

## INTRODUCTION TO ANATOMY &amp; PHYSIOLOGY

## 2nd Test

Classify each of the following bones as long, short, flat, or irregular:

1. Vertebra \_\_\_\_\_ 3. Fibula \_\_\_\_\_  
2. Tarsals \_\_\_\_\_ 4. Rib \_\_\_\_\_

Explain, using examples, the following functions of bones:

5. Storage \_\_\_\_\_  
6. Protection \_\_\_\_\_

Multiple Choice - Write the letter of the most correct choice.

- \_\_\_\_ 7. Which of the following bones would not be a part of the appendicular skeleton? (a) scapula; (b) radius; (c) femur; (d) atlas bone  
\_\_\_\_ 8. Which of the following bones would not be a part of the axial skeleton? (a) patella; (b) cranium; (c) sternum; (d) sacrum  
\_\_\_\_ 9. The shaft portion of a long bone is called the (a) epiphysis; (b) diaphysis; (c) periosteum; (d) endosteum  
\_\_\_\_ 10. The end portion of a long bone is called the (a) epiphysis; (b) diaphysis; (c) endosteum; (d) periosteum  
\_\_\_\_ 11. The (a) epiphyseal line; (b) endosteum; (c) osteon; (d) periosteum is a remnant of a plate of cartilaginous tissue that brings about growth in length of a long bone.

Provide an example or specific location for each of the following types of joints:

12. Fibrous joint \_\_\_\_\_  
13. Synovial joint \_\_\_\_\_  
14. Cartilaginous joint \_\_\_\_\_

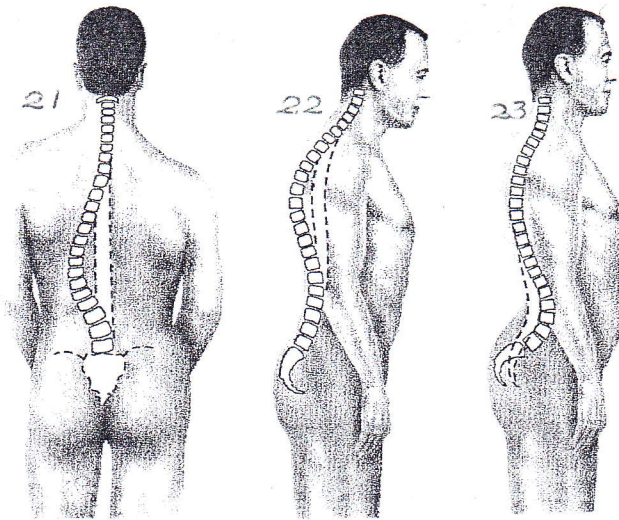
True or False

- \_\_\_\_ 15. While fetal skeletons have significant amounts of hyaline cartilage, the more ossified skeletons of children contain increasing amounts of calcium salts.  
\_\_\_\_ 16. Both osteoclasts and osteoblasts are involved in the process of bone remodeling.  
\_\_\_\_ 17. "Greenstick" fractures occur most frequently in older people whose bones have become brittle.

(True or False continued)

- \_\_\_\_\_ 18. A compound fracture is one in which broken bone ends penetrate the skin.
- \_\_\_\_\_ 19. The fontanelles in a baby's skull facilitate flexibility in the shape of the skull during childbirth.
- \_\_\_\_\_ 20. Intervertebral discs provide cushioning and flexibility between the vertebrae.

Provide the correct name for each of the following abnormal curvatures of the spine:



21. \_\_\_\_\_
22. \_\_\_\_\_
23. \_\_\_\_\_

Matching - Write the letter of the most correct choice.

- |                 |                   |                         |
|-----------------|-------------------|-------------------------|
| A. Gout         | C. Osteoarthritis | E. Rheumatoid arthritis |
| B. Ossification | D. Osteoporosis   | F. Sprain               |

- \_\_\_\_\_ 24. Process of bone formation, often replacing cartilage.
- \_\_\_\_\_ 25. Joint disorder in which ligaments or tendons are stretched excessively or torn away.
- \_\_\_\_\_ 26. Disorder characterized by breakdown of cartilage and growth of bone spurs, making movement of joints painful.
- \_\_\_\_\_ 27. Chronic inflammatory disorder involving the synovial membranes around joints. The body's own chemicals destroy its tissues.
- \_\_\_\_\_ 28. Disease in which uric acid accumulates in blood and crystallizes in joints, especially in toes and feet.
- \_\_\_\_\_ 29. Disorder involving gradual loss of bone density, often resulting in spontaneous fractures.

List the 3 types of muscle and provide a location for each.

- 30-31. \_\_\_\_\_
- 32-33. \_\_\_\_\_
- 34-35. \_\_\_\_\_

Fill in the Blank

36. A nerve impulse which has the potential of activating a muscle is known as a(n) \_\_\_\_\_.
37. The \_\_\_\_\_ theory is commonly proposed to describe mechanism of muscle contraction.
38. As a part of the muscular system, \_\_\_\_\_ attach muscles to bone.
39. Skeletal muscle is described as \_\_\_\_\_ muscle because of its striped appearance when magnified, owing to the bands of actin and myosin filaments.
- 40-41. Muscle contractions in which the muscles do not shorten are called \_\_\_\_\_ contractions. If the muscles do shorten and movement occurs, they are called \_\_\_\_\_ contractions.
- 42-43. The muscle that has the major responsibility for causing a particular movement is called the \_\_\_\_\_ mover. A muscle that opposes or reverses a movement is called a(n) \_\_\_\_\_.

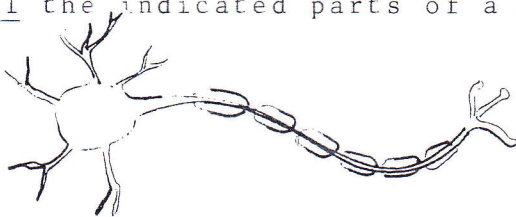
Describe the effects and benefits of the following on skeletal muscles and other body organs:

44. Aerobic exercise
45. Resistance exercise
46. What is meant by muscle tone?

Fill in the Blank

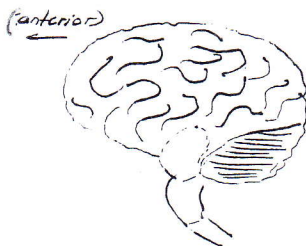
47. The \_\_\_\_\_ nervous system consists of the brain and spinal cord.
48. The \_\_\_\_\_ division of the peripheral nervous system consists of nerves that convey impulses to the central nervous system from sensory receptors located in various parts of the body.
49. The \_\_\_\_\_ nervous system regulates events that are automatic, or involuntary.

Label the indicated parts of a neuron:



50. Cell body  
51. Dendrite  
52. Axon  
53. Schwann cell

Label the indicated regions of the brain:



54. Cerebrum (cerebral hemisphere)  
55. Cerebellum  
56. Brain stem



Matching - Match the letter of the term with the correct description.

A. Auricle	G. Lens	M. Retina
B. Cones	H. Malleus	N. Rods
C. Cornea	I. Nasolacrimal duct	O. Semicircular canals
D. Incus	J. Papillae	P. Stapes
E. Iris	K. Pharyngotympanic tube	Q. Tympanic membrane
F. Lacrimal glands	L. Pupil	R. Sclera

- \_\_\_\_\_ 57. Secretes dilute salt solution over eyes.
- \_\_\_\_\_ 58. Passageway for draining excess tears into nasal cavity.
- \_\_\_\_\_ 59. White outer fibrous layer of eyeball.
- \_\_\_\_\_ 60. Transparent fibrous layer on anterior portion of eyeball.
- \_\_\_\_\_ 61. Pigmented portion of eyeball (blue eyes, brown eyes, etc.)
- \_\_\_\_\_ 62. Rounded opening through which light passes into eye.
- \_\_\_\_\_ 63. Flexible, biconvex crystal-like structure that focuses the light, located in anterior portion of eyeball.
- \_\_\_\_\_ 64. Internal sensory layer at posterior of eyeball. The image forms here.
- \_\_\_\_\_ 65. Photoreceptors that facilitate vision in dim light.
- \_\_\_\_\_ 66. Photoreceptors that facilitate color vision.
- \_\_\_\_\_ 67. Outermost portion of ear; also known as pinna.
- \_\_\_\_\_ 68. Eardrum
- \_\_\_\_\_ 69. 1st ossicle of ear; also called the hammer.
- \_\_\_\_\_ 70. 2nd ossicle of ear; also called the anvil.
- \_\_\_\_\_ 71. 3rd ossicle of ear; also known as stirrup.
- \_\_\_\_\_ 72. Connects middle ear cavity with throat.
- \_\_\_\_\_ 73. Structure found in inner ear, involved with equilibrium.
- \_\_\_\_\_ 74. Projections on surface of tongue.

Describe the meaning of the following vision terms:  
(Go beyond terms like "near-sighted"/"far-sighted")

75. Emmetropic

76. Myopic

77. Hyperopic