A Guided Study of the Structural Systems - Skeletal

(Reference text, photos and videos for answers)

- 1. Name the division of the skeletal system that consists of the skull, vertebral column, ribs, and sternum.
 - a) Appendicular Skeleton
 - b) Axial Skeleton
 - c) Central Skeleton
 - d) Peripheral Skeleton
- 2. Name the division of the skeletal system that consists of all bones of the upper and lower limbs. (See page 16)
 - a) Appendicular Skeleton
 - b) Axial Skeleton
 - c) Central Skeleton
 - d) Peripheral Skeleton
- 3. What is the name of the zipper-like joints of the skull that are immovable? (See page 19)

a) Sutures

- b) Seams
- c) Stitches
- d) Zipper Joint
- These bones help form the canal necessary for tear translocation. (See page 12-13)
 - a) Zygomatic
 - b) Sphenoid
 - <mark>c) Lacrimal</mark>
 - d) Maxilla
- 5. This bone forms the lower jaw and is the only bone of the skull that moves. (See page 13)
 - a) Maxilla
 - <mark>b) Mandible</mark>
 - c) Lacrimal
 - d) Temporal

- 6. The eye socket is also known as the orbit. True/False
- 7. These bones form most of the upper sides of the skull. (See page 10)
 - a) Temporal
 - b) Frontal
 - c) Parietal
 - d) Sphenoid
- This bone is known as the keystone bone because so many bones join it. It also houses the sella turcica notch that houses the pituitary gland. (See page 10-11)
 - <mark>a) Sphenoid</mark>
 - b) Orbit
 - c) Parietal
 - d) Vomer
- 9. This bone forms the posterior part of the skull and contains a large opening which allows the spinal cord to exit the skull. (See page 12)
 - a) Orbit
 - b) Parietal
 - <mark>c) Occipital</mark>
 - d) Posterior
- 10. Name the four sinuses. (See page 14)
 - a) Frontal, Maxilla, Sphenoid, Ethmoid
 - b) Frontal, Maxilla, Nasal, Zygomatic
 - c) Sphenoid, Frontal, Ethmoid, Nasal
 - d) Maxilla, Frontal, Sphenoid, Vomer
- 11. What sinus is located just above the eyebrows? (See page 14)
 - a) Sphenoid
 - b) Maxilla
 - <mark>c) Frontal</mark>
 - d) Temporal

- 12. What sinus is the largest sinus and located just below the eye? (See page 14)
 - a) Sphenoid
 - b) Ethmoid
 - c) Nasal
 - d) Maxillary
- 13. The Hyoid is a U-shaped bone located in the upper neck that moves with the movement of the tongue and larynx. True/False (See page 14)
- 14. Name the types of vertebrae. (See page 15)
 - a) Cervix, Thorax, Lumbago, Scrotum, Coccyx
 - b) Cerebral, Thalamus, Limbic, Spinal Cord
 - c) Cervical, Thoracic, Lumbar, Sacrum, Coccyx
 - d) Cervical, Thorax, Lumbago, Spinal Cord, Coccyx
- 15. The C1 bone, known as the Atlas, allows one to nod the head. True/False (See page 15)
- 16. The Atlas sits on top of this C2 bone, know as the Axis. It allows one to pivot the head. True/False (See page 15)
- 17. The clavicle and scapula forms the Pelvic Girdle. True/False (See page 16)

Answer: False. Pectoral Girdle

18. The bony structure that connects the base of the spine to the upper end of the rear legs, including the sacrum and tailbone is known as the Pectoral Girdle.True/False (See page 16)

Answer: False. Pelvic Girdle

- 19. Name the two types of bone tissue structures. (See page 6-7)
 - a) Compact, Spongy
 - b) Long, Short
 - c) Hard, Soft
 - d) Regular, Irregular

- 20. What type of bone tissue is solid and found on the outside of the bone? (See page 6-7)
 - a) Spongy Bone
 - b) Regular Bone
 - c) Compact Bone
 - d) Exterior Bone
- 21. What type of bone tissue has a lot of space and is composed of an open network of struts and plates? (See page 7)
 - a) Spongy Bone
 - b) Soft Bone
 - c) Porous Bone
 - d) Irregular Bone
- 22. What maintains the mineral concentration of the matrix through the secretion of enzymes? (See page 6)
 - a) Osteocytes
 - b) Osteoporosis
 - c) Osteoblasts
 - d) Osteoclasts
- 23. What type of cells form bone? (See page 6)
 - a) Osteocytes
 - b) Osteoporosis
 - c) Osteoblasts
 - d) Osteoclasts
- 24. What type of cell breaks down bone? (See page 6)
 - a) Osteocytes
 - b) Osteoporosis
 - c) Osteoblasts
 - d) Osteoclasts
- 25. What is the most common type of cartilage? (See page 19)
 - a) Hyaline Cartilage
 - b) Elastic Cartilage

- c) Fibrocartilage
- 26. What type of cartilage can be found in the external flap of the ear? (See page 19)
 - a) Hyaline Cartilage
 - b) Elastic Cartilage
 - c) Fibrocartilage

27. What type of cartilage can be found within the knee joint? (See page 19)

- a) Hyaline Cartilage
- b) Elastic Cartilage
- c) Fibrocartilage
- 28. Name the three major bones of the arm. (See page 16)
 - a) Humerus, Ulna, Radius
 - b) Tibia, Fibula, Femur
 - c) Humerus, Tibia, Fibula
 - d) Femur, Ulna, Radius
- 29. Which bone is the largest bone of the body, also known as the thighbone of the leg? (See page 17-18)
 - a) Humerus
 - b) Tibia
 - <mark>c) Femur</mark>
 - d) Fibula
- 30. What bone is known as the shinbone? (See page 17-18)
 - a) Patella
 - <mark>b) Tibia</mark>
 - c) Femur
 - d) Fibula
- 31. What lateral bone of the lower leg is known as the calf bone? (See page 17-18)
 - a) Patella
 - b) Tibia
 - c) Femur
 - <mark>d) Fibula</mark>

- 32. Movement and stability are the main functions of joints. True/False (See page 19)
- 33. Name the three types of joint classifications. (See pages 18-20)
 - a) Sutures, Syndesmosis, Gomphoses
 - b) Ball-and-Socket, Hinge, Gliding
 - c) Fibrous, Cartilaginous, Synovial
 - d) Condyloid, Saddle, Facet
- 34. Sutures are a type of Cartilaginous Joints. True/False (See page19)

Answer: False. They are Fibrous Joints

- 35. Cartilaginous joints have bone ends that are connected by cartilage. True/False (See page 19)
- 36. Fibrous joints have bone ends that are separated by a joint cavity with synovial fluid. True/False (See page 20)

Answer: False. They are Synovial Joints

37. Hinge, Pivot, Ball-and-Socket, and Gliding are types of synovial joints. True/False (See page 20-21)

A Guided Study of the Structural Systems - Muscular

(Reference text, photos and videos for answers)

- 1. The Muscular System, along with the Nervous System, is responsible for movement of the skeletal system and the body. True/False (See page 22)
- 2. Muscles Flex. True/False (See page 23)

Answer: False. Joints flex. Muscles contract and relax.

- 3. Cardiac, Smooth, and Skeletal are the three types of muscle tissue. True/False (See pages 23-25)
- 4. Which type of muscle tissue classification attaches to and covers the bony skeleton, and have the longest muscle cells, strips called striations, and are a voluntary muscle; responsible for overall body mobility? (See page 25)
 - a) Cardiac
 - b) Smooth
 - <mark>c) Skeletal</mark>
- 5. Which muscle tissue classification is striated and not voluntary, and makes up the bulk of the heart walls? (See page 24)

a) Cardiac

- b) Smooth
- c) Skeletal
- 6. Which muscle tissue classification is not striated, and not voluntary, and is found in the digestive system? (See pages 24)
 - a) Cardiac
 - <mark>b) Smooth</mark>
 - c) Skeletal
- 7. There are a total of 150 muscles in the human body. True/False (See page 22)

Answer: False. There are over 600

- 8. Muscles always work in pairs. True/False (See pages 23)
- Adduction, Abduction, Flexion, Extension, and Rotation are the different types of muscle movement. True/False (See page 23)

10. Adduction occures when a body part moves away from the middle of midline of the body. True/False (See page 23)

Answer: False. It is abduction

- 11. Rotation occures when a body part is moved around an axis. True/False (See page 23)
- 12. The pelvic floor muscles provide support for the stomach, liver, gallbladder, and intestines. True/False (See page 28)

Answer: False. They provide support for the bladder, uterus and vagina, intestines, and rectum.

- What muscle group is the key to balance while walking and running? (See page 28)
 - a) Hamstrings
 - b) Quadriceps
 - <mark>c) Gluteus</mark>
 - d) Calves
- 14. Smooth muscles are voluntary muscles controlled by the medulla oblongata. True/False (See page 24)

Answer: False. Smooth muscles are involuntary

- 15. Skeletal muscles are voluntary and attach to to bone. True/False (See page 25)
- 16. What type of muscle classification moves food through the digestive tract? (See page 24)
 - a) Cardiac Muscle
 - b) Smooth Muscle
 - c) Flexible Muscle
 - d) Skeletal Muscle
- 17. Bending, twisting, and rotating are motions that activate the obliques. True/False (See page 30)
- The erector spinae, oblique, and abdominal muscles are considered to be the body's "core". True/False (See page 31)

A Guided Study of the Structural Systems - Fascia

(Reference text, photos and videos for answers)

- Connective tissue holds together and wraps around individual muscle fibers; supports each cell and reinforces each muscle as a whole entity. True/False (See page 32)
- 2. Muscle, Ligaments, and Tendons are three types of connective tissue. True/False (See page 32)

Answer: False. They are Tendons, Ligaments, and Fascia

- 3. What looks like a cylinder, and has regular dense connective tissue where muscle fibers end and are attached to bone? (See pages 32-33)
 - a) Tendons
 - b) Ligaments
 - c) Fascia
 - d) Joints
- Ligaments transmit the mechanical force of muscle contraction to the bones. True/False. (See pages 32-33)

Answer: False. Tendons

- Ligaments are tough fibrous bands of connective tissue that supports the internal organs and holds bones together in proper articulation at the joints. True/False (See pages 33)
- A tendon is composed of dense fibrous bundles of collagenous fibers and spindle-shaped cells known as fibrocytes, with a little gel-like component of connective tissues. True/False

Answer: False. Ligaments, not tendons.

- 7. What is the connective tissue surrounding the different sub-compartments of muscle and muscle groups, blood vessels, nerves and cells? (See page 33)
 - a) Tendons
 - b) Ligaments
 - <mark>c) Fascia</mark>
 - d) Joints

 Deep fascia stores fat and water and is a passageway for lymph, nerve and blood vessels. True/False (See page 34)

Answer: False. Superficial Fascia

- Deep fascia is a layer of fibrous connective tissue, which can surround individual muscles, and also divide groups of muscles into compartments. True/False (See page 35)
- 10. What type of fascia suspends the organs within their cavities and wraps them in layers of connective tissue membranes? (See page 35)
 - a) Visceral Fascia
 - b) Superficial Fascia
 - c) Deep Fascia
- 11. Organs and glands are surrounded by what type of fascia? (See page 35)
 - a) Superficial Fascia
 - b) Deep Fascia
 - c) Visceral Fascia
 - d) Mesentery Fascia
- 12. This type of fascia suspends the organs within their cavities and wraps them in layers of connective tissue membranes? (See page 35)
 - a) Superficial Fascia
 - b) Deep Fascia
 - c) Visceral Fascia
 - d) Mesentery Fascia
- 13. Grapefruit is a good example of how fascia looks and functions. True/False (See page 35)
- 14. What organs are housed in the thoracic cavity? (See page 36)
 - a) Stomach and Liver
 - b) Heart and Lungs
 - c) Bladder and Uterus
 - d) Brain and Nerves

- 15. What body cavity houses the renal systems, several digestive organs, and many endocrine glands? (See page 37)
 - a) Thoracic Cavity
 - b) Abdominal Cavity
 - c) Pelvic Cavity
 - d) Dorsal Cavity
- 16. Endoderm, Mesoderm, and Ectoderm are the three fascia layers that start developing in early pregnancy. True/False (See page 39)
- 17. Fascia is a perfect form of tensegrity throughout the body allowing for pushing, pulling, pressure and restrictions. True/False (See pages 40)
- 18. There are the five main components of fascia. True/False (See page 40-41)

Answer: False. There are three; Ground Substance, Elastin, and Collagen

- 19. Fascia is found at the cellular level. True/False (See page 42)
- 20. How thick are microtubules?
 - a) 1 hundreth of a meter
 - b) 1 millionth of a meter
 - c) 1 billionth of a centemeter
 - d) 1 billionth of a meter
- 21. What converted vibrational energy creates an electrical energy throughout the body? (See page 43)
 - a) Crystal
 - b) Piezoelectricity
 - c) Salt
 - d) Electricity
- 22. Crystals can absorb, store, amplify, and transmit vibrational energies.
 True/False (See page 43)

Wellness Life Zone, Foot Zone Academy 4 Guided Study of the Fascial System

- 23. What year did Wellness Life Zone, Foot Zone Academy discover new acupressure signals for the major fascial lines in the body? (See page 44)
 - a) 2013
 b) 2014
 c) 2015
 d) 2016