Chapter 01: Organization of the Body

Test Bank

MULTIPLE CHOICE

1. Which of the following describes anatomy?

a. Using devices to investigate parameters such as heart rate and blood pressure
b. Investigating human structure via dissections and other methods
c. Studying the unusual manner in which an organism responds to painful stimuli
d. Examining the physiology of life

ANS: B

DIF: Memorization
REF:
TOP: Anatomy and Physiology

2. Systemic anatomy is a term that refers to:

a. physiological investigation at a microscopic level.
b. anatomical investigation that begins in the head and neck and concludes at the feet.
c. anatomical investigation that uses an approach of studying the body by systems—groups of organs having a common function.
d. anatomical investigation at the molecular level.

ANS: C

DIF: Memorization
REF:
TOP: Anatomy and Physiology

3. Physiology can be subdivided according to the _____ studied.

a. type of organism
b. organizational level
c. systemic function
d. All of the above are correct.

ANS: D

DIF: Memorization
REF:
TOP: Physiology

4. Physiology:

a. recognizes the unchanging (as opposed to the dynamic) nature of things.
b. investigates the body’s structure.
c. is concerned with organisms and does not deal with different levels of organization such as cells and systems.
d. is the science that examines the function of living organisms and their parts.

ANS: D

DIF: Memorization
REF:
TOP: Physiology

5. Metabolism refers to:

a. the chemical basis of life.
b. the sum of all the physical and chemical reactions occurring in the body.
c. an organization of similar cells specialized to perform a certain function.
d. a subdivision of physiology.

ANS: B

DIF: Application
REF:
TOP: Characteristics of Life

6. From smallest to largest, the levels of organization of the body are:

a. organism, chemical, tissue, cellular, organ, system, organelle.
b. chemical, microscopic, cellular, tissue, organ, system, organism.
c. organism, system, organ, tissue, cellular, organelle, chemical.
d. chemical, organelle, cellular, tissue, organ, system, organism.

ANS: D

DIF: Memorization
REF:
TOP: Levels of Organization

7. The smallest living units of structure and function in the body are:

a. molecules.
b. cells.
c. organelles.
d. atoms.

ANS: B

DIF: Memorization
REF:
TOP: Levels of Organization

8. An organization of many similar cells that are specialized to perform a certain function is called a(n):

a. tissue.
b. organism.
c. system.
d. organ.

ANS: A

DIF: Memorization
REF:
TOP: Tissue Level

9. An organ is one organizational step lower than a(n):

a. system.
b. cell.
c. organelle.
d. tissue.

ANS: A

DIF: Memorization
REF:
TOP: Organ Level

10. The reproductive system includes all of the following except the:

a. testes.
b. ovaries.
c. ureter.
d. penis.

ANS: C

DIF: Memorization
11. The lungs are located in the:
   a. thoracic cavity.
   b. mediastinum.
   c. abdominal cavity.
   d. cranial cavity.

  ANS: A

DIF: Memorization

REF:
TOP: Body Systems

12. The mediastinum contains all of the following except the:
   a. trachea.
   b. venae cavae.
   c. right lung.
   d. esophagus.

   ANS: C

DIF: Memorization

REF:
TOP: Body Cavities

13. The gallbladder lies in the:
   a. abdominal cavity.
   b. pelvic cavity.
   c. dorsal cavity.
   d. mediastinum.

   ANS: A

DIF: Memorization

REF:
TOP: Body Cavities

14. The number of abdominal regions is:
   a. three.
   b. five.
c. seven.
d. nine.

ANS: D

DIF: Memorization
REF: Abdominal Regions

15. The abdominal region in which the urinary bladder is found is the:

a. hypogastric.
b. epigastric.
c. right lumbar.
d. left iliac.

ANS: A

DIF: Memorization
REF: Abdominal Regions

16. A surgeon removing a gallbladder should know to find it in the _____ region.

a. right lumbar
b. right hypochondriac
c. hypogastric
d. umbilical

ANS: B

DIF: Memorization
REF: Abdominal Regions

17. The abdominal region in which the appendix is found is the:

a. hypogastric.
b. right iliac.
c. right lumbar.
d. right hypochondriac.

ANS: A

DIF: Memorization
REF:
18. *Popliteal* refers to the:
   a. calf.
   b. ankle.
   c. cheek.
   d. area behind the knee.

ANS: D

DIF: Memorization

REF: TOP: Descriptive Terms for Body Regions

19. A plane through the body that divides the body into right and left sides is called:
   a. sagittal.
   b. frontal.
   c. coronal.
   d. transverse.

ANS: A

DIF: Memorization

REF: TOP: Body Planes and Sections

20. The abdominal quadrants are located with what structure as their midpoint?
   a. Umbilicus
   b. Pubic bone
   c. Xiphoid process
   d. Iliac crest

ANS: A

DIF: Memorization

REF: TOP: Abdominopelvic Quadrants

21. Humans have similar right and left sides of the body, at least superficially. This is an example of:
   a. anatomical position.
   b. anterior symmetry.
c. ipsilateral position.
d. bilateral symmetry.

ANS: D

DIF: Memorization
REF:
TOP: Anatomical Position

22. Two major cavities of the human body are:

a. ventral/dorsal.
b. inferior/superior.
c. visceral/parietal.
d. axial/appendicular.

ANS: A
DIF: Memorization
REF:
TOP: Body Cavities

23. The dorsal cavity contains all of the following except the:

a. brain.
b. spinal column.
c. spinal cord.
d. thyroid gland.

ANS: D

DIF: Memorization
REF:
TOP: Body Cavities

24. A plane through the body that divides the body into anterior and posterior portions is:

a. sagittal.
b. median.
c. coronal.
d. transverse.

ANS: C

DIF: Memorization
REF:
TOP: Body Planes and Sections
25. The plane that divides the body into upper and lower parts is the _____ plane.

a. sagittal  
b. frontal  
c. transverse  
d. superficial  

ANS: C  

DIF: Memorization  
REF:  
TOP: Body Planes and Sections  

26. A somatotype characterized by having a muscular physique is called a(n):  

a. endomorph.  
b. mesomorph.  
c. ectomorph.  
d. None of the above is correct.  

ANS: B  

DIF: Application  
REF:  
TOP: Body Type and Disease  

27. A somatotype characterized by a thin, fragile physique is a(n):  

a. ectomorph.  
b. mesomorph.  
c. endomorph.  

ANS: A  

DIF: Memorization  
REF:  
TOP: Body Type and Disease  

28. The abdominopelvic cavity contains all of the following except the:  

a. kidneys.  
b. gallbladder.  
c. right lung.  
d. urinary bladder.  

29. Which of the following is not one of the characteristics of life?

a. Digestion
b. Balance
c. Conductivity
d. Circulation
e. Reproduction

ANS: B

30. An idea that is supported by repeated experiments and observation is called a:

a. fact.
b. theory.
c. concept.
d. hypothesis.

ANS: B

31. Molecules are:

a. atoms combined to form larger chemical aggregates.
b. electrons orbiting nuclei.
c. a complex of electrons arranged in concentric shells.
d. composed of cellular organelles.

ANS: A
32. Mitochondria, Golgi apparatus, and endoplasmic reticulum are examples of:

a. molecules.
b. cytoplasm.
c. organelles.
d. plasma membranes.

ANS: C

DIF: Memorization
REF:
TOP: Levels of Organization

33. When many similar cells specialize to perform a certain function, it is referred to as a(n):

a. tissue.
b. organelle.
c. organ system complex.
d. organism.

ANS: A

DIF: Memorization
REF:
TOP: Tissue Level

34. Several kinds of tissues working together are termed a(n):

a. plasma membrane.
b. organ.
c. organism.
d. organ system.

ANS: B

DIF: Memorization
REF:
TOP: Organ Level

35. Blood production is a function of which system?

a. Reproductive
b. Respiratory
c. Skeletal
d. Lymphatic
36. The dorsal body cavity contains the:
   a. brain and spinal cord.
   b. heart and lungs.
   c. reproductive organs.
   d. digestive organs.

ANS: A

DIF: Memorization
REF:
TOP: Body Cavities

37. The ventral body cavity contains the:
   a. thoracic and abdominopelvic cavities.
   b. heart and lungs only.
   c. digestive and reproductive organs.
   d. brain and spinal cord.

ANS: A

DIF: Memorization
REF:
TOP: Body Cavities

38. The axial portion of the body consists of the:
   a. arms, neck, and legs.
   b. neck, torso, and arms.
   c. torso, arms, legs, and head.
   d. head, neck, and torso.

ANS: D

DIF: Memorization
REF:
TOP: Body Regions

39. The abdominopelvic cavity contains all of the following except the:
a. stomach.
b. pancreas.
c. heart.
d. reproductive organs.

ANS: C

DIF: Memorization
REF:
TOP: Body Cavities

40. Visceral peritoneum would cover which of the following organs?

a. Heart
b. Intestines
c. Lungs
d. Spinal cord

ANS: B

DIF: Memorization
REF:
TOP: Body Cavities

41. A sagittal section divides the body into _____ portions.

a. upper and lower
b. right and left
c. front and back
d. proximal and distal

ANS: B

DIF: Memorization
REF:
TOP: Body Planes and Sections

42. A frontal section divides the body into _____ portions.

a. upper and lower
b. right and left
c. front and back
d. cortex and medullary

ANS: C
43. *Axilla* is a term referring to which body region?

a. Anterior elbow  
b. Armpit  
c. Posterior knee  
d. Groin

ANS: B

44. The _____ tissue is not a major tissue of the body.

a. cutaneous  
b. epithelial  
c. connective  
d. nervous

ANS: A

45. “Apple-shaped” and “pear-shaped” usually describe subtypes of what major body type?

a. Mesomorph  
b. Ectomorph  
c. Endomorph  
d. Polymorph

ANS: C

46. An organ is one organizational step higher than a(n):
a. system.
b. cell.
c. organelle.
d. tissue.

ANS: D

DIF: Memorization
REF:
TOP: Organ Level

47. Which of the following does not describe anatomical position?

a. Head pointing forward
b. Body standing erect
c. Arms extended from the shoulders, palms up
d. All of the above describe the body in the anatomical position.

ANS: C

DIF: Memorization
REF:
TOP: Anatomical Position

48. Someone studying gross anatomy would not study which of the following?

a. The location of the heart and chambers of the heart
b. Muscles of the arms and legs
c. The nucleus of the cell
d. All of the above would be studied.

ANS: C

DIF: Memorization
REF:
TOP: Anatomy

49. The parietal pleura covers the:

a. lungs.
b. heart.
c. walls of the thoracic cavity.
d. Both A and B are correct.

ANS: C
50. The hollow part of an organ or body structure is called the _____ of the organ.

a. cortical part  
b. lumen  
c. medullary part  
d. apical part

ANS: B

51. The narrowest part of an organ or body structure is called the _____ of the organ.

a. cortical part  
b. lumen  
c. medullary part  
d. apical part

ANS: D

52. Which of the following is not a directional term of the body?

a. Apical  
b. Proximal  
c. Superficial  
d. Deep

ANS: D

53. What is the anatomical direction term that means nearer the surface?

a. Deep
b. Distal  
c. Proximal  
d. Superficial

ANS: D

DIF: Application  
REF:    
TOP: Directional Terms

54. An x-ray technician has been asked to make x-ray films of the liver. Which of the abdominopelvic regions must be included?

a. Right hypochondriac, epigastric, and left hypochondriac  
b. Right hypochondriac, right lumbar, and right iliac  
c. Right iliac, hypogastric, and left iliac  
d. Right lumbar, umbilical, and left lumbar

ANS: A

DIF: Application  
REF:    
TOP: Abdominal Regions

55. As a nurse, you are assisting a physician with the examination of a patient. The physician asks you to tell the patient, who is lying on the examination table, to assume the anatomical position. How would you instruct the patient to assume this position?

a. Have the patient stand up and place his arms at his sides, palms facing forward, with hands and feet facing forward.  
b. Have the patient stand up and place his arms at his sides, palms facing posteriorly, with hands and feet facing forward.  
c. Have the patient stand up and place his arms behind him, palms facing to the side, with feet facing forward.  
d. Have the patient stand up and place his arms at his sides, palms facing down, with feet facing forward.

ANS: A

DIF: Application  
REF:    
TOP: Anatomical Position

56. During a routine physical examination, a patient with an endomorphic somatotype with a large waistline and overall “apple shape” should be advised that such a distribution of fat may lead to what conditions?
a. Heart disease, stroke, high blood pressure, and colitis
b. Heart disease, stroke, high blood pressure, and diabetes
c. Heart disease, stroke, low blood pressure, and colitis
d. Prostate cancer, low blood pressure, and diabetes

ANS: B

DIF: Application
REF:
TOP: Body Type and Disease

57. If your reference point is “farthest from the trunk of the body” versus “nearest to the trunk of the body,” where does the knee lie in relation to the ankle?

a. Distal
b. Proximal
c. Superficial
d. Superior

ANS: B

DIF: Application
REF:
TOP: Directional Terms

58. The study of microscopic anatomy might include:

a. systemic anatomy.
b. cytology.
c. histology.
d. both B and C.

ANS: D

DIF: Memorization
REF:
TOP: Anatomy and Physiology

59. The structure that is called the “powerhouse” of the cell is the:

a. cytoplasm.
b. endoplasmic reticulum.
c. mitochondria.
d. Golgi apparatus.
60. How many main tissue types are found in the human body?

a. 4
b. 8
c. 11
d. 6

ANS: A

61. The mediastinum is located in the _____ cavity.

a. dorsal
b. abdominal
c. ventral
d. Both B and C are correct.

ANS: C

62. Another term for posterior is:

a. ventral.
b. dorsal.
c. inferior.
d. proximal.

ANS: B

63. The term most nearly opposite cortical would be:
a. peripheral.
b. apical.
c. medullary.
d. basal.

ANS: C

DIF: Memorization
REF:
TOP: Terms Related to Organs

64. Withdrawing from a painful stimulus is an example of:

a. excretion.
b. growth.
c. responsiveness.
d. secretion.

ANS: C

DIF: Application
REF:
TOP: Characteristics of Life

MATCHING

Match each organ to its corresponding system.

a. Respiratory
b. Digestive
c. Urinary
d. Reproductive
e. Endocrine
f. Cardiovascular
g. Integumentary
h. Muscular
i. Skeletal
j. Nervous

1. Tendons

2. Pituitary gland

3. Skin
4. Capillaries
5. Ligaments
6. Spinal cord
7. Bronchial tree
8. Testes and ovaries
9. Large and small intestines
10. Ureters

1. ANS: H
   DIF: Memorization
   REF:
   TOP: Body Systems

2. ANS: E
   DIF: Memorization
   REF:
   TOP: Body Systems

3. ANS: G
   DIF: Memorization
   REF:
   TOP: Body Systems

4. ANS: F
   DIF: Memorization
   REF:
   TOP: Body Systems

5. ANS: I
   DIF: Memorization
   REF:
   TOP: Body Systems

6. ANS: J
Match each term to its associated region.

a. Abdominal
b. Brachial
c. Cervical
d. Coxal
e. Cutaneous
f. Digital
g. Femoral
h. Lumbar

11. Thigh

12. Arm

13. Anterior torso

14. Lower back between ribs and pelvis
15. Fingers and toes
16. Hip
17. Skin
18. Neck
11. ANS: G
   DIF: Memorization
   REF:
   TOP: Body Regions
12. ANS: B
   DIF: Memorization
   REF:
   TOP: Body Regions
13. ANS: A
   DIF: Memorization
   REF:
   TOP: Body Regions
14. ANS: H
   DIF: Memorization
   REF:
   TOP: Body Regions
15. ANS: F
   DIF: Memorization
   REF:
   TOP: Body Regions
16. ANS: D
   DIF: Memorization
   REF:
   TOP: Body Regions
17. ANS: E
Match each term to its correct corresponding statement.

a. Superior
b. Inferior
c. Anterior
d. Posterior
e. Medial
f. Lateral
g. Proximal
h. Distal
i. Superficial

19. The great toe is _____ to the little toe.

20. The skin is _____ to the muscles beneath it.

21. The vertebrae are located on the _____ aspect of the body.

22. The hand is _____ to the shoulder.

23. The abdomen is _____ to the head.

24. The lungs are _____ to the intestines.

25. The nose is located on the _____ surface of the head.

26. The knee is _____ to the ankle.

27. The ear is on the _____ aspect of the head.

19. ANS: E
20. ANS: I
DIF: Memorization
REF:
TOP: Directional Terms

21. ANS: D
DIF: Memorization
REF:
TOP: Directional Terms

22. ANS: H
DIF: Memorization
REF:
TOP: Directional Terms

23. ANS: B
DIF: Memorization
REF:
TOP: Directional Terms

24. ANS: A
DIF: Memorization
REF:
TOP: Directional Terms

25. ANS: C
DIF: Memorization
REF:
TOP: Directional Terms

26. ANS: G
DIF: Memorization
REF:
TOP: Directional Terms

27. ANS: F
DIF: Memorization
Match each set of functions with its corresponding system or systems.

a. Reproduction and development
b. Processing, regulation, and maintenance
c. Outer protection
d. Support and movement
e. Communication, control, and integration
f. Transportation and defense

28. Nervous system
29. Muscular system and skeletal system
30. Circulatory system and lymphatic system
31. Respiratory system, digestive system, and endocrine system
32. Reproductive system
33. Integumentary system

28. ANS: E

DIF: Memorization
REF: TOP: Body Systems

29. ANS: D

DIF: Memorization
REF: TOP: Body Systems

30. ANS: F

DIF: Memorization
REF: TOP: Body Systems

31. ANS: B

DIF: Memorization
REF: TOP: Body Systems
Match each characteristic of life with the correct descriptive phrase.

a. Conductivity
b. Excretion
c. Growth
d. Circulation
e. Respiration
f. Responsiveness
g. Digestion
h. Absorption
i. Secretion
j. Reproduction

34. Movement of digested nutrients through the wall of the digestive tract into body fluids for transport to the cell

35. Permits an organism to sense, monitor, and respond to changes in the external environment

36. Production and release of specialized substances to support diverse body functions

37. Responsiveness and this characteristic are highly developed in nerve cells

38. Movement of body fluids and other substances from one part of the body to another

39. Removal of waste produced by many body functions

40. Comes about as a result of a normal increase in size or number of cells

41. Exchange of gases between the organism and the environment

42. Formation of new individuals
43. Process by which complex food substances are broken down into simple substances that can be absorbed by the cells

34. ANS: H
DIF: Memorization
REF:
TOP: Characteristics of Life

35. ANS: F
DIF: Memorization
REF:
TOP: Characteristics of Life

36. ANS: I
DIF: Memorization
REF:
TOP: Characteristics of Life

37. ANS: A
DIF: Memorization
REF:
TOP: Characteristics of Life

38. ANS: D
DIF: Memorization
REF:
TOP: Characteristics of Life

39. ANS: B
DIF: Memorization
REF:
TOP: Characteristics of Life

40. ANS: C
DIF: Memorization
REF:
TOP: Characteristics of Life

41. ANS: E
Match each term related to an organ to its definition or explanation.

a. Medullary  
b. Basal  
c. Apical  
d. Cortical  
e. Lumen  

44. Base or widest part of the organ  
45. Outer region or layer of an organ  
46. Hollow part of an organ or tube of the body  
47. Inner region of an organ  
48. Narrow part or point of an organ  

44. ANS: B  
45. ANS: D
46. ANS: E

DIF: Memorization
REF:
TOP: Terms Related to Organs

47. ANS: A

DIF: Memorization
REF:
TOP: Terms Related to Organs

48. ANS: C

DIF: Memorization
REF:
TOP: Terms Related to Organs

Match each level of organization with its description.

a. Chemical
b. Organelle
c. Cellular
d. Tissue
e. Organ
f. System
g. Organism

49. Highest level of organization

50. Includes mitochondria

51. Composed of the smallest structure that possesses the basic characteristics of living matter

52. Level at which the tissues work together to perform a specific function

53. Composed of macromolecules

54. Cells working together to perform a specific function

55. Level at which a group of organs work together to perform specific complex functions

49. ANS: G

DIF: Memorization
1. In simple terms, what are the characteristics of life?

ANS: Answers will vary.
2. Discuss the principle of complementarity of structure and function.

ANS: Answers will vary.

DIF: Application

REF:
TOP: Interaction of Structure and Function

3. Explain one way in which culture has affected science. Explain one way in which science has affected culture.

ANS: Answers will vary.

DIF: Application

REF:
TOP: Science and Society

4. Describe the levels of organization from chemical to system.

ANS: Answers will vary.

DIF: Memorization

REF:
TOP: Levels of Organization

5. Describe anatomical position. Give examples of structures that are ipsilateral and contralateral to each other.

ANS: Answers will vary.

DIF: Application

REF:
TOP: Anatomical Position

6. List the directional terms, and use them to describe the relationship between two structures in the body.

ANS: Answers will vary.

DIF: Application

REF:
TOP: Directional Terms