

CHAPTER 1—THE HUMAN BODY

TRUE/FALSE

1. A midsagittal plane vertically divides the body through the midline into two equal left and right portions or halves.

ANS: T PTS: 1

NOT: A midsagittal plane vertically divides the body through the midline into two equal left and right portions.

2. A horizontal or transverse plane is any plane dividing the body into left and right portions.

ANS: F PTS: 1

NOT: A horizontal or transverse plane divides the body into superior and inferior portions.

3. A sagittal plane is any plane parallel to the midsagittal or median plane, vertically dividing the body into unequal right and left portions.

ANS: T PTS: 1

NOT: A sagittal plane is any plane parallel to the midsagittal or median plane, vertically dividing the body into unequal right and left portions.

4. The organs of any cavity are referred to as the viscera.

ANS: T PTS: 1 NOT: The organs of any cavity are referred to as viscera.

5. The term parietal refers to the walls of a cavity.

ANS: T PTS: 1 NOT: The term parietal refers to the walls of a cavity.

6. The ventral cavity contains organs of the nervous system.

ANS: F PTS: 1

NOT: The ventral cavity contains organs that are involved in maintaining homeostasis or a constant internal environment.

7. It is useful to describe the body as having imaginary curved geometric surfaces passing through it called planes.

ANS: F PTS: 1

NOT: It is useful to describe the body as having imaginary flat geometric surfaces passing through it called planes.

8. Organs are organized into tissues.

ANS: F PTS: 1 NOT: Tissues are organized into organs.

9. A cell performs all the activities necessary to maintain life except for excretion.

ANS: F PTS: 1

NOT: A cell performs all the activities necessary to maintain life, including excretion.

10. The cells in muscle tissue are so long that they are often referred to as muscle fibers.

ANS: T PTS: 1

NOT: Muscle tissue is characterized by elongated cells (so long, in fact, they are often referred to as muscle fibers).

11. Cardiac muscle is found only in the heart.

ANS: T PTS: 1 NOT: Cardiac muscle is found only in the heart.

12. Pleural is the term that refers to the covering of the lungs.

ANS: T

NOT: Pleural is the term that refers to the covering of the lungs.

PTS: 1

MULTIPLE CHOICE

1. The first individual to correctly illustrate the human skeleton with all of its bones was ____.

- a. William Harvey
b. Leonardo da Vinci
c. Andreas Vesalius
d. Joseph Banting

ANS: B

	Feedback
A	William Harvey discovered how blood circulates through the body.
B	Leonardo da Vinci was the first to correctly illustrate the human skeleton with all of its bones.
C	Andreas Vesalius wrote a book on the human body.
D	Joseph Banting is not a correct answer.

PTS: 1

2. The English anatomist who discovered how blood circulates through the body was ____.
- a. William Harvey
 - b. Leonardo da Vinci
 - c. Andreas Vesalius
 - d. Joseph Banting

ANS: A

	Feedback
A	William Harvey discovered how blood circulates through the body.
B	Leonardo da Vinci was the first to correctly illustrate the human skeleton with all of its bones.
C	Andreas Vesalius wrote a book on the human body.
D	Joseph Banting is not a correct answer.

PTS: 1

3. The study of the human body's structures is known as ____.
- a. pathology
 - b. physiology
 - c. chiropody
 - d. anatomy

ANS: D

	Feedback
A	Pathology studies diseases of the human body.
B	Physiology studies the physiology or functions of the body.
C	Chiropody is another name for podiatry.
D	Anatomy studies the structure or morphology of the body.

PTS: 1

4. The term that means belly side is ____.
- a. ventral
 - b. superior
 - c. posterior
 - d. cephalad

ANS: A

	Feedback
A	Ventral refers to the anterior side and means the belly side.
B	Superior refers to the uppermost or above.
C	Posterior means toward the back.
D	Cephalad means toward the head.

PTS: 1

5. Dividing the body into two equal left and right portions or halves by drawing an imaginary line vertically through the body from top to bottom creates which of the following planes?
- a. horizontal
 - b. coronal
 - c. midsagittal
 - d. transverse

ANS: C

	Feedback
A	Horizontal or transverse divides the body into superior and inferior portions.
B	Coronal or frontal divides the body into anterior and posterior portions.
C	Midsagittal divides the body through the midline into equal left and right portions.
D	Transverse or horizontal divides the body into superior and inferior portions.

PTS: 1

6. The name of the space found between the two pleural cavities that contains the heart, thymus gland, lymph and blood vessels, trachea, esophagus, and nerves is the ____.
- a. ventral area
 - b. pericardial sac
 - c. mediastinum
 - d. viscera

ANS: C

	Feedback
A	Ventral refers to the anterior or belly side.
B	The pericardial sac contains the heart.
C	Mediastinum is the space found between the two pleural cavities that contains the heart, thymus gland, lymph and blood vessels, trachea, esophagus, and nerves.
D	Viscera refers to the organs of any cavity.

PTS: 1

7. The term that refers to the covering on an organ is ____.
- a. visceral
 - b. pleural
 - c. parietal
 - d. mediastinum

ANS: A

	Feedback
A	Visceral is the term that refers to the covering on an organ.
B	Pleural is the term that refers to the covering of the lungs.
C	Parietal refers to the walls of a cavity.
D	Mediastinum refers to the space found between the two pleural cavities that contains the heart, thymus gland, lymph and blood vessels, trachea, esophagus, and nerves.

PTS: 1

8. The basic unit of biological organization is the ____.
- a. protoplasm
 - b. cell
 - c. connective tissue
 - d. colloid

ANS: B

	Feedback
A	Protoplasm is the liquid part of a cell.
B	The cell is the basic unit of biological organization.
C	Connective tissue binds together and supports other tissues and organs.
D	Colloid is a grouping of large molecules.

PTS: 1

9. The tissue that covers surfaces, protects, forms glands, and lines cavities of the body is ____.
- a. connective tissue
 - b. muscle tissue
 - c. nervous tissue
 - d. epithelial tissue

ANS: D

	Feedback
A	Connective tissue binds together and supports other tissues and organs.
B	Muscle tissue consists of elongated cells that generate movement by shortening and contracting in a forcible manner.
C	Nervous tissue is composed of nerve cells forming a coordinating system connecting the numerous sensory and motor structures of the body.
D	Epithelial tissue covers surfaces, protects, forms glands, and lines cavities of the body.

PTS: 1

10. Tissue characterized by elongated cells that generate movement by shortening or contracting in a forcible manner is known as ____.
- a. connective tissue
 - b. muscle tissue
 - c. nervous tissue
 - d. epithelial tissue

ANS: B

	Feedback
A	Connective tissue binds together and supports other tissues and organs.
B	Muscle tissue consists of elongated cells that generate movement by shortening and contracting in a forcible manner.
C	Nervous tissue is composed of nerve cells forming a coordinating system connecting the numerous sensory and motor structures of the body.
D	Epithelial tissue covers surfaces, protects, forms glands, and lines cavities of the body.

PTS: 1

11. The system composed of skin, hair, nails, sebaceous glands, and sweat glands is known as the ____.
- a. muscular system
 - b. skeletal system
 - c. integumentary system
 - d. endocrine system

ANS: C

	Feedback
A	The muscular system consists of muscles, fasciae, tendon sheaths, and bursae.
B	The skeletal system is composed of bones, cartilage, and the membranous structures associated with bones.
C	The integumentary system is composed of skin, hair, nails, sebaceous glands, and sweat glands.
D	The endocrine system is composed of the endocrine (ductless) glands.

PTS: 1

12. The lymphatic system is also known as the ____.
- a. immune system
 - b. respiratory system
 - c. blood circulatory system
 - d. endocrine system

ANS: A

	Feedback
A	The lymphatic system is also known as the immune system.
B	The respiratory system is composed of the nasal cavities, pharynx, larynx, trachea, bronchi, and lungs. It brings oxygen to and eliminates carbon dioxide from the blood.
C	The blood circulatory system or cardiovascular system consists of the heart, arteries, veins, and capillaries. Its function is to pump and distribute the blood that carries oxygen, nutrients, and wastes to and from the cells of the body.
D	The endocrine system is composed of the endocrine (ductless) glands.

PTS: 1

13. The body system responsible for maintaining sexual characteristics and the perpetuation of our species is the ____.
- a. endocrine system
 - b. reproductive system
 - c. urinary system
 - d. lymphatic system

ANS: B

	Feedback
A	The endocrine system is composed of the endocrine (ductless) glands.
B	The reproductive system consists of the ovaries, uterine tubes, uterus, and vagina in the female, and the testes, vas deferens, seminal vesicle, prostate gland, penis, and the urethra in the male. Its functions include maintenance of sexual characteristics and perpetuation of our species.
C	The urinary system is made up of two kidneys, two ureters, the bladder, and the urethra. Its functions include the chemical regulation of the blood, the formation and elimination of urine, and the maintenance of homeostasis.
D	The lymphatic or immune system is made up of the lymph nodes, the thymus gland, the spleen, and the lymphatic vessels. Its functions include draining tissue spaces of excess interstitial fluids and absorbing fats from the intestine and carrying them to the blood.

PTS: 1

14. The term ____ refers to the walls of a cavity.
- a. parietal
 - b. cardiovascular
 - c. visceral
 - d. mediastinum

ANS: A

	Feedback
A	The term parietal refers to the walls of a cavity.
B	The cardiovascular system is the blood circulatory system.
C	Visceral is the term that refers to the covering on an organ.
D	Mediastinum refers to the space found between the two pleural cavities that contains the heart, thymus gland, lymph and blood vessels, trachea, esophagus, and nerves.

PTS: 1

15. Cephalad means toward the head; it is synonymous with which of the following terms? ____
- a. medial
 - b. caudal
 - c. superior
 - d. inferior

ANS: C

	Feedback
A	Medial means nearest the midline.
B	Caudal also means inferior.
C	Superior means uppermost or above and is synonymous with cephalad.
D	Inferior means lowermost or below.

PTS: 1

16. The study of the functions of body parts, what they do, and how they do it, is known as ____.
- a. anatomy
 - b. physiology
 - c. microbiology
 - d. pathology

ANS: B

	Feedback
A	Anatomy is the study of the structure or morphology of the body.
B	Physiology is the study of functions of body parts.
C	Microbiology is the study of microorganisms.
D	Pathology is the study of diseases of the body.

PTS: 1

17. The study of the diseases of the body is known as ____.
- a. anatomy
 - b. physiology
 - c. microbiology
 - d. pathology

ANS: D

	Feedback
A	Anatomy is the study of the structure or morphology of the body.
B	Physiology is the study of functions of body parts.
C	Microbiology is the study of microorganisms.
D	Pathology is the study of diseases of the body.

PTS: 1

18. There are ____ basic reference systems of bodily organization.
- a. two
 - b. three
 - c. four
 - d. five

ANS: C

	Feedback
A	There are four basic reference systems of bodily organization.
B	There are four basic reference systems of bodily organization.
C	There are four basic reference systems of bodily organization.
D	There are four basic reference systems of bodily organization.

PTS: 1

19. The pancreas secretes ____, which breaks down the glycogen into glucose and returns it to the blood circulatory system.
- a. insulin
 - b. blood
 - c. glucose
 - d. glucagon

ANS: D

	Feedback
A	Insulin moves excess blood glucose into the liver.
B	Blood carries oxygen, nutrients, and wastes to and from the cells of the body.
C	After a person ingests a meal that is predominately carbohydrates, the individual's blood glucose level increases dramatically.
D	The pancreas secretes glucagon, which breaks down the glycogen into glucose and returns it to the blood circulatory system.

PTS: 1

20. Feedback responses that revise disturbances to our body's condition are examples of ____ feedback.
- a. negative
 - b. positive
 - c. glucose
 - d. respiratory

ANS: A

	Feedback
A	Feedback responses that revise disturbances to our body's condition are examples of negative feedback.
B	Positive feedback is an increase in function in response to a stimulus.
C	After a person ingests a meal that is predominately carbohydrates, the individual's blood glucose level increases dramatically.
D	The respiratory system brings oxygen to the blood.

PTS: 1

COMPLETION

1. The term that means uppermost or above is _____.

ANS:
superior
cephalad

PTS: 1

2. The term that means lowermost or below is _____.

ANS: inferior

PTS: 1

3. Another term for ventral, which means towards the front, is _____.

ANS: anterior

PTS: 1

4. Another term for posterior, which means towards the back, is _____.

ANS: dorsal

PTS: 1

5. The term that means nearest the midline of the body is _____.

ANS: medial

PTS: 1

6. The term that means toward the side or away from the midline is _____.

ANS: lateral

PTS: 1

7. The term that means nearest the point of attachment of origin is _____.

ANS: proximal

PTS: 1

8. The term that means away from the point of attachment or origin is _____.

ANS: distal

PTS: 1

9. The _____ is a space found between the two pleural cavities and contains the heart, thymus gland, trachea and esophagus.

ANS: mediastinum

PTS: 1

10. The term that means the maintenance of the internal environment of the body within narrow limits is _____.

ANS: homeostasis

PTS: 1

11. _____ muscle is involuntary and causes contractions of the heart.

ANS: Cardiac

PTS: 1

12. A(n) _____ is a group of organs.

ANS: system

PTS: 1

13. The _____ system includes the mouth, esophagus, stomach, small and large intestines, rectum, and anus.

ANS: digestive

PTS: 1

MATCHING

Match each term with the correct item below.

- | | |
|-------------------------|-----------------------|
| a. ductless glands | d. muscles, fasciae |
| b. epidermis and dermis | e. brain, spinal cord |
| c. bones, cartilage | |

1. integumentary system
2. skeletal system
3. muscular system
4. nervous system
5. endocrine system

- | | |
|-----------|--------|
| 1. ANS: B | PTS: 1 |
| 2. ANS: C | PTS: 1 |
| 3. ANS: D | PTS: 1 |
| 4. ANS: E | PTS: 1 |
| 5. ANS: A | PTS: 1 |

Match each term with the correct item below.

- a. alimentary canal
- b. kidneys, ureters, bladder
- c. heart, arteries, veins
- d. lymph nodes, thymus, spleen
- e. trachea, bronchi, lungs

- 6. cardiovascular system
- 7. lymphatic system
- 8. respiratory system
- 9. digestive system
- 10. urinary system

- 6. ANS: C PTS: 1
- 7. ANS: D PTS: 1
- 8. ANS: E PTS: 1
- 9. ANS: A PTS: 1
- 10. ANS: B PTS: 1