stomach with respect to the lungs is
- A) medial
  - B) anterior
  - C) dorsal
  - D) inferior
16. A term that describes the position of the hypogastric region of the abdomen with respect to the iliac region is
- A) medial
  - B) anterior
  - C) lateral
  - D) dorsal

17. The term that best describes the position of the elbow with respect to the hand is
- A) medial
  - B) anterior
  - C) proximal
  - D) inferior
18. A directional term that means *nearer to the head* is
- A) caudal
  - B) inferior
  - C) lateral
  - D) cranial
19. A plane that divides the body into superior and inferior parts is the
- A) sagittal plane
  - B) transverse plane
  - C) frontal plane
  - D) coronal plane
20. A plane that divides the body into anterior and posterior parts is the
- A) sagittal plane
  - B) proximal plane
  - C) frontal plane
  - D) midsagittal plane
21. The dorsal body cavity contains the
- A) spinal cord and lungs
  - B) brain and spinal cord
  - C) heart and kidney
  - D) brain and reproductive organs
22. Which of the following organs is NOT in the abdominopelvic cavity?
- A) small intestine
  - B) stomach
  - C) lung
  - D) liver

23. The urinary bladder is located in the
- A) thoracic cavity
  - B) spinal cavity
  - C) dorsal cavity
  - D) pelvic cavity
24. The most inferior medial region of the abdomen is the
- A) epigastric region
  - B) inguinal region
  - C) hypogastric region
  - D) umbilical region
25. The iliac region of the abdomen is also called the
- A) inguinal region
  - B) right upper quadrant
  - C) hypogastric region
  - D) left lower quadrant
26. The number of milliliters (mL) in a liter is
- A) 2.5
  - B) 1,000,000
  - C) 1000
  - D) 100
27. The basic unit of weight in the metric system is the
- A) pound
  - B) meter
  - C) gram
  - D) inch
28. The volume in U.S. measurements that is closest to a liter is the
- A) quart
  - B) ounce
  - C) yard
  - D) pint

29. 250 milligrams is equivalent to how many grams?  
A) 0.25  
B) 2.5  
C) 25  
D) 250
30. 125 centimeters is equivalent to how many millimeters?  
A) 1.25  
B) 12.5  
C) 1250  
D) 12,500
31. The metric prefix that means 1000 is  
A) kilo  
B) micro  
C) milli  
D) centi
32. The term *homeo* is best defined as  
A) same  
B) different  
C) increased  
D) decreased
33. A specialized group of cells make up a \_\_\_\_\_.
34. The system that takes in oxygen and expels carbon dioxide is the \_\_\_\_\_ system.
35. The skin and associated structures are called the \_\_\_\_\_ system.
36. The system that includes the spinal cord is the \_\_\_\_\_ system.
37. The term \_\_\_\_\_ refers to all of the catabolic and anabolic reactions that go on within the body.
38. The energy-storing compound found in all cells is \_\_\_\_\_.

39. Fluid within the cells is called \_\_\_\_\_ fluid.
40. Blood and lymph are examples of \_\_\_\_\_ fluid.
41. The term describing a state of internal balance is \_\_\_\_\_.
42. A term that means *farther from the origin of a structure* is \_\_\_\_\_.
43. A plane that divides the body into left and right parts is the \_\_\_\_\_ plane.
44. The frontal plane is also called the \_\_\_\_\_ plane.
45. The muscle separating the thoracic cavity from the abdominal cavity is the \_\_\_\_\_.
46. The basic unit of volume in the metric system is the \_\_\_\_\_.
47. The temperature scale used for scientific measurement is the \_\_\_\_\_.
48. The suffix *ñlogy* means \_\_\_\_\_.
49. Define *metabolism* and explain the difference between the two types of reactions involved in metabolism.
50. Which type of feedback (positive or negative) is used to maintain homeostasis? Use an example to illustrate your answer.
51. Describe the subdivisions and the sub-subdivisions of the ventral cavity and name an organ found in each.
52. Using your knowledge of word anatomy, define the word *pathophysiology*.

## Answer Key

1. A
2. C
3. A
4. C
5. B
6. B
7. D
8. A
9. C
10. A
11. C
12. D
13. C
14. B
15. D
16. A
17. C
18. D
19. B
20. C
21. B
22. C
23. D
24. C
25. A
26. C
27. C
28. A
29. A
30. C
31. A
32. A
33. tissue
34. respiratory
35. integumentary
36. nervous
37. metabolism
38. ATP
39. intracellular
40. extracellular
41. homeostasis
42. distal
43. sagittal
44. coronal

45. diaphragm
46. liter
47. Celsius scale
48. study of
49. Metabolism refers to all of the life-sustaining reactions that go on within the body systems. Metabolism includes catabolic reactions, in which complex substances are broken down into simpler ones, and anabolic reactions, in which simple substances are assembled into complex ones.
50. Negative feedback is used to maintain homeostasis. An example is the maintenance of blood sugar levels. If blood sugar rises, a hormone is released (insulin) that causes insulin to be stored in tissues. Blood sugar is reduced, and the hormone is no longer released.
51. The ventral cavity is divided into the thoracic cavity and the abdominopelvic cavity. The thoracic cavity contains the heart, lungs, trachea, esophagus, and large blood vessels surrounding the heart. The abdominopelvic cavity is further subdivided into the abdominal cavity, containing the stomach, most of the intestine, liver, gallbladder, pancreas, and spleen, and the pelvic cavity, containing the urinary bladder, rectum, and internal reproductive organs.
52. *Path/o* means disease, *physi/o* means nature or physical, and *-logy* means the study of. Thus, *pathophysiology* means the study of the physical nature of disease.