Objective: Describe the structure and functions of the skin

1. List the 5 functions of the integumentary system:
   A. **Body temperature regulation**
   B. **Protection**
   C. **Cutaneous Sensations**
   D. **Excretion and absorption**
   E. **Synthesis of Vitamin D**

2. Circle the correct answer | True or False | The dermis is superficial to the epidermis.
   A. Explain your answer:
      The epidermis is superficial to the dermis or The dermis is deep to the epidermis

3. Epidermis: **D**
4. Dermis: **F & I**
5. Subcutaneous: **F & G**

6. Label the following view of the skin:
7. What are the functions of the subcutaneous layer, and is it considered a layer of the skin?
   - The subcutaneous layer is not one of the layers of skin.
   - Attaches to underlying tissues and organs.
   - Storage for fat.
   - Supplies the dermis with blood.
   - Sensitive to pressure.
8. The epidermis is composed mostly of which type of cells? **Keratinized stratified squamous epithelium**

**Match the description to the type of epidermal cell:**

9. Keratinocytes: **C**
10. Melanocytes: **D**
11. Langerhans cells: **B**
12. Merkel cells: **A**

**Objective: Explain the basis for difference in skin colors**

Match the following pigments found in skin to their description.
There are multiple answers per pigment and all choices are to be used.

13. Melanin: **A, D, E**
14. Carotene: **C, F**
15. Hemoglobin: **B, G, H**

**Objective: Describe the structure and functions of the accessory organs of the skin**

16. List **three** specific functions of hair:

   A. **Protect from injury (scalp)**
   B. **Foreign particles (nose/ears)**
   C. **Prevents heat loss/thermoregulation**
17. Where will you NOT find hair? **On the palmer surface of the palms and planter surface of the feet.**

18. What are hair root plexuses? **Nerve endings**

For questions 19 – 23, decide if the descriptions deserve a ‘T’ for True or a ‘F’ for False. If a statement is false correct the description to make it true.

19. Hair is mainly composed of cerumen: **False**

   **Hair is mainly composed of keratin.**

20. Hair color is due to melanin: **True**

21. Sebaceous glands are associated with hair: **True**

22. Contraction of the arrector pili muscles make hair stand erect: **True**

23. When you are cutting your hair you are cutting the follicle: **False**

   **When you are cutting your hair you are cutting the shaft.**

24. Label the following view of skin’s accessory structures:
Match the following glands found in skin to their description. There are multiple answers per gland and all choices are to be used.

25. Sebaceous Glands: B, H, J
27. Apocrine Sweat Glands: K
28. Eccrine Sweat Glands: G, D

30. Where would you find matrix producing hair cells? **The bulb**

31. List three functions of nails?
   A. **Helps to grab/manipulate objects**
   B. **Scratching**
   C. **Protects ends of digits**

32. Why are nails so strong and durable? **They are made of tightly compact plates of keratinized cells.**

33. Label the following view of skin’s accessory structures:

   - **Free Edge**
   - **Nail Body**
   - **Lunula**
   - **Cuticle**
   - **Nail Root**

   **Dorsal view**