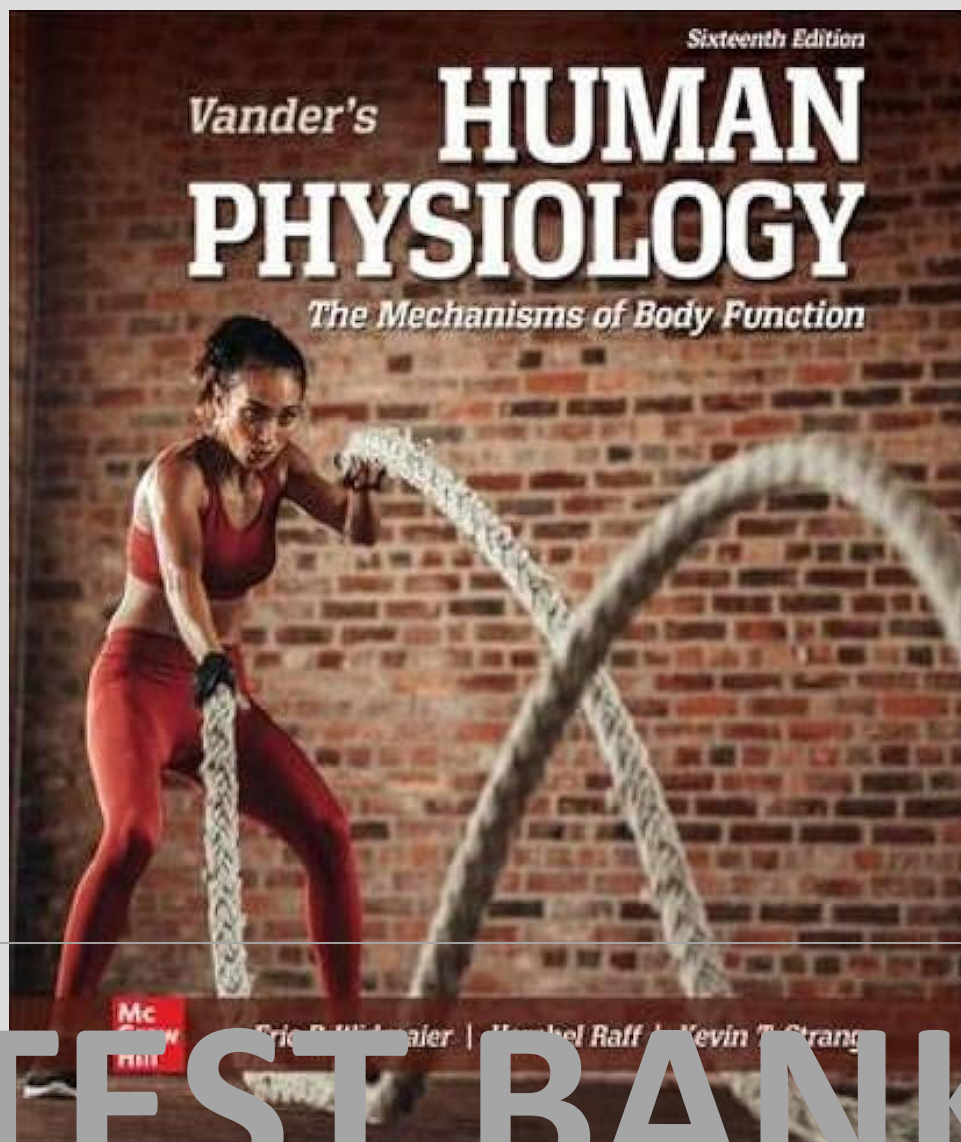


TEST BANK

vander's Human Physiology 16th
Edition Widmaier TEST BANK



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Chapter 01

Homeostasis: A Framework for Human Physiology

Multiple Choice Questions

1. Which of these is NOT one of the four general categories of cells that make up the human body?

- A. epithelial cells
- B. collagen cells
- C. connective tissue cell
- D. neuron
- E. muscle cell

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 Outcome: 01.02

Section: 01.02

Topic: Levels of organization

2. Physiology is the study of

- A. How two organisms interact
- B. How organisms function
- C. The spread of diseases
- D. The structure of the body

Bloom's: Level: 1. Remember

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

HAPS Topic: Module B01 Definition.

Learning Outcome: 01.01

Section: 01.01

Topic: Scope of anatomy and physiology

Chapter 01 - Homeostasis: A Framework for Human Physiology

3. The study of disease states in the body is called

- A. Pathophysiology
- B. Anatomy
- C. Homeostasis
- D. Biology
- E. Histology

Bloom's: Level: 1. Remember

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

HAPS Topic: Module B01 Definition.

Learning Outcome: 01.01

Section: 01.01

Topic: Scope of anatomy and physiology

4. Which is NOT a connective tissue cell?

- A. bone cells
- B. skeletal muscle cells
- C. blood cells
- D. fat cells
- E. cartilage cells

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 Outcome: 01.02

Section: 01.02

Topic: Levels of organization

5. What is the principal function performed by epithelial cells?

- A. fat storage
- B. anchoring body structures
- C. forming boundaries between body compartments
- D. generating movement
- E. transmitting electrical signals

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 Outcome: 01.02

Section: 01.02

Topic: Levels of organization

Chapter 01 - Homeostasis: A Framework for Human Physiology

6. What is the term for the developmental process that leads to specialized cell types?
- A. genomics
 - B. differentiation
 - C. homeostasis
 - D. positive feedback
 - E. acclimatization

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 Outcome: 01.02

Section: 01.02

Topic: Levels of organization

7. The cell type that is specialized to communicate with other cells and control their activities is
- A. Epithelial cells
 - B. Muscle cells
 - C. Connective tissue cells
 - D. Nerve cells

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 Outcome: 01.02

Section: 01.02

Topic: Levels of organization

Chapter 01 - Homeostasis: A Framework for Human Physiology

8. If a person begins to sweat upon entering a hot room but continued sweating is able to keep the body temperature constant, which of these best describes her condition?

- A. She is in an equilibrium state.
- B. She is not using energy to maintain a constant temperature.
- C. She is in a steady state
- D. She is using a positive feedback mechanism.

Bloom's: Level: 2. Understand

HAPS Objective: B01.01 Define homeostasis.

HAPS Objective: B04.01 Provide specific examples to demonstrate how organ systems respond to maintain homeostasis.

HAPS Topic: Module B03 Examples of homeostatic mechanisms.

Learning Outcome: 01.05

Section: 01.05

Topic: Examples of homeostatic mechanisms

9. Which best describes the extracellular matrix?

- A. It is found just inside the cell membrane in all tissues, it sends branching collagen fibers between cells to connect them, and it transmits chemical information from the interior of one cell to the interior of adjacent cells.
- B. It is a tissue having more than the four general cell types, it transports proteins and polysaccharides between body compartments, and it is the route by which chemical signals like hormones reach all parts of the body.
- C. It covers the body's surface, it contains connective and muscle tissue, and it helps generate movement.
- D. It surrounds cells; it contains proteins, polysaccharides, and minerals; it provides a scaffold for cell attachment; and it transmits chemical messengers to cells.

Bloom's: Level: 2. Understand

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

HAPS Topic: Module A06 Levels of organization.

Learning Outcome: 01.02

Section: 01.02

Topic: Levels of organization

Chapter 01 - Homeostasis: A Framework for Human Physiology

10. Which concept is the defining feature of the discipline of physiology?

- A. descent with modification
- B. homeostasis
- C. evolution
- D. dimorphism
- E. differentiation

Bloom's: Level: 2. Understand

HAPS Objective: B01.01 Define homeostasis.

HAPS Topic: Module B01 Definition.

Learning Outcome: 01.04

Section: 01.04

Topic: Definition of homeostasis

11. Describing a physiological variable as "homeostatic" means that it

- A. has varied from the normal value, and will remain constant at the new value.
- B. never varies from an exact set point value.
- C. is in an equilibrium state that requires no energy input to stay at the normal value.
- D. is in a state of dynamic constancy that is regulated to remain near a stable set point value.
- E. has no normal range, but will just change to match the outside environmental conditions.

Bloom's: Level: 2. Understand

HAPS Objective: B01.01 Define homeostasis.

HAPS Topic: Module B01 Definition.

Learning Outcome: 01.04

Section: 01.04

Topic: Definition of homeostasis

12. Which of the following situations best represents a homeostatic mechanism?

- A. A person who becomes very nervous begins to sweat profusely.
- B. After going outside on a hot day, the core body temperature increases.
- C. Increasing the size of fast-food restaurant portions causes body weight to increase.
- D. After eating a large batch of salty popcorn, levels of salt in the urine increase.
- E. As age increases, the amount of calcium in bones tends to decrease.

Bloom's: Level: 2. Understand

HAPS Objective: B04.01 Provide specific examples to demonstrate how organ systems respond to maintain homeostasis.

HAPS Topic: Module B03 Examples of homeostatic mechanisms.

Learning Outcome: 01.05

Section: 01.05

Topic: Examples of homeostatic mechanisms