Name: _____ Class: _____ Date: _____

CHAPTER 1 - BASIC ELEMENTS OF ANATOMY

1. Which of the following provides the energy source for speech?
   a. Respiratory system
   b. Phonatory system
   c. Articulatory/resonatory system
   d. Nervous system

ANSWER: a

2. The phonatory subsystem provides which of the following?
   a. The voicing source for speech
   b. The energy source for speech
   c. The filter function for speech

ANSWER: a

3. The articulatory subsystem provides which of the following?
   a. The voiced source for vowels
   b. The system of neural commands for phonation and resonation
   c. The acoustic filter system for speech production
   d. None of the above

ANSWER: c

4. The nervous system provides which of the following?
   a. Control of respiration
   b. Control of phonation
   c. Control of articulation
   d. All of the above

ANSWER: d

5. The auditory system provides which of the following?
   a. Feedback concerning visual processing
   b. A means of identifying respiratory timing in the listener
   c. Processing of acoustic information
   d. None of the above

ANSWER: c

6. Which term refers to the study of the structure of an organism?
   a. Physiology
   b. Dissection
   c. Endocrinology
   d. Anatomy
   e. Embryology

ANSWER: d

7. Which term refers to the study of the function of an organism?
   a. Physiology
   b. Separation
   c. Dissection
   d. Cryogenics
   e. Morphology

ANSWER: a

8. Which term refers to cutting of a body for the purpose of study?
   a. Epidemiology
   b. Dissection

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c. Necrology
d. Audiology
e. Pathology

ANSWER: b

9. Which term refers to the study of the function of the structures of hearing?
a. Auditory physiology
b. Auditory processing
c. Auditory perception
d. Auditory phraseology
e. None of the above

ANSWER: a

10. Which term refers to application of anatomical study for the diagnosis and treatment of disease, particularly as it relates to surgical procedures?
a. Clinical anatomy
b. Descriptive anatomy
c. Gross anatomy
d. Microscopic anatomy
e. Surface anatomy

ANSWER: a

11. Which term describes individual parts of the body without reference to disease conditions (views the body as a composite of systems that function together)?
a. Cumulative anatomy
b. Descriptive anatomy
c. Gross anatomy
d. Elemental anatomy
e. None of the above

ANSWER: b

12. Which term describes the study of structures visible without the aid of microscopes?
a. Visible anatomy
b. Descriptive anatomy
c. Gross anatomy
d. Viable anatomy
e. None of the above

ANSWER: c

13. Which of the following is the study of the form and structure of the surface of the body, especially with reference to the organs beneath the surface?
a. Residual anatomy
b. Morphological anatomy
c. Structural anatomy
d. Microscopic anatomy
e. Surface anatomy

ANSWER: e

14. Which of the following deals with growth of and changes in the organism from conception to adulthood?
a. Clinical anatomy
b. Descriptive anatomy
c. Gross anatomy
d. Surface anatomy
e. Developmental anatomy

ANSWER: e

15. Which of the following helps us understand the effects of respiratory diseases, such as emphysema, on speech

function?

a. Cumulative anatomy
b. Systemic anatomy
c. Pathological anatomy
d. None of the above

ANSWER: c

16. Which of the following involves examination of anatomical structures with reference to nonhuman as well as human organisms?

a. Multispecies anatomy
b. Elemental anatomy
c. Invertebrate anatomy
d. Comparative anatomy
e. None of the above

ANSWER: d

17. Which of the following helps us understand the cellular changes that occur during the course of diseases such as emphysema?

a. Glial physiology
b. Systemic anatomy
c. Gross anatomy
d. Microscopic anatomy
e. None of the above

ANSWER: d

18. Which of the following is the study of cell structure and function?

a. Cytology
b. Osteology
c. Myology
d. Arthrology
e. Angiology

ANSWER: a

19. Which of the following is the microscopic study of cells and tissues?

a. Histology
b. Urology
c. Biology
d. Arthrology
e. None of the above

ANSWER: a

20. Which of the following is the study of the structure and function of bones?

a. Necrology
b. Osteology
c. Biology
d. Pathology
e. None of the above

ANSWER: b

21. Which of the following is the study of the form and function of muscle?

a. Tendonitis
b. Muscular dystrophy
c. Myology
d. Myology
e. None of the above

ANSWER: c

22. Which of the following is the study of joints of the body?

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a. Phlebotomy
b. Pathology
c. Serology
d. Arthrology
e. None of the above

ANSWER: d

23. Which of the following is the study of blood vessels and the lymph system?

a. Angiology
b. Phlebotomy
c. Vasculology
d. Arthrology
e. None of the above

ANSWER: a

24. Which of the following is the study of diseases of the nervous system?

a. Cytology
b. Craniotomy
c. Neurology
d. Phlebotomy
e. None of the above

ANSWER: c

25. Which of the following tissues provides the surface covering of the body and linings of cavities and passageways?

a. Muscular
b. Epithelial
c. Nervous
d. Connective

ANSWER: b

26. _____ is the type of tissue that links structures together.
ANSWER: Connective tissue

27. _____ is contractile in nature.
ANSWER: Muscle

28. _____ muscle is also called skeletal muscle.
ANSWER: Striated

29. _____ tissue is specialized for communication.
ANSWER: Nervous

30. _____ strength is the quality of a material that keeps fibers from being easily separated when pulled.
ANSWER: Tensile

31. _____ strength provides resistance to crushing.
ANSWER: Compressive

32. _____ is a tissue type that provides the cushion between vertebrae of the spinal column.
ANSWER: Fibrocartilage

33. _____ cartilage makes up the larynx, trachea, and bronchial passageway.

ANSWER: Hyaline

34. _____ are aggregates of tissue with functional unity, in that the tissues all serve the same general purpose.
ANSWER: Organs

35. _____ is a sheet-like membrane of connective tissue that surrounds organs.
ANSWER: Fascia

36. _____ are relatively nonelastic, and bind structures together.
ANSWER: Ligaments

37. _____ provide a means of attaching muscle to bone or cartilage.
ANSWER: Tendons

38. _____ is a sheet-like tendon.
ANSWER: Aponeurosis

39. _____ is composed predominantly of intercellular material, known as the matrix.
ANSWER: Connective tissue

40. _____ tissue is areolar tissue that is highly impregnated with fat cells.
ANSWER: Adipose

41. _____ tissue is specialized connective tissue found in tonsils and adenoids.
ANSWER: Lymphoid

42. _____ is a particularly important combination of connective tissues, because it has unique properties of strength and elasticity.
ANSWER: Cartilage

43. _____ contains collagenous fibers; it provides the cushion between the vertebrae of the spinal column, as well as the mating surface for the temporomandibular joint between the lower jaw and the skull.
ANSWER: Fibrocartilage

44. _____ acts as a shock absorber and provides a relatively smooth surface for gliding.
ANSWER: Fibrocartilage

45. _____ cartilage contains elastic fibers rather than collagen, and is found in the pinna, nose, and epiglottis.
ANSWER: Yellow
Elastic

46. _____ is the hardest of the connective tissues.
ANSWER: Bone

47. _____ muscle is so called because of its striped appearance under the microscope.

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ANSWER: Striated

48. _____ is the point of attachment of a muscle that has the least movement.
ANSWER: Origin

49. _____ is the point of attachment of a muscle that is relatively mobile.
ANSWER: Insertion

50. The _____ skeleton consists of the trunk and head.
ANSWER: axial

51. The _____ consists of the abdominal and thoracic regions.
ANSWER: trunk

52. A _____ section is one in which there are front and back halves.
ANSWER: frontal
coronal

53. A _____ section divides the body into right and left halves.
ANSWER: sagittal

54. A _____ section divides the body into upper and lower portions.
ANSWER: transverse

55. The term _____ refers to the front surface of a body, whether erect, supine, or prone.
ANSWER: anterior

56. The term _____ refers to the back surface of a body, whether erect, supine, or prone.
ANSWER: posterior

57. The term _____ refers to the belly of an erect human.
ANSWER: ventral

58. The term _____ refers to the back of an erect human.
ANSWER: dorsal

59. The term _____ refers to the surface of a body.
ANSWER: superficial

60. The term _____ refers to directions away from the surface of the body.
ANSWER: deep

61. The term _____ refers to being away from the midline of a free extremity.
ANSWER: distal

62. The term _____ refers to being toward the midline of a free extremity.

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ANSWER: medial

63. The term _____ refers to an elevated position.
ANSWER: superior

64. The term _____ refers to being closer to the ground.
ANSWER: inferior

65. The term _____ refers to being on one's back.
ANSWER: supine

66. The term _____ refers to being on one's abdomen.
ANSWER: prone

67. How has the definition and practice of anatomy changed since the days of the early anatomists?
ANSWER: The term *anatomy* currently refers to the structure of an organism. The early anatomists used the term to describe the actual dissection of an organism, including the cutting of parts and the separating of tissues. Over time, however, the word *anatomy* has evolved to encompass a field of study that now includes many subspecializations: for example, applied anatomy, descriptive anatomy, gross anatomy, developmental anatomy, pathological anatomy, and so forth.

68. What languages form the basis for the terminology used to discuss anatomy, and what purpose do these languages still serve?
ANSWER: Anatomical terms for body parts and tissues are primarily based on Greek and Latin. These languages were once universally used by early anatomists and medical practitioners. Today, anatomical and medical terms are still based on their ancient Greek and Latin roots.

69. What are the three major building blocks of the body? Briefly describe the role of each.
ANSWER: The three major building blocks of the body are:
1. Organs: Collections of specific tissues that are organized into structures that are specialized to perform particular functions. Examples of organs include the kidneys, the heart, the liver, and the lungs.

2. Tissues: Collections or groups of similar cells that are specialized to perform specific functions. The four types of tissue include:

- Epithelial tissue: refers to the outer or superficial layer of mucous membrane and the cells constituting the skin.
- Connective tissue: probably the most complex of the categories of tissues, because it is specialized for the purposes of support. Connective tissue varies as a function of the intercellular material (matrix) surrounding it.
- Muscular tissue: consists of voluntary (striated), involuntary (smooth), and cardiac muscle.
- Nervous tissue: specialized for communication.

3. Systems: Combinations of organs that perform specific functions. In other words, systems of the body are groups of organs with functional unity. Organs can belong to more than one system. Examples of systems include the muscular system, the skeletal system, the respiratory system, the digestive system, the reproductive system, the urinary and endocrine systems, and the nervous system.

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70. Why are the definitions of the systems of speech primarily a convenience for discussing speech science?
ANSWER: Defining the systems of speech is only a convenience, because none of the four systems operate in isolation. To produce the sounds of speech, all of the systems of speech must operate together in a highly integrated manner. The science of speech is extremely complicated, and defining the systems of speech simply makes it easier to discuss normal speech production and speech pathology.

Match each tissue type to the correct descriptor. Answers may be used more than once or not at all.

a. adipose connective tissue
b. areolar (loose) connective tissue
c. epithelial tissue
d. osseous (bony) connective tissue
e. lymphoid tissue
f. fibrous connective tissue
g. muscle
h. nervous tissue

71. May have cilia
ANSWER: c

72. Makes up the linings of the cavities of the body
ANSWER: c

73. Found between muscles and forms a thin, membranous sheet between organs
ANSWER: b

74. Includes secreting tissue
ANSWER: c

75. Specialized connective tissue found in tonsils and adenoids
ANSWER: e

76. Makes up the superficial layer of mucous membranes and the cells constituting the skin
ANSWER: c

77. Highly impregnated with fat cells
ANSWER: a

78. Strong, dense tissue, of which ligaments, fascia, and cartilage are made
ANSWER: f

79. Contractile in nature
ANSWER: g

Match the type of synovial joint to the correct descriptor.

a. condylar joint
b. spheroid (cotyloid) joint

c. ellipsoid joint
d. ginglymus
e. sellar joint
f. plane synovial joint
g. trochoid joint

80. Gliding joint in which the mating surfaces of the bones are more or less flat
ANSWER: f

81. Reciprocal in nature, such that one member of the joint is convex and the other member is concave.
ANSWER: b

82. Shallow ball-and-socket joint permitting limited movement
ANSWER: a

83. Elliptical in shape
ANSWER: c

84. Consists of a bony process protruding into a space
ANSWER: g

85. Also known as a saddle joint
ANSWER: e

86. Also known as a hinge joint
ANSWER: d

Match each term to the correct descriptor.
a. ligament
b. fascia
c. aponeurosis
d. tendon

87. A sheet-like membrane surrounding organs
ANSWER: b

88. Binds organs together or holds bones to bones or bones to cartilage
ANSWER: a

89. Attaches muscle to bone or to cartilage
ANSWER: d

90. A sheet-like tendon
ANSWER: c

Match each term to the correct descriptor.

a. synarthrodial (fibrous) joint
b. amphiarthrodial (cartilaginous) joint
c. diarthrodial (synovial) joint

91. Highly mobile joints, containing a lubricating fluid within the articular capsule
ANSWER: c

92. Have limited mobility, with cartilage performing the primary joint function
ANSWER: b

93. Immobile
ANSWER: a

Match each term to the correct descriptor.

a. insertion
b. agonist
c. synergist
d. origin
e. antagonist
f. motor unit

94. The least mobile point of attachment of a muscle
ANSWER: d

95. The most mobile point of attachment of a muscle
ANSWER: a

96. Muscle that moves a structure
ANSWER: b

97. Muscle that opposes a given movement
ANSWER: e

98. Muscle used to stabilize structures
ANSWER: c

99. Consists of one efferent nerve fiber and the muscle fibers to which it attaches
ANSWER: f

Match each system to the correct descriptor.

a. phonatory system
b. respiratory system
c. articulatory/resonatory system
d. nervous system

100. Includes the lungs, trachea, and passageway involved in breathing

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ANSWER: b

101. Involved with production of voicing for speech
ANSWER: a

102. Includes the tongue, lips, teeth, soft palate, and other structures
ANSWER: c

103. The system of control for all speech mechanisms
ANSWER: d

Match each term to the correct descriptor.

a. sagittal section
b. transverse section
c. ventral
d. rostral
e. anterior
f. frontal (coronal) section
g. dorsal
h. peripheral

104. A section that divides the body into front and back halves
ANSWER: f

105. A section that cuts the body into left and right portions
ANSWER: a

106. A section that cuts the body into upper and lower halves
ANSWER: b

107. Refers to the front surface of a body
ANSWER: e

108. Means “toward the belly”
ANSWER: c

109. Means “toward the back” (dorsal)
ANSWER: g

110. Means “away from the center”
ANSWER: h

Match each term to the correct descriptor.

a. deep
b. superficial

c. supine
d. prone
e. medial
f. distal
g. superior
h. extension
i. inferior
j. lateral
k. proximal
l. flexion

111. Means “confined to the surface”
ANSWER: b

112. Means “closer to the axis of the body”
ANSWER: a

113. Means “away from the midline of an appendicular structure”
ANSWER: f

114. Means “toward the midline of an appendicular structure”
ANSWER: e

115. Means “above” or “farther from the ground”
ANSWER: g

116. Means “below” or “closer to the ground”
ANSWER: i

117. Means “on one’s back”
ANSWER: d

118. Means “on one’s belly”
ANSWER: c

119. Means “pertaining to the side”
ANSWER: j

120. Means “nearest to the point of attachment”
ANSWER: k

121. Means “bending at a joint”
ANSWER: l

122. Means “pulling two ends farther apart”

ANSWER: h

Match each term to the correct descriptor.

a. thorax
b. abdomen
c. trunk
d. caput
e. pelvis

123. The chest region
ANSWER: a

124. The area of the hip bones
ANSWER: e

125. Rests atop the trunk
ANSWER: d

Match each term to the correct descriptor.

a. palmar surface
b. flexor surface
c. pronation
d. supination
e. dorsal

126. The ventral surface of the hand
ANSWER: a

127. The back of the hand
ANSWER: e

128. Rotation of the hand so that the ventral surface is directed inferiorly
ANSWER: c

129. Rotation of the hand so that the dorsal surface is directed superiorly
ANSWER: d