***Human Physiology, 15e* (Fox)**

**Chapter 1 The Study of Body Function**

1) Physiology \_\_\_\_\_\_\_\_.

A) emphasizes cause-and-effect mechanisms

B) includes the fields of chemistry and psychology

C) ignores the scientific method

D) ultimately strives to understand the structures of individual cells

Answer: A

Section: 01.01

Topic: Scope of anatomy and physiology

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

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

2) The study of how disease or injury alters physiological processes is termed \_\_\_\_\_\_\_\_.

A) comparative physiology

B) the scientific method

C) pathophysiology

D) anatomy

Answer: C

Section: 01.01

Topic: Scope of anatomy and physiology

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

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

3) The study of disease processes aids in the understanding of normal functions.

Answer: TRUE

Section: 01.01

Topic: Scope of anatomy and physiology

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

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

4) The first step in the scientific method involves the formation of a(n) \_\_\_\_\_\_\_\_.

A) theory

B) law

C) experiment

D) hypothesis

Answer: D

Section: 01.01

Topic: Scientific Method

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

5) Phase IV clinical drug trials involve testing a drug only on the specific human population who have the condition that the drug is intended to treat.

Answer: FALSE

Section: 01.01

Topic: Scientific Method

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

6) Phase \_\_\_\_\_\_\_\_ clinical trials maximize the number of test participants and include human participants of both sexes, different ethnic groups, and those who have health problems besides the one that the drug is designed to treat.

A) I

B) II

C) III

D) IV

Answer: C

Section: 01.01

Topic: Scientific Method

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

7) Phase I clinical trials do NOT involve \_\_\_\_\_\_\_\_.

A) testing on the target human population

B) testing how the drug is metabolized

C) testing how rapidly the drug is removed from the body

D) testing the most effective administration of the drug

Answer: A

Section: 01.01

Topic: Scientific Method

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

8) When a scientist performs measurements in an experiment and does not know if the subject is part of the experimental or the control group, it is known as a \_\_\_\_\_\_\_\_ measurement.

A) blind

B) qualitative

C) null

D) statistical

Answer: A

Section: 01.01

Topic: Scientific Method

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

9) A hypothesis is scientific if it \_\_\_\_\_\_\_\_.

A) supports other hypotheses

B) can be tested

C) refutes other hypotheses

D) uses observational analyses

Answer: B

Section: 01.01

Topic: Scientific Method

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

10) For a theory to be scientific and accepted, it must be based on \_\_\_\_\_\_\_\_.

A) reproducible data

B) the support of the scientific community

C) a proven hypothesis from a well-designed research study

D) the word of a professional scientist

Answer: A

Section: 01.01

Topic: Scientific Method

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

11) Negative feedback results in a response that opposes the original deviation from normal.

Answer: TRUE

Section: 01.02

Topic: Types of Homeostatic Mechanisms

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

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

12) Blood clotting is an example of positive feedback since the action of the effector opposes that of the stimulus.

Answer: FALSE

Section: 01.02

Topic: Examples of Homeostatic Mechanisms

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

HAPS Outcome: 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.

13) A patient takes a daily thyroid hormone replacement medication to maintain normal thyroid hormone levels.

Answer: FALSE

Section: 01.02

Topic: Definition of homeostasis

Bloom's: 3. Apply

Accessibility: Keyboard Navigation

HAPS Outcome: B01.01 Define homeostasis.

14) The normal range of blood glucose concentration after fasting is approximately \_\_\_\_\_\_\_\_.

A) 50 to 80 mg/100 ml

B) 50 to 110 mg/100 ml

C) 75 to 110 mg/100 ml

D) 75 to 150 mg/100 ml

Answer: C

Section: 01.02

Topic: Examples of Homeostatic Mechanisms

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

HAPS Outcome: 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.

15) The normal range of arterial blood pH is \_\_\_\_\_\_\_\_.

A) 6.50–7.50

B) 7.35–7.45

C) 6.95–7.05

D) 7.15–7.25

Answer: B

Section: 01.02

Topic: Examples of Homeostatic Mechanisms

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: 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.

16) In a feedback loop, the integrating center sends information to the \_\_\_\_\_\_\_\_.

A) sensor

B) effector

C) brain region

D) thermostat

Answer: B

Section: 01.02

Topic: Types of Homeostatic Mechanisms

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

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

17) Both \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_ are the regulators of effectors in most feedback loops.

A) enzymes, nerve impulses

B) hormones, paracrines

C) neurotransmitters, enzymes

D) hormones, nerve impulses

E) enzymes, hormones

Answer: D

Section: 01.02

Topic: Types of Homeostatic Mechanisms

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

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

18) Homeostatic regulatory mechanisms known as \_\_\_\_\_\_\_\_ are "built-in" to the organs being regulated.

A) intrinsic

B) extrinsic

C) exothermic

D) passive

Answer: A

Section: 01.02

Topic: Types of Homeostatic Mechanisms

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

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

19) The endocrine and nervous systems are considered \_\_\_\_\_\_\_\_ homeostatic regulatory mechanisms.

A) intrinsic

B) active

C) extrinsic

D) passive

Answer: C

Section: 01.02

Topic: Types of Homeostatic Mechanisms

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

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

20) When blood glucose levels rise, the pancreatic islets are stimulated to release insulin, which acts on target cells to uptake glucose from the blood. Thus, the islets serve as the \_\_\_\_\_\_\_\_ in the feedback loop.

A) effectors

B) integrating center

C) sensors

D) All of the choices are correct.

Answer: D

Section: 01.02

Topic: Examples of Homeostatic Mechanisms; Physiology of hormones and hormone secretion

Bloom's: 3. Apply

Accessibility: Keyboard Navigation

HAPS Outcome: 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.

21) A decrease in mean arterial pressure is detected by \_\_\_\_\_\_\_\_.

A) an effector

B) an integrating center

C) a sensor

D) a chemical messenger

Answer: C

Section: 01.02

Topic: Examples of Homeostatic Mechanisms

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

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

22) When a vessel is damaged, chemicals are released from the vessel walls that attract platelets to the site of the damage. As they accumulate, more chemicals that attract more platelets to the area until the bleeding stops. This represents \_\_\_\_\_\_\_\_ feedback, with the platelets acting as the \_\_\_\_\_\_\_\_.

A) negative; sensors

B) positive; integrating center

C) negative; integrating center

D) positive; effectors

Answer: B

Section: 01.02

Topic: Definition of homeostasis

Bloom's: 3. Apply

Accessibility: Keyboard Navigation

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

23) Dynamic constancy is a term used to describe homeostasis. Which of the following is NOT an example of dynamic constancy?

A) Sweating or shivering as you move from inside air-conditioned stores to outside on a hot, humid day

B) Administering IV fluids to a person who presents to the emergency room with dehydration

C) The pancreas releasing insulin when blood glucose levels are significantly elevated

D) Adjusting the depth and rate of breathing if blood pH levels change

Answer: C

Section: 01.02

Topic: Definition of homeostasis

Bloom's: 3. Apply

Accessibility: Keyboard Navigation

HAPS Outcome: B01.01 Define homeostasis.

24) Estrogen levels cause both increased and decreased hormone secretions from the anterior pituitary and hypothalamus at various points in the menstrual cycle. This indicates that \_\_\_\_\_\_\_\_.

A) estrogen is secreted in consistent amounts from the ovaries throughout the menstrual cycle

B) estrogen is not involved in any feedback loops

C) estrogen is involved in both positive and negative feedback with the anterior pituitary and hypothalamus

D) the ovaries serve as the integrating center in a feedback loop with the anterior pituitary and hypothalamus

Answer: D

Section: 01.02

Topic: Examples of Homeostatic Mechanisms

Bloom's: 3. Apply

Accessibility: Keyboard Navigation

HAPS Outcome: 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.

25) The control of hormone secretion by its own effects is called \_\_\_\_\_\_\_\_.

A) positive feedback

B) negative feedback

C) negative feedback inhibition

D) antagonist effector

Answer: C

Section: 01.02

Topic: Types of Homeostatic Mechanisms

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: 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.

26) The primary stimulus for insulin secretion is \_\_\_\_\_\_\_\_.

A) increased blood glucose concentrations

B) increased blood calcium concentrations

C) increased body temperature

D) increased exposure to sunlight

Answer: A

Section: 01.02

Topic: Examples of Homeostatic Mechanisms; Physiology of hormones and hormone secretion

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

HAPS Outcome: 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.

27) If blood glucose levels decrease from normal, which of the following changes takes place to bring glucose levels back to normal?

A) Increase in insulin; increase in glucagon

B) Increase in insulin; decrease in glucagon

C) Decrease in insulin; increase in glucagon

D) Decrease in insulin; decrease in glucagon

Answer: C

Section: 01.02

Topic: Examples of Homeostatic Mechanisms; Physiology of hormones and hormone secretion

Bloom's: 3. Apply

Accessibility: Keyboard Navigation

HAPS Outcome: 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.

28) Which of the following is NOT a primary tissue of the body?

A) Nervous

B) Epithelial

C) Muscular

D) Osseous

Answer: D

Section: 01.03

Topic: Overview of Histology and Tissue Types

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D01.02 List the four major tissue types.

29) Contraction of \_\_\_\_\_\_\_\_ muscle can be consciously controlled.

A) cardiac

B) smooth

C) skeletal

D) striated

Answer: C

Section: 01.03

Topic: Physiology of skeletal muscle contraction

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

HAPS Outcome: D04.02 Describe functions of each type of muscle tissue in the human body and correlate function with structure for each tissue type.

30) Intercalated discs couple \_\_\_\_\_\_\_\_ cells both mechanically and electrically.

A) smooth muscle

B) myocardial

C) skeletal muscle

D) both myocardial and skeletal muscle

Answer: B

Section: 01.03

Topic: Microscopic anatomy, location, and function of muscular tissue

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D04.01 Classify the different types of muscle tissues based on distinguishing structural characteristics and location in the body.

31) You examine a sample of muscle tissue under the microscope, and it has a striped, or striated appearance. This sample could not have been taken from the \_\_\_\_\_\_\_\_.

A) muscle of the thigh

B) wall of digestive tract

C) wall of heart chamber

D) muscle of the forearm

Answer: B

Section: 01.03

Topic: Microscopic anatomy, location, and function of muscular tissue; Identification, location, and comparison of three types of muscle tissue

Bloom's: 3. Apply

Accessibility: Keyboard Navigation

HAPS Outcome: D04.01 Classify the different types of muscle tissues based on distinguishing structural characteristics and location in the body.

32) Which of the following is a characteristic of smooth muscle?

A) Fibers are striated in appearance

B) Attached to the skeleton by tendons

C) Intercalated discs connect adjacent cells

D) Found in the walls of the digestive tract

Answer: D

Section: 01.03

Topic: Microscopic anatomy, location, and function of muscular tissue; Identification, location, and comparison of three types of muscle tissue

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D04.01 Classify the different types of muscle tissues based on distinguishing structural characteristics and location in the body.

33) Neuroglia are supporting cells present in the \_\_\_\_\_\_\_\_.

A) brain

B) spinal cord

C) effector organs

D) Both brain and spinal cord are correct.

Answer: D

Section: 01.03

Topic: Microscopic anatomy, location, and function of nervous tissue; Microscopic anatomy of neuroglia

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D05.02 Describe the structure and function of neurons and neuroglial cells in nervous tissue and correlate function with structure for the different types of neuroglial cells.

34) Damage to the \_\_\_\_\_\_\_\_ of a neuron would interfere with its ability to receive sensory input from its surrounding environment.

A) dendrites

B) axons

C) cell body

D) telodendria

Answer: A

Section: 01.03

Topic: Microscopic anatomy, location, and function of nervous tissue; Microscopic anatomy of neurons

Bloom's: 3. Apply

Accessibility: Keyboard Navigation

HAPS Outcome: D05.02 Describe the structure and function of neurons and neuroglial cells in nervous tissue and correlate function with structure for the different types of neuroglial cells.

35) Which of the following is NOT a function of neuroglia?

A) Bind neurons together

B) Help nourish neurons

C) Conduct impulses to effectors

D) Modify the extracellular environment of neurons

Answer: C

Section: 01.03

Topic: Microscopic anatomy of neuroglia; Microscopic anatomy of neurons

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

HAPS Outcome: D05.02 Describe the structure and function of neurons and neuroglial cells in nervous tissue and correlate function with structure for the different types of neuroglial cells.

36) Stratified epithelial tissue provides little protection, but transports substances between the internal and external environments.

Answer: FALSE

Section: 01.03

Topic: Microscopic anatomy, location, and function of epithelial tissue

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

HAPS Outcome: D02.03 Describe the functions of each type of epithelial tissue in the human body and correlate function with structure for each tissue type.

37) The peritoneal membrane of the abdominal cavity secretes fluid to reduce friction between adjacent organs in the body. The tissue best suited to this description and function is \_\_\_\_\_\_\_\_.

A) stratified squamous

B) elastic connective tissue

C) simple columnar

D) simple squamous

Answer: D

Section: 01.03

Topic: Membranes (mucous, serous, cutaneous, and synovial)

Bloom's: 3. Apply

Accessibility: Keyboard Navigation

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

38) Cells that are as wide as they are tall have a \_\_\_\_\_\_\_\_ shape.

A) squamous

B) cuboidal

C) columnar

D) rectangular

Answer: B

Section: 01.03

Topic: Microscopic anatomy, location, and function of epithelial tissue

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D02.01 Classify the different types of epithelial tissues based on distinguishing structural characteristics.

39) The \_\_\_\_\_\_\_\_ is a protein and polysaccharide layer that attaches epithelial tissue to the underlying connective tissue.

A) goblet cell

B) epidermis

C) basement membrane

D) plasma membrane

Answer: C

Section: 01.03

Topic: Microscopic anatomy, location, and function of epithelial tissue

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D02.02 Describe locations in the body where each type of epithelial tissue can be found.

40) Which types of connections allow epithelial cells to form strong membranes?

A) Basement membranes

B) Intercalated discs

C) Junctional complexes

D) Keratinized

Answer: C

Section: 01.03

Topic: Microscopic anatomy, location, and function of epithelial tissue

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

HAPS Outcome: D02.03 Describe the functions of each type of epithelial tissue in the human body and correlate function with structure for each tissue type.

41) Keratinized epithelium \_\_\_\_\_\_\_\_.

A) has living cells in all layers

B) is a moist membrane

C) allows water to diffuse through

D) is a dry, mostly dead membrane

Answer: D

Section: 01.03

Topic: Microscopic anatomy, location, and function of epithelial tissue; Microscopic anatomy of skin

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

HAPS Outcome: D02.01 Classify the different types of epithelial tissues based on distinguishing structural characteristics.

42) Epithelial tissues that are more than one layer thick are called \_\_\_\_\_\_\_\_.

A) simple

B) stratified

C) squamous

D) ciliated

Answer: B

Section: 01.03

Topic: Microscopic anatomy, location, and function of epithelial tissue

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D02.01 Classify the different types of epithelial tissues based on distinguishing structural characteristics.

43) Histological examination of a tissue shows several layers of keratinized flattened cells. This sample most likely came from \_\_\_\_\_\_\_\_.

A) the epidermis of the skin

B) the lining of the oral cavity

C) the lining of the urinary bladder

D) the lining of the digestive tract

Answer: A

Section: 01.03

Topic: Microscopic anatomy, location, and function of epithelial tissue; Microscopic anatomy of skin

Bloom's: 3. Apply

Accessibility: Keyboard Navigation

HAPS Outcome: D02.01 Classify the different types of epithelial tissues based on distinguishing structural characteristics.; D02.02 Describe locations in the body where each type of epithelial tissue can be found.

44) Which type of epithelial tissue would be found lining the uterine tubes?

A) Simple ciliated columnar epithelium

B) Stratified cuboidal epithelium

C) Nonkeratinized stratified squamous epithelium

D) Simple cuboidal epithelium

Answer: A

Section: 01.03

Topic: Microscopic anatomy, location, and function of epithelial tissue

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D02.02 Describe locations in the body where each type of epithelial tissue can be found.

45) Specialized unicellular glands found in columnar and pseudostratified columnar epithelium that secrete mucus are called \_\_\_\_\_\_\_\_.

A) cilia

B) keratin

C) transitional cells

D) goblet cells

Answer: D

Section: 01.03

Topic: Microscopic anatomy, location, and function of epithelial tissue

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D02.03 Describe the functions of each type of epithelial tissue in the human body and correlate function with structure for each tissue type.

46) A single layer of irregularly shaped epithelial cells found lining the respiratory tract is called \_\_\_\_\_\_\_\_.

A) simple columnar epithelium

B) stratified cuboidal epithelium

C) pseudostratified ciliated columnar epithelium

D) transitional epithelium

Answer: C

Section: 01.03

Topic: Microscopic anatomy, location, and function of epithelial tissue

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D02.01 Classify the different types of epithelial tissues based on distinguishing structural characteristics.; D02.02 Describe locations in the body where each type of epithelial tissue can be found.

47) The epithelial tissue that lines the urinary bladder and allows distention is called \_\_\_\_\_\_\_\_.

A) transitional epithelium

B) stratified cuboidal epithelium

C) simple columnar epithelium

D) nonkeratinized stratified squamous epithelium

Answer: A

Section: 01.03

Topic: Microscopic anatomy, location, and function of epithelial tissue; Microscopic anatomy of the urinary system

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D02.02 Describe locations in the body where each type of epithelial tissue can be found.

48) The entire epidermis is replaced every \_\_\_\_\_\_\_\_.

A) 2–3 days

B) 2 weeks

C) 2–3 hours

D) 2 months

Answer: B

Section: 01.03

Topic: Microscopic anatomy, location, and function of epithelial tissue; Microscopic anatomy of skin

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: E02.01d Describe the processes of growth and keratinization of the epidermis.

49) Which of the following is a function of simple squamous epithelium?

A) Protection

B) Diffusion

C) Distention

D) Transport through ciliary action

Answer: B

Section: 01.03

Topic: Microscopic anatomy, location, and function of epithelial tissue

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D02.03 Describe the functions of each type of epithelial tissue in the human body and correlate function with structure for each tissue type.

50) Sebaceous glands are responsible for the lubrication of the skin.

Answer: TRUE

Section: 01.03

Topic: Glands (exocrine vs. endocrine); Functions of accessory skin structures

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: E04.01b With respect to the following - sweat glands, sebaceous glands, nails, hair, and sensory receptors, describe the location of each structure in the body.; E04.01d With respect to the following - sweat glands, sebaceous glands, nails, hair, and sensory receptors, describe the function of each structure.

51) Which of the following is NOT an example of an exocrine gland?

A) Mucous gland that secretes onto respiratory passages

B) Sweat gland that secretes onto the skin

C) Salivary gland that secretes into the mouth

D) Testes cells that secrete testosterone into the blood

Answer: D

Section: 01.03

Topic: Glands (exocrine vs. endocrine)

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

HAPS Outcome: D07.02 Identify example locations in the body of exocrine and endocrine glands.; D07.03 Classify the different kinds of exocrine glands based on structure and function.

52) Which glands are primarily responsible for thermoregulation?

A) Apocrine sweat glands

B) Endocrine glands

C) Eccrine sweat glands

D) Sebaceous glands

Answer: C

Section: 01.03

Topic: Glands (exocrine vs. endocrine); Functions of accessory skin structures

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: E04.01d With respect to the following - sweat glands, sebaceous glands, nails, hair, and sensory receptors, describe the function of each structure.

53) Enamel, which is harder than bone or dentin, cannot be regenerated.

Answer: TRUE

Section: 01.03

Topic: Microscopic anatomy, location, and function of connective tissue

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

HAPS Outcome: D03.01 Classify the different types of connective tissues based on distinguishing structural characteristics.

54) Which tissue attaches skeletal muscles to bones?

A) Ligaments

B) Cartilages

C) Tendons

D) Adipocytes

Answer: C

Section: 01.03

Topic: Microscopic anatomy, location, and function of connective tissue

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D03.02 Describe locations in the body where each type of connective tissue can be found.

55) Which of the following is the main characteristic of connective tissue?

A) Large amount of closely packed cells

B) Large amount of extracellular material

C) The ability to conduct a current

D) Small amount of extracellular material

Answer: B

Section: 01.03

Topic: Microscopic anatomy, location, and function of connective tissue

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D01.03 Contrast the general features of the four major tissue types.

56) Tendons are composed of \_\_\_\_\_\_\_\_.

A) adipose tissue

B) dense regular fibrous connective tissue

C) dense irregular fibrous connective tissue

D) loose connective tissue

Answer: B

Section: 01.03

Topic: Microscopic anatomy, location, and function of connective tissue

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D03.01 Classify the different types of connective tissues based on distinguishing structural characteristics.

57) What protein is present in large amounts in connective tissue proper?

A) Collagen

B) Keratin

C) Enamel

D) Mucin

Answer: A

Section: 01.03

Topic: Microscopic anatomy, location, and function of connective tissue

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D03.04 Compare and contrast the roles of individual cell types and fiber types within connective tissue.

58) Which type of connective tissue is characterized by a liquid extracellular matrix?

A) Bone

B) Blood

C) Adipose

D) Irregular dense connective tissue

Answer: B

Section: 01.03

Topic: Microscopic anatomy, location, and function of connective tissue

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D03.01 Classify the different types of connective tissues based on distinguishing structural characteristics.

59) The cells that secrete fibers and matrix that create bone tissue are known as \_\_\_\_\_\_\_\_.

A) osteocytes

B) osteoblasts

C) osteons

D) chondrocytes

Answer: B

Section: 01.03

Topic: Microscopic anatomy, location, and function of connective tissue; Microscopic anatomy of bone

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D03.04 Compare and contrast the roles of individual cell types and fiber types within connective tissue.

60) Cartilage cells are known as \_\_\_\_\_\_\_\_.

A) osteocytes

B) osteoblasts

C) chondroblasts

D) chondrocytes

Answer: D

Section: 01.03

Topic: Microscopic anatomy, location, and function of connective tissue

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: D03.04 Compare and contrast the roles of individual cell types and fiber types within connective tissue.

61) Units of bone composed of concentric rings of lamellae with trapped osteocytes are called \_\_\_\_\_\_\_\_.

A) canaliculi

B) osteons

C) haversian systems

D) Both osteons and haversian systems are correct.

Answer: D

Section: 01.03

Topic: Microscopic anatomy, location, and function of connective tissue; Microscopic anatomy of bone

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

HAPS Outcome: D03.01 Classify the different types of connective tissues based on distinguishing structural characteristics.

62) By affecting the diameter of cutaneous blood vessels, motor nerve fibers in the skin can regulate the rate of blood flow.

Answer: TRUE

Section: 01.04

Topic: General functions of skin and the subcutaneous layer

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

HAPS Outcome: E01.01 Describe the general functions of the skin.

63) Which of the following is NOT a function of the epidermis?

A) Acts as barrier against microorganisms

B) Prevents water loss

C) Protects against abrasion

D) Provides strength and elasticity

Answer: D

Section: 01.04

Topic: Integumentary System

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: E03.01a Describe the functions of the epidermis.

64) How does the skin protect a person from the ultraviolet rays of the sun?

A) Produces sweat

B) Produces vitamin D

C) Produces sebum

D) Produces melanin

Answer: D

Section: 01.04

Topic: General functions of skin and the subcutaneous layer

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

HAPS Outcome: E03.01a Describe the functions of the epidermis.

65) What produces "goose bumps"?

A) Secretion of sweat

B) Contraction of the arrector pili muscle

C) Flow of sebum onto the skin

D) Dilation of cutaneous blood vessels

Answer: B

Section: 01.04

Topic: Functions of accessory skin structures

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: E04.01d With respect to the following - sweat glands, sebaceous glands, nails, hair, and sensory receptors, describe the function of each structure.

66) The \_\_\_\_\_\_\_\_ layer of the skin contains sweat glands, hair follicles, and sebaceous glands.

A) epidermal

B) dermal

C) hypodermal

D) subdermal

Answer: B

Section: 01.04

Topic: Gross anatomy of skin

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: E04.01b With respect to the following - sweat glands, sebaceous glands, nails, hair, and sensory receptors, describe the location of each structure in the body.; E02.02 Identify and describe the dermis and its layers, including the tissue types making up each dermal layer.

67) The hypodermis is primarily composed of \_\_\_\_\_\_\_\_.

A) adipose tissue

B) nervous tissue

C) blood vessels

D) hair cells

Answer: A

Section: 01.04

Topic: Functions of the subcutaneous layer

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: E02.03 Identify and describe the subcutaneous tissue, including the tissue types making up subcutaneous tissue.

68) The zygote (fertilized egg) has the ability to produce all the various types of cells found in the body. Therefore, it is a(n) \_\_\_\_\_\_\_\_ cell.

A) pluripotent

B) multipotent

C) totipotent

D) omnipotent

Answer: C

Section: 01.04

Topic: Somatic cell division

Bloom's: 3. Apply

Accessibility: Keyboard Navigation

HAPS Outcome: C12.05 Give examples of cell types in the body that divide by mitosis and examples of circumstance in the body that require mitotic cell division.

69) Adult stem cells may be found in \_\_\_\_\_\_\_\_.

A) hair follicles

B) the brain

C) red bone marrow

D) skeletal muscle

E) All of the choices are correct.

Answer: E

Section: 01.04

Topic: Somatic cell division

Bloom's: 1. Remember

Accessibility: Keyboard Navigation

HAPS Outcome: C12.05 Give examples of cell types in the body that divide by mitosis and examples of circumstance in the body that require mitotic cell division.

70) Blood plasma and interstitial fluid are separated from each other; therefore, there is little communication and exchange between these fluids.

Answer: FALSE

Section: 01.04

Topic: Introduction to body fluids and fluid compartments

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

HAPS Outcome: Q02.01 Describe the fluid compartments (including the subdivisions of the extracellular fluid) and state the relative volumes of each.

71) Which of the following is FALSE regarding the extracellular fluid compartment?

A) It is made up of blood plasma and interstitial fluid.

B) Its volume is regulated by the kidneys.

C) It makes up 65% of the total body water.

D) It communicates with the intracellular fluid compartment.

Answer: C

Section: 01.04

Topic: Introduction to body fluids and fluid compartments

Bloom's: 2. Understand

Accessibility: Keyboard Navigation

HAPS Outcome: Q02.01 Describe the fluid compartments (including the subdivisions of the extracellular fluid) and state the relative volumes of each.