

# Anatomy and Physiology 2020 SSSS Test

## Division C - Integumentary, Muscular, and Skeletal

1. Which of the following is NOT a layer of the skin?

- a. Stratum Corneum
- b. Stratum Basale
- c. Stratum Sinusoidal
- d. Stratum Spinosum

2. List TWO functions of the integumentary system

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3. The protein that helps protect the skin and underlying tissue is \_\_\_\_\_

- a. Melanin
- b. Keratin
- c. Actin
- d. Creatinine

4. A burn that involves the entire epidermis and some of the dermis is \_\_\_\_ degree

- a. first
- b. second
- c. third

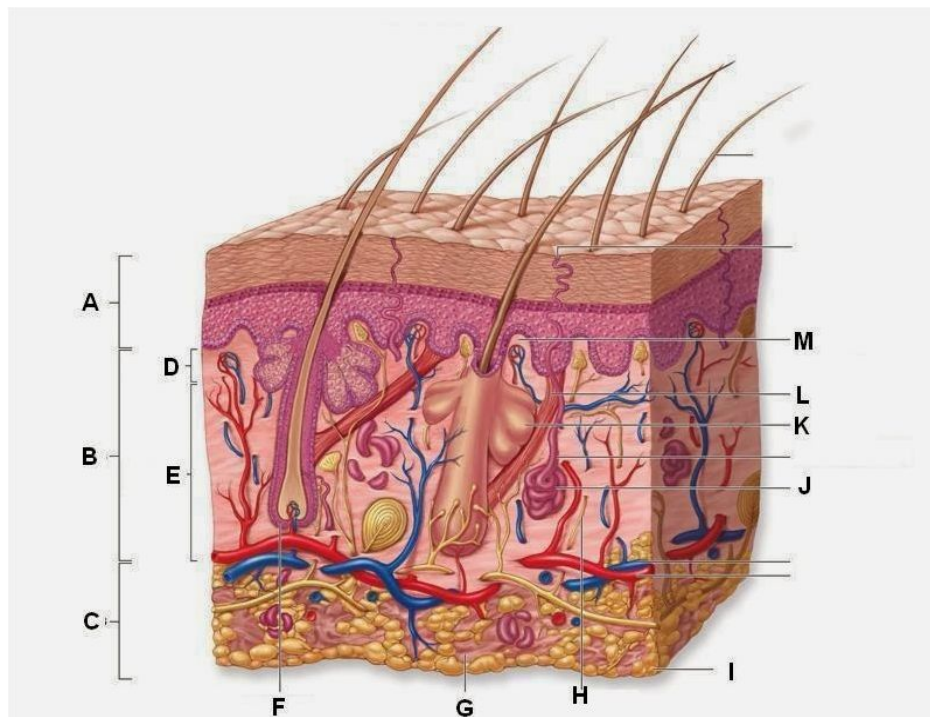
d. fourth

5. Sweat is a substance produced by \_\_\_\_\_ glands

- a. Ceruminous glands
- b. Sebaceous
- c. Holocrine glands
- d. Sudoriferous glands

Label the following diagram:

6.



- a.
- b.
- c.
- d.
- e.

f.

g.

h.

i.

j.

k.

l.

m.

7. Females have a thicker hypodermis than males

a. True

b. False

8. The likelihood of skin cancer increases due to an \_\_\_\_\_ in melanocytes

a. increase

b. decrease

9. What disease do people with a decrease in melanin poses? \_\_\_\_\_

10. Which epidermal layer include stem cells that continually undergo cell division?

\_\_\_\_\_

11. Carotene is a precursor of which vitamin? \_\_\_\_\_

12. Dendrites of neurons surrounding each hair follicle are called

what? \_\_\_\_\_

13. Vasodilation in the dermis of the skin (Circle one: increases/decreases) the amount of heat loss in the body.

14. Which of the following hormones is associated with Vitamin D?

- a. Apocrine
- b. Calcitriol
- c. Peptide
- d. Calcitrone

15. What gland is absent in thick skin? \_\_\_\_\_

16. The two main types of glands are \_\_\_\_\_ and \_\_\_\_\_ glands

17. Which of the following secures the nail to the fingertip?

- a. Hyponychium
- b. Eponychium
- c. Phalanx
- d. Lunula

18. Which of the following cells produce the most pigment molecules?

- a. Epidermal dendritic cells
- b. Melanocytes
- c. Keratinocytes
- d. Stratified cuboidal epithelial cells

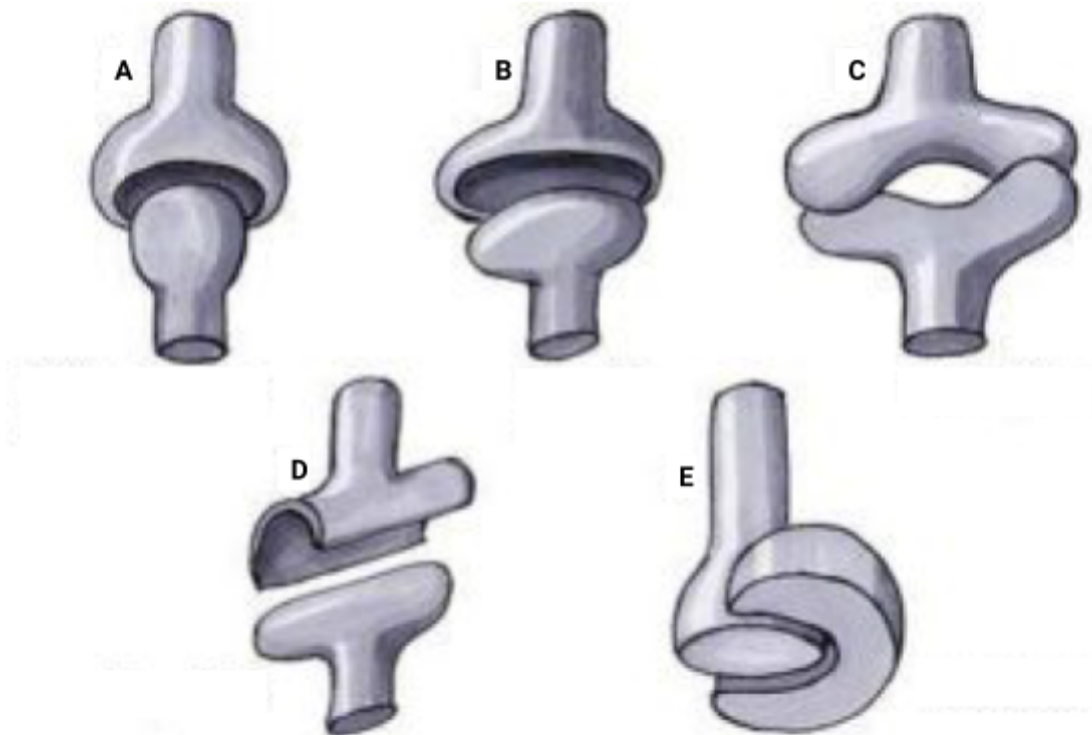
19. Most epidermal cells are:

- a. Epidermal dendritic cells
- b. Keratinocytes
- c. Squamocytes
- d. Erythrocytes

20. Would you expect an epidermal wound to bleed? Why or why not?

21. How are wrinkles produced? Explain the process in detail.

Use the following diagram for #22-#26 to match the letter of the joint to its description



22. The elbow joint is an example of this
23. The joint of the wrist that allows the palm of the hand to be turned up and down is an example of this
24. Shoulder and hip joints are an example of this
25. Also called a condyloid joint. The wrist is an example of this.
26. The thumb joint is an example of this
27. Yellow bone marrow consists mainly of \_\_\_\_\_ cells, which stores triglycerides.
28. The long, cylindrical, main portion of the bone is called the
- a. epiphyses
  - b. periosteum
  - c. metaphyses
  - d. diaphysis
29. What is the most abundant mineral salt in the extracellular matrix?
- a. calcium oxalate
  - b. sulfate
  - c. calcium phosphate
  - d. calcium carbonate
30. Spongy bone tissue is the strongest bone tissue in the human body
- a. True
  - b. False

31. Name the two methods of bone formation \_\_\_\_\_  
\_\_\_\_\_

32. Which of the following options correctly depicts the layers of a bone in order?

- a. epimysium, endomysium, perimysium
- b. perimysium, epimysium, endomysium
- c. endomysium, perimysium, epimysium
- d. perimysium, endomysium, epimysium

33. The areas between neighboring osteons are called interstitial lamellae

Label the diagram

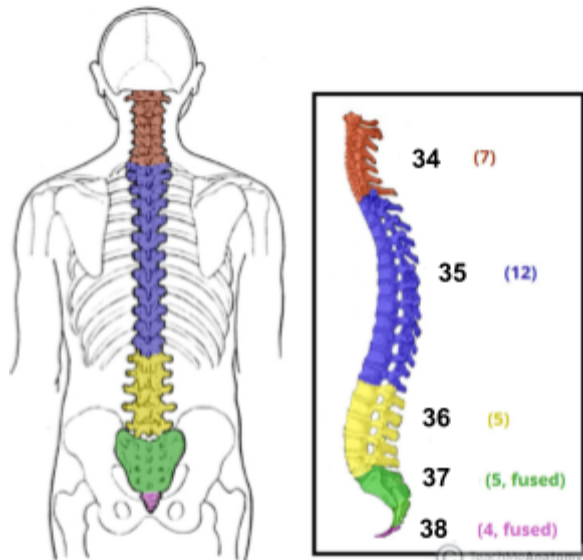
34.

35.

36.

37.

38.



39. Why is bone reabsorption important?

40. What structures pass through the hypoglossal canal?

It transmits the hypoglossal nerve from its point of entry near the medulla oblongata to its exit from the base of the skull near the jugular foramen.

41. Using the Salter-Harris fracture system, order the following statements from type I to type V

*I. fracture through the metaphysis and physis (most common; up to 75% of all physeal fractures)*

*II. fracture through the metaphysis, physis and epiphysis*

*III. fracture through the physeal plate (often not detected radiographically)*

*IV. crush injury involving part or all of the physis*

*V. fracture through the epiphysis and physis*

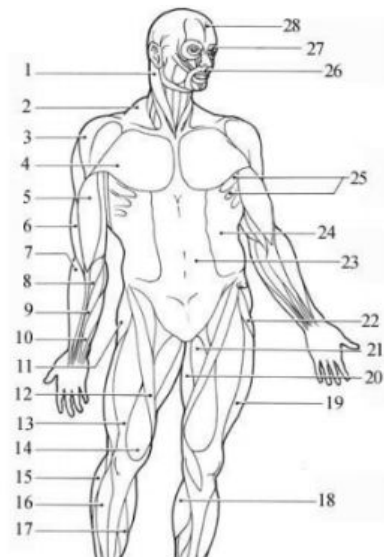
- a. I, II, III, IV, V
- b. II, IV, I, V, III
- c. III, I, V, II, IV
- d. IV, II, III, V, I

42. Give the name of #4 \_\_\_\_\_

43. Give the name of #24 \_\_\_\_\_

44. Give the name of #12 \_\_\_\_\_

45. Give the name of #1 \_\_\_\_\_





46. This description depicts which of the following disorders?

*viral infection of the nerves that control skeletal muscle movement*

- a. tetanus
- b. muscular dystrophy
- c. Myasthenia gravis
- d. Poliomyelitis

47. What's the difference between a muscle strain and muscle sprain?

48. Which of the following carries only motor output information?

- a. Cervical Spinal nerves
- b. Dorsal root
- c. Spinal cord
- d. Ventral root

49. Joints that allow the most movement (Synovial)?

- a. Amphiarthrosis
- b. Diarthrosis
- c. Synarthrosis
- d. Sarithrosis

50. Joints that are present between the ribs and the sternum (Cartilaginous)?

- a. Amphiarthrosis
- b. Diarthrosis
- c. Synarthrosis
- d. Sarithrosis

51. Joints that are present between the cranial bones (Sutures)?

- a. Amphiarthrosis
- b. Diarthrosis
- c. Synarthrosis
- d. Sarithrosis

52. The muscle tissue type that consists of a single, very long, cylindrical, multinucleated cells with very obvious striations is:

- a. cardiac muscle only
- b. skeletal muscle only
- c. cardiac and smooth muscle
- d. cardiac and skeletal muscle

53. What is the name of the neurons that stimulate skeletal muscle fibers to contract? \_\_\_\_\_

54. How does sarcomere length influence the maximum tension that is possible during muscle contractions?

55. How is the motor end plate different from other parts of the sarcolemma?

56. What factors contribute to muscle fatigue?



57. Name this skin disorder:

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58. Describe its treatment:

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Match the name of the disorder with its description

59. Loss or absence of hair, especially on the scalp; a result of heredity, aging process, systemic illness, or dermatitis; aka baldness.
60. An inflammatory disease of the sebaceous glands and hair follicles.
61. Common benign skin growths found mainly on the axilla (armpit), neck, and inguinal areas of the body; aka - skin tag.
62. A common, contagious, superficial skin infection; manifests with early vesicular or pustular lesions that rupture and form thick yellow crusts.
63. Localized redness and swelling caused by an irritant or allergen.
64. The normal loss of bone that occurs with aging is called
65. An autoimmune disease where the immune system attacks its own joints often leading to deformities is called
- a. impetigo
  - b. acne vulgaris
  - c. alopecia
  - d. acrochordon
  - e. contact dermatitis
- a. osteoporosis
  - b. osteopenia
  - c. osteogenesis
  - d. osteo inflammation
- a. Osteoporosis

- b. Rickets
- c. Gout
- d. Rheumatoid Arthritis

66. Exaggerated thoracic curvature of the spine is called

- a. Lordosis
- b. Kyphosis
- c. Scoliosis
- d. Lumbarosis

67. Identify the disorder given the following description:

*Chronic and progressive inflammatory disease of the spine. It is characterized by early sacroiliac joint involvement followed by hardening of the annulus fibrosus and surrounding connective tissue along with arthritic changes in the facet joints. The disease may cause the spine to gradually lose flexibility and stiffen. The disease is hereditary.*

- a. Rheumatoid spondylitis
- b. Myasthenia gravis
- c. Osteoarthritis
- d. muscular dystrophies