1. The __________________ is the outer layer of the skin.
   Name the tissue found in this layer. __________________________________________

2. Name the 5 strata (from deepest to most superficial) found in the outer layer of skin.
   ________________________________________________________________________
   ________________________________________________________________________
   ________________________________________________________________________
   ________________________________________________________________________
   ________________________________________________________________________

3. Which stratum gives rise to new cells in the epidermis? _________________________
   Which stratum is not seen easily in thin skin? _________________________________
   Which stratum consists of dead, cornified cells that provide protection? ______
   What type of gland gives moisture to this dead layer? _________________________
   What tissue structure gives the stratum spinosum a spiny look? ________________
   Describe the cells in the stratum granulosum. ________________________________

4. The __________________ is the inner layer of the skin.
   Name its small superficial layer. ___________________________________________ 
   Name the tissue found in this superficial layer. _______________________________
   Dermal papillae form epidermal ridges. What is the common name for these? __________

5. Name the deeper layer of the dermis. _______________________________________
   Name the tissue found in this deeper layer. ___________________________________

6. Name the subcutaneous layer that is not part of the integument. __________________
   Name tissues found in the subcutaneous layer. ________________________________

7. Name the two pigments that give color to skin. ________________________________

8. _______________ is a yellow color that indicates liver disease.
   _______________ is a bluish color in nailbeds that indicates decreased oxygen in blood.

9. What color will the skin become if vasoconstriction occurs? ____________________
   What color will the skin become if vasodilation occurs? ________________________

10. _______________ are birthmarks consisting of an outgrowth of blood vessels.

11. Lines of ___________________ are areas where the dermis attaches to the epidermis.

12. Light "peach fuzz" hair is called ___________________.
    Thick, coarse hair is called _____________________.
    Hair on the arms and legs is called__________________.
    Hair that has stopped growing and will eventually fall out is called _________ hair.
13. Hairs are produced by hair ___________________.
Which layer of the skin produces hairs? ______________________

14. What type of gland is associated with hair follicles? ______________________
What is the function of the arrector pili muscle that is associated with each hair follicle?
____________________________________________________________________

Name the nervous system structure that allows you to feel movement of hairs.
____________________________________________________________________

15. Give the functions for these integumentary system glands.

<table>
<thead>
<tr>
<th>GLAND</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holocrine sebaceous</td>
<td></td>
</tr>
<tr>
<td>Merocrine sweat</td>
<td></td>
</tr>
<tr>
<td>Apocrine sweat</td>
<td></td>
</tr>
<tr>
<td>Ceruminous glands</td>
<td></td>
</tr>
<tr>
<td>Mammary glands</td>
<td></td>
</tr>
</tbody>
</table>

16. Name the tissue that produces nails. _________________________________________

17. The ______________ is the nail bed.
The eponychium and hyponychium form the ____________________.

18. The first step in healing and repair of skin involves _________________________ in which muscle sphincters in little capillaries draw up and bleeding slows.
Then, ______________________ and ______________________ come to the injury site.
Finally, the epithelium invaginates and ______________________ produce scar tissue.

19. ______________________ carcinoma is the most common type of skin cancer that arises from the stratum germinativum.
Less common _________________ carcinoma arises from the stratum granulosum.
___________________ is the type of skin cancer that arises from melanocytes and metastasizes.

20. A ________ or __________ is a benign growth that contains a lot of melanin.

21. ______________________ is a disorder in which melanocytes cannot produce melanin.
_______________________ is a disorder in which the melanocytes die.

22. A first degree burn destroys the ______________________ and causes redness and pain.
A second degree burn destroys the ______________________ and causes blisters.
A third degree burn destroys the ______________________.

23. Give 3 reasons why third degree burns are extremely dangerous:
____________________________________________________________________
1. epidermis; stratified squamous epithelium
2. stratum basale/germinativum; stratum spinosum; stratum granulosum; stratum lucidum; stratum corneum
3. basale/germinativum; lucidum; corneum; holocrine sebaceous; protein fibers; granular keratohyaline
4. dermis; papillary layer; areolar connective; fingerprints
5. reticular layer; dense irregular connective
6. hypodermis; areolar and adipose
7. melanin and carotene
8. jaundice; cyanosis
9. pale/white; red
10. hemangiomas
11. cleavage
12. vellus; terminal; intermediate; club
13. follicles; epidermis
14. sebaceous/oil; causes hairs to stand up straight; root hair plexus

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<tbody>
<tr>
<td>Holocrine sebaceous</td>
<td>Secrete oil</td>
</tr>
<tr>
<td>Merocrine sweat</td>
<td>Secrete sensible sweat over most of body</td>
</tr>
<tr>
<td>Apocrine sweat</td>
<td>Secrete smelly sweat in axillae and pubic areas</td>
</tr>
<tr>
<td>Ceruminous glands</td>
<td>Secrete cerumen/earwax in ears</td>
</tr>
<tr>
<td>Mammary glands</td>
<td>Secrete milk</td>
</tr>
</tbody>
</table>

15. stratified squamous epithelium
16. lunula; cuticle
17. vascular spasm; platelets; phagocytes; fibroblasts
18. basal cell; squamous cell; melanoma
19. mole; nevus
20. albinism; vitiligo
21. epidermis; epidermis and part of dermis; epidermis and dermis
22. fluid loss; hypothermia; infection