

Chapter 2-II: Anatomy and Physiology

Student Name: _____

Date: _____

Directions: Circle the letter of the best answer for each question. (117 questions total)

1. What is the largest organ of the body?

- A) Heart
- B) Skin
- C) Lungs
- D) Stomach

2. The unit for all living tissues — animal, bacteria, and human — is:

- A) Atom
- B) Molecule
- C) Compound
- D) Cell

3. What supplies nutrients to the cells?

- A) Food
- B) Nerves
- C) Blood
- D) Lymph

4. What is Mitosis?

- A) A process by which cells are nourished
- B) The process by which most cells reproduce
- C) The anabolism phase of metabolism
- D) The catabolism phase of metabolism

5. What is protoplasm?

- A) Foundation of all chemical beauty products
- B) Substance of which the cells of all living things are composed
- C) Toxic substance found in the bodies of people with diseases
- D) Yellowish fluid that oozes from open sores

6. How many identical daughter cells are formed when a cell divides during mitosis?

- A) Two
- B) Four
- C) Six
- D) Eight

7. What is important for cell reproduction?

- A) Sulfur
- B) Oxygen
- C) Hydrogen
- D) Nitrogen

8. Tissue is a combination of similar:

- A) Organs
- B) Systems
- C) Cells
- D) Vessels

9. The study of the structure and composition of the tissue is:

- A) Skin Physiology
- B) Skin Histology
- C) Skin Anatomy
- D) Skin Dermatology

10. Connective, epithelial, muscle, and nerve are types of what found in the body?

- A) Lymph
- B) Sebum
- C) Body system
- D) Tissue

11. Organs are a group of:

- A) Cells
- B) Tissues
- C) Organs
- D) Nerves

12. A group of specialized organs working together to perform one or more functions is a:

- A) System
- B) Tissue
- C) Gland
- D) Division

13. What is the protective covering on the body surfaces?

- A) Muscular tissue
- B) Epithelial tissue
- C) Nerve tissue
- D) Adipose tissue

14. What body system serves as a protective covering for the body?

- A) Endocrine
- B) Skeletal
- C) Nervous
- D) Integumentary

15. What is one reason estheticians should study body systems, organs, and tissues?

- A) To obtain the medical license needed to become an esthetician
- B) To perform emergency surgery in the salon
- C) To prescribe medications for clients with skin disorders
- D) To understand the effect that services have on the body

16. The brain is:

- A) A muscle
- B) Nerve tissue
- C) Glands
- D) Capillaries

17. What controls sensation and glandular activity?

- A) The heart
- B) The brain
- C) The spinal cord
- D) The eyes

18. What carries messages to and from the brain and controls and coordinates all body functions?

- A) Epithelial tissue
- B) Cardiac tissue
- C) Nerve tissue
- D) Supervisory tissue

19. Which system controls the five senses?

- A) The circulatory system
- B) The muscular system
- C) The nervous system
- D) The skeletal system

20. What binds the tissues of the body together?

- A) Anatomical binders
- B) Physiological binders
- C) Adhesive tissue
- D) Connective tissue

21. What is the primary function of the respiratory system?

- A) Digestion
- B) Blood circulation
- C) Reproduction
- D) Breathing

22. What is the primary function of the skeletal system?

- A) Providing the exterior protective covering of the body
- B) Circulating blood to the bones and muscles attached to bones
- C) Circulating oxygen to the bones and muscles attached to bones
- D) Providing the physical foundation of the body

23. What body system is responsible for changing food into nutrients and waste?

- A) Endocrine
- B) Integumentary
- C) Excretory
- D) Digestive

24. What is the primary function of the excretory system?

- A) Purifying the body by elimination of waste matter
- B) Converting food into nutrients and waste
- C) Circulating blood and lymph throughout the body
- D) Circulating nitrogen and oxygen throughout the body

25. What is the primary function of the reproductive system?

- A) Discharging waste from the body
- B) Perpetuating the human race
- C) Maintaining erogenous zones
- D) Feeding nutrients into the body

26. What is covered, shaped, and supported by the muscular system?

- A) Integumentary system
- B) Skeletal tissue
- C) Vital organs
- D) Secondary organs

27. Which body system regulates temperature and produces vitamin D?

- A) Integumentary
- B) Skeletal
- C) Muscular
- D) Circulatory

28. Which body system protects the body from disease by developing resistances and destroying disease-causing toxins?

- A) Endocrine
- B) Circulatory
- C) Immune/lymphatic
- D) Reproductive

29. Which body system eliminates carbon dioxide as a waste product?

- A) Endocrine
- B) Circulatory
- C) Respiratory
- D) Reproductive

30. What removes toxic products of digestion?

- A) Kidneys
- B) Liver
- C) Lungs
- D) Small intestine

31. The central nervous system is composed of the brain and the:

- A) Sensory nerve
- B) Muscles
- C) Spinal cord
- D) Heart

32. What are the two types of nerves?

- A) Motor and sensory
- B) Involuntary and voluntary
- C) Refectory and sensory
- D) Efferent and voluntary

33. How many pairs of cranial nerves originate in the brain?

- A) 10
- B) 12
- C) 14
- D) 8

34. Which cranial nerve controls the sensations of the face, tongue, and teeth?

- A) Fifth
- B) Seventh
- C) Eleventh
- D) Fifteenth

35. Which cranial nerve is the chief motor nerve of the face?

- A) Fifth
- B) Seventh
- C) Eleventh
- D) Fifteenth

36. Which cranial nerve controls the motion of the neck muscles?

- A) Fifth
- B) Seventh
- C) Eleventh
- D) Fifteenth

37. What do the cervical nerves affect?

- A) The chest
- B) The scalp at the front of the head
- C) The face and forehead
- D) The side of the neck and platysma muscle

38. The sensory and the motor nerves are part of the:

- A) Central system
- B) Voluntary system
- C) Peripheral system
- D) Endocrine system

39. Nerves that carry messages from the brain to the muscles are:

- A) Motor or efferent nerves
- B) Sensory or afferent nerves
- C) Motor or afferent nerves
- D) Sensory or efferent nerves

40. Nerves that react to heat, cold, and pain are:

- A) Motor or efferent nerves
- B) Sensory or afferent nerves
- C) Motor or afferent nerves
- D) Sensory or efferent nerves

41. Where in the body does the spinal cord originate?

- A) Top of the skull
- B) Base of the neck
- C) Brain
- D) Heart

42. The skin between the eyes and upper sides of the nose is affected by the:

- A) Supra-orbital nerve
- B) Zygomatic nerve
- C) Infratrochlear nerve
- D) Supratrochlear nerve

43. The skull is divided into:

- A) Four parts
- B) Three parts
- C) Six parts
- D) Two parts

44. How many bones of the cranium are there?

- A) 12
- B) 14
- C) 10
- D) 8

45. What is the number of facial bones?

- A) 15
- B) 14
- C) 17
- D) 18

46. Which bone joins all the bones of the cranium together?

- A) Sphenoid bone
- B) Lacrimal bone
- C) Mandible bone
- D) Malar bone

47. What bone forms the back of the skull above the nape?

- A) Temporal
- B) Occipital
- C) Sphenoid
- D) Ethmoid

48. What kind of bones are cheekbones?

- A) Ethmoid bones
- B) Frontal bones
- C) Occipital bones
- D) Malar bones

49. Which bone forms the lower jawbone?

- A) Maxillae
- B) Mandible
- C) Lacrimal
- D) Frontal

50. What bone is called "the Adam's apple"?

- A) The sternum
- B) The hyoid bone
- C) The cervical bones
- D) The thorax

51. What is the name for the largest bone in the face?

- A) Mandible
- B) Zygomatic
- C) Platysma
- D) Sphenoid

52. The place where two bones meet is called a:

- A) Tendon
- B) Joint
- C) Muscle
- D) Epithelial tissue

53. What protects the heart and the lungs?

- A) Deltoid
- B) Thorax
- C) Mandible
- D) Hyoid bone

54. What is the sternum?

- A) Flat bone that forms the ventral support of the ribs
- B) Uppermost bone of the skull
- C) Longest bone in the foot
- D) Collarbone

55. Where is the humerus bone located?

- A) The leg
- B) The palm
- C) The wrist
- D) The arm

56. The shoulder consists of:

- A) One clavicle and one scapula
- B) One carpus and one radius
- C) One ulna and one sternum
- D) One clavicle and one vertebra

57. How many bones does the metacarpus consist of?

- A) 10
- B) 5
- C) 15
- D) 2

58. The study of muscles, their functions, and diseases is known as:

- A) Physiology
- B) Bacteriology
- C) Biology
- D) Myology

59. Voluntary muscles are also known as:

- A) Smooth
- B) Striated
- C) Non-striated
- D) Cardiac

60. What is true of the origin part of a muscle?

- A) It is not attached to the skeleton
- B) It disappears after puberty
- C) It moves frequently
- D) It is attached to the skeleton

61. The more movable attachment of a muscle is known as the:

- A) Muscle tone
- B) Ligament
- C) Origin
- D) Insertion

62. What connects the frontalis and occipitalis on the sides of the head?

- A) Aponeurosis
- B) Temporalis
- C) Masseter
- D) Corrugator

63. What muscle raises the eyebrows?

- A) Frontalis
- B) Epicranius
- C) Occipitalis
- D) None of the above are correct

64. The muscle that covers the bridge of the nose is the:

- A) Procerus
- B) Maxillae
- C) Epicranius
- D) Trapezius

65. Which of the following is a muscle of the eye?

- A) Biceps
- B) Orbicularis oculi
- C) Orbicularis oris
- D) Procerus

66. A function of the orbicularis oculi muscle is to:

- A) Close the eye
- B) Lower the jaw
- C) Rotate the head
- D) Draw the eyebrow down

67. Which of the following is a muscle of the mouth?

- A) Biceps
- B) Orbicularis oculi
- C) Orbicularis oris
- D) Procerus

68. If you want to pucker up, you need to use the _____ muscle.

- A) Orbicularis oris
- B) Levator anguli oris
- C) Levator labii superioris
- D) Zygomaticus

69. An action of the mentalis muscle is to:

- A) Help you smile
- B) Wrinkle your chin
- C) Pull down the mouth
- D) Elevate the lip

70. Which muscle is responsible for expressing sadness?

- A) Platysma
- B) Trapezius
- C) Occipitalis
- D) None of the above are correct

71. This muscle pulls down the corners of the mouth.

- A) Mentalis
- B) Triangularis
- C) Buccinator
- D) Risorius

72. You use this muscle to smile, but not grin.

- A) Orbicularis oris
- B) Levator anguli oris
- C) Levator labii superioris
- D) Nasalis

73. This muscle is used to grin.

- A) Mentalis
- B) Triangularis
- C) Buccinator
- D) Risorius

74. Which muscle of the neck are you affecting during the massage?

- A) Corrugator
- B) Platysma
- C) Buccinator
- D) Flexor

75. What is the name of the muscle consisting of three parts, responsible for raising and drawing back the lip, dilating nostrils, and expressing distaste?

- A) Levator labii superioris
- B) Quadratus labii inferioris
- C) Auricularis superior
- D) Auricularis posterior

76. Which muscle is located above the ear?

- A) Depressor labii inferioris
- B) Quadratus labii superioris
- C) Auricularis superior
- D) Auricularis posterior

77. What are the three muscles of the ear called?

- A) Quadratus labii muscles
- B) Depressor anguli muscles
- C) Mastication muscles
- D) Auricularis muscles

78. Which thin, flat muscle between the upper and lower jaws compresses the cheeks and expels air between the lips?

- A) Mentalis
- B) Triangularis
- C) Buccinator
- D) Risorius

79. Which of these muscles are used in chewing?

- A) Levator anguli oris and levator labii superioris
- B) Zygomaticus and risorius
- C) Masseter and temporalis
- D) Triangularis and buccinator

80. When giving a hand massage, which muscles are you stimulating?

- A) Extensors, flexors, pronators, supinators
- B) Extensor, biceps, flexors
- C) Extensors, flexors, triceps, biceps
- D) Extensors, flexors, pronators, scapula

81. Which movement separates the fingers?

- A) Abduction
- B) Adduction
- C) Flexion
- D) Extension

82. When you bend forward, which muscle movement are you using?

- A) Abduction
- B) Adduction
- C) Flexion
- D) Extension

83. This movement is used to rotate the forearm.

- A) Abduction
- B) Extension
- C) Flexion
- D) Supination

84. Which large, flat, triangular muscle covers the lower back?

- A) Sternocleidomastoid
- B) Platysma
- C) Latissimus dorsi
- D) Pectoralis

85. When you show someone your muscles on your arm, you are most likely showing them your _____.

- A) Biceps
- B) Triceps
- C) Deltoid
- D) Trapezius

86. What is the main source of the blood supply to the head, face, and neck?

- A) Submental artery
- B) Carotid artery
- C) Inferior artery
- D) Angular artery

87. The internal carotid arteries supply blood to:

- A) The brain
- B) The head
- C) The scalp
- D) The neck

88. The blood is returned to the heart from the head, face, and neck by means of the:

- A) Auricular vein
- B) Temporal vein
- C) Occipital vein
- D) Jugular vein

89. What organ circulates the blood?

- A) Brain
- B) Heart
- C) Liver
- D) Kidney

90. What is the function of the capillaries?

- A) They connect to the arteries
- B) They connect the arterioles with the venules
- C) They connect to the lymphatic system
- D) None of the above are correct

91. What are valves?

- A) Structures that close a passage or permit flow in one direction only
- B) Exterior openings on the body such as aural canals, nostrils, and pores
- C) Junctures in the digestive system where food is halted and processed
- D) Junctures in the excretory system where waste is halted and processed

92. Capillaries, arteries, and veins are part of what system?

- A) Integumentary
- B) Circulatory
- C) Respiratory
- D) Digestive

93. Veins carry blood containing:

- A) Oxygen
- B) Hormones
- C) Waste products
- D) Nourishment

94. Red blood cells contain:

- A) Platelets
- B) White blood cells
- C) Hemoglobin
- D) Plasma

95. Which of the following performs the function of destroying disease-causing germs?

- A) Red blood cells
- B) Hemoglobin
- C) White corpuscles
- D) Thrombocytes

96. What are platelets?

- A) Blood components that contribute to the blood clotting process
- B) A type of white blood cell
- C) A type of red blood cell
- D) Dangerous bacteria found in the bloodstream

97. The circulation of blood from the heart throughout the body and back again to the heart is called:

- A) General circulation
- B) The immunity
- C) The immune system
- D) None of the above

98. How many pints of blood are contained in the body?

- A) 8–10
- B) 4–7
- C) 14–16
- D) 20–26

99. Blood is approximately _____ % water.

- A) 20
- B) 40
- C) 60
- D) 80

100. What is the fluid part of the blood that carries food and secretions to the cells and carbon dioxide from the cells?

- A) Pus
- B) Lymph
- C) Plasma
- D) Sebum

101. What color is the plasma?

- A) Red
- B) Bright-yellow
- C) Straw-like
- D) White

102. Lymph is part of what system?

- A) Nervous
- B) Digestive
- C) Muscular
- D) Circulatory

103. Which of the following is a function of the lymphatic vascular system?

- A) To carry nourishment from the blood to the body cells
- B) To act as a defense against invading bacteria and toxins
- C) To remove waste materials from the body cells to the blood
- D) All of the above are correct

104. What is the importance of lymph?

- A) To secrete enzymes necessary for digestion
- B) To synthesize proteins
- C) To fight infections
- D) To disperse white blood cells and cell nutrients

105. What do the kidneys do?

- A) Pump nitrogen into the blood
- B) Pump oxygen into the blood
- C) Convert food to nutrients
- D) Excrete water and waste products

106. The kidneys and bladder are part of this system.

- A) Excretory
- B) Digestive
- C) Respiratory
- D) Immune/lymphatic

107. What is another name for sudoriferous glands?

- A) Sweat glands
- B) Oil glands
- C) Apocrine glands
- D) Eccrine glands

108. What is another name for sebaceous glands?

- A) Sweat glands
- B) Oil glands
- C) Apocrine glands
- D) Eccrine glands

109. What removes certain elements from the blood to convert them into new compounds?

- A) Glands
- B) Arteries
- C) Capillaries
- D) Veins

110. What do exocrine glands produce?

- A) Sweat
- B) Estrogen
- C) Insulin
- D) Adrenaline

111. What best describes the endocrine system?

- A) Controls the steady circulation of blood
- B) Affects the growth, development, and health of the body
- C) Purifies the body by the elimination of waste
- D) Protective covering that helps regulate the body's temperature

112. What are the secretions that the endocrine glands release directly into the bloodstream and that influence the welfare of the entire body?

- A) Red blood cells
- B) White blood cells
- C) Endorphins
- D) Hormones

113. What is true of the pituitary gland?

- A) It is the most complex organ of the endocrine system
- B) It is the most complex organ of the integumentary system
- C) It has no effect on the physiological processes of the body
- D) It affects very few of the body's physiological processes

114. What organ in the endocrine system secretes enzyme-producing cells responsible for digesting carbohydrates, proteins, and fats?

- A) Pancreas
- B) Kidney
- C) Liver
- D) Stomach

115. Why does the parathyroid gland regulate blood calcium and phosphorous levels?

- A) So the endocrine and muscular systems can function properly
- B) So the nervous and muscular systems can function properly
- C) So the nervous and circulatory systems can function properly
- D) So the endocrine and circulatory systems can function properly

116. What ingredients does sweat contain?

- A) Water, sugar, trace minerals, odor
- B) Water, lactate, trace minerals, odor
- C) Water, lactate, urea, trace minerals
- D) Water, salt, urea, odor

117. What plays an important part in cell reproduction and metabolism?

- A) Protoplasm
- B) Cytoplasm
- C) Nucleus
- D) Muscles