Anatomy/Physiology Study Guide - UNIT 2 INTEGUMENTARY SYSTEM

WORDS TO KNOW: Define these terms. Use your textbook and/or the Internet.

Adipose:
Pili:
Arrector pili:
Sebum:
Melanocytes:
Melanin:
Keratinocytes:
Keratinization:
Langerhans Cell (include layer of skin found in):
Macrophage cells (include layer of skin found in):
Malignant (use Google):
Metastasize:
Absorb vs secrete:
Dilate vs Constrict:

Complete the following on a separate piece of paper:
1. Answer the questions for each of the following tissue types:
   a) connective tissue: What is its function? Some connective tissue is poorly vascularized. What are the consequences of this?
   b) epithelial tissue: What is its function? Where is it found?
   c) muscular tissue: What is its function? Differentiate between the 3 types.
   d) nervous tissue: What is its function? What is the name of the cells that make up this type of tissue?

2. What are the six functions of the skin and briefly explain them.

3. a) What are the five epidermal layers called from the deepest to the most superficial?
   b) What is happening in each layer?

4. a) List the function of hair and nails.
   b) Describe the structure of a hair (shaft, root, & follicle).
   c) What protein gives hair its strength?
   d) What causes goosebumps?

5. Look at a skin diagram. Compare the structure & components of the epidermis with the structure of the dermis and hypodermis (subcutaneous layer). What is found in each of these layers?

6. Construct a flow chart (see image below) showing the relationship of the following sudoriferous glands (this term goes into the top box): apocrine, eccrine, ceruminous, and mammary. On the arrows, briefly explain the relationship (ex: "type of" or "modified version of"). Inside the box with the term, list the function (secrete...when...).

7. a) What are the two factors that lead to a person’s skin color?
   b) Describe the relationship between skin color, Vitamin B (folate) and Vitamin D.
   c) What causes albinism?
   d) What is the function of melanin?

8. What is the location and function of sebaceous glands?

9. What is the location and function of ceruminous glands?
10. How are eccrine and apocrine glands different?

11. Explain the role of skin in helping to maintain the homeostasis of normal body temperature.

12. a) Describe the causes for burns and sunburn and describe how they’re classified.
    b) List 2 reasons burns are dangerous.
    c) A person has red, blistered skin on the back of their legs and their entire left arm. Their right arm is completely burned but does not have blisters. How would you classify the burn on their legs and left arm vs. their right arm? What percentage of their body is burned?
    d) What if the person described above only had 60% of their right arm sunburned but the sunburn to their legs and left arm was the same. What would be the percentage of their body that is burned? Is this burn critical?

13. a) Describe the cause of skin cancer.
    b) What are the three types of cancer and how are they different from each other?

14. Outline the steps involved in epidermal wound healing vs. deep wound healing. Be sure to include the extra processes that must occur to heal deep tissue wounds.

15. Briefly list the cause of each of the following skin disorders:
    a) cyanosis
    b) jaundice
    c) pediculosis
    d) warts
    e) athlete’s foot
    f) ringworm
    g) acne
    h) alopecia
    i) impetigo
    j) blisters
    k) moles
    l) psoriasis
    m) shingles
    n) dandruff
    o) eczema
    p) pressure sores (bed sores)

16. In order to keep an eye on moles, people use the ABCDE rule. What does each of these letters stand for?

17. What did the 2-point sensitivity test during the lab show you?

18. Be able to completely label a skin diagram like the one below. You will have to add lines or ignore some of these lines.
   - Blood vessels
   - Fat/adipose tissue
   - Pore
   - Basement membrane
   - Hair shaft/pili
   - Nerve
   - Connective tissue
   - Epidermis
   - Hypodermis
   - Dermis
   - Hair bulb (hair follicle)
   - Sebaceous gland
   - Arrector pili muscle
   - Eccrine gland