

Student: \_\_\_\_\_

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.
2. The study of how disease or injury alters physiological processes is termed
  - A. comparative physiology.
  - B. the scientific method.
  - C. pathophysiology.
  - D. anatomy.
3. The study of disease processes aids in the understanding of normal functions.  
True False
4. The study of comparative physiology has aided in the development of pharmaceutical drugs for humans.  
  
True False
5. The scientific method is only concerned with experimentation.  
True False
6. Scientific theories are based on a single hypothesis.  
True False
7. The first step in the scientific method involves the formation of a(n)
  - A. theory.
  - B. law.
  - C. experiment.
  - D. hypothesis.
8. 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.  
True False
9. \_\_\_\_\_ 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. Phase I clinical
  - B. Phase II clinical
  - C. Phase III clinical
  - D. Phase IV clinical
10. Which of the following is NOT part of a phase I clinical trial?
  - 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

11. 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
12. It is NOT possible to determine whether the data collected in an experiment are different between the control and experimental groups unless the scientist employs the use of the mathematical tools of
  - A. algebra.
  - B. trigonometry.
  - C. statistics.
  - D. graphing.
13. A hypothesis is scientific if it
  - A. supports other hypotheses.
  - B. can be tested.
  - C. refutes other hypotheses.
  - D. uses observational analyses.
14. For a theory to be scientific and accepted, it must be based on
  - A. reproducible data.
  - B. blind faith.
  - C. a single hypothesis.
  - D. the word of a professional scientist.
15. Aristotle is considered the father of physiology because he attempted to apply physical laws to the study of human function.  
True False
16. Whose work brought physiology to be accepted as a true experimental science?
  - A. Sir Henry Dale
  - B. Walter Cannon
  - C. William Harvey
  - D. John Macleod
17. The term homeostasis was coined by Walter Cannon to describe the constancy of the *milieu interieur*.  
True False
18. The Nobel Prize was awarded to \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ for determining the structure of DNA.
  - A. Watson, Krebs, Buck
  - B. Crick, Wilkins, Watson
  - C. Buck, Axel, Pavlov
  - D. Krebs, Sperry, Huxley
19. Negative feedback results in a response that opposes that of the original deviation from normal.  
True False
20. Blood clotting is an example of positive feedback since the action of the effector amplifies that of the stimulus.  
True False
21. An integrating center of a negative feedback loop has the function of analyzing information from many different sensors about deviations from a set point and then altering the activity of particular effectors to compensate for the deviation.  
True False

22. Endocrine gland secretion is often controlled by the nervous system.  
True False
23. The secretion of many hormones is regulated through negative feedback inhibition.  
True False
24. Homeostasis is best described as a static, unchanging state of the internal environment.  
True False
25. \_\_\_\_\_ mg/100 ml is the approximate normal range of blood glucose concentration after fasting.
- A. 0 to 80
  - B. 50 to 150
  - C. 75 to 110
  - D. 90 to 120
26. 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.
27. An integrating center sends information to a(n)
- A. sensor.
  - B. effector.
  - C. brain region.
  - D. thermostat.
28. The endocrine regulation of blood glucose concentration is an example of a(n)
- A. antagonistic effector.
  - B. positive feedback loop.
  - C. negative feedback loop.
  - D. Both antagonistic effector and negative feedback loop are correct.
29. \_\_\_\_\_ and \_\_\_\_\_ are often regulators of effectors in most feedback loops.
- A. Enzymes, neurotransmitters
  - B. Hormones, neurotransmitters
  - C. Nerves, enzymes
  - D. Hormones, nerves
  - E. Enzymes, hormones
30. Endocrine glands secrete \_\_\_\_\_ in response to specific stimuli.
- A. enzymes
  - B. hormones
  - C. water
  - D. mucus
31. \_\_\_\_\_ homeostatic regulatory mechanisms are "built-in" to the organs being regulated.
- A. Intrinsic
  - B. Extrinsic
  - C. Exothermic
  - D. Passive
32. The endocrine and nervous systems are considered \_\_\_\_\_ homeostatic regulatory mechanisms.
- A. intrinsic
  - B. active
  - C. extrinsic
  - D. passive

33. Insulin is secreted from structures called
- A. pancreatic islets.
  - B. sebaceous glands.
  - C. apocrine glands.
  - D. intercalated discs.
34. A decrease in mean arterial pressure is detected by
- A. an effector.
  - B. an integrating center.
  - C. a sensor.
  - D. a chemical messenger.
35. In positive feedback mechanisms, the action of an effector is
- A. unchanged.
  - B. increased.
  - C. decreased.
  - D. decreased, then increased.
36. The nervous and immune systems are primarily involved in maintaining homeostasis.  
True False
37. Homeostasis is best thought of as being a state of
- A. constant fluctuation.
  - B. stasis.
  - C. dynamic constancy.
  - D. inconsistency.
38. Negative feedback is NOT involved in the regulation of
- A. body temperature.
  - B. blood glucose concentrations.
  - C. blood calcium concentrations.
  - D. blood clotting.
39. The control of hormone secretion by its own effects is called
- A. positive feedback.
  - B. negative feedback.
  - C. negative feedback inhibition.
  - D. antagonist effector.
40. 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.
41. 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
42. Which of the following is NOT an example of positive feedback?
- A. LH surge
  - B. labor contractions
  - C. blood glucose maintenance
  - D. blood clotting

43. Tissues are groups of cells that have similar functions.  
True False
44. Organs involved in carrying out related functions are grouped into systems.  
True False
45. Organs are comprised of groupings of the four primary tissues into structural and functional units.  
True False
46. Which of the following is NOT a primary tissue of the body?  
A. nervous  
B. epithelium  
C. muscular  
D. osseous
47. Muscle found in association with blood vessels would be striated.  
True False
48. Intercalated discs would be found in muscles attached to the skeleton.  
True False
49. Myofibers are formed from fused myoblasts and thus each of these muscle cells is actually a syncytium.  
True False
50. All skeletal muscles cause movement of the skeleton.  
True False
51. Contraction of \_\_\_\_\_ muscle can be consciously controlled.  
A. cardiac  
B. smooth  
C. skeletal
52. Intercalated discs couple \_\_\_\_\_ cells both mechanically and electrically.  
A. smooth muscle  
B. myocardial  
C. skeletal muscle  
D. both myocardial and skeletal muscle
53. \_\_\_\_\_ is a series of wavelike contractions of circular and longitudinal layers of smooth muscle that push food from one end of the digestive tract to the other.  
A. Peristalsis  
B. Locomotion  
C. Negative feedback inhibition  
D. A graded contraction
54. These muscle cells do NOT have a striated appearance.  
A. skeletal muscle cells  
B. smooth muscle cells  
C. cardiac muscle cells  
D. both smooth muscle cells and cardiac muscle cells
55. Which of the following is a characteristic of smooth muscle?  
A. The cells are branched.  
B. These cells are attached to skeletal bones by tendons.  
C. Intercalated discs connect adjacent cells.  
D. These cells are found in the digestive tract.
56. Nervous tissue is specialized to produce and conduct electrical impulses.  
True False

57. Which of the following is NOT one of the three main parts of a neuron?
- A. dendrites
  - B. cell body
  - C. neurofibrils
  - D. axon
58. Neuroglial cells are supporting cells present in the
- A. brain.
  - B. spinal cord.
  - C. effector organs.
  - D. Both the brain and spinal cord.
59. The highly branched extensions of a neuron whose function is to receive input from other neurons or receptor cells are called
- A. dendrites.
  - B. axons.
  - C. cell bodies.
  - D. glia.
60. 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
61. Transitional epithelium consists of a single layer of rounded, nonkeratinized cells which function to strengthen luminal walls.  
True False
62. Epithelial membranes cover body surfaces and line the cavity of organs.  
True False
63. Stratified epithelial membranes provide little protection but transport substances between the internal and external environments.  
True False
64. Membranes can be formed by \_\_\_\_\_ tissue.
- A. nervous
  - B. muscular
  - C. neuroglial
  - D. epithelial
65. Cells that are as wide as they are tall have a(n) \_\_\_\_\_ shape.
- A. squamous
  - B. cuboidal
  - C. columnar
  - D. rectangular
66. 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

67. What kind of connections allow epithelial cells to form strong membranes?
- A. basement membranes
  - B. intercalated discs
  - C. junctional complexes
  - D. keratinized
68. 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.
69. Epithelial membranes that are more than one layer thick are called
- A. simple.
  - B. stratified.
  - C. squamous.
  - D. ciliated.
70. Histological examination of a membrane 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.
71. Which type of epithelial membrane 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
72. Specialized unicellular glands found in columnar and pseudostratified columnar epithelium that secrete mucus are
- A. cilia.
  - B. keratin.
  - C. transitional cells.
  - D. goblet cells.
73. 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.
74. The primary structural protein of basement membranes is
- A. keratin.
  - B. collagen
  - C. melanin.
  - D. myosin.
75. Specialized epithelial cells that line the urinary bladder that allow distention are called
- A. transitional epithelium.
  - B. stratified cuboidal epithelium.
  - C. simple columnar epithelium.
  - D. nonkeratinized stratified squamous epithelium.

76. The lining of the stomach is renewed every
- A. 2-3 days.
  - B. 2 weeks.
  - C. 2-3 hours.
  - D. 2 months.
77. The entire epidermis is replaced every
- A. 2-3 days.
  - B. 2 weeks.
  - C. 2-3 hours.
  - D. 2 months.
78. Epithelial tissue will bleed profusely when cut.  
True False
79. Which of the following is a function of simple squamous epithelium?
- A. protection
  - B. diffusion
  - C. distention
  - D. transport through ciliary action
80. Bacteria are responsible for the characteristic body odor of apocrine sweat.  
True False
81. Sebaceous glands are responsible for the lubrication of the skin.  
True False
82. One exocrine function of the skin is the synthesis and secretion of melanin from the sebaceous glands.  
True False
83. \_\_\_\_\_ glands secrete chemicals through a duct that leads to the outside of a membrane.
- A. Endocrine
  - B. Exocrine
84. All glands that secrete into the digestive tract are
- A. endocrine.
  - B. exocrine.
  - C. sebaceous glands.
  - D. both endocrine and exocrine.
85. 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
86. Clusters of cells in exocrine glands are termed
- A. goblet cells.
  - B. acini (acinar) cells.
  - C. islet cells.
  - D. reticular cells.
87. Thermoregulation directly involves
- A. apocrine sweat glands.
  - B. endocrine glands.
  - C. eccrine sweat glands.
  - D. sebaceous glands.



88. Enamel, which is harder than bone or dentin, cannot be regenerated.  
True False
89. \_\_\_\_\_ attach skeletal muscles to bones.  
A. Ligaments  
B. Cartilages  
C. Tendons  
D. Adipocytes
90. Osteocytes are found within  
A. canaliculi.  
B. dentin.  
C. lamellae.  
D. lacunae.
91. What feature 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
92. Tendons are composed of  
A. adipose tissue.  
B. dense regular fibrous connective tissue.  
C. dense irregular fibrous connective tissue.  
D. loose connective tissue.
93. What protein is present in large amounts in connective tissue proper?  
A. collagen  
B. keratin  
C. enamel  
D. mucin
94. Which of the following is NOT a type of connective tissue?  
A. blood  
B. cartilage  
C. neuroglia  
D. bone
95. Which type of connective tissue is characterized by a liquid extracellular matrix?  
A. bone  
B. blood  
C. adipose  
D. irregular dense connective tissue
96. Bone-forming cells are known as  
A. osteocytes.  
B. osteoblasts.  
C. osteons.  
D. chondrocytes.
97. Fat is a type of connective tissue.  
True False
98. Cartilage cells are known as  
A. osteocytes.  
B. osteoblasts.  
C. osteons.  
D. chondrocytes.

99. Units of bone composed of concentric rings of lamellae with their trapped osteocytes are called
- canaliculi.
  - osteons.
  - haversian systems.
  - Both osteons and haversian systems.
100. Vitamin D produced in the skin may function as a hormone.  
True False
101. By affecting the diameter of cutaneous blood vessels, motor nerve fibers in the skin can regulate the rate of blood flow.  
True False
102. Which of the following is NOT a function of the epidermis?
- a barrier against microorganisms
  - prevents water loss
  - protects against abrasion
  - provides sensations of touch and pain
103. How does the skin protect a person from the ultraviolet rays of the sun?
- produces sweat
  - produces vitamin D
  - produces sebum
  - produces melanin
104. What produces "goose bumps"?
- secretion of sweat
  - contraction of the arrector pili muscle
  - flow of sebum onto the skin
  - dilation of cutaneous blood vessels
105. The \_\_\_\_\_ layer of the skin contains sweat glands, hair follicles, and sebaceous glands.
- epidermal
  - dermal
  - hypodermal
106. Which of the following is found primarily within the hypodermal layer of the skin?
- adipose tissue
  - nervous tissue
  - blood vessels
  - hair cells
107. The zygote (fertilized egg) has the ability to produce all the various types of cells found in the body. This ability is known as
- pluripotent.
  - multipotent.
  - totipotent.
  - omnipotent.
108. Adult stem cells may be found in
- hair follicles.
  - the brain.
  - red bone marrow.
  - skeletal muscle.
  - All apply.
109. Adult stem cells can form a variety of related cells and are therefore described as multipotent.  
True False

110. Embryonic stem cells can form unrelated cell types, so they are considered
- A. pluripotent.
  - B. multipotent.
  - C. totipotent.
  - D. omnipotent.
111. Which of the following is NOT a major organ of the circulatory system?
- A. spleen
  - B. heart
  - C. lymphatic vessels
  - D. blood vessels
112. Which organ system is primarily involved in regulation of blood volume and composition?
- A. the urinary system
  - B. the digestive system
  - C. the circulatory system
  - D. the integumentary system
113. Which of the following is NOT a major organ of the integumentary system?
- A. hair
  - B. nails
  - C. cartilage
  - D. skin
114. Which organ system provides protection and thermoregulation?
- A. the urinary system
  - B. the digestive system
  - C. the circulatory system
  - D. the integumentary system
115. Blood plasma and interstitial fluid are separated from each other and there is little communication and exchange between these fluids.  
True False
116. Since the intracellular and extracellular compartments consist primarily of water, they are said to be
- A. hydrophobic.
  - B. colloids.
  - C. aqueous.
  - D. blood.
117. The main body compartment that is inside cells is the \_\_\_\_ compartment.
- A. extracellular
  - B. interstitial
  - C. intercellular
  - D. intracellular
118. Which of the following is NOT true of 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. All are true.

# 1 Key

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.
2. The study of how disease or injury alters physiological processes is termed  
A. comparative physiology.  
B. the scientific method.  
**C.** pathophysiology.  
D. anatomy.
3. The study of disease processes aids in the understanding of normal functions.  
**TRUE**
4. The study of comparative physiology has aided in the development of pharmaceutical drugs for humans.  
**TRUE**
5. The scientific method is only concerned with experimentation.  
**FALSE**
6. Scientific theories are based on a single hypothesis.  
**FALSE**
7. The first step in the scientific method involves the formation of a(n)  
A. theory.  
B. law.  
C. experiment.  
**D.** hypothesis.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #1  
Learning Outcome: 01.01  
Section: 01.01  
Topic: General*

*Blooms Level: 1. Remember  
Fox - Chapter 01 #2  
Learning Outcome: 01.01  
Section: 01.01  
Topic: General*

*Blooms Level: 2. Understand  
Fox - Chapter 01 #3  
Learning Outcome: 01.01  
Section: 01.01  
Topic: General*

*Blooms Level: 1. Remember  
Fox - Chapter 01 #4  
Learning Outcome: 01.01  
Section: 01.01  
Topic: General*

*Blooms Level: 1. Remember  
Fox - Chapter 01 #5  
Learning Outcome: 01.02  
Section: 01.01  
Topic: General*

*Blooms Level: 1. Remember  
Fox - Chapter 01 #6  
Learning Outcome: 01.02  
Section: 01.01  
Topic: General*

*Blooms Level: 1. Remember  
Fox - Chapter 01 #7  
Learning Outcome: 01.02  
Section: 01.01  
Topic: General*

8. 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.

**FALSE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #8  
Learning Outcome: 01.02  
Section: 01.01  
Topic: General*

9. \_\_\_\_\_ 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. Phase I clinical
  - B. Phase II clinical
  - C.** Phase III clinical
  - D. Phase IV clinical

*Blooms Level: 1. Remember  
Fox - Chapter 01 #9  
Learning Outcome: 01.02  
Section: 01.01  
Topic: General*

10. Which of the following is NOT part of a phase I clinical trial?
- 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

*Blooms Level: 2. Understand  
Fox - Chapter 01 #10  
Learning Outcome: 01.02  
Section: 01.01  
Topic: General*

11. 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

*Blooms Level: 1. Remember  
Fox - Chapter 01 #11  
Learning Outcome: 01.02  
Section: 01.01  
Topic: General*

12. It is NOT possible to determine whether the data collected in an experiment are different between the control and experimental groups unless the scientist employs the use of the mathematical tools of
- A. algebra.
  - B. trigonometry.
  - C.** statistics.
  - D. graphing.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #12  
Learning Outcome: 01.02  
Section: 01.01  
Topic: General*

13. A hypothesis is scientific if it
- A. supports other hypotheses.
  - B.** can be tested.
  - C. refutes other hypotheses.
  - D. uses observational analyses.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #13  
Learning Outcome: 01.02  
Section: 01.01  
Topic: General*

14. For a theory to be scientific and accepted, it must be based on  
**A.** reproducible data.  
B. blind faith.  
C. a single hypothesis.  
D. the word of a professional scientist.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #14  
Learning Outcome: 01.02  
Section: 01.01  
Topic: General*

15. Aristotle is considered the father of physiology because he attempted to apply physical laws to the study of human function.  
**FALSE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #15  
Learning Outcome: 01.01  
Section: 01.02  
Topic: General*

16. Whose work brought physiology to be accepted as a true experimental science?  
A. Sir Henry Dale  
B. Walter Cannon  
**C.** William Harvey  
D. John Macleod

*Blooms Level: 1. Remember  
Fox - Chapter 01 #16  
Learning Outcome: 01.01  
Section: 01.02  
Topic: General*

17. The term homeostasis was coined by Walter Cannon to describe the constancy of the *milieu interieur*.  
**TRUE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #17  
Learning Outcome: 01.01  
Section: 01.02  
Topic: General*

18. The Nobel Prize was awarded to \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ for determining the structure of DNA.  
A. Watson, Krebs, Buck  
**B.** Crick, Wilkins, Watson  
C. Buck, Axel, Pavlov  
D. Krebs, Sperry, Huxley

*Blooms Level: 1. Remember  
Fox - Chapter 01 #18  
Learning Outcome: 01.01  
Section: 01.02  
Topic: General*

19. Negative feedback results in a response that opposes that of the original deviation from normal.  
**TRUE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #19  
Learning Outcome: 01.03  
Section: 01.02  
Topic: General*

20. Blood clotting is an example of positive feedback since the action of the effector amplifies that of the stimulus.  
**TRUE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #20  
Learning Outcome: 01.04  
Section: 01.02  
Topic: General*

21. An integrating center of a negative feedback loop has the function of analyzing information from many different sensors about deviations from a set point and then altering the activity of particular effectors to compensate for the deviation.

**TRUE**

*Blooms Level: 2. Understand  
Fox - Chapter 01 #21  
Learning Outcome: 01.05  
Section: 01.02  
Topic: General*

22. Endocrine gland secretion is often controlled by the nervous system.

**TRUE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #22  
Learning Outcome: 01.05  
Section: 01.02  
Topic: General*

23. The secretion of many hormones is regulated through negative feedback inhibition.

**TRUE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #23  
Learning Outcome: 01.05  
Section: 01.02  
Topic: General*

24. Homeostasis is best described as a static, unchanging state of the internal environment.

**FALSE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #24  
Learning Outcome: 01.03  
Section: 01.02  
Topic: General*

25. \_\_\_\_\_ mg/100 ml is the approximate normal range of blood glucose concentration after fasting.

- A. 0 to 80
- B. 50 to 150
- C.** 75 to 110
- D. 90 to 120

*Blooms Level: 1. Remember  
Fox - Chapter 01 #25  
Learning Outcome: 01.05  
Section: 01.02  
Topic: General*

26. 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.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #26  
Learning Outcome: 01.03  
Section: 01.02  
Topic: General*

27. An integrating center sends information to a(n)

- A. sensor.
- B.** effector.
- C. brain region.
- D. thermostat.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #27  
Learning Outcome: 01.03  
Section: 01.02  
Topic: General*

28. The endocrine regulation of blood glucose concentration is an example of a(n)  
A. antagonistic effector.  
B. positive feedback loop.  
C. negative feedback loop.  
**D.** Both antagonistic effector and negative feedback loop are correct.

*Blooms Level: 2. Understand  
Fox - Chapter 01 #28  
Learning Outcome: 01.04  
Section: 01.02  
Topic: General*

29. \_\_\_\_\_ and \_\_\_\_\_ are often regulators of effectors in most feedback loops.  
A. Enzymes, neurotransmitters  
B. Hormones, neurotransmitters  
C. Nerves, enzymes  
**D.** Hormones, nerves  
E. Enzymes, hormones

*Blooms Level: 1. Remember  
Fox - Chapter 01 #29  
Learning Outcome: 01.05  
Section: 01.02  
Topic: General*

30. Endocrine glands secrete \_\_\_\_\_ in response to specific stimuli.  
A. enzymes  
**B.** hormones  
C. water  
D. mucus

*Blooms Level: 1. Remember  
Fox - Chapter 01 #30  
Learning Outcome: 01.05  
Section: 01.02  
Topic: General*

31. \_\_\_\_\_ homeostatic regulatory mechanisms are "built-in" to the organs being regulated.  
**A.** Intrinsic  
B. Extrinsic  
C. Exothermic  
D. Passive

*Blooms Level: 1. Remember  
Fox - Chapter 01 #31  
Learning Outcome: 01.03  
Section: 01.02  
Topic: General*

32. The endocrine and nervous systems are considered \_\_\_\_\_ homeostatic regulatory mechanisms.  
A. intrinsic  
B. active  
**C.** extrinsic  
D. passive

*Blooms Level: 2. Understand  
Fox - Chapter 01 #32  
Learning Outcome: 01.05  
Section: 01.02  
Topic: General*

33. Insulin is secreted from structures called  
**A.** pancreatic islets.  
B. sebaceous glands.  
C. apocrine glands.  
D. intercalated discs.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #33  
Learning Outcome: 01.05  
Section: 01.02  
Topic: General*



34. A decrease in mean arterial pressure is detected by  
A. an effector.  
B. an integrating center.  
**C.** a sensor.  
D. a chemical messenger.

*Blooms Level: 2. Understand  
Fox - Chapter 01 #34  
Learning Outcome: 01.03  
Section: 01.02  
Topic: General*

35. In positive feedback mechanisms, the action of an effector is  
A. unchanged.  
**B.** increased.  
C. decreased.  
D. decreased, then increased.

*Blooms Level: 2. Understand  
Fox - Chapter 01 #35  
Learning Outcome: 01.04  
Section: 01.02  
Topic: General*

36. The nervous and immune systems are primarily involved in maintaining homeostasis.  
**FALSE**

*Blooms Level: 2. Understand  
Fox - Chapter 01 #36  
Learning Outcome: 01.05  
Section: 01.02  
Topic: General*

37. Homeostasis is best thought of as being a state of  
A. constant fluctuation.  
B. stasis.  
**C.** dynamic constancy.  
D. inconsistency.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #37  
Learning Outcome: 01.03  
Section: 01.02  
Topic: General*

38. Negative feedback is NOT involved in the regulation of  
A. body temperature.  
B. blood glucose concentrations.  
C. blood calcium concentrations.  
**D.** blood clotting.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #38  
Learning Outcome: 01.03  
Section: 01.02  
Topic: General*

39. The control of hormone secretion by its own effects is called  
A. positive feedback.  
B. negative feedback.  
**C.** negative feedback inhibition.  
D. antagonist effector.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #39  
Learning Outcome: 01.05  
Section: 01.02  
Topic: General*

40. 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.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #40  
Learning Outcome: 01.05  
Section: 01.02  
Topic: General*

41. 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

*Blooms Level: 2. Understand  
Fox - Chapter 01 #41  
Learning Outcome: 01.05  
Section: 01.02  
Topic: General*

42. Which of the following is NOT an example of positive feedback?  
A. LH surge  
B. labor contractions  
**C.** blood glucose maintenance  
D. blood clotting

*Blooms Level: 2. Understand  
Fox - Chapter 01 #42  
Learning Outcome: 01.04  
Section: 01.02  
Topic: General*

43. Tissues are groups of cells that have similar functions.  
**TRUE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #43  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

44. Organs involved in carrying out related functions are grouped into systems.  
**TRUE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #44  
Learning Outcome: 01.07  
Section: 01.03  
Topic: Histology*

45. Organs are comprised of groupings of the four primary tissues into structural and functional units.  
**TRUE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #45  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

46. Which of the following is NOT a primary tissue of the body?  
A. nervous  
B. epithelium  
C. muscular  
**D.** osseous

*Blooms Level: 1. Remember  
Fox - Chapter 01 #46  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

47. Muscle found in association with blood vessels would be striated.

**FALSE**

*Blooms Level: 2. Understand  
Fox - Chapter 01 #47  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

48. Intercalated discs would be found in muscles attached to the skeleton.

**FALSE**

*Blooms Level: 2. Understand  
Fox - Chapter 01 #48  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

49. Myofibers are formed from fused myoblasts and thus each of these muscle cells is actually a syncytium.

**TRUE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #49  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

50. All skeletal muscles cause movement of the skeleton.

**FALSE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #50  
Learning Outcome: 01.07  
Section: 01.03  
Topic: Histology*

51. Contraction of \_\_\_\_\_ muscle can be consciously controlled.

- A. cardiac
- B. smooth
- C.** skeletal

*Blooms Level: 1. Remember  
Fox - Chapter 01 #51  
Learning Outcome: 01.07  
Section: 01.03  
Topic: Histology*

52. Intercalated discs couple \_\_\_\_\_ cells both mechanically and electrically.

- A. smooth muscle
- B.** myocardial
- C. skeletal muscle
- D. both myocardial and skeletal muscle

*Blooms Level: 1. Remember  
Fox - Chapter 01 #52  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

53. \_\_\_\_\_ is a series of wavelike contractions of circular and longitudinal layers of smooth muscle that push food from one end of the digestive tract to the other.

- A.** Peristalsis
- B. Locomotion
- C. Negative feedback inhibition
- D. A graded contraction

*Blooms Level: 1. Remember  
Fox - Chapter 01 #53  
Learning Outcome: 01.07  
Section: 01.03  
Topic: Histology*

54. These muscle cells do NOT have a striated appearance.
- A. skeletal muscle cells
  - B.** smooth muscle cells
  - C. cardiac muscle cells
  - D. both smooth muscle cells and cardiac muscle cells

*Blooms Level: 1. Remember  
Fox - Chapter 01 #54  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

55. Which of the following is a characteristic of smooth muscle?
- A. The cells are branched.
  - B. These cells are attached to skeletal bones by tendons.
  - C. Intercalated discs connect adjacent cells.
  - D.** These cells are found in the digestive tract.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #55  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

56. Nervous tissue is specialized to produce and conduct electrical impulses.  
**TRUE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #56  
Learning Outcome: 01.07  
Section: 01.03  
Topic: Histology*

57. Which of the following is NOT one of the three main parts of a neuron?
- A. dendrites
  - B. cell body
  - C.** neurofibrils
  - D. axon

*Blooms Level: 1. Remember  
Fox - Chapter 01 #57  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

58. Neuroglial cells are supporting cells present in the
- A. brain.
  - B. spinal cord.
  - C. effector organs.
  - D.** Both the brain and spinal cord.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #58  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

59. The highly branched extensions of a neuron whose function is to receive input from other neurons or receptor cells are called
- A.** dendrites.
  - B. axons.
  - C. cell bodies.
  - D. glia.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #59  
Learning Outcome: 01.07  
Section: 01.03  
Topic: Histology*

60. 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

*Blooms Level: 2. Understand  
Fox - Chapter 01 #60  
Learning Outcome: 01.07  
Section: 01.03  
Topic: Histology*

61. Transitional epithelium consists of a single layer of rounded, nonkeratinized cells which function to strengthen luminal walls.  
**FALSE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #61  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

62. Epithelial membranes cover body surfaces and line the cavity of organs.  
**TRUE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #62  
Learning Outcome: 01.07  
Section: 01.03  
Topic: Histology*

63. Stratified epithelial membranes provide little protection but transport substances between the internal and external environments.  
**FALSE**

*Blooms Level: 2. Understand  
Fox - Chapter 01 #63  
Learning Outcome: 01.07  
Section: 01.03  
Topic: Histology*

64. Membranes can be formed by \_\_\_\_\_ tissue.  
A. nervous  
B. muscular  
C. neuroglial  
**D. epithelial**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #64  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

65. Cells that are as wide as they are tall have a(n) \_\_\_\_\_ shape.  
A. squamous  
**B. cuboidal**  
C. columnar  
D. rectangular

*Blooms Level: 1. Remember  
Fox - Chapter 01 #65  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

66. 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

*Blooms Level: 1. Remember  
Fox - Chapter 01 #66  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

67. What kind of connections allow epithelial cells to form strong membranes?  
A. basement membranes  
B. intercalated discs  
**C.** junctional complexes  
D. keratinized

*Blooms Level: 1. Remember  
Fox - Chapter 01 #67  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

68. 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.

*Blooms Level: 2. Understand  
Fox - Chapter 01 #68  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology  
Topic: Integumentary System*

69. Epithelial membranes that are more than one layer thick are called  
A. simple.  
**B.** stratified.  
C. squamous.  
D. ciliated.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #69  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

70. Histological examination of a membrane 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.

*Blooms Level: 2. Understand  
Fox - Chapter 01 #70  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

71. Which type of epithelial membrane 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

*Blooms Level: 1. Remember  
Fox - Chapter 01 #71  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

72. Specialized unicellular glands found in columnar and pseudostratified columnar epithelium that secrete mucus are  
A. cilia.  
B. keratin.  
C. transitional cells.  
**D.** goblet cells.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #72  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

73. 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.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #73  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

74. The primary structural protein of basement membranes is
- A. keratin.
  - B.** collagen
  - C. melanin.
  - D. myosin.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #74  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

75. Specialized epithelial cells that line the urinary bladder that allow distention are called
- A.** transitional epithelium.
  - B. stratified cuboidal epithelium.
  - C. simple columnar epithelium.
  - D. nonkeratinized stratified squamous epithelium.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #75  
Learning Outcome: 01.07  
Section: 01.03  
Topic: Histology*

76. The lining of the stomach is renewed every
- A.** 2-3 days.
  - B. 2 weeks.
  - C. 2-3 hours.
  - D. 2 months.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #76  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

77. The entire epidermis is replaced every
- A. 2-3 days.
  - B.** 2 weeks.
  - C. 2-3 hours.
  - D. 2 months.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #77  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

78. Epithelial tissue will bleed profusely when cut.  
**FALSE**

*Blooms Level: 2. Understand  
Fox - Chapter 01 #78  
Learning Outcome: 01.07  
Section: 01.03  
Topic: Histology*

79. Which of the following is a function of simple squamous epithelium?  
A. protection  
**B.** diffusion  
C. distention  
D. transport through ciliary action

*Blooms Level: 1. Remember  
Fox - Chapter 01 #79  
Learning Outcome: 01.07  
Section: 01.03  
Topic: Histology*

80. Bacteria are responsible for the characteristic body odor of apocrine sweat.  
**TRUE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #80  
Learning Outcome: 01.07  
Section: 01.03  
Topic: Integumentary System*

81. Sebaceous glands are responsible for the lubrication of the skin.  
**TRUE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #81  
Learning Outcome: 01.07  
Section: 01.03  
Topic: Integumentary System*

82. One exocrine function of the skin is the synthesis and secretion of melanin from the sebaceous glands.  
**FALSE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #82  
Learning Outcome: 01.07  
Section: 01.03  
Topic: Integumentary System*

83. \_\_\_\_\_ glands secrete chemicals through a duct that leads to the outside of a membrane.  
A. Endocrine  
**B.** Exocrine

*Blooms Level: 1. Remember  
Fox - Chapter 01 #83  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

84. All glands that secrete into the digestive tract are  
A. endocrine.  
**B.** exocrine.  
C. sebaceous glands.  
D. both endocrine and exocrine.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #84  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

85. 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

*Blooms Level: 2. Understand  
Fox - Chapter 01 #85  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*



86. Clusters of cells in exocrine glands are termed  
A. goblet cells.  
**B.** acini (acinar) cells.  
C. islet cells.  
D. reticular cells.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #86  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

87. Thermoregulation directly involves  
A. apocrine sweat glands.  
B. endocrine glands.  
**C.** eccrine sweat glands.  
D. sebaceous glands.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #87  
Learning Outcome: 01.07  
Section: 01.03  
Topic: Integumentary System*

88. Enamel, which is harder than bone or dentin, cannot be regenerated.  
**TRUE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #88  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

89. \_\_\_\_\_ attach skeletal muscles to bones.  
A. Ligaments  
B. Cartilages  
**C.** Tendons  
D. Adipocytes

*Blooms Level: 1. Remember  
Fox - Chapter 01 #89  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

90. Osteocytes are found within  
A. canaliculi.  
B. dentin.  
C. lamellae.  
**D.** lacunae.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #90  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

91. What feature 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

*Blooms Level: 1. Remember  
Fox - Chapter 01 #91  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

92. Tendons are composed of  
A. adipose tissue.  
**B.** dense regular fibrous connective tissue.  
C. dense irregular fibrous connective tissue.  
D. loose connective tissue.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #92  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

93. What protein is present in large amounts in connective tissue proper?  
**A.** collagen  
B. keratin  
C. enamel  
D. mucin

*Blooms Level: 1. Remember  
Fox - Chapter 01 #93  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

94. Which of the following is NOT a type of connective tissue?  
A. blood  
B. cartilage  
**C.** neuroglia  
D. bone

*Blooms Level: 1. Remember  
Fox - Chapter 01 #94  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

95. Which type of connective tissue is characterized by a liquid extracellular matrix?  
A. bone  
**B.** blood  
C. adipose  
D. irregular dense connective tissue

*Blooms Level: 1. Remember  
Fox - Chapter 01 #95  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

96. Bone-forming cells are known as  
A. osteocytes.  
**B.** osteoblasts.  
C. osteons.  
D. chondrocytes.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #96  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

97. Fat is a type of connective tissue.  
**TRUE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #97  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

98. Cartilage cells are known as  
A. osteocytes.  
B. osteoblasts.  
C. osteons.  
**D.** chondrocytes.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #98  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

99. Units of bone composed of concentric rings of lamellae with their trapped osteocytes are called  
A. canaliculi.  
B. osteons.  
C. haversian systems.  
**D.** Both osteons and haversian systems.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #99  
Learning Outcome: 01.06  
Section: 01.03  
Topic: Histology*

100. Vitamin D produced in the skin may function as a hormone.  
**TRUE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #100  
Learning Outcome: 01.08  
Section: 01.04  
Topic: Integumentary System*

101. By affecting the diameter of cutaneous blood vessels, motor nerve fibers in the skin can regulate the rate of blood flow.  
**TRUE**

*Blooms Level: 2. Understand  
Fox - Chapter 01 #101  
Learning Outcome: 01.08  
Section: 01.04  
Topic: Integumentary System*

102. Which of the following is NOT a function of the epidermis?  
A. a barrier against microorganisms  
B. prevents water loss  
C. protects against abrasion  
**D.** provides sensations of touch and pain

*Blooms Level: 1. Remember  
Fox - Chapter 01 #102  
Learning Outcome: 01.08  
Section: 01.04  
Topic: Integumentary System*

103. 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

*Blooms Level: 1. Remember  
Fox - Chapter 01 #103  
Learning Outcome: 01.08  
Section: 01.04  
Topic: Integumentary System*

104. 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

*Blooms Level: 1. Remember  
Fox - Chapter 01 #104  
Learning Outcome: 01.08  
Section: 01.04*

*Topic: Integumentary System*

105. The \_\_\_\_\_ layer of the skin contains sweat glands, hair follicles, and sebaceous glands.
- A. epidermal
  - B.** dermal
  - C. hypodermal

*Blooms Level: 1. Remember  
Fox - Chapter 01 #105  
Learning Outcome: 01.08  
Section: 01.04*

*Topic: Integumentary System*

106. Which of the following is found primarily within the hypodermal layer of the skin?
- A.** adipose tissue
  - B. nervous tissue
  - C. blood vessels
  - D. hair cells

*Blooms Level: 1. Remember  
Fox - Chapter 01 #106  
Learning Outcome: 01.08  
Section: 01.04*

*Topic: Integumentary System*

107. The zygote (fertilized egg) has the ability to produce all the various types of cells found in the body. This ability is known as
- A. pluripotent.
  - B. multipotent.
  - C.** totipotent.
  - D. omnipotent.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #107  
Learning Outcome: 01.08  
Section: 01.04  
Topic: General*

108. Adult stem cells may be found in
- A. hair follicles.
  - B. the brain.
  - C. red bone marrow.
  - D. skeletal muscle.
  - E.** All apply.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #108  
Learning Outcome: 01.08  
Section: 01.04  
Topic: General*

109. Adult stem cells can form a variety of related cells and are therefore described as multipotent.  
**TRUE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #109  
Learning Outcome: 01.08  
Section: 01.04  
Topic: General*

110. Embryonic stem cells can form unrelated cell types, so they are considered  
**A.** pluripotent.  
B. multipotent.  
C. totipotent.  
D. omnipotent.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #110  
Learning Outcome: 01.08  
Section: 01.04  
Topic: General*

111. Which of the following is NOT a major organ of the circulatory system?  
**A.** spleen  
B. heart  
C. lymphatic vessels  
D. blood vessels

*Blooms Level: 1. Remember  
Fox - Chapter 01 #111  
Learning Outcome: 01.08  
Section: 01.04  
Topic: General*

112. Which organ system is primarily involved in regulation of blood volume and composition?  
**A.** the urinary system  
B. the digestive system  
C. the circulatory system  
D. the integumentary system

*Blooms Level: 1. Remember  
Fox - Chapter 01 #112  
Learning Outcome: 01.08  
Section: 01.04  
Topic: General*

113. Which of the following is NOT a major organ of the integumentary system?  
A. hair  
B. nails  
**C.** cartilage  
D. skin

*Blooms Level: 1. Remember  
Fox - Chapter 01 #113  
Learning Outcome: 01.08  
Section: 01.04  
Topic: Integumentary System*

114. Which organ system provides protection and thermoregulation?  
A. the urinary system  
B. the digestive system  
C. the circulatory system  
**D.** the integumentary system

*Blooms Level: 1. Remember  
Fox - Chapter 01 #114  
Learning Outcome: 01.08  
Section: 01.04  
Topic: Integumentary System*

115. Blood plasma and interstitial fluid are separated from each other and there is little communication and exchange between these fluids.  
**FALSE**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #115  
Learning Outcome: 01.09  
Section: 01.04  
Topic: General*

116. Since the intracellular and extracellular compartments consist primarily of water, they are said to be
- A. hydrophobic.
  - B. colloids.
  - C. aqueous.**
  - D. blood.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #116  
Learning Outcome: 01.09  
Section: 01.04  
Topic: General*

117. The main body compartment that is inside cells is the \_\_\_\_ compartment.
- A. extracellular
  - B. interstitial
  - C. intercellular
  - D. intracellular**

*Blooms Level: 1. Remember  
Fox - Chapter 01 #117  
Learning Outcome: 01.09  
Section: 01.04  
Topic: General*

118. Which of the following is NOT true of the extracellular fluid compartment?
- A. It is made up of blood plasma and interstitial fluid.
  - B. It's volume is regulated by the kidneys.
  - C. It makes up 65% of the total body water.**
  - D. All are true.

*Blooms Level: 1. Remember  
Fox - Chapter 01 #118  
Learning Outcome: 01.09  
Section: 01.04  
Topic: General*

# 1 Summary

<u>Category</u>	<u># of Questions</u>
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