Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_ Mods: \_\_\_\_\_

Integumentary System Review – pt. 2

1. List at least 6 general functions of skin: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. There are two distinct layers of skin ( AKA\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_membrane)
   1. Epithelial tissue makes up the more superficial layer called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. The connective tissue layer is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Though not part of the skin, the subcutaneous layer binds the skin underlying organs. What are the other functions of this layer?

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1. Why do calluses form?

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1. Explain the connection between psoriasis and epidermal cell division (pg. 173)

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* 1. Cancer occurs when cells divide too much; so why does it make sense that some cancer treatment drugs may be helpful for the treatment of psoriasis? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Complete the statement: “Specialized cells in the epidermis called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ produce the dark pigment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from the amino acid tyrosine in organelles called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.”
2. Describe how melanin protects the DNA in your skin cells:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Describe the *structural cause* of the variation of skin pigmentation in humans (IOW: what do people with darker skin have more of?)

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1. Other than genetics or UV radiation, name one other factor that can impact skin color:

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1. Why is it that no two fetuses, even identical twins, have identical fingerprints? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. List where hair is not found on a human: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Complete the following table to compare the three layers associated with skin:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Epidermis** | **Dermis** | **Hypodermis** |
| 1. AKA subcutaneous layer |  |  |  |
| 1. Most superficial |  |  |  |
| 1. Contains blood vessels |  |  |  |
| 1. Source of skin color |  |  |  |
| 1. Generally thinnest layer |  |  |  |
| 1. Generally thickest layer |  |  |  |
| 1. Contains machinery to produce facial expressions |  |  |  |
| 1. Technically, not skin |  |  |  |
| 1. Composed of adipose tissue |  |  |  |
| 1. Where the glands originate |  |  |  |
| 1. Where the hair follicle originates |  |  |  |
| 1. The most superficial layer is made of dead cells |  |  |  |
| 1. Consists of a layer of keratinized cells |  |  |  |
| 1. Though the thinnest layer it is thickest on palms and soles |  |  |  |
| 1. Contain smooth muscle |  |  |  |
| 1. Have nerve cell processes |  |  |  |
| 1. Protects against water loss |  |  |  |
| 1. Contains melanocytes |  |  |  |
| 1. Produce nail bed |  |  |  |