

Chapter 1: Introduction to the Structural Units

TRUE/FALSE

1. The pelvic cavity contains the organs of the reproductive and excretory system.

ANS: T PTS: 1

2. The thoracic cavity protects the heart and lungs.

ANS: T PTS: 1

3. The lungs are located inferior to the diaphragm.

ANS: F

Inferior refers to below and the lungs are above, or superior, to the diaphragm.

PTS: 1

4. The kidneys are located within the abdominal cavity.

ANS: F

The kidneys are located behind the abdominal cavity; also referred to as retroperitoneal, meaning behind the peritoneum.

PTS: 1

5. The midsagittal plane divides the body into front and back halves.

ANS: F

It divides the body into equal right and left halves.

PTS: 1

6. Caudal means “skull, or head, end” of the body.

ANS: F

This describes cranial; caudal means “tail end.”

PTS: 1

7. The hand is proximal to the elbow.

ANS: F

The hand is distal to the elbow; proximal is closer to the trunk of the body, and distal is further from the trunk.

PTS: 1

MULTIPLE CHOICE

1. The dorsal cavity contains the _____.
a. heart and lungs
b. major organs of digestion
c. structures of the nervous system

ANS: C

| | Feedback |
|---|---|
| A | These are in the thoracic cavity. |
| B | These are in the abdominopelvic cavity. |
| C | |

PTS: 1

2. Lateral means _____.
a. near the beginning of a structure
b. near the front of the body
c. toward the midline
d. toward the side

ANS: D

| | Feedback |
|---|-------------------|
| A | This is proximal. |
| B | This is ventral. |
| C | This is medial. |
| D | |

PTS: 1

3. The midsagittal plane divides the body into _____.
a. anterior and posterior portions
b. cephalic and caudal halves
c. upper and lower sections
d. left and right halves

ANS: D

| | Feedback |
|---|---|
| A | This is the coronal (frontal) plane. |
| B | Cephalic and caudal refers to direction, not body planes. |
| C | This is the transverse plane. |
| D | |

PTS: 1

4. The ____ surface of a structure is toward, or nearer, the midline and away from the side.
- distal
 - lateral
 - medial
 - proximal

ANS: C

| | Feedback |
|---|--|
| A | This pertains to a distant part. |
| B | This is toward or nearer the side and away from the midline. |
| C | |
| D | This refers to nearness, or closeness. |

PTS: 1

5. The ____ plane divides the body into front and back portions.
- coronal
 - sagittal
 - transverse

ANS: A

| | Feedback |
|---|---|
| A | |
| B | divides the body into right and left parts |
| C | divides the body into upper and lower parts |

PTS: 1

6. Which of the following is known as the study of microscopic one-celled organisms, multicelled organisms, plants, animals, and humans?
- biology
 - anatomy
 - physiology

ANS: A

| | Feedback |
|---|--|
| A | |
| B | Anatomy is the study of the shape and structure of an organism's body and the relationship of one body part to another. |
| C | Physiology is the study of the function of each body part and how the functions of the various body parts coordinate to form a complete living organism. |

PTS: 1

7. Which of the following conditions would occur on the anterior part of the body?
- injury to the bottom of the foot
 - ventral hernia
 - bruise on the back of the head

ANS: B

| | Feedback |
|---|--|
| A | This is on a posterior, or dorsal, location. |
| B | |
| C | This would be a posterior (dorsal) cranial injury. |

PTS: 1

8. A scratch on the left thigh would best be described as ____.
- deep
 - superficial
 - internal
 - external
 - b & d
 - a & c

ANS: E

| | Feedback |
|---|---|
| A | This would involve an injury to an internal organ. |
| B | This is correct, but so is external. |
| C | This would involve an injury to an internal organ. |
| D | This is correct, but so is superficial. |
| E | |
| F | These would involve an injury to an internal organ. |

PTS: 1

9. Which of the following sequences place the terms from the simplest to the most complex?
- tissues, cells, organs, organ systems, human body
 - human body, organ system, organs, tissues, cells
 - cells, tissues, organs, organ system, human body
 - none are correct

ANS: C

| | Feedback |
|---|--|
| A | Cells are simpler and group to form tissues. |
| B | This ranks from most complex to simplest. |
| C | |
| D | There is a correct answer. |

PTS: 1

10. Which of the following is the best description of *anabolism*?
- functional activities of cells that result in growth, repair, energy release, use of food, and secretions
 - building up of complex materials from simpler ones such as food and oxygen
 - breaking down and changing of complex substances into simpler ones, with a release of energy and carbon dioxide

ANS: B

| | Feedback |
|---|---------------------|
| A | This is metabolism. |
| B | |
| C | This is catabolism. |

PTS: 1

11. In the metric system, which of the following is used to measure weights?

- a. grams
- b. meters
- c. liters
- d. milliliters

ANS: A

| | Feedback |
|---|------------------------|
| A | |
| B | This measures lengths. |
| C | This measures volume. |
| D | This measures volume. |

PTS: 1

12. Place the following prefixes in the order of smallest to largest.

- a. micro, milli, centi
- b. milli, centi, micro
- c. centi, milli, micro
- d. micro, centi, milli

ANS: A

| | Feedback |
|---|--|
| A | |
| B | Micro is smaller than milli and centi. |
| C | This is from largest to smallest. |
| D | Centi is larger than milli. |

PTS: 1

13. The provider instructs the patient to take 1 gram of acetaminophen for their fever. The patient only has capsules marked as 325 mg. How many should the patient take?

- a. 1 capsule
- b. 2 capsules
- c. 3 capsules
- d. 4 capsules

ANS: C

| | Feedback |
|---|--|
| A | This would only be 0.325 grams and not enough. |
| B | This would only be 0.650 grams and not enough. |
| C | |
| D | This would be 1.3 grams and too much. |

PTS: 1

MULTIPLE RESPONSE

1. Which of the following are cavities within the skull. Mark all that apply.

- a. orbital cavity
- b. nasal cavity
- c. oral cavity
- d. buccal cavity

ANS: A, B, C, D PTS: 1

2. Mark all that are true
- | | |
|--------------------------------|----------------------------------|
| a. 1 liter = 1,000 milliliters | d. the prefix centi means 1/1000 |
| b. 2.2 kilograms = 1 pound | e. 30 milliliters = 1 ounce |
| c. 2.5 centimeters = 1 inch | |

ANS: A, C, E

b. 1 kilogram = 2.2 pounds

d. centi is 1/100; milli is 1/1000

PTS: 1

COMPLETION

1. Any abnormal change in the structure or function which produces symptoms is considered a(n) _____.

ANS: disease

PTS: 1

2. A(n) _____, or cross, section is a horizontal cut that divides the body into upper and lower parts.

ANS: transverse

PTS: 1

3. The dorsal cavity contains the _____ cavity and the _____ cavity.

ANS: cranial, spinal

PTS: 1

4. The _____ divides the ventral cavity into two parts: the upper thoracic and the lower abdominopelvic cavities.

ANS: diaphragm

PTS: 1

5. The navel is located in the middle or _____ region.

ANS: umbilical

PTS: 1

6. The stomach is located _____ to the diaphragm.

ANS: inferior

PTS: 1

7. The term _____ is used to reference the ventral surface of the body.

ANS: anterior

PTS: 1

8. The region superior to the left inguinal region is the _____ region.

ANS: left lumbar

PTS: 1

9. The pubic area can also be referred to as the lower, or _____, region.

ANS: hypogastric

PTS: 1

10. The region inferior to the right lumbar region is the right inguinal region, or the _____ region.

ANS: right iliac

PTS: 1

11. The area superior to the right lumbar region is the _____ region.

ANS: right hypochondriac

PTS: 1

12. _____ is the ability of the body to regulate its internal environment within narrow limits.

ANS: Homeostasis

PTS: 1

13. The metric system is a decimal system based on the power of _____.

ANS:

10

ten

PTS: 1

14. One tablespoon of cough medicine equals _____ milliliters of cough medicine.

ANS:

15

fifteen

PTS: 1

MATCHING

You must make a notation on a patient's record. Match the correct anatomical terminology to the description of the location.

- a. pain in the back
- b. pain below the right ribs
- c. a cut in the lower part of the right arm
- d. heartburn
- e. stomach cramps
- f. right inguinal hernia

- 1. proximal to wrist
- 2. lumbar region
- 3. epigastric area
- 4. right hypochondriac area
- 5. umbilical area
- 6. right iliac area

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

Match the branch of anatomy with its description.

- a. gross anatomy
- b. microscopic anatomy
- c. developmental anatomy
- d. comparative anatomy
- e. systematic anatomy

- 7. study of the growth and development of an organism during its lifetime
- 8. study of large and easily observable structures of an organism
- 9. examples are dermatology, endocrinology, and neurology
- 10. study of similarities and differences between different animals
- 11. includes cytology and histology

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

Match the life function with the applicable body system.

- a. movement
- b. ingestion
- c. transport
- d. growth
- e. secretion
- f. excretion
- g. regulation (sensitivity)

- 12. digestive system
- 13. skeletal system
- 14. circulatory system
- 15. nervous system
- 16. endocrine system
- 17. muscle system

18. urinary system

- | | |
|------------|--------|
| 12. ANS: B | PTS: 1 |
| 13. ANS: D | PTS: 1 |
| 14. ANS: C | PTS: 1 |
| 15. ANS: G | PTS: 1 |
| 16. ANS: E | PTS: 1 |
| 17. ANS: A | PTS: 1 |
| 18. ANS: F | PTS: 1 |