

***Essentials of Oral Histology and Embryology 5th
edition Chiego Test Bank***

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Chapter 02: Structure and Function of Cells, Tissues, and Organs

Chiego: Essentials of Oral Histology and Embryology, 5th Edition

MULTIPLE CHOICE

1. Simple squamous epithelium functions as a lining in which location?
 - a. Mouth
 - b. Vagina
 - c. Kidney
 - d. Pharynx

ANS: C

	Feedback
A	The mouth is lined with stratified squamous epithelium.
B	The vagina is lined with stratified squamous epithelium.
C	Correct. The kidney is lined with simple squamous epithelium.
D	The pharynx is lined with stratified squamous epithelium.

DIF: Recall REF: p. 20 OBJ: 1

2. Which cell supports the nervous system?
 - a. Myoblast
 - b. Neuroglia
 - c. Leukocyte
 - d. Melanocyte

ANS: B

	Feedback
A	Neuroglial cells, not myoblasts, support the nervous system.
B	Correct. Liver tissue is produced by endodermal cells.
C	Neuroglial cells, not leukocytes, support the nervous system.
D	Neuroglial cells, not melanocytes, support the nervous system.

DIF: Recall REF: p. 19 OBJ: 1

3. Connective tissue proper is classified as _____.
 - a. dense, striated, or smooth
 - b. simple, stratified, or squamous
 - c. dense, loose, or loose with special properties
 - d. dense, elastic, or elastic with special properties

ANS: C

	Feedback
A	Connective tissue is classified as dense, loose, or loose with special properties.
B	Connective tissue is classified as dense, loose, or loose with special properties.
C	Correct. Connective tissue is loose, dense, or loose with special properties.

D	Connective tissue is classified as dense, loose, or loose with special properties.
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DIF: Recall REF: p. 20 OBJ: 1

4. What are the three types of muscle tissue?
- Cardiac, skeletal, and smooth
 - Striated, voluntary, and smooth
 - Cardiac, skeletal, and voluntary
 - Voluntary, involuntary, and striated

ANS: A

	Feedback
A	Correct. There are three types of muscle tissue—cardiac, skeletal, and smooth.
B	Muscle tissue is classified as cardiac, skeletal, and smooth.
C	Muscle tissue is classified as cardiac, skeletal, and smooth.
D	Muscle tissue is classified as cardiac, skeletal, and smooth.

DIF: Recall REF: p. 21 OBJ: 1

5. How does epithelial tissue renew itself?
- Mitosis of the basal cells
 - Mitosis of the granular layer of cells
 - By shedding or sloughing the surface cells
 - Through nourishment of nearby blood vessels

ANS: A

	Feedback
A	Correct. Epithelium regenerates through mitosis of the basal cells.
B	Epithelial cells regenerate through basal cell mitosis.
C	Epithelial cells regenerate through basal cell mitosis.
D	Epithelial cells regenerate through basal cell mitosis.

DIF: Recall REF: p. 18 OBJ: 1

6. Buccal mucosa renews itself in ____ days.
- 1 to 2
 - 3 to 4
 - 5 to 9
 - 10 to 14

ANS: D

	Feedback
A	Buccal mucosa is replenished every 10 to 14 days, as opposed to 1 to 2 days.
B	Buccal mucosa is replenished every 10 to 14 days, as opposed to 3 to 4 days.
C	Buccal mucosa is replenished every 10 to 14 days, as opposed to 5 to 9 days.
D	Correct. Buccal mucosa is replenished every 10 to 14 days.

DIF: Recall

REF: p. 18

OBJ: 1

7. The junctional epithelium of gingiva is replenished every ____ days.
- a. 1 to 3
 - b. 4 to 6
 - c. 7 to 9
 - d. 10 to 13

ANS: B

	Feedback
A	Junctional epithelium renews every 4 to 6 days, rather than 1 to 3 days.
B	Correct. The junctional epithelium of the gingiva is renewed every 4 to 6 days.
C	Junctional epithelium renews every 4 to 6 days, rather than 7 to 9 days.
D	Junctional epithelium renews every 4 to 6 days, rather than 10 to 13 days.

DIF: Recall

REF: p. 18

OBJ: 1

8. Which term represents a single layer of cells?
- a. Simple
 - b. Stratified
 - c. Cuboidal
 - d. Columnar

ANS: A

	Feedback
A	Correct. The term <i>simple</i> describes a single layer of cells.
B	The term <i>stratified</i> describes several layers of cells.
C	The term <i>cuboidal</i> describes a cube-shaped cell.
D	The term <i>columnar</i> describes a column-shaped cell.

DIF: Recall

REF: p. 18

OBJ: 2

9. Which epithelium consists of several layers, with only the basal cell layer in contact with the basal lamina?
- a. Simple
 - b. Stratified
 - c. Squamous
 - d. Pseudostratified

ANS: B

	Feedback
A	Simple epithelium has only one layer of cells.
B	Correct. Stratified epithelium consists of several layers, but only the basal cell layer is in contact with the basal lamina.
C	Squamous epithelial cells are characterized as flat, scale-shaped cells.
D	Pseudostratified epithelial cells contact the basal lamina, but not the surface.

DIF: Recall REF: pp. 18-19 OBJ: 1

10. All body sensations are relayed to the _____ and the _____.
- brain; spinal cord
 - afferent; efferent systems
 - voluntary; involuntary muscles
 - sympathetic; parasympathetic divisions

ANS: A

	Feedback
A	Correct. Sensations received anywhere in the body are relayed to the brain and the spinal cord.
B	The brain and spinal cord relay all sensations transmitted within the body.
C	The brain and spinal cord relay all sensations transmitted within the body.
D	The brain and spinal cord relay all sensations transmitted within the body.

DIF: Comprehension REF: p. 29 OBJ: 2

11. Impulses conducted from the periphery of the body (e.g., muscles, glands) to the central nervous system (CNS) are conducted through which system?
- Motor
 - Somatic
 - Afferent
 - Autonomic

ANS: C

	Feedback
A	Nerve impulses conducted from the periphery to the CNS travel via afferent, not motor, neurons.
B	Nerve impulses conducted from the periphery to the CNS travel via afferent, not somatic, pathways.
C	Correct. The afferent (or sensory) system conducts neural impulses from the periphery to the CNS.
D	Nerve impulses conducted from the periphery to the CNS travels through afferent, not autonomic, pathways.

DIF: Recall REF: p. 29 OBJ: 2

12. Impulses pass from the CNS to involuntary muscles via the _____ system.
- sensory
 - afferent
 - somatic
 - autonomic

ANS: D

	Feedback
A	Afferent (sensory) nerve processes carry impulses from the peripheral muscles to

	the CNS.
B	Afferent (sensory) nerve processes carry impulses from the peripheral muscles to the CNS.
C	Somatic pathways relay neural impulses to voluntary muscles.
D	Correct. Autonomic pathways relay neural impulses to involuntary muscles.

DIF: Comprehension

REF: p. 29

OBJ: 3

13. Which body system relies on neural stimuli to function?
- Vascular
 - Digestive
 - Endocrine
 - Respiratory

ANS: C

	Feedback
A	The endocrine, not vascular, system depends on neural stimuli to function.
B	The endocrine, not digestive, system depends on neural stimuli to function.
C	Correct. The endocrine system depends heavily on neural stimuli to function.
D	The endocrine, not respiratory, system depends on neural stimuli to function.

DIF: Comprehension

REF: p. 29

OBJ: 2

14. The absorption of nutrients occurs in which location?
- Mouth
 - Stomach
 - Small intestine
 - Large intestine

ANS: D

	Feedback
A	Nutrient absorption takes place in the large intestine, not the mouth.
B	Nutrient absorption takes place in the large intestine, not the stomach.
C	Nutrient absorption takes place in the large intestine, not the small intestine.
D	Correct. Nutrient absorption takes place in the large intestine.

DIF: Comprehension

REF: p. 29

OBJ: 2

15. Internal organs (viscera) receive most of their neural impulses from which nervous system?
- Somatic
 - Sensory
 - Afferent
 - Autonomic

ANS: D

	Feedback
A	Somatic pathways relay neural impulses to voluntary muscles.

B	Afferent (sensory) nerve processes carry impulses from the peripheral muscles to the CNS.
C	Afferent (sensory) nerve processes carry impulses from the peripheral muscles to the CNS.
D	Correct. Internal organs receive most of their neural impulses from the autonomic nervous system.

DIF: Comprehension

REF: p. 28

OBJ: 3

16. Each is part of a neuron EXCEPT one. Which is the EXCEPTION?
- Axon
 - Plasma
 - Dendrite
 - Perikaryon

ANS: B

	Feedback
A	The axon conducts the nerve impulse away from the perikaryon.
B	Correct. Plasma, the fluid part of blood, is not a component of the neuron.
C	The dendrite receives nerve impulses.
D	The perikaryon is the cell body of the neuron.

DIF: Comprehension

REF: pp. 20-22

OBJ: 2

17. Which of the following insulates axons located outside the CNS?
- Bone
 - Endomysium
 - Myelin sheath
 - Connective tissue

ANS: C

	Feedback
A	A myelin sheath protects and insulates axons located outside the CNS; bone does not.
B	A myelin sheath protects and insulates axons located outside the CNS; endomysium does not.
C	Correct. A myelin sheath protects and insulates axons located outside the CNS.
D	A myelin sheath protects and insulates axons located outside the CNS; connective tissue does not.

DIF: Recall

REF: p. 19

OBJ: 2

18. Neuroglia cells are _____ numerous than neurons.
- slightly less
 - slightly more
 - significantly less
 - significantly more

ANS: D

	Feedback
A	Neuroglia cells are significantly more, not slightly less, numerous than neurons.
B	Neuroglia cells are significantly, not slightly, more numerous than neurons.
C	Neuroglia cells are significantly more, not less, numerous than neurons.
D	Correct. Neuroglia cells are 5- to 50-fold more numerous than neurons.

DIF: Comprehension

REF: p. 19

OBJ: 2

19. The spinal cord consists of how many segments?
- 21
 - 22
 - 30
 - 31

ANS: D

	Feedback
A	The spinal cord consists of 31, not 21, segments.
B	The spinal cord consists of 31, not 22, segments.
C	The spinal cord consists of 31, not 30, segments.
D	Correct. The spinal cord consists of 31 segments.

DIF: Recall

REF: p. 19

OBJ: 3

20. Ligaments and tendons are composed of which tissue?
- Neural
 - Muscle
 - Epithelial
 - Connective

ANS: D

	Feedback
A	Ligaments and tendons are made of dense connective, not neural, tissue.
B	Ligaments and tendons are made of dense connective, not muscle, tissue.
C	Ligaments and tendons are made of dense connective, not epithelial, tissue.
D	Correct. Ligaments and tendons are made of dense connective tissue.

DIF: Comprehension

REF: p. 20

OBJ: 2

21. Which of the following is not a type of cartilage?
- Dense
 - Elastic
 - Fibrous
 - Hyaline

ANS: A

	Feedback
A	Correct. There are three types of cartilage—hyaline, elastic, and fibrous.
B	Elastic cartilage can be found in the epiglottis.
C	Fibrous cartilage can be found in the vertebral disks.
D	Hyaline cartilage can be found in the nose.

DIF: Comprehension

REF: p. 20

OBJ: 2

22. Which organ is part of the lymphatic system?
- Thyroid
 - Thymus
 - Pancreas
 - Parathyroid

ANS: B

	Feedback
A	The thyroid is part of the endocrine, not lymphatic, system.
B	Correct. The lymphoid organs include the thymus, spleen, and lymph nodes.
C	The pancreas is part of the endocrine, not lymphatic, system.
D	The parathyroid is part of the endocrine, not lymphatic, system.

DIF: Comprehension

REF: p. 31

OBJ: 2

23. Which of the following is not a major function of the urinary system?
- Controls blood volume
 - Controls blood pressure
 - Controls testosterone levels
 - Controls urine composition

ANS: C

	Feedback
A	Blood volume control is a major function of the urinary system.
B	Blood pressure control is a major function of the urinary system.
C	Correct. Testosterone levels are controlled by the reproductive system, not the urinary system.
D	Urine composition is a major function of the urinary system.

DIF: Comprehension

REF: p. 33

OBJ: 3

24. Which function is associated with the skin?
- Excretes waste products
 - Absorbs nutrients from ingested food
 - Supplies a framework for muscle and ligament attachments
 - Relays information from the glands to the central nervous system

ANS: A

	Feedback
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A	Correct. A major function of the skin is excretion of waste products (e.g., carbon dioxide, water, salts, urea).
B	Absorption of nutrients is a function of the digestive system.
C	The skeletal system supplies the framework for muscle and ligament attachments.
D	The nervous system relays information from the glands to the central nervous system.

DIF: Comprehension

REF: p. 28

OBJ: 3

25. Which organ system is the largest?

- a. Digestive
- b. Endocrine
- c. Respiratory
- d. Integumentary

ANS: D

	Feedback
A	The integumentary (skin) system is larger than the digestive system.
B	The integumentary (skin) system is larger than the endocrine system.
C	The integumentary (skin) system is larger than the respiratory system.
D	Correct. The integumentary (skin) system is the largest organ system in the human body.

DIF: Recall

REF: p. 28

OBJ: 3

26. Each of the following is a function of the large intestine EXCEPT one. Which is the EXCEPTION?

- a. Absorption of nutrition
- b. Dehydration of food
- c. Reduce food to liquid chyme
- d. Compress food into solid waste

ANS: C

	Feedback
A	The large intestine functions in the absorption of nutrition.
B	Dehydration of food occurs in the large intestine.
C	Correct. Food is reduced to liquid chyme in the stomach.
D	Food is compressed into solid waste in the large intestine.

DIF: Comprehension

REF: p. 29

OBJ: 2

27. Which type of tissue lines the respiratory tract to move foreign particles out of the respiratory system?

- a. Dendrites
- b. Neuroglia
- c. Cilia
- d. Sebaceous glands

ANS: C

	Feedback
A	Dendrites are a component of the neuron that receive impulses and conduct these impulses toward the cell body.
B	Neuroglial cells protect and support nerve cells.
C	Correct. Cilia move particulate substances to the pharynx and out of the respiratory system.
D	Sebaceous glands are located in skin.

DIF: Comprehension

REF: p. 29

OBJ: 2

28. Blood returns to the heart through
- capillaries.
 - veins.
 - large elastic arteries.
 - smaller muscular arteries.

ANS: B

	Feedback
A	Capillaries are thin tubes formed by a single layer of highly permeable endothelial cells. They are exchange vessels for oxygen and carbon dioxide.
B	Correct. Veins carry blood from the capillaries back to the heart. The pressure of the venous system is low and the walls of veins are thin.
C	Large elastic arteries carry blood from the heart under high pressure. The elasticity is to even out the pressure of the blood being pumped by heart.
D	Smaller muscular arteries carry blood from the heart.

DIF: Comprehension

REF: pp. 29-30

OBJ: 2

29. Blood is an example of which of the following four primary types of tissue?
- Neural
 - Epithelial
 - Connective
 - Muscle

ANS: C

	Feedback
A	Neural tissue consists of central nervous system, which comprises brain and spinal cord, and the nerves and their ganglia, which comprises peripheral nervous system.
B	Simple squamous epithelium lines the blood vascular and respiratory systems, kidney, most glands, and intestine. Stratified squamous epithelium covers the body and is the lining of the mouth, pharynx, larynx, vagina, anus, and part of the urinary bladder.
C	Correct. Blood and lymph are types of connective tissue that function to carry oxygen and nutrients to body tissues and to carry carbon dioxide to the lungs,

	where it is eliminated.
D	The three types of muscle—striated, smooth, and cardiac—are differentiated according to the shape of the cells, matrix, and their functions in the body.

DIF: Comprehension

REF: p. 18

OBJ: 1

30. Which is true regarding the central nervous system (CNS)?
- The CNS is composed of the brain and the spinal cord.
 - The CNS is composed of the brain, but not the spinal cord.
 - The efferent system carries information from the peripheral nervous system to the CNS.
 - The somatic nervous system carries impulse from the CNS to involuntary muscles.

ANS: A

	Feedback
A	Correct. The CNS is the control center of the nervous system and comprises brain and spinal cord. The brain is located in the cranium and is connected to the peripheral tissues by cranial nerves and to the spinal cord by spinal nerves.
B	The CNS is composed of the brain AND the spinal cord.
C	The afferent system carries information from the peripheral nervous system to the CNS.
D	The efferent autonomic nervous system carries impulses from the CNS to involuntary muscles.

DIF: Comprehension

REF: pp. 27-28

OBJ: 2

31. Which layer of epithelium is the deepest, germinating layer?
- Spinous layer
 - Basal layer
 - Granular layer
 - Clear layer

ANS: B

	Feedback
A	The spinous layer is called stratum spinosum. It is seen as the basal cells dry out and migrates peripherally.
B	Correct. The basal layer is the deepest, germinating layer.
C	The granular layer contains cells with keratohyalin granules.
D	The clear layer is called stratum lucidum.

DIF: Comprehension

REF: p. 26

OBJ: 2

32. Which organ system secretes and regulates hormones in the blood?
- Exocrine
 - Endocrine
 - Lymphatic system
 - Neural system

ANS: B

	Feedback
A	The exocrine system consists of sweat glands.
B	Correct. A basic function of endocrine glands is to secrete hormones into the vascular circulation. Hormones help regulate metabolism energy balance and aid in regulation of involuntary smooth and cardiac muscle fibers.
C	The lymphoid organs are part of the immune system. A characteristic of the immune system is the ability to recognize and react specifically to macromolecules that are foreign to the body.
D	The neural system transmits nerve impulses throughout the body.

DIF: Comprehension

REF: p. 31

OBJ: 3

TRUE/FALSE

1. Blood provides protection from bacteria.

ANS: T

DIF: Recall

REF: p. 20

OBJ: 2

2. Bone is calcified connective tissue.

ANS: T

DIF: Recall

REF: p. 20

OBJ: 2

3. Osteoporosis affects men at an earlier age than women.

ANS: F

DIF: Comprehension

REF: p. 24

OBJ: 2

4. Equilibrium is controlled by tiny organs, which are located in the middle ear.

ANS: F

DIF: Comprehension

REF: p. 34

OBJ: 3