

A. Short Answer

1. Thin skin is a type that has relatively little stratum _____.
2. The majority of cells in the epidermis are a type called _____.
3. An epidermal cell involved in the sense of touch is called a _____ cell.
4. Dead cells of the epidermal surface are said to _____ as they flake off.
5. The epidermis cannot slide freely over the dermis because of projections of dermis called _____.
6. A bruise is also called a/an _____.
7. The action of ultraviolet light on dehydrocholesterol circulating through the skin is the first step in the synthesis of _____.
8. When it is cold, cutaneous _____ helps retain heat by reducing blood flow through the skin.
9. _____ is the removal of eschar from burned skin.
10. The oily secretion of the scalp comes from the _____ glands associated with hair follicles.
11. A _____ burn destroys epidermal and some dermal tissue, but leaves some of the dermis intact.
12. Even though it accounts for only 5% of skin cancer, _____ is the most deadly form.

B. Matching

- | | | | |
|---------------------------|------------------------------|------------------------------|--------------------------------|
| A. hemangioma | G. erythema | M. medulla | S. thermoregulation |
| B. jaundice | H. papillary layer | N. acid mantle | T. basal cell carcinoma |
| C. reticular layer | I. hematoma | O. arrector pili | U. apocrine glands |
| D. stratum basale | J. merocrine glands | P. squamous carcinoma | V. nevus |
| E. keratinocytes | K. malignant melanoma | Q. piloerection | W. stratum corneum |
| F. hypodermis | L. bulb | R. cyanosis | X. subcutaneous tissue |

_____ 1. Cells that contain most of the melanin in black or brown skin.

_____ 2. The more superficial of the two layers of dermis.

- _____ 3. Blueness of the skin due to an oxygen deficiency.
- _____ 4. Dense irregular connective tissue in deep layers of dermis.
- _____ 5. A protective chemical film that inhibits bacterial growth on the skin.
- _____ 6. A homeostatic effect of cutaneous vasoconstriction and vasodilation.
- _____ 7. Muscle that causes a hair to stand on end when it is cold.
- _____ 8. Sweat glands that apparently function mainly as scent glands.
- _____ 9. Location of most subcutaneous fat.

C. True or False (if false, cross out the incorrect portion and write in the correction).

- 1. Basal and squamous cell carcinoma are benign forms of skin cancer.
- 2. All new epidermal cells are produced by the stratum basale.
- 3. Death from a severe burn results from fluid loss, infection and eschar.
- 4. Jaundice is a yellowish skin color caused by the pigment carotene.
- 5. The dermis is made of stratified squamous epithelium.
- 6. The most abundant protein of the epidermis is keratin, while the most abundant protein of the dermis is collagen.
- 7. A man can inherit pattern baldness only from his mother, but a woman can show this trait only if she inherits it from both her mother and father.

D. Multiple Choice

- _____ 1. In the stratum _____, the epidermal cells shrink and pull, making the desmosomes visible.
 - A. corneum
 - B. lucidum
 - C. granulosum
 - D. spinosum
 - E. basale

- _____ 2. Which of the following skin discolorations, when persistent, most likely suggests child abuse?
 - A. bronzing
 - B. jaundice
 - C. hematoma
 - D. hemangioma
 - E. pallor

- _____ 3. The type of gland most associated with hair follicles is:
- A. mucous
 - B. parotid
 - C. apocrine
 - D. ceruminous
 - E. sebaceous
- _____ 4. The thickest layer of the epidermis is:
- A. reticular
 - B. stratum lucidum
 - C. stratum granulosum
 - D. stratum spinosum
 - E. papillary layer
- _____ 5. The most urgent issue in treating extensive third-degree burns is _____.
- A. scarring
 - B. infection control
 - C. pain
 - D. toxicity
 - E. skin grafting
- _____ 6. One of the American Cancer Society's keys for identifying malignant melanoma includes:
- A. desquamation
 - B. a round border
 - C. pearly, beaded edges
 - D. diameter over 3 inches
 - E. the discharge of pus
- _____ 7. The _____ glands serve for evaporative cooling.
- A. apocrine
 - B. merocrine
 - C. holocrine
 - D. sebaceous
 - E. ceruminous
- _____ 8. The protein of the stratum corneum is:
- A. soft keratin
 - B. ceruminous
 - C. carotene
 - D. collagen
 - E. elastin
- _____ 9. The pigment of brown to black skin is synthesized by:
- A. Merkel cells
 - B. chromocytes
 - C. melanocytes
 - D. keratinocytes
 - E. mast cells
- _____ 10. A skin pigment that comes from the diet rather than being synthesized by the body is:
- A. trichosiderin
 - B. hematin
 - C. carotene
 - D. keratin
 - E. melanin
- _____ 11. _____ is a type of hair found almost exclusively in fetuses and children born prematurely.
- A. lanugo
 - B. pilus
 - C. nevus
 - D. vellus

_____ 12. Pattern baldness is more common in men than in women because:

- A. it is caused by a dominant allele
- B. it is an x-linked recessive trait
- C. it is an autosomal trait
- D. it is suppressed by estrogen
- E. it is caused by testosterone

_____ 13. The _____ glands of humans are probably comparable to the scent glands of other animals.

- A. merocrine
- B. ceruminous
- C. sebaceous
- D. mammary
- E. apocrine

_____ 14. Which of the following terms is **least** related to the others?

- A. reticular layer
- B. panniculus adiposus
- C. superficial fascia
- D. hypodermis
- E. subcutaneous tissue

_____ 15. Unusual redness of the skin is called:

- A. cyanosis
- B. erythema
- C. jaundice
- D. melanoma
- E. pallor

_____ 16. Which of these is/are true?

1. Mammary glands are modified apocrine sweat glands.
2. People who use sunscreen have a greater chance of getting some forms of skin cancer than those who don't use it.
3. The hypodermis contains most subcutaneous fat.
4. Hemangiomas are particularly malignant forms of skin cancer.

- A. 1 & 3
- B. 2 & 4
- C. 1, 2, & 3
- D. 4 only
- E. All of the above

_____ 17. Which of these is/are true?

1. Merocrine sweat glands serve to cool the skin.
2. When men live with women their beards grow faster.
3. Apocrine sweat glands are scent glands.
4. Diaphoresis is insensible (odorless) perspiration.

- A. 1 & 3
- B. 2 & 4
- C. 1, 2, & 3
- D. 4 only
- E. All of the above

_____ 18. Which of these is/are true?

1. Next to muscle, the skin is the largest organ of the body.
2. Thick skin contains all the same glands associated with thin skin.
3. *Dermatophagoides* feeds on dirt found in the house.
4. A second degree burn damages the epidermis and some of the dermis.

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|--------------|---------------------|
| A. 1 & 3 | D. 4 only |
| B. 2 & 4 | E. All of the above |
| C. 1, 2, & 3 | |

_____ 19. Skin color can be determined by the pigments _____.

1. erythema
2. carotene
3. jaundice
4. melanin

- | | |
|--------------|---------------------|
| A. 1 & 3 | D. 4 only |
| B. 2 & 4 | E. All of the above |
| C. 1, 2, & 3 | |

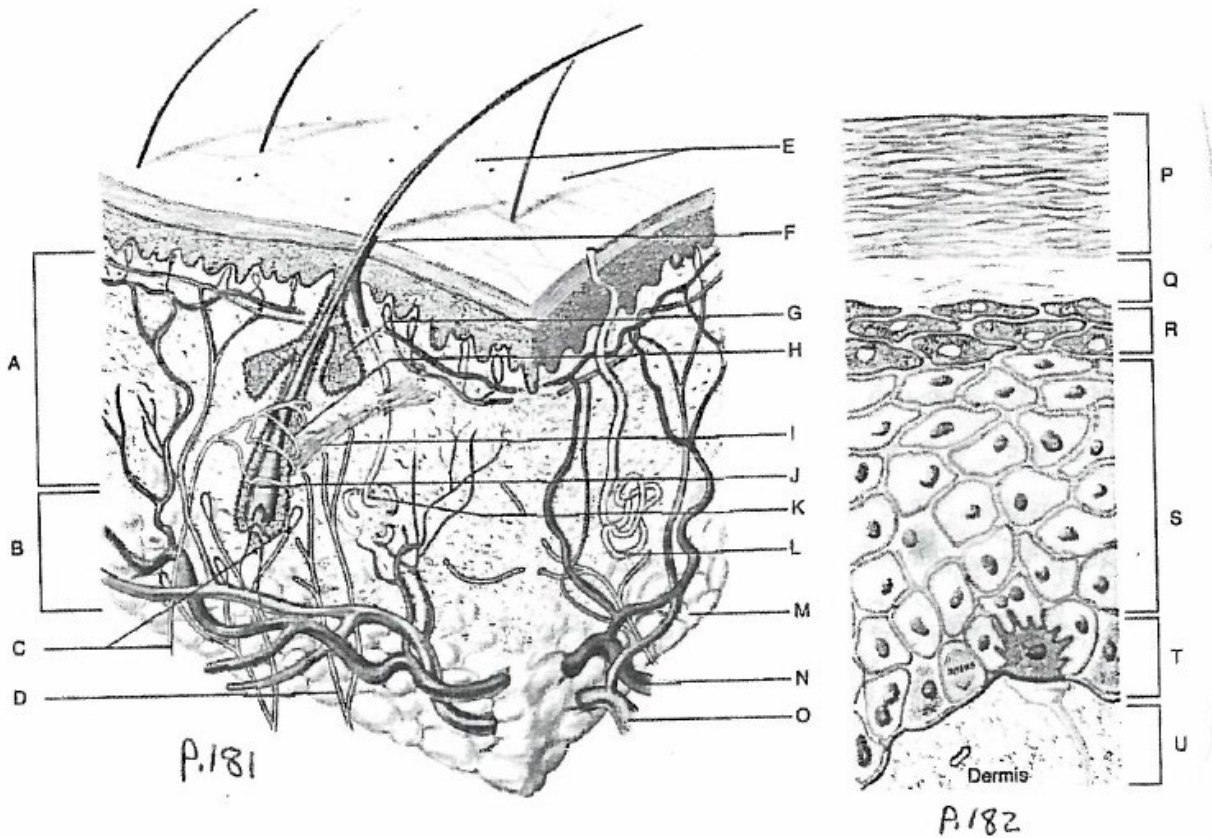
E. Word Origins: Identify the meaning of the portion of the words in their context or as a pre/suffix.

1. In the word **epidermis**, *epi* means _____.
2. In the word **keratinocyte**, *kerat* means _____.
3. In the word **keratinocyte**, *cyte* means _____.
4. In the word **lucidum**, *lucid* means _____.
5. In the phrase **linea alba**, *linea* means _____.
6. In the word **hemangioma**, *angi* means _____.
7. In the word **sudoriferous**, *sudor* means _____.
8. In the word **sudoriferous**, *fer* means _____.
9. In the word **diaphoresis**, *dia* means _____.
10. *dendr-* means _____.
11. *melan-* means _____.
12. *-oma* means _____.
13. *cata-* means _____.
14. *hirsut-* means _____.

F. Which One Does Not Belong? Identify which option does NOT fit with the others, then write a SHORT explanation of why. There may be a couple of acceptable answers, depending on your reply.

1. a) Langerhans cells b) keratinocytes c) Merkel cells d) melanocytes
2. a) apocrine b) sudoriferous c) merocrine d) ceruminous
3. a) prevents sunburn b) thermoregulation c) prevents dehydration d) makes vitamin D

G. Figure Exercise: Match the statement with the structure in the diagrams.



- _____ 1. Produces most sweat when we exercise.
- _____ 2. Gives off dander.
- _____ 3. Produces glycolipids that waterproof the skin.

- _____ 4. Contains melanocytes, Merkel cells, and keratinocytes.
- _____ 5. Holocrine glands that secrete contents of broken-down cells.
- _____ 6. Causes hair to move within the skin in response to stimuli.
- _____ 7. Region containing most glands.
- _____ 8. Especially abundant in the groin and axillary regions.
- _____ 9. Present only in thick skin where keratinocytes are densely packed with eleidin.
- _____ 10. Home of dendritic cells which protect against infections.