

1. A specialized group of cells make up a _____.
2. The system that takes in oxygen and expels carbon dioxide is the _____ system.
3. The skin and associated structures are called the _____ system.
4. The system that includes the spinal cord is the _____ system.
5. The term _____ refers to all of the catabolic and anabolic reactions that go on within the body.
6. The energy-storing compound found in all cells is _____.
7. Fluid within the cells is called _____ fluid.
8. Blood and lymph are examples of _____ fluid.
9. The term describing a state of internal balance is _____.
10. A term that means *farther from the origin of a structure* is _____.
11. A plane that divides the body into left and right parts is the _____ plane.
12. The frontal plane is also called the _____ plane.
13. The muscle separating the thoracic cavity from the abdominal cavity is the _____.
14. The basic unit of volume in the metric system is the _____.
15. The temperature scale used for scientific measurement is the _____.
16. The suffix *-logy* means _____.

17. The study of how the body functions is
- A) physiology
 - B) anatomy
 - C) physics
 - D) metabolism
18. The study of body structure is called
- A) physiology
 - B) anatomy
 - C) astronomy
 - D) metabolism
19. 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) the stars
 - D) anabolic reactions
20. 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
21. 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
22. The system that transports blood to and from the cells is the
- A) integumentary system
 - B) skeletal system
 - C) respiratory system
 - D) circulatory system

23. The system comprised of the bones and the joints is the
- A) skeletal system
 - B) nervous system
 - C) immune system
 - D) muscular system
24. A term for all the reactions that sustain life is
- A) anabolism
 - B) catabolism
 - C) metabolism
 - D) cannibalism
25. 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
26. 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
27. 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.

28. 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.
29. A term that means *farther from the midline of the body* is
- A) sagittal
 - B) lateral
 - C) distal
 - D) transverse
30. A term that describes the position of the stomach with respect to the lungs is
- A) medial
 - B) anterior
 - C) dorsal
 - D) inferior
31. 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
32. The term that best describes the position of the elbow with respect to the hand is
- A) medial
 - B) anterior
 - C) proximal
 - D) inferior
33. A directional term that means *nearer to the head* is
- A) caudal
 - B) inferior
 - C) lateral
 - D) cranial

34. 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
35. 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
36. 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
37. Which of the following organs is NOT in the abdominopelvic cavity?
- A) small intestine
 - B) stomach
 - C) lung
 - D) liver
38. The urinary bladder is located in the
- A) thoracic cavity
 - B) spinal cavity
 - C) dorsal cavity
 - D) pelvic cavity
39. The most inferior medial region of the abdomen is the
- A) epigastric region
 - B) inguinal region
 - C) hypogastric region
 - D) umbilical region

40. The iliac region of the abdomen is also called the
- A) inguinal region
 - B) right upper quadrant
 - C) hypogastric region
 - D) left lower quadrant
41. The number of milliliters (mL) in a liter is
- A) 2.5
 - B) 1,000,000
 - C) 1000
 - D) 100
42. The basic unit of weight in the metric system is the
- A) pound
 - B) meter
 - C) gram
 - D) inch
43. The volume in U.S. measurements that is closest to a liter is the
- A) quart
 - B) ounce
 - C) yard
 - D) pint
44. 250 milligrams is equivalent to how many grams?
- A) 0.25
 - B) 2.5
 - C) 25
 - D) 250
45. 125 centimeters is equivalent to how many millimeters?
- A) 1.25
 - B) 12.5
 - C) 1250
 - D) 12,500

46. The metric prefix that means 1000 is:
- A) kilo
 - B) micro
 - C) milli
 - D) centi
47. The term *homeo* is best defined as
- A) same
 - B) different
 - C) increased
 - D) decreased
48. Define *metabolism* and explain the difference between the two types of reactions involved in metabolism.
49. Which type of feedback (positive or negative) is used to maintain homeostasis? Use an example to illustrate your answer.
50. Describe the subdivisions and the sub-subdivisions of the ventral cavity and name an organ found in each.

Answer Key

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

- 45. C
- 46. A
- 47. A
- 48. 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.
- 49. 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.
- 50. 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.