Name:	Date:	



Wellness Life Zone, Foot Zone Academy A&P Board Exam

THE BRAIN

- 1. Name the sensory lobe that is responsible for taste, smell, temperature, and texture. It is located above the corpus callosum, in front of occipital lobe, and behind frontal lobe.
 - a) Occipital
 - b) Temporal
 - c) Frontal
 - d) Parietal
- 2. Name the lobe responsible for hearing and long-term memory. It is located on the temples beneath the frontal lobe.
 - a) Parietal
 - b) Temporal
 - c) Occipital
 - d) Frontal
- 3. The cingulate gyrus is the large band in the inner part of the brain that connects the right and left hemispheres and carries messages between them. True/False
- 4. The limbic system of loosely interconnected structures is involved with emotions and long and short-term memory. True/False
- 5. The amygdala is the two bulbs of the brain that determine what sensory information is important and which experiences the brain should store. They are associated with being sociable. True/False
- 6. Name the inter-region of the brain that includes the thalamus, hypothalamus, and epithalamus.
 - a) Limbic System
 - b) Brain Stem
 - c) Diencephalon Group
 - d) Midbrain
- 7. This area of the brain controls the endocrine activity, body temperature, and food and water intake through the autonomic nervous system.
 - a) Medulla Oblongata
 - b) Epithalamus
 - c) Thalamus
 - d) Hypothalamus

- 8. When melatonin is needed, the pineal gland receives direction to secrete melatonin from which part of the brain?
 - a) Midbrain
 - b) Thalamus
 - c) Medulla Oblongata
 - d) Epithalamus
- 9. The diencephalon group produces cerebral spinal fluid, bathing and cushioning the brain and spinal cord for protection. True/False
- 10. The medulla oblongata houses structures that control functions associated with survival, such as breathing, swallowing, and vomiting. True/False
- 11. The midbrain is the upper part of the brain stem that integrates sensory information and relays it to the brain. True/False
- 12. Which part of the brainstem controls autonomic reflexes such as breathing, heart rate and blood pressure, smooth muscles for digestion etc.?
 - a) Cerebellum
 - b) Medulla Oblongata
 - c) Limbic System
 - d) Midbrain

THE NERVOUS SYSTEM

- 13. Name cranial nerve V.
 - a) Vagus
 - b) Trigeminal
 - c) Vestibulocochlear
 - d) Trochlear
- 14. Name cranial nerve X.
 - a) Vagus
 - b) Trigeminal
 - c) Vestibulocochlear
 - d) Trochlear
- 15. Name cranial nerve II.
 - a) Abducens
 - b) Accessory
 - c) Oculomotor
 - d) Optic

- 16. Name cranial nerve XII.
 - a) Facial
 - b) Glossopharyngeal
 - c) Hypoglossal
 - d) Olfactory
- 17. Which cranial nerve is responsible for ophthalmic, maxillary, and mandibular responses?
 - a) Trigeminal
 - b) Olfactory
 - c) Facial
 - d) Abducens
- 18. The olfactory nerve is responsible for facial expressions. True/False
- 19. The abducens nerve is responsible for hearing and balance. True/False
- 20. The oculomotor nerve responsible for 4 major muscles of the eyeball and restriction of the pupil. True/False
- 21. The oculomotor nerve is responsible for 180° visual field. True/False
- 22. The vagus nerve is known as the "wanderer" because it leaves the cranium and is responsible for parasympathetic innervation of organs. True/False
- 23. The somatic systems controls voluntary muscles and the autonomic nervous system controls involuntary muscles. True/False
- 24. Which branch of the autonomic nervous system increases heart rate, respiration, and perspiration to ready our body for "flight or flight"?
 - a) Central Nervous System
 - b) Somatic Nervous System
 - c) Parasympathetic Nervous System
 - d) Sympathetic Nervous System
- 25. Afferent neurons that conduct impulses away from the CNS to muscles and glands. True/False
- 26. What are the two divisions of the nervous system?
 - a) Central Nervous System, Peripheral Nervous System
 - b) Autonomic Nervous System, Somatic Nervous System
 - c) Sympathetic Nervous System, Parasympathetic Nervous System
 - d) Cranial Nervous System, Axial Nervous System

- 27. What two divisions are the PNS?
 - a) Central Nervous System, Peripheral Nervous System
 - b) Autonomic Nervous System, Somatic Nervous System
 - c) Sympathetic Nervous System, Parasympathetic Nervous System
 - d) Cranial Nervous System, Axial Nervous System
- 28. The somatic nervous system is under conscious control. True/False
- 29. The autonomic nervous system is under unconscious control. True/False
- 30. What are the two divisions of the autonomic nervous system?
 - a) Central Nervous System, Peripheral Nervous System
 - b) Autonomic Nervous System, Somatic Nervous System
 - c) Sympathetic Nervous System, Parasympathetic Nervous System
 - d) Cranial Nervous System, Axial Nervous System

THE SKELETAL SYSTEM

- 31. Which bone forms the lower jaw and is the only bone of the skull that moves?
 - a) Frontal
 - b) Maxillary
 - c) Sphenoid
 - d) Mandible
- 32. What is the name of the bony socket that houses the eyeball and is formed by several cranial bones?
 - a) Sphenoid
 - b) Zygomatic
 - c) Orbit
 - d) Temporal
- 33. Which bone is known as the keystone bone because so many bones join it, and also houses the sella turcica notch that houses the pituitary gland?
 - a) Sphenoid
 - b) Orbital
 - c) Lacrimal
 - d) Zygomatic

- 34. Identify the four sinuses.
 - a) Frontal, Mandible, Sphenoid, Ethmoid
 - b) Frontal, Maxillary, Sphenoid, Ethmoid
 - c) Frontal, Mandible, Temporal, Lacrimal
 - d) Frontal, Maxillary, Temporal, Lacrimal
- 35. The C1 bone that allows one to nod the head is known as the axis. True/False
- 36. The C2 bone that allows one to pivot the head is known as the atlas. True/False
- 37. The pelvic girdle is the bony structure that connects the base of the spine to the upper end of the rear legs, including the sacrum and tailbone. True/False
- 38. The fibula, ulna, and radius are the three major bones of the arm. True/False
- 39. The humerus is the largest bone of the body and is known as the thighbone of the leg. True/False
- 40. What lateral bone of the lower leg is known as the calf bone?
 - a) Humerus
 - b) Fibula
 - c) Ulna
 - d) Tibia
- 41. Movement and stability are the main functions of joints. True/False
- 42. The three types of joints are cardiac, smooth, and skeletal. True/False

THE MUSCULAR SYSTEM

- 43. Identify the system that, along with the nervous system, is responsible for movement of the skeletal system and the body.
 - a) Digestive System
 - b) Muscular System
 - c) Immune System
 - d) Lymph System
- 44. Name the three types of muscle tissue.
 - a) Fibrous, Cartilaginous, Synovial
 - b) Fibrous, Cardiac, Skeletal
 - c) Cardiac, Smooth, Skeletal
 - d) Cardiac, Smooth, Synovial

- 45. Which type of muscle tissue attaches to and covers the bony skeleton, has the longest muscle cells (strips called striations), and are a voluntary muscle responsible for overall body mobility?
 - a) Cardiac
 - b) Cartilaginous
 - c) Skeletal
 - d) Synovial
- 46. What tough fibrous band of connective tissue supports internal organs and holds bones together in proper articulation at the joints?
 - a) Tendons
 - b) Ligaments
 - c) Muscles
 - d) None of the above
- 47. The primary function of tendons is to transmit the mechanical force of muscle contraction to the bones. True/False
- 48. Muscles don't contract, they flex. True/False
- 49. Muscles don't always work in pairs. True/False
- 50. Which of the following is not supported by the pelvic floor muscles?
 - a) Bladder
 - b) Kidneys
 - c) Uterus and Vagina
 - d) Intestines and Rectum
- 51. What muscle is the key to balance while walking and running?
 - a) Obliques
 - b) Abdominals
 - c) Gluteus
 - d) Erector Spinae
- 52. What do skeletal muscles attach to?
 - a) Bones
 - b) Smooth Muscles
 - c) Nothing
 - d) Other Skeletal Muscles

- 53. Which of the following is not considered part of the body's "core" muscles?
 - a) Erector Spinae
 - b) Gluteus
 - c) Obliques
 - d) Abdominals

THE FASCIAL SYSTEM

- 54. Organs and glands are surrounded by what type of fascia?
 - a) Deep
 - b) Superficial
 - c) Visceral
 - d) Lateral
- 55. Deep fascia suspends the organs within their cavities and wraps them in layers of connective tissue membranes? True/False
- 56. A grapefruit a good example of fascia because it shows different types of fascia, including sections inside of the grapefruit. True/False
- 57. The three main types of fascia in the human body are superficial, visceral, and lateral. True/False
- 58. A tensegrity structure allows the body to push and pull. True/False
- 59. Fascia is not found on the cellular level. True/False
- 60. Piezoelectricity is the converted vibrational energy that creates an electrical energy throughout the body. True/False
- 61. Crystals can absorb, store, amplify, and transmit vibrational energy. True/False

THE DIGESTIVE SYSTEM

- 62. The two types of digestion are temporary digestion and permanent digestion. True/False
- 63. Which of the following are not primary organs of the alimentary canal?
 - a) Esophagus
 - b) Liver
 - c) Stomach
 - d) Anus

- 64. Name the long muscle, about 25-30 cm long, that transports food to the stomach.
 - a) Esophagus
 - b) Trachea
 - c) Throat
 - d) Pharynx
- 65. Name the sphincter located between the esophagus and stomach.
 - a) Pyloric Sphincter
 - b) Esopharyngeal Sphincter
 - c) Cardiac Sphincter
 - d) Esogastric Sphincter
- 66. Name the valve located between the stomach and duodenum.
 - a) Pyloric Valve
 - b) Esopharyngeal Valve
 - c) Cardiac Valve
 - d) Esogastric Valve
- 67. What organ produces bile and is also considered the largest gland?
 - a) Pancreas
 - b) Large Intestines
 - c) Liver
 - d) Small Intestines
- 68. The pancreas is a source of digestive enzymes and bicarbonate, which are released into ducts for digestion to help neutralize acidic chyme and provide and optimal environment for enzymatic activity. True/False
- 69. The three sections of the small intestines are the duodenum, jejunum, and ileum. True/False
- 70. The three sections of the colon are the duodenum, jejunum, and ileum. True/False

THE EXCRETORY SYSTEM

- 71. The skin's role in the excretion is to control the body's temperature. True/False
- 72. The liver is involved in excretion by changing worn out blood cells into bile pigments and changing protein into lymph. True/False

- 73. The main excretion from the lungs is oxygen. True/False
- 74. Identify which of the following is not a main function of the kidneys.
 - a) Transport urine
 - b) Change excess protein into urea
 - c) Clean the blood
 - d) Control water balance
- 75. What are the functional units of the kidney?
 - a) Renal Cortex
 - b) Ureters
 - c) Nephrons
 - d) Renal Medulla
- 76. Name the sack-like muscular organ that stores urine until it is eliminated from the body.
 - a) Stomach
 - b) Urethra
 - c) Kidney
 - d) Bladder
- 77. What is the narrow tube that carries urine from one of the kidneys to the urinary bladder?
 - a) Ureter
 - b) Urethra
 - c) Lymphatic Vessels
 - d) Renal Pelvis
- 78. What is the small tube through which urine flows from the body?
 - a) Ureter
 - b) Urethra
 - c) Lymphatic Vessels
 - d) Renal Pelvis

THE ENDOCRINE SYSTEM

- 79. What part of the brain links the endocrine and nervous system, and controls the pituitary gland?
 - a) Hypothalamus
 - b) Cingulate Gyrus
 - c) Amygdala
 - d) Sensory Cortex
- 80. What are chemical "messengers" of the endocrine system that are released into the blood called?
 - a) Plasma
 - b) Nerves
 - c) Epinephrine
 - d) Hormones
- 81. Which of the following are not organs or glands of the endocrine system?
 - a) Thymus
 - b) Thyroid
 - c) Pancreas
 - d) Parathyroid
- 82. What master hormone gland controls blood pressure, growth, metabolism, and sex development?
 - a) Thyroid gland
 - b) Pineal gland
 - c) Hypothalamus
 - d) Pituitary
- 83. The thymus plays a major role in developing the immune system. True/False
- 84. The parathyroid gland produces the fight or flight mechanism. True/False
- 85. FSH is protein hormone secreted by the anterior pituitary, which stimulates ovulation in females and androgen production in males? True/False
- 86. The thyroid gland is found in the neck that regulates rate of metabolism and produces thyroxine T-4, T-3 and Reverse T-3. True/False
- 87. The FSH hormone is secreted by the cortex of the adrenal gland and regulates mineral balance in blood and controls fluid volumes. True/False

- 88. What gland is located partially behind the stomach in the abdomen, and functions as both an endocrine and exocrine gland, producing digestive enzymes as well as insulin and glucagon?
 - a) Thyroid
 - b) Parathyroid
 - c) Pancreas
 - d) Liver
- 89. Beta cells of the pancreas are attacked and destroyed by this type of diabetes?
 - a) Type 1 Diabetes
 - b) Type 2 Diabetes
 - c) Type AB Diabetes
 - d) Gestational Diabetes
- 90. What gland is located near the heart and aids in the body's immune system by making antibodies?
 - a) Lungs
 - b) Diaphragm
 - c) Thymus
 - d) Parathyroid
- 91. When there is balance in the human body, it is called homeostasis. True/False

THE REPRODUCTIVE SYSTEM

- 92. The fallopian tubes (oviduct) propels the egg (ovum) towards the uterus. True/False
- 93. Fertilization (sperm joins egg) usually occurs in the vagina. True/False
- 94. The lining of the uterus is called the endometrium. True/False
- 95. Where do male gonads make testosterone?
 - a) Seminal vesicle
 - b) Prostate
 - c) Vas deferens
 - d) Testes
- 96. The epididymis produces an alkaline mucus secretion that protects the sperm when it passes through the urethra during ejaculation. True/False

- 97. Name the hormone produced by the ovaries that acts with estrogen to stimulate a menstrual cycle.
 - a) LH
 - b) Estrogen stimulating
 - c) FSH
 - d) Progesterone
- 98. Ovulation occurs around day 20. True/False
- 99. When estrogen is absent, gonads develop into ovaries. True/False 100. Tissues that produce a penis in males, produce the labia in females. True/False
- 101. Tissues that produce a scrotum in a male, produce the labia in a female. True/False
- 102. What hormone causes smooth muscles in the uterine wall to contract?
 - a) FSH
 - b) Progesterone
 - c) Estrogen
 - d) Oxytocin

THE CIRCULATORY SYSTEM

- 103. What is the name of the heart's natural pacemaker?
 - a) The Pericardial Sac
 - b) The Purkinje Fibers
 - c) Right Atrium
 - d) SA Node
- 104. The wall of the heart is made up of three layers. The Epicardium, Ecocardium, and Endocardium. True/False
- 105. A cardiac tamponade occurs when excess fluid builds within the pericardial space. True/False
- 106. Coronary arteries supply blood to the the myocardium and other components of the heart. True/False
- 107. Which of the following is not a primary cause of a myocardial infarction?
 - a) Fluid build up within the pericardial space
 - b) Lack of blood flow and oxygen to a region of the heart
 - c) Death of the cardiac muscle
 - d) When a coronary artery is blocked

- 108. What occurs when the buildup of plaque in artery walls obstructs blood flow and decreases flexibility or compliance of the blood vessels?
 - a) Coronary Artery Disease
 - b) Cardiac Tamponade
 - c) Heart Murmur
 - d) Heart Attack
- 109. What is the left atrioventricular valve more commonly known as?
 - a) Tricuspid Valve
 - b) Bicuspid Valve
 - c) Cardiac Valve
 - d) Pyloric Valve
- 110. What does the superior and inferior vena cava return blood to?
 - a) The Right Atrium
 - b) The Aortic Arch
 - c) The Left Atrium
 - d) The Right Ventricle
- 111. The arch of aorta supplies blood to the head, neck, shoulders, and arms. True/False

THE RESPIRATORY SYSTEM

- 112. The major entrance and exit of the respiratory system is the mouth. True/False
- 113. The sinuses located in the upper airway are the frontal, maxillary, sphenoid, and ethmoid. True/False
- 114. The pharynx is part of the throat located directly behind the nasal cavity and mouth, and directly below the esophagus. True/False
- 115. The pharynx has four major divisions: the nasopharynx, oropharynx, laryngopharynx, and larynx. True/False
- 116. What connects the pharynx to the trachea?
 - a) Epiglottis
 - b) Laryngopharynx
 - c) Larynx
 - d) Oropharynx
- 117. The trachea is also known as the esophagus. True/False

- 118. The pleural sac helps the lungs in breathing by transmitting movements of the rib muscles to the lungs. True/False
- 119. The diencephalon group helps maintain a constant breathing rhythm by stimulating the diaphragm and intercostal muscles to contract, resulting in inspiration. True/False
- 120. The dorsal respiratory group is the second respiratory center of the brain found in the pons. True/False
- 121. The hypothalamus and other regions of the limbic system are involved in regulating respiration. Which of the following does not trigger a response for respiration in these parts of the brain?
 - a) Pain
 - b) Temperature
 - c) Emotions
 - d) Smell

THE LYMPHATIC SYSTEM

- 122. Identify which of the following is not a primary function of the lymphatic system.
 - a) Maintain fluid balance in the body
 - b) Defend body against disease
 - c) Filter blood in the Kidneys
 - d) Absorb fats and fat-soluble vitamins and transport them to the blood
- 123. The circulatory system is directly connected to the lymphatic system. Which of the following systems is also directly connected to the lymphatic system?
 - a) Skeletal
 - b) Reproductive
 - c) Ventricular
 - d) Immune
- 124. Because lymph originally derived from blood plasma, its composition is much the same. True/False
- 125. Lymph nodes get swollen as their macrophages eat and destroy invaders. True/False

- 126. The lumbar trunk does not receive lymph from which of the following areas of the body?
 - a) Pelvis and Deep Lymph of the Abdominal Wall
 - b) Lower Limbs
 - c) Kidneys and Adrenal Glands
 - d) Upper Limbs
- 127. The lumbar trunk drains into the right lymphatic duct. True/False
- 128. The intestinal trunk does not receive lymph from which of the following areas of the body?
 - a) Gallbladder
 - b) Stomach and Intestines
 - c) Pancreas and Spleen
 - d) Liver
- 129. The intestinal trunk drains into the left lymphatic duct. True/False
- 130. Which of the following is not considered an organ of the lymphatic system?
 - a) Pancreas
 - b) Thymus
 - c) Tonsils
 - d) Spleen
- 131. The tonsils' role in the lymphatic system is to filter and protect the body from pathogens that may enter the oral and nasal cavity, by forming a protective barrier of tissue around the pharynx. True/False
- 132. If the spleen is removed, the gallbladder and pancreas take on many functions of the spleen. True/False
- 133. Which lymphatic organ atrophies as a person ages?
 - a) Gallbladder
 - b) Thymus
 - c) Pancreas
 - d) Spleen

- 134. Lymph vessels are found in the lining of what to transport fats to the blood circulation?
 - a) Respiratory Tract
 - b) Gastrointestinal Tract
 - c) Urinary Tract
 - d) Reproductive Tract
- 135. Which lymphatic disease occurs when a damaged or deformed lymphatic system accumulates too much lymph and starts to swell?
 - a) Lymphadenopathy
 - b) Lymphoma
 - c) Lymphangiomatosis
 - d) Lymphedema
- 136. Which of the following is a cancer of the lymphatic system and can be either primary or secondary?
 - a) Lymphadenopathy
 - b) Lymphoma
 - c) Lymphangiomatosis
 - d) Lymphedema

THE IMMUNE SYSTEM

- 137. The two subsystems of the immune system are the innate immune system and the adaptive acquired immune system. True/False
- 138. Platelets help in preventing the loss of blood. True/False
- 139. Leukocytes are white blood cells. True/False
- 140. Identify which of the following is not a physical barrier of the immune system.
 - a) Oils on the Skin or Hair
 - b) Unbroken Mucous Membranes
 - c) Urinary Tract
 - d) Vaginal Tract
- 141. Identify which of the following is a chemical barrier of the immune system. Circle all that apply.
 - a) Saliva
 - b) Sweat
 - c) Urine
 - d) Vaginal Secretions

- 142. Oils contain anti-microbial fatty acids that protect pathogens from growing. True/False
- 143. Inflammation is part of the adaptive acquired immune system. True/False
- 144. Compliment immunity is a physical barrier in the innate immune system. True/False
- 145. Identify the part of immunity that deals with preventing viruses.
 - a) Adaptive Acquire Immune System
 - b) Interferons
 - c) Lymphocytes
 - d) Chemical Barriers
- 146. Hormones have no impact on the immune system. True/False