

## Chapter 01 The Sciences of Anatomy and Physiology

### Multiple Choice Questions

1. The word "anatomy" comes from:
- A. Latin and means "to be born".
  - B. Hebrew and means "shape".
  - C.** Greek and means "to cut apart".
  - D. German and means "body".
  - E. Italian and means "form".

*Bloom's Level: 1. Remember*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.01.01 Describe the science of anatomy.*

*Section: 01.01*

*Topic: General*

2. Anatomy is the study of:
- A. stars.
  - B. function.
  - C. sharp tools.
  - D.** structure and form.
  - E. word histories.

*Bloom's Level: 1. Remember*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.01.01 Describe the science of anatomy.*

*Section: 01.01a*

*Topic: General*

### **True / False Questions**

3. Since the body has been the same for thousands of years, anatomy is considered a static classification system instead of a dynamic science.

**FALSE**

*Bloom's Level: 2. Understand*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.01.01 Describe the science of anatomy.*

*Section: 01.01a*

*Topic: General*

### **Multiple Choice Questions**

4. A scientist who describes the layers of the heart wall and their relationship to the surrounding pericardium would be a(n):

- A.** anatomist.
- B. physiologist.
- C. pathologist.
- D. pulmonologist.

*Bloom's Level: 3. Apply*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.01.01 Describe the science of anatomy.*

*Section: 01.01a*

*Topic: General*

5. \_\_\_\_\_ anatomy examines both superficial anatomic markings and internal body structures as they relate to the skin covering them.

- A. Regional
- B. Surface**
- C. Radiographic
- D. Surgical
- E. Systemic

*Bloom's Level: 1. Remember*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.01.02 List the subdivisions in both microscopic and gross anatomy.*

*Section: 01.01a*

*Topic: General*

### **Fill in the Blank Questions**

6. The discipline known as \_\_\_\_\_ anatomy examines similarities and differences across species.

**comparative**

*Bloom's Level: 1. Remember*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.01.02 List the subdivisions in both microscopic and gross anatomy.*

*Section: 01.01a*

*Topic: General*

## Multiple Choice Questions

7. Which branch of microscopic anatomy is the study of tissues?

- A.** Histology
- B. Cytology
- C. Embryology
- D. Developmental anatomy
- E. Surgical anatomy

*Bloom's Level: 1. Remember*

*HAPS Objective: D01.01 Define the term histology.*

*HAPS Topic: Module D01 Overview of histology and tissue types.*

*Learning Objective: 01.01.02 List the subdivisions in both microscopic and gross anatomy.*

*Section: 01.01a*

*Topic: General*

## True / False Questions

8. Cytology is a subdivision of gross anatomy.

**FALSE**

*Bloom's Level: 1. Remember*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.01.02 List the subdivisions in both microscopic and gross anatomy.*

*Section: 01.01a*

*Topic: General*

## Multiple Choice Questions

9. Gross anatomy refers to the study of:
- A. cells.
  - B. structures formed by cells.
  - C. structures not visible to the unaided eye.
  - D.** structures visible to the unaided eye.
  - E. nasal secretions.

*Bloom's Level: 1. Remember*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.01.02 List the subdivisions in both microscopic and gross anatomy.*

*Section: 01.01a*

*Topic: General*

10. The anatomic changes that result from disease are studied under:
- A.** pathologic anatomy.
  - B. systemic anatomy.
  - C. histology.
  - D. surgical anatomy.
  - E. developmental anatomy.

*Bloom's Level: 1. Remember*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.01.02 List the subdivisions in both microscopic and gross anatomy.*

*Section: 01.01a*

*Topic: General*

11. The two main divisions of microscopic anatomy are:
- A. embryology and parasitology.
  - B.** cytology and histology.
  - C. comparative anatomy and pathological anatomy.
  - D. neurobiology and surface anatomy.

*Bloom's Level: 1. Remember*

*HAPS Objective: D01.01 Define the term histology.*

*HAPS Topic: Module D01 Overview of histology and tissue types.*

*Learning Objective: 01.01.02 List the subdivisions in both microscopic and gross anatomy.*

*Section: 01.01a*

*Topic: General*

12. When medical students study all of the structures in a particular area of the body as a unit (for example, all the muscles, blood vessels, and nerves of the leg), that approach is called:
- A. surface anatomy.
  - B. comparative anatomy.
  - C. popliteal physiology.
  - D.** regional anatomy.
  - E. systemic anatomy.

*Bloom's Level: 1. Remember*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.01.02 List the subdivisions in both microscopic and gross anatomy.*

*Section: 01.01a*

*Topic: General*

13. The scientific discipline that studies the functions of body structures is:

- A. anatomy.
- B. physiology.**
- C. astronomy.
- D. anthropology.
- E. archeology.

*Bloom's Level: 1. Remember*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.01.03 Describe the science of physiology.*

*Section: 01.01b*

*Topic: General*

14. Which is a physiological description rather than an anatomical one?

- A. The muscles of the intestinal wall contract slowly and involuntarily.**
- B. The walls of blood capillaries are composed of a thin epithelium.
- C. The muscles of the thigh are composed of skeletal muscle tissue.
- D. There are fenestrations (openings) in the epithelial cells of capillary walls.
- E. The esophageal wall includes a middle layer of dense irregular connective tissue.

*Bloom's Level: 3. Apply*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.01.03 Describe the science of physiology.*

*Section: 01.01b*

*Topic: General*

## True / False Questions

15. Physiologists use chemistry to understand the workings of the body's organ systems.

**TRUE**

*Bloom's Level: 1. Remember*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.01.03 Describe the science of physiology.*

*Section: 01.01b*

*Topic: General*

## Fill in the Blank Questions

16. The discipline that studies the functions of the nervous system, including the way that impulses are conducted is known as \_\_\_\_\_.

**neurophysiology**

*Bloom's Level: 1. Remember*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.01.04 List the subdivisions in physiology.*

*Section: 01.01b*

*Topic: General*



17. The discipline that associates changes in organ system function with disease or injury is known as \_\_\_\_\_.

**pathophysiology**

*Bloom's Level: 1. Remember*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.01.04 List the subdivisions in physiology.*

*Section: 01.01b*

*Topic: General*

## Multiple Choice Questions

18. Respiratory physiology is primarily the study of:
- A. cell shape within the alveoli of the lungs.
  - B. the branching pattern of the small airways of the lungs.
  - C. the tissue composition of the airways, air sacs, and blood vessels.
  - D.** how gases are transferred between the lungs and the blood vessels supplying them.

*Bloom's Level: 2. Understand*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.01.04 List the subdivisions in physiology.*

*Section: 01.01b*

*Topic: General*

19. The large surface area of the inside of the small intestine means that this structure is:
- A.** well adapted for its physiological role in absorption.
  - B. derived from an embryological structure that served a different function.
  - C. anatomically complex but physiologically simple.
  - D. maladaptive in that it harbors bacteria.

*Bloom's Level: 3. Apply*

*HAPS Objective: A05.02 Give specific examples to show the interrelationship between anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.02.01 Explain how the studies of form and function are interrelated.*

*Section: 01.02*

*Topic: General*

## Essay Questions

20. Some researchers think pheromones are important tools in human communication. Pheromones are chemical signals that one individual sends to another. What research questions might be asked by anatomists and what questions might be asked by physiologists to determine if pheromones are important to humans?

Students might consider that anatomists would look for organs (and cellular machinery) to transmit pheromones and to receive them. Comparative anatomists might also look for structures in the brain that are homologous to pheromone processing areas in animals.

Physiologists might study how pheromones are released, received, and processed. These studies could involve cellular and molecular approaches and would involve multiple organ systems (e.g., integumentary and nervous systems).

*Bloom's Level: 6. Create*

*HAPS Objective: A05.02 Give specific examples to show the interrelationship between anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.02.01 Explain how the studies of form and function are interrelated.*

*Section: 01.02*

*Topic: General*

## True / False Questions

21. Both anatomists and physiologists are aware that form and function are interrelated.

**TRUE**

*Bloom's Level: 1. Remember*

*HAPS Objective: A05.02 Give specific examples to show the interrelationship between anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.02.01 Explain how the studies of form and function are interrelated.*

*Section: 01.02*

*Topic: General*

## Multiple Choice Questions

22. The mechanism by which the body propels food through the digestive tract is primarily a topic of study for:

- A. anatomists.
- B. physiologists.**

*Bloom's Level: 1. Remember*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.02.01 Explain how the studies of form and function are interrelated.*

*Section: 01.02*

*Topic: General*

23. The term that refers to the ability of organisms to react to changes in the environment is:

- A. responsiveness.**
- B. reproduction.
- C. metabolism.
- D. development.
- E. organization.

*Bloom's Level: 1. Remember*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.03.01 List the characteristics common to all living things.*

*Section: 01.03a*

*Topic: General*

24. The various chemical reactions that organisms carry out are collectively called:
- A. reproduction.
  - B. homeostasis.
  - C.** metabolism.
  - D. responsiveness.
  - E. development.

*Bloom's Level: 1. Remember*

*HAPS Objective: A05.01 Define the terms anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.03.01 List the characteristics common to all living things.*

*Section: 01.03a*

*Topic: General*

### **True / False Questions**

25. Homeostasis refers to an organism's ability to regulate its internal environment despite changes in the external environment.

**TRUE**

*Bloom's Level: 2. Understand*

*HAPS Objective: B01.01 Define homeostasis.*

*HAPS Topic: Module B01 Definition.*

*Learning Objective: 01.03.01 List the characteristics common to all living things.*

*Section: 01.03a*

*Topic: General*

## Multiple Choice Questions

26. The category of reactions in which larger molecules are broken down into smaller ones is known as:

- A. anabolism.
- B. catabolism.**
- C. synthesis.
- D. homeostasis.
- E. enzymatic.

*Bloom's Level: 1. Remember*

*HAPS Objective: O02.01 Define metabolism, anabolism and catabolism.*

*HAPS Topic: Module O02 Introduction to Metabolism.*

*Learning Objective: 01.03.01 List the characteristics common to all living things.*

*Section: 01.03a*

*Topic: General*

## Fill in the Blank Questions

27. The group of metabolic reactions in which smaller molecules are combined to form larger ones is \_\_\_\_\_.

**anabolism** or

**anabolic** or

**anabolic reactions**

*Bloom's Level: 1. Remember*

*HAPS Objective: O02.01 Define metabolism, anabolism and catabolism.*

*HAPS Topic: Module O02 Introduction to Metabolism.*

*Learning Objective: 01.03.01 List the characteristics common to all living things.*

*Section: 01.03a*

*Topic: General*

## Multiple Choice Questions

28. The smallest structural unit that exhibits the characteristics of living things is:

- A. an organ.
- B. an individual.
- C. tissue.
- D.** a cell.
- E. a system.

*Bloom's Level: 1. Remember*

*HAPS Objective: A06.01 Describe, in order from simplest to most complex, the major levels of organization in the human organism.*

*HAPS Topic: Module A06 Levels of organization.*

*Learning Objective: 01.03.02 Describe the levels of organization in the human body.*

*Section: 01.03b*

*Topic: General*

29. Which level consists of related organs that work to achieve a common function?

- A.** Organ system level
- B. Cellular level
- C. Tissue level
- D. Chemical level
- E. Organ level

*Bloom's Level: 1. Remember*

*HAPS Objective: A06.01 Describe, in order from simplest to most complex, the major levels of organization in the human organism.*

*HAPS Topic: Module A06 Levels of organization.*

*Learning Objective: 01.03.02 Describe the levels of organization in the human body.*

*Section: 01.03b*

*Topic: General*

30. At what level of organization is a tooth?

- A. Tissue level
- B. Cell level
- C. Organ level**
- D. System level
- E. Atomic level

*Bloom's Level: 3. Apply*

*HAPS Objective: A06.02 Give an example of each level of organization.*

*HAPS Topic: Module A06 Levels of organization.*

*Learning Objective: 01.03.02 Describe the levels of organization in the human body.*

*Section: 01.03b*

*Topic: General*

31. Which of the following statements accurately describes the organization of structures?

- A. Organs are made up of tissues, which are made up of cells, which are made up of organelles and molecules.**
- B. Tissues are made up of organs, which are made up of cells, which are made up of individual atoms.
- C. Organisms are made up of tissues, which are made up of organ systems, which are made up of DNA.
- D. Organ systems are made up of cells, which are made up of tissues, which are made up of organelles.
- E. Organs are made up of cells, which are made up of atoms, which are made up of molecules.

*Bloom's Level: 2. Understand*

*HAPS Objective: A06.01 Describe, in order from simplest to most complex, the major levels of organization in the human organism.*

*HAPS Topic: Module A06 Levels of organization.*

*Learning Objective: 01.03.02 Describe the levels of organization in the human body.*

*Section: 01.03b*

*Topic: General*



## Essay Questions

32. Iron atoms help our blood transport oxygen. Describe each level of anatomical structural complexity for an iron atom in your blood, working from the simplest level (atom) to the most complex (organism).

The iron atom helps make up a hemoglobin molecule. The hemoglobin molecule helps make up a red blood cell. The blood cell helps make blood, a connective tissue. Blood travels within vessels, which are organs. All of this is part of the cardiovascular system that helps make up the person, the organism.

*Bloom's Level: 3. Apply*

*HAPS Objective: A06.01 Describe, in order from simplest to most complex, the major levels of organization in the human organism.*

*HAPS Topic: Module A06 Levels of organization.*

*Learning Objective: 01.03.02 Describe the levels of organization in the human body.*

*Section: 01.03b*

*Topic: General*

## True / False Questions

33. A molecule is made up of a combination of two or more atoms.

**TRUE**

*Bloom's Level: 1. Remember*

*HAPS Objective: A06.01 Describe, in order from simplest to most complex, the major levels of organization in the human organism.*

*HAPS Topic: Module A06 Levels of organization.*

*Learning Objective: 01.03.02 Describe the levels of organization in the human body.*

*Section: 01.03b*

*Topic: General*

### Fill in the Blank Questions

34. Specialized subunits of cells that are made of macromolecules are called \_\_\_\_\_.  
**organelles**

*Bloom's Level: 1. Remember*

*HAPS Objective: A06.02 Give an example of each level of organization.*

*HAPS Topic: Module A06 Levels of organization.*

*Learning Objective: 01.03.02 Describe the levels of organization in the human body.*

*Section: 01.03b*

*Topic: General*

### Multiple Choice Questions

35. Which system is responsible for providing protection, regulating body temperature, and being the site of cutaneous receptors?

- A. Respiratory
- B. Muscular
- C. Integumentary**
- D. Urinary
- E. Nervous

*Bloom's Level: 1. Remember*

*HAPS Objective: A07.01 List the organ systems of the human body and their major components.*

*HAPS Topic: Module A07 Survey of body systems.*

*Learning Objective: 01.03.03 Compare the organ systems of the human body.*

*Section: 01.03c*

*Topic: General*

36. The body system that provides support and protection as well as being a site of blood cell production (hemopoiesis) is the \_\_\_\_\_ system.

- A.** skeletal
- B. muscular
- C. cardiovascular
- D. respiratory
- E. lymphatic

*Bloom's Level: 1. Remember*

*HAPS Objective: A07.02 Describe the major functions of each organ system.*

*HAPS Topic: Module A07 Survey of body systems.*

*Learning Objective: 01.03.03 Compare the organ systems of the human body.*

*Section: 01.03c*

*Topic: General*

37. The system responsible for the exchange of gases between the blood and atmospheric air is the \_\_\_\_\_ system.

- A. urinary
- B.** respiratory
- C. cardiovascular
- D. endocrine
- E. nervous

*Bloom's Level: 1. Remember*

*HAPS Objective: A07.02 Describe the major functions of each organ system.*

*HAPS Topic: Module A07 Survey of body systems.*

*Learning Objective: 01.03.03 Compare the organ systems of the human body.*

*Section: 01.03c*

*Topic: General*

## Fill in the Blank Questions

38. The organ system that transports and filters interstitial fluid while also participating in immune responses is the \_\_\_\_\_ system.

**lymphatic**

*Bloom's Level: 1. Remember*

*HAPS Objective: A07.02 Describe the major functions of each organ system.*

*HAPS Topic: Module A07 Survey of body systems.*

*Learning Objective: 01.03.03 Compare the organ systems of the human body.*

*Section: 01.03c*

*Topic: General*

39. The pituitary, thyroid, and adrenal glands are typically grouped within the \_\_\_\_\_ system.

**endocrine**

*Bloom's Level: 1. Remember*

*HAPS Objective: A07.01 List the organ systems of the human body and their major components.*

*HAPS Topic: Module A07 Survey of body systems.*

*Learning Objective: 01.03.03 Compare the organ systems of the human body.*

*Section: 01.03c*

*Topic: General*

## Multiple Choice Questions

40. Which describes the anatomic position?
- A. Body is upright.
  - B. Palms are facing forward.
  - C. Thumbs point away from the body.
  - D. Feet are flat on the floor.
  - E.** All of these apply.

*Bloom's Level: 1. Remember*

*HAPS Objective: A01.01 Describe a person in anatomical position.*

*HAPS Topic: Module A01 Anatomical position.*

*Learning Objective: 01.04.01 Describe the anatomic position and its importance in the study of anatomy.*

*Section: 01.04a*

*Topic: Body Orientation*

## Short Answer Questions

41. Describe the positions of the thumbs and the palms of the hands in the anatomic position.

Thumbs point out, palms face forward.

*Bloom's Level: 1. Remember*

*HAPS Objective: A01.01 Describe a person in anatomical position.*

*HAPS Topic: Module A01 Anatomical position.*

*Learning Objective: 01.04.01 Describe the anatomic position and its importance in the study of anatomy.*

*Section: 01.04a*

*Topic: Body Orientation*

## True / False Questions

42. In the anatomic position, the specimen rests horizontally on the examination table and the arms are extended away from the torso.

**FALSE**

*Bloom's Level: 2. Understand*

*HAPS Objective: A01.01 Describe a person in anatomical position.*

*HAPS Topic: Module A01 Anatomical position.*

*Learning Objective: 01.04.01 Describe the anatomic position and its importance in the study of anatomy.*

*Section: 01.04a*

*Topic: Body Orientation*

## Multiple Choice Questions

43. The word \_\_\_\_\_ implies an imaginary flat surface passing through the body.

A. section

**B. plane**

C. direction

D. tangent

E. figure

*Bloom's Level: 1. Remember*

*HAPS Objective: A02.01 Identify the various planes in which a body might be dissected.*

*HAPS Topic: Module A02 Body planes & sections.*

*Learning Objective: 01.04.02 Describe the anatomic sections and planes through the body.*

*Section: 01.04b*

*Topic: Body Orientation*

44. A plane that passes through the structure at an angle is called:
- A. frontal.
  - B. coronal.
  - C.** oblique.
  - D. sagittal.
  - E. transverse.

*Bloom's Level: 2. Understand*

*HAPS Objective: A02.01 Identify the various planes in which a body might be dissected.*

*HAPS Topic: Module A02 Body planes & sections.*

*Learning Objective: 01.04.02 Describe the anatomic sections and planes through the body.*

*Section: 01.04b*

*Topic: Body Orientation*

45. A(n) \_\_\_\_\_ plane separates the body into superior and inferior parts.
- A.** transverse
  - B. oblique
  - C. sagittal
  - D. coronal
  - E. frontal

*Bloom's Level: 1. Remember*

*HAPS Objective: A02.02 Describe the appearance of a body presented along various planes.*

*HAPS Topic: Module A02 Body planes & sections.*

*Learning Objective: 01.04.02 Describe the anatomic sections and planes through the body.*

*Section: 01.04b*

*Topic: Body Orientation*

46. Which best defines "superficial"?

- A. On the inside
- B.** On the outside
- C. Toward the end of an appendage
- D. Close to the attachment of the appendage to the trunk
- E. At the head end

*Bloom's Level: 2. Understand*

*HAPS Objective: A04.01 List and define the major directional terms used in anatomy.*

*HAPS Topic: Module A04 Directional terms.*

*Learning Objective: 01.04.03 Define the different anatomic directional terms.*

*Section: 01.04c*

*Topic: Body Orientation*

47. The directional term that means "away from the midline of the body" is:

- A. inferior.
- B. superior.
- C. medial.
- D.** lateral.
- E. caudal.

*Bloom's Level: 1. Remember*

*HAPS Objective: A04.01 List and define the major directional terms used in anatomy.*

*HAPS Topic: Module A04 Directional terms.*

*Learning Objective: 01.04.03 Define the different anatomic directional terms.*

*Section: 01.04c*

*Topic: Body Orientation*



48. The directional term that means "closest to the point of attachment to the trunk" is:
- A. distal.
  - B. proximal.**
  - C. medial.
  - D. cephalic.
  - E. dorsal.

*Bloom's Level: 1. Remember*

*HAPS Objective: A04.01 List and define the major directional terms used in anatomy.*

*HAPS Topic: Module A04 Directional terms.*

*Learning Objective: 01.04.03 Define the different anatomic directional terms.*

*Section: 01.04c*

*Topic: Body Orientation*

49. The directional term that means "in back of or toward the back surface" is:
- A. posterior.**
  - B. caudal.
  - C. cephalic.
  - D. anterior.
  - E. proximal.

*Bloom's Level: 1. Remember*

*HAPS Objective: A04.01 List and define the major directional terms used in anatomy.*

*HAPS Topic: Module A04 Directional terms.*

*Learning Objective: 01.04.03 Define the different anatomic directional terms.*

*Section: 01.04c*

*Topic: Body Orientation*

50. The best term for referring to the rear or tail end is:

- A.** caudal.
- B. cephalic.
- C. inferior.
- D. superior.
- E. lateral.

*Bloom's Level: 1. Remember*

*HAPS Objective: A04.01 List and define the major directional terms used in anatomy.*

*HAPS Topic: Module A04 Directional terms.*

*Learning Objective: 01.04.03 Define the different anatomic directional terms.*

*Section: 01.04c*

*Topic: Body Orientation*

51. The head, neck, and trunk make up the \_\_\_\_\_ region of the body.

- A. appendicular
- B.** axial
- C. cephalic
- D. caudal
- E. thoracic

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.02 List and describe the location of the major anatomical regions of the body.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*

52. The cranial cavity houses the:

- A. eyeball.
- B. ear canals.
- C.** brain.
- D. spinal cord.
- E. nasal structures.

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.01 Describe the location of the body cavities and identify the major organs found in each cavity.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.05 Describe the body cavities and their subdivisions.*

*Section: 01.04e*

*Topic: Body Orientation*

53. The bones of the vertebral column form a cavity called the:

- A. nervous system passageway.
- B. abdominal cavity.
- C. spinal cavity.
- D.** vertebral canal.

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.01 Describe the location of the body cavities and identify the major organs found in each cavity.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.05 Describe the body cavities and their subdivisions.*

*Section: 01.04e*

*Topic: Body Orientation*

54. The axillary region is \_\_\_\_\_ to the pectoral region.

- A. lateral
- B. medial
- C. distal
- D. proximal
- E. inferior

*Bloom's Level: 2. Understand*

*HAPS Objective: A03.02 List and describe the location of the major anatomical regions of the body.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*

55. The anatomic term for the cheek is:

- A. buccal.
- B. pelvic.
- C. cervical.
- D. crural.
- E. sacral.

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.02 List and describe the location of the major anatomical regions of the body.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*

56. The popliteal region is best seen from a(n) \_\_\_\_\_ view.

- A. anterior
- B. lateral
- C. superior
- D. inferior
- E. posterior**

*Bloom's Level: 3. Apply*

*HAPS Objective: A05.03 Describe the location of structures of the body, using basic regional and systemic terminology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*

57. What is the anatomic term for the foot?

- A. Pubic
- B. Patellar
- C. Pes**
- D. Popliteal
- E. Acromial

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.02 List and describe the location of the major anatomical regions of the body.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*

58. Which anatomical term describes the wrist region?

- A. Tarsal
- B. Carpal**
- C. Digital
- D. Olecranal
- E. Perineal

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.02 List and describe the location of the major anatomical regions of the body.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*

59. With the subject in the anatomic position, one can best see the dorsum of the manus from a(n) \_\_\_\_\_ view.

- A. lateral
- B. superior
- C. inferior
- D. posterior**
- E. anterior

*Bloom's Level: 3. Apply*

*HAPS Objective: A05.03 Describe the location of structures of the body, using basic regional and systemic terminology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*

60. The primary function of serous fluid appears to be:

- A. to serve as a lubricant.
- B. to provide a stabilizing force.
- C. to insulate.
- D. to store energy.
- E. to provide an attachment surface.

*Bloom's Level: 1. Remember*

*HAPS Objective: D06.01 Describe the structure and function of mucous, serous, cutaneous & synovial membranes.*

*HAPS Topic: Module D06 Membranes (mucous, serous, cutaneous & synovial).*

*Learning Objective: 01.04.06 Explain the role of serous membranes in the ventral cavities.*

*Section: 01.04e*

*Topic: Body Orientation*

61. The anatomic term for the calf is:

- A. crural.
- B. popliteal.
- C. tarsal.
- D. carpal.
- E. sural.

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.02 List and describe the location of the major anatomical regions of the body.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*

62. The term "hallux" refers to the:

- A. little finger.
- B. thumb.
- C.** great toe.
- D. lateral-most toe.
- E. middle digit.

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.02 List and describe the location of the major anatomical regions of the body.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*

63. What is the anatomic term for the hip region?

- A. Sternal
- B.** Coxal
- C. Dorsal
- D. Crural
- E. Sural

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.02 List and describe the location of the major anatomical regions of the body.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*



64. A professional fighter hit in the mental region might have damage to the:

- A.** jaw.
- B. ear.
- C. nose.
- D. knee.
- E. shoulder.

*Bloom's Level: 2. Understand*

*HAPS Objective: A03.02 List and describe the location of the major anatomical regions of the body.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*

65. Pollex refers to the:

- A. eyebrow.
- B.** thumb.
- C. great toe.
- D. little finger.
- E. kneecap.

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.02 List and describe the location of the major anatomical regions of the body.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*

66. An inguinal hernia is in the region of the:
- A. umbilicus.
  - B.** groin.
  - C. calf.
  - D. thigh.
  - E. shoulder.

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.02 List and describe the location of the major anatomical regions of the body.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*

67. Which serous membrane covers the surface of an organ?
- A. The parietal layer
  - B.** The visceral layer
  - C. The muscle layer
  - D. The dorsal layer
  - E. The ventral layer

*Bloom's Level: 1. Remember*

*HAPS Objective: D06.01 Describe the structure and function of mucous, serous, cutaneous & synovial membranes.*

*HAPS Topic: Module D06 Membranes (mucous, serous, cutaneous & synovial).*

*Learning Objective: 01.04.06 Explain the role of serous membranes in the ventral cavities.*

*Section: 01.04e*

*Topic: Body Orientation*

## True / False Questions

68. The mediastinum is within the ventral cavity.

**TRUE**

*Bloom's Level: 2. Understand*

*HAPS Objective: A03.01 Describe the location of the body cavities and identify the major organs found in each cavity.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.05 Describe the body cavities and their subdivisions.*

*Section: 01.04e*

*Topic: Body Orientation*

## Multiple Choice Questions

69. The pleural cavity is the:

A. same as the mediastinum.

B. the serous membrane lining the abdomen.

C. space within which the heart sits.

**D.** potential space between the two serous membranes surrounding a lung.

*Bloom's Level: 2. Understand*

*HAPS Objective: A03.01 Describe the location of the body cavities and identify the major organs found in each cavity.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.06 Explain the role of serous membranes in the ventral cavities.*

*Section: 01.04e*

*Topic: Body Orientation*

70. The limbs of the body are attached to the axis and make up the:
- A. abdominal region.
  - B. thoracic region.
  - C. axial region.
  - D.** appendicular region.
  - E. antebrachial region.

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.02 List and describe the location of the major anatomical regions of the body.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*

### **Short Answer Questions**

71. Explain the spatial relationship between the following: thoracic cavity, pericardial cavity, ventral cavity, mediastinum.

The pericardial cavity is a potential space between membranes that reside within the mediastinum. The mediastinum sits medially within the thoracic cavity. The thoracic cavity is the superior portion of the ventral body cavity.

*Bloom's Level: 5. Evaluate*

*HAPS Objective: A03.03 Describe the location of the four abdominopelvic quadrants and the nine abdominopelvic regions and list the major organs located in each.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.05 Describe the body cavities and their subdivisions.*

*Section: 01.04e*

*Topic: Body Orientation*

## Multiple Choice Questions

72. The median space in the thoracic cavity is called the:

- A. pleural cavity.
- B. pericardial cavity.
- C. mediastinum.**
- D. peritoneal cavity.
- E. hypochondriac space.

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.01 Describe the location of the body cavities and identify the major organs found in each cavity.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.05 Describe the body cavities and their subdivisions.*

*Section: 01.04e*

*Topic: Body Orientation*

73. The pericardium is a two-layered serous membrane that:

- A. encloses the heart.**
- B. encloses the kidney.
- C. encloses a lung.
- D. provides lubrication for the knee.
- E. covers the small intestine.

*Bloom's Level: 1. Remember*

*HAPS Objective: D06.01 Describe the structure and function of mucous, serous, cutaneous & synovial membranes.*

*HAPS Topic: Module D06 Membranes (mucous, serous, cutaneous & synovial).*

*Learning Objective: 01.04.06 Explain the role of serous membranes in the ventral cavities.*

*Section: 01.04e*

*Topic: Body Orientation*

74. The serous fluid that helps in cardiac function is located:
- A. inside the heart's chambers.
  - B. between the parietal pericardium and the sternum.
  - C.** in the pericardial cavity, between the parietal and visceral pericardial layers.
  - D. between the visceral pericardium and the cardiac muscle.

*Bloom's Level: 2. Understand*

*HAPS Objective: D06.01 Describe the structure and function of mucous, serous, cutaneous & synovial membranes.*

*HAPS Topic: Module D06 Membranes (mucous, serous, cutaneous & synovial).*

*Learning Objective: 01.04.06 Explain the role of serous membranes in the ventral cavities.*

*Section: 01.04e*

*Topic: Body Orientation*

75. With a specimen in the anatomic position, you can best see the mediastinum with a \_\_\_\_\_ view.
- A. midsagittal
  - B. superior
  - C. inferior
  - D.** frontal
  - E. posterior

*Bloom's Level: 3. Apply*

*HAPS Objective: A02.02 Describe the appearance of a body presented along various planes.*

*HAPS Topic: Module A02 Body planes & sections.*

*Learning Objective: 01.04.05 Describe the body cavities and their subdivisions.*

*Section: 01.04e*

*Topic: Body Orientation*

76. The moist, two-layered serous membrane that lines the abdominopelvic cavity is called the:

- A. peritoneum.
- B. diaphragm.
- C. synovium.
- D. pleura.
- E. pericardium.

*Bloom's Level: 1. Remember*

*HAPS Objective: D06.01 Describe the structure and function of mucous, serous, cutaneous & synovial membranes.*

*HAPS Topic: Module D06 Membranes (mucous, serous, cutaneous & synovial).*

*Learning Objective: 01.04.06 Explain the role of serous membranes in the ventral cavities.*

*Section: 01.04e*

*Topic: Body Orientation*

77. Of the nine abdominopelvic regions, the one that is most superior of the three in the middle column is called the:

- A. lumbar.
- B. umbilical.
- C. epigastric.
- D. hypogastric.
- E. hypochondriac.

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.03 Describe the location of the four abdominopelvic quadrants and the nine abdominopelvic regions and list the major organs located in each.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.07 Compare the terms used to subdivide the abdominopelvic region into nine regions or four quadrants.*

*Section: 01.04f*

*Topic: Body Orientation*

78. Which abdominopelvic regions have both a right and left side?

- A. Only the lumbar and iliac
- B. Only the hypogastric and hypochondriac
- C. The hypochondriac, lumbar, and hypogastric
- D. Only the iliac and hypochondriac
- E.** The lumbar, iliac, and hypochondriac

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.03 Describe the location of the four abdominopelvic quadrants and the nine abdominopelvic regions and list the major organs located in each.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.07 Compare the terms used to subdivide the abdominopelvic region into nine regions or four quadrants.*

*Section: 01.04f*

*Topic: Body Orientation*

79. Lateral to the umbilical abdominopelvic region are the \_\_\_\_\_ regions.

- A. hypochondriac
- B. iliac
- C. hypogastric
- D. epigastric
- E.** lumbar

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.03 Describe the location of the four abdominopelvic quadrants and the nine abdominopelvic regions and list the major organs located in each.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.07 Compare the terms used to subdivide the abdominopelvic region into nine regions or four quadrants.*

*Section: 01.04f*

*Topic: Body Orientation*



80. The urinary bladder is found in which abdominopelvic region?

- A.** Hypogastric
- B. Right lumbar
- C. Hypochondriac
- D. Left iliac
- E. Left lumbar

*Bloom's Level: 3. Apply*

*HAPS Objective: A03.03 Describe the location of the four abdominopelvic quadrants and the nine abdominopelvic regions and list the major organs located in each.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.07 Compare the terms used to subdivide the abdominopelvic region into nine regions or four quadrants.*

*Section: 01.04f*

*Topic: Body Orientation*

### **Fill in the Blank Questions**

81. The appendix is in the right iliac region, and is therefore located in the \_\_\_\_\_ quadrant.

**right lower** or

**RL** or

**RLQ**

*Bloom's Level: 2. Understand*

*HAPS Objective: A03.03 Describe the location of the four abdominopelvic quadrants and the nine abdominopelvic regions and list the major organs located in each.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.07 Compare the terms used to subdivide the abdominopelvic region into nine regions or four quadrants.*

*Section: 01.04f*

*Topic: Body Orientation*

## Multiple Choice Questions

82. The abdominopelvic quadrants are formed by passing one horizontal and one vertical line through the:

- A. patellar region.
- B. umbilicus.**
- C. antebrachial region.
- D. gluteal region.
- E. crural region.

*Bloom's Level: 2. Understand*

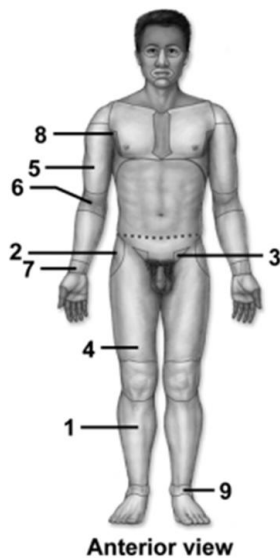
*HAPS Objective: A03.03 Describe the location of the four abdominopelvic quadrants and the nine abdominopelvic regions and list the major organs located in each.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.07 Compare the terms used to subdivide the abdominopelvic region into nine regions or four quadrants.*

*Section: 01.04f*

*Topic: Body Orientation*



*Figure: 01.07a*

*Topic: General*

83. This figure shows an anterior view of a human in the anatomic position. What region does number 1 indicate?

- A.** Crural
- B. Femoral
- C. Brachial
- D. Sural
- E. Tarsal

*Bloom's Level: 1. Remember*

*Figure: 01.07a*

*HAPS Objective: A05.03 Describe the location of structures of the body, using basic regional and systemic terminology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*

84. This figure shows an anterior view of a human in the anatomic position. What region does number 2 indicate?

- A. Carpal
- B.** Coxal
- C. Antecubital
- D. Sacral
- E. Axillary

*Bloom's Level: 1. Remember*

*Figure: 01.07a*

*HAPS Objective: A05.03 Describe the location of structures of the body, using basic regional and systemic terminology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*

85. This figure shows an anterior view of a human in the anatomic position. Which number indicates the inguinal region?

- A. 1
- B. 2
- C. 3**
- D. 4
- E. 5

*Bloom's Level: 1. Remember*

*Figure: 01.07a*

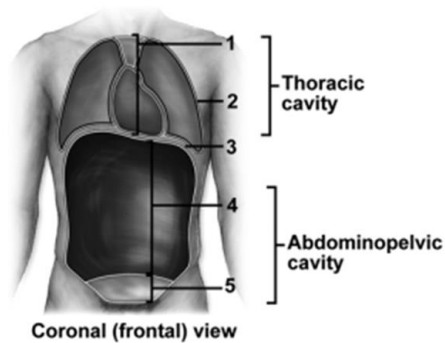
*HAPS Objective: A05.03 Describe the location of structures of the body, using basic regional and systemic terminology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*



*Figure: 01.08b*

*Topic: General*

86. This figure shows a frontal view of a human. What does number 1 indicate?

- A.** Mediastinum
- B. Pelvic cavity
- C. Thoracic cavity
- D. Pleural cavity
- E. Pericardial cavity

*Bloom's Level: 1. Remember*

*Figure: 01.08b*

*HAPS Objective: A03.01 Describe the location of the body cavities and identify the major organs found in each cavity.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.05 Describe the body cavities and their subdivisions.*

*Section: 01.04e*

*Topic: Body Orientation*

87. This figure shows a frontal view of a human. What does number 5 indicate?

- A. Abdominal cavity
- B.** Pelvic cavity
- C. Pleural cavity
- D. Pericardial cavity
- E. Mediastinum

*Bloom's Level: 1. Remember*

*Figure: 01.08b*

*HAPS Objective: A03.01 Describe the location of the body cavities and identify the major organs found in each cavity.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.05 Describe the body cavities and their subdivisions.*

*Section: 01.04e*

*Topic: Body Orientation*

88. This figure shows a frontal view of a human. What does number 2 indicate?

- A. Pelvic cavity
- B. Pleural cavity**
- C. Mediastinum
- D. Abdominal cavity
- E. Cranial cavity

*Bloom's Level: 1. Remember*

*Figure: 01.08b*

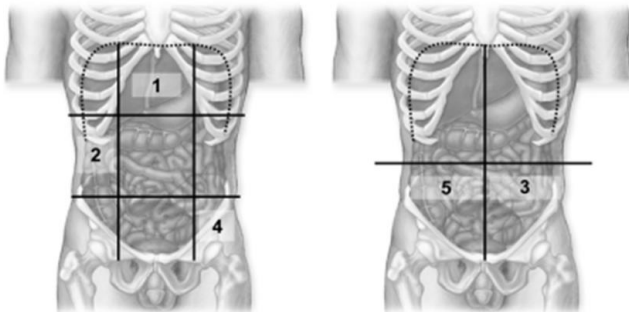
*HAPS Objective: A03.01 Describe the location of the body cavities and identify the major organs found in each cavity.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.05 Describe the body cavities and their subdivisions.*

*Section: 01.04e*

*Topic: Body Orientation*



*Figure: 01.10*

*Topic: General*

89. These figures show a frontal view of the abdominopelvic cavities. Which number indicates the epigastric region?

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5

*Bloom's Level: 1. Remember*

*Figure: 01.10*

*HAPS Objective: A03.03 Describe the location of the four abdominopelvic quadrants and the nine abdominopelvic regions and list the major organs located in each.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.07 Compare the terms used to subdivide the abdominopelvic region into nine regions or four quadrants.*

*Section: 01.04f*

*Topic: Body Orientation*

90. These figures show a frontal view of the abdominopelvic cavities. What does number 5 indicate?

- A. Right upper quadrant (RUQ)
- B. Left lower quadrant (LLQ)
- C. Right hypochondriac region
- D. Left hypochondriac region
- E. Right lower quadrant (RLQ)

*Bloom's Level: 1. Remember*

*Figure: 01.10*

*HAPS Objective: A03.03 Describe the location of the four abdominopelvic quadrants and the nine abdominopelvic regions and list the major organs located in each.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.07 Compare the terms used to subdivide the abdominopelvic region into nine regions or four quadrants.*

*Section: 01.04f*

*Topic: Body Orientation*

91. These figures show a frontal view of the abdominopelvic cavities. Which number indicates the left iliac region?

- A. 1
- B. 2
- C. 3
- D. 4**
- E. 5

*Bloom's Level: 1. Remember*

*Figure: 01.10*

*HAPS Objective: A03.03 Describe the location of the four abdominopelvic quadrants and the nine abdominopelvic regions and list the major organs located in each.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.07 Compare the terms used to subdivide the abdominopelvic region into nine regions or four quadrants.*

*Section: 01.04f*

*Topic: Body Orientation*

### **True / False Questions**

92. The fact that the structures of cells vary widely reflects the specializations needed for their different functions.

**TRUE**

*Bloom's Level: 2. Understand*

*HAPS Objective: A05.02 Give specific examples to show the interrelationship between anatomy and physiology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.02.01 Explain how the studies of form and function are interrelated.*

*Section: 01.02*

*Topic: General*



93. Organs contain two or more tissues that work together to perform specific, complex functions.

**TRUE**

*Bloom's Level: 1. Remember*

*HAPS Objective: A06.02 Give an example of each level of organization.*

*HAPS Topic: Module A06 Levels of organization.*

*Learning Objective: 01.03.02 Describe the levels of organization in the human body.*

*Section: 01.03b*

*Topic: General*

94. The cell is the smallest living portion of the human body.

**TRUE**

*Bloom's Level: 1. Remember*

*HAPS Objective: A06.02 Give an example of each level of organization.*

*HAPS Topic: Module A06 Levels of organization.*

*Learning Objective: 01.03.02 Describe the levels of organization in the human body.*

*Section: 01.03b*

*Topic: General*

95. Fortunately for science, there is but one single property that defines life.

**FALSE**

*Bloom's Level: 2. Understand*

*Learning Objective: 01.03.01 List the characteristics common to all living things.*

*Section: 01.03a*

*Topic: General*

96. The life characteristic of reproduction may be interpreted at both the cellular and organismal levels.

**TRUE**

*Bloom's Level: 3. Apply*

*Learning Objective: 01.03.01 List the characteristics common to all living things.*

*Section: 01.03a*

*Topic: General*

97. The urinary system filters the blood, concentrates waste products, and removes waste products from the body.

**TRUE**

*Bloom's Level: 1. Remember*

*HAPS Objective: A07.02 Describe the major functions of each organ system.*

*HAPS Topic: Module A07 Survey of body systems.*

*Learning Objective: 01.03.03 Compare the organ systems of the human body.*

*Section: 01.03c*

*Topic: General*

98. The anatomic position allows all observers to have a common point of reference.

**TRUE**

*Bloom's Level: 1. Remember*

*HAPS Objective: A01.01 Describe a person in anatomical position.*

*HAPS Topic: Module A01 Anatomical position.*

*Learning Objective: 01.04.01 Describe the anatomic position and its importance in the study of anatomy.*

*Section: 01.04a*

*Topic: Body Orientation*

99. A coronal plane is a vertical plane that divides the body into anterior and posterior parts.

**TRUE**

*Bloom's Level: 1. Remember*

*HAPS Objective: A02.02 Describe the appearance of a body presented along various planes.*

*HAPS Topic: Module A02 Body planes & sections.*

*Learning Objective: 01.04.02 Describe the anatomic sections and planes through the body.*

*Section: 01.04b*

*Topic: Body Orientation*

100. The chest is superior to the head.

**FALSE**

*Bloom's Level: 2. Understand*

*HAPS Objective: A05.03 Describe the location of structures of the body, using basic regional and systemic terminology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.04.03 Define the different anatomic directional terms.*

*Section: 01.04c*

*Topic: Body Orientation*

101. The antecubital region is proximal to the carpal region.

**TRUE**

*Bloom's Level: 3. Apply*

*HAPS Objective: A05.03 Describe the location of structures of the body, using basic regional and systemic terminology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*

102. The mediastinum is a serous cavity.

**FALSE**

*Bloom's Level: 3. Apply*

*HAPS Objective: D06.01 Describe the structure and function of mucous, serous, cutaneous & synovial membranes.*

*HAPS Topic: Module D06 Membranes (mucous, serous, cutaneous & synovial).*

*Learning Objective: 01.04.05 Describe the body cavities and their subdivisions.*

*Section: 01.04e*

*Topic: Body Orientation*

103. The right and left iliac regions are found lateral to the hypogastric region.

**TRUE**

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.03 Describe the location of the four abdominopelvic quadrants and the nine abdominopelvic regions and list the major organs located in each.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.07 Compare the terms used to subdivide the abdominopelvic region into nine regions or four quadrants.*

*Section: 01.04f*

*Topic: Body Orientation*

104. The lumbar regions are located lateral to the umbilical region.

**TRUE**

*Bloom's Level: 2. Understand*

*HAPS Objective: A03.03 Describe the location of the four abdominopelvic quadrants and the nine abdominopelvic regions and list the major organs located in each.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.07 Compare the terms used to subdivide the abdominopelvic region into nine regions or four quadrants.*

*Section: 01.04f*

*Topic: Body Orientation*

## Fill in the Blank Questions

105. The level of organization one step more complex than the organ level is the \_\_\_\_\_ level.

**organ system**

*Bloom's Level: 1. Remember*

*HAPS Objective: A06.01 Describe, in order from simplest to most complex, the major levels of organization in the human organism.*

*HAPS Topic: Module A06 Levels of organization.*

*Learning Objective: 01.03.02 Describe the levels of organization in the human body.*

*Section: 01.03b*

*Topic: General*

106. The state of equilibrium, or fairly constant internal environment, in the body is called \_\_\_\_\_.

**homeostasis**

*Bloom's Level: 1. Remember*

*HAPS Objective: B01.01 Define homeostasis.*

*HAPS Topic: Module B01 Definition.*

*Learning Objective: 01.03.01 List the characteristics common to all living things.*

*Section: 01.03a*

*Topic: General*

107. The \_\_\_\_\_ reproductive system produces oocytes.

**female**

*Bloom's Level: 1. Remember*

*HAPS Objective: A07.02 Describe the major functions of each organ system.*

*HAPS Topic: Module A07 Survey of body systems.*

*Learning Objective: 01.03.03 Compare the organ systems of the human body.*

*Section: 01.03c*

*Topic: General*

108. The antecubital region is \_\_\_\_\_ to the brachial region.

**distal**

*Bloom's Level: 3. Apply*

*HAPS Objective: A05.03 Describe the location of structures of the body, using basic regional and systemic terminology.*

*HAPS Topic: Module A05 Basic terminology.*

*Learning Objective: 01.04.04 Identify the major regions of the body, using proper anatomic terminology.*

*Section: 01.04d*

*Topic: Body Orientation*

109. The muscular partition that separates the thoracic and abdominopelvic cavities is the \_\_\_\_\_.

**diaphragm**

*Bloom's Level: 1. Remember*

*HAPS Objective: A03.01 Describe the location of the body cavities and identify the major organs found in each cavity.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.05 Describe the body cavities and their subdivisions.*

*Section: 01.04e*

*Topic: Body Orientation*

110. The hypogastric region is located \_\_\_\_\_ to the right iliac region.

**medial**

*Bloom's Level: 3. Apply*

*HAPS Objective: A03.03 Describe the location of the four abdominopelvic quadrants and the nine abdominopelvic regions and list the major organs located in each.*

*HAPS Topic: Module A03 Body cavities & regions.*

*Learning Objective: 01.04.03 Define the different anatomic directional terms.*

*Section: 01.04c*

*Topic: Body Orientation*

## Multiple Choice Questions

111. The control center of a homeostatic mechanism:
- A. brings about change to the internal environment.
  - B.** integrates sensory input and signals for change as needed.
  - C. is a change in the external environment.
  - D. detects a change in a variable that is being regulated.

*Bloom's Level: 2. Understand*

*HAPS Objective: B02.01 List the components of a feedback loop and explain the function of each*

*HAPS Topic: Module B02 General types of homeostatic mechanisms.*

*Learning Objective: 01.05.01 Define the components of a homeostatic system.*

*Section: 01.05a*

*Topic: General*

## Fill in the Blank Questions

112. Sensory nerves that detect changes in a variable that is being regulated comprise the \_\_\_\_\_ of the control mechanism.

**receptor** or

**receptors**

*Bloom's Level: 1. Remember*

*HAPS Objective: B02.01 List the components of a feedback loop and explain the function of each*

*HAPS Topic: Module B02 General types of homeostatic mechanisms.*

*Learning Objective: 01.05.01 Define the components of a homeostatic system.*

*Section: 01.05a*

*Topic: General*

## Multiple Choice Questions

113. The part of the homeostatic control mechanism that brings about change is the:

- A. control center.
- B. stimulus.
- C. effector.**
- D. receptor.

*Bloom's Level: 1. Remember*

*HAPS Objective: B02.01 List the components of a feedback loop and explain the function of each*

*HAPS Topic: Module B02 General types of homeostatic mechanisms.*

*Learning Objective: 01.05.02 Be able to recognize each of the components in representative systems.*

*Section: 01.05a*

*Topic: General*

## Fill in the Blank Questions

114. In a homeostatic control mechanism, the receptor detects changes in the environment and relays that information to the \_\_\_\_\_.

**control center**

*Bloom's Level: 1. Remember*

*HAPS Objective: B02.01 List the components of a feedback loop and explain the function of each*

*HAPS Topic: Module B02 General types of homeostatic mechanisms.*

*Learning Objective: 01.05.02 Be able to recognize each of the components in representative systems.*

*Section: 01.05a*

*Topic: General*



## Multiple Choice Questions

115. When you are exposed to bright light, a reflex is initiated and the muscles of your iris contract to decrease your pupil size. The iris muscles are acting as a(n):

- A. effector.
- B. control center.
- C. receptor.
- D. positive feedback.

*Bloom's Level: 3. Apply*

*HAPS Objective: B03.01 Provide an example of a negative feedback loop that utilizes the nervous system to relay information. Describe the specific organs, structures, cells or molecules (receptors, neurons, CNS structures, effectors, neurotransmitters) included in the feedback loop.*

*HAPS Topic: Module B03 Examples of homeostatic mechanisms.*

*Learning Objective: 01.05.02 Be able to recognize each of the components in representative systems.*

*Section: 01.05a*

*Topic: General*

116. When you are exposed to bright light, a reflex is initiated and your iris constricts to decrease pupil size. Which structure serves as a receptor in this system?

- A. The retina
- B. The iris
- C. The eyelid
- D. The brain's visual cortex

*Bloom's Level: 3. Apply*

*HAPS Objective: B03.01 Provide an example of a negative feedback loop that utilizes the nervous system to relay information. Describe the specific organs, structures, cells or molecules (receptors, neurons, CNS structures, effectors, neurotransmitters) included in the feedback loop.*

*HAPS Topic: Module B03 Examples of homeostatic mechanisms.*

*Learning Objective: 01.05.01 Define the components of a homeostatic system.*

*Section: 01.05a*

*Topic: General*

117. Which of the following choices places the components of a homeostatic control system in proper order?

- A. Effector, control center, stimulus, receptor
- B. Stimulus, receptor, control center, effector**
- C. Receptor, effector, control center, stimulus
- D. Stimulus, control center, effector, receptor
- E. Receptor, control center, stimulus, effector

*Bloom's Level: 2. Understand*

*HAPS Objective: B02.01 List the components of a feedback loop and explain the function of each*

*HAPS Topic: Module B02 General types of homeostatic mechanisms.*

*Learning Objective: 01.05.01 Define the components of a homeostatic system.*

*Section: 01.05a*

*Topic: General*

### **Short Answer Questions**

118. Define the term "negative feedback".

Negative feedback is a system of homeostatic control in which the output counters the input stimulus so that the physiological variable stays relatively constant.

*Bloom's Level: 1. Remember*

*HAPS Objective: B02.02 Compare and contrast positive and negative feedback in terms of the relationship between stimulus and response.*

*HAPS Topic: Module B02 General types of homeostatic mechanisms.*

*Learning Objective: 01.05.03 Define negative feedback.*

*Section: 01.05b*

*Topic: General*

## Multiple Choice Questions

119. The normal level at which a physiological variable is maintained is known as its:

- A. stimulus.
- B. control center.
- C. negative feedback.
- D.** set point.
- E. effector.

*Bloom's Level: 1. Remember*

*HAPS Objective: B02.01 List the components of a feedback loop and explain the function of each*

*HAPS Topic: Module B02 General types of homeostatic mechanisms.*

*Learning Objective: 01.05.03 Define negative feedback.*

*Section: 01.05b*

*Topic: General*

## True / False Questions

120. The central nervous system acts as the control center for the regulation of blood calcium and blood glucose.

**FALSE**

*Bloom's Level: 2. Understand*

*HAPS Objective: B03.02 Provide an example of a negative feedback loop that utilizes the endocrine system to relay information. Describe the specific cells or molecules (production cells, hormones, target cells) included in the feedback loop.*

*HAPS Topic: Module B03 Examples of homeostatic mechanisms.*

*Learning Objective: 01.05.04 Explain how homeostatic mechanisms regulated by negative feedback detect and respond to environmental changes.*

*Section: 01.05b*

*Topic: General*

121. If your body temperature starts to decline, your body responds by exciting skeletal muscles so that you shiver and your temperature returns to normal. This is an example of negative feedback.

**TRUE**

*Bloom's Level: 2. Understand*

*HAPS Objective: B03.01 Provide an example of a negative feedback loop that utilizes the nervous system to relay information. Describe the specific organs, structures, cells or molecules (receptors, neurons, CNS structures, effectors, neurotransmitters) included in the feedback loop.*

*HAPS Topic: Module B03 Examples of homeostatic mechanisms.*

*Learning Objective: 01.05.03 Define negative feedback.*

*Section: 01.05b*

*Topic: General*

### **Multiple Choice Questions**

122. If carbon dioxide levels rise in the body, negative feedback mechanisms will trigger:

- A.** an increase in breathing so that carbon dioxide levels decline to the set point.
- B. an increase in breathing so that carbon dioxide levels rise further above set point.
- C. a decrease in breathing so that carbon dioxide levels rise to the set point.
- D. a decrease in breathing so that carbon dioxide levels decline below set point.

*Bloom's Level: 2. Understand*

*HAPS Objective: B03.01 Provide an example of a negative feedback loop that utilizes the nervous system to relay information. Describe the specific organs, structures, cells or molecules (receptors, neurons, CNS structures, effectors, neurotransmitters) included in the feedback loop.*

*HAPS Topic: Module B03 Examples of homeostatic mechanisms.*

*Learning Objective: 01.05.04 Explain how homeostatic mechanisms regulated by negative feedback detect and respond to environmental changes.*

*Section: 01.05b*

*Topic: General*

## Fill in the Blank Questions

123. The reinforcement of a stimulus so that a climax is reached is known as \_\_\_\_\_.

**positive feedback**

*Bloom's Level: 1. Remember*

*HAPS Objective: B02.02 Compare and contrast positive and negative feedback in terms of the relationship between stimulus and response.*

*HAPS Topic: Module B02 General types of homeostatic mechanisms.*

*Learning Objective: 01.05.05 Define positive feedback.*

*Section: 01.05c*

*Topic: General*

## True / False Questions

124. The term positive feedback means that the outcome of the system is a good one.

**FALSE**

*Bloom's Level: 2. Understand*

*HAPS Objective: B02.02 Compare and contrast positive and negative feedback in terms of the relationship between stimulus and response.*

*HAPS Topic: Module B02 General types of homeostatic mechanisms.*

*Learning Objective: 01.05.05 Define positive feedback.*

*Section: 01.05c*

*Topic: General*

## Essay Questions

125. If someone speaks too loudly into a microphone, a public address system will sometimes produce a loud whistle of amplified feedback. Explain whether this is an example of negative or positive feedback, and explain how the microphone, control box, and speaker of the system serve as the different components of a feedback loop.

This is an example of positive feedback, where the mic is a receptor (it receives the input), the control box is a control center (it has knobs to adjust settings), and the speaker is an effector (it ultimately produces the sound).

*Bloom's Level: 4. Analyze*

*HAPS Objective: B02.02 Compare and contrast positive and negative feedback in terms of the relationship between stimulus and response.*

*HAPS Topic: Module B02 General types of homeostatic mechanisms.*

*Learning Objective: 01.05.06 Describe the actions of a positive feedback loop.*

*Section: 01.05c*

*Topic: General*

## Multiple Choice Questions

126. In the positive feedback mechanism governing breast feeding, the mammary glands of the breast serve as the:

- A. control center.
- B. receptor.
- C.** effector.
- D. set point.

*Bloom's Level: 2. Understand*

*HAPS Objective: B03.03 Provide an example of a positive feedback loop in the body.*

*Describe the specific structures (organs, cells or molecules) included in the feedback loop.*

*HAPS Topic: Module B03 Examples of homeostatic mechanisms.*

*Learning Objective: 01.05.06 Describe the actions of a positive feedback loop.*

*Section: 01.05c*

*Topic: General*

127. Disease is often considered the result of:

- A. negative feedback.
- B.** failure of homeostatic systems.
- C. maintenance of set point.
- D. feedback loops.

*Bloom's Level: 1. Remember*

*HAPS Objective: B05.02 Predict the types of problems that would occur in the body if various organ systems could not maintain homeostasis and allowed regulated variables (body conditions) to move away from normal.*

*HAPS Topic: Module B05 Predictions related to homeostatic imbalance, including disease states & disorders.*

*Learning Objective: 01.06.01: Explain the general relationship of maintaining homeostasis to health and disease.*

*Section: 01.06*

*Topic: General*

### **True / False Questions**

128. Damage to the heart can cause inadequate blood circulation, which can lead to more damage to the heart. This is an example of a positive feedback cycle.

**TRUE**

*Bloom's Level: 2. Understand*

*HAPS Objective: B05.02 Predict the types of problems that would occur in the body if various organ systems could not maintain homeostasis and allowed regulated variables (body conditions) to move away from normal.*

*HAPS Topic: Module B05 Predictions related to homeostatic imbalance, including disease states & disorders.*

*Learning Objective: 01.06.01: Explain the general relationship of maintaining homeostasis to health and disease.*

*Section: 01.06*

*Topic: General*

### **Multiple Choice Questions**

129. Diagnosing a disease involves determining the:

- A.** cause of the homeostatic imbalance.
- B. multiple side effects of a drug.
- C. effector and the set point.
- D. negativity of the feedback.

*Bloom's Level: 2. Understand*

*HAPS Objective: B05.02 Predict the types of problems that would occur in the body if various organ systems could not maintain homeostasis and allowed regulated variables (body conditions) to move away from normal.*

*HAPS Topic: Module B05 Predictions related to homeostatic imbalance, including disease states & disorders.*

*Learning Objective: 01.06.01: Explain the general relationship of maintaining homeostasis to health and disease.*

*Section: 01.06*

*Topic: General*