

Chapter 5- Computer Lab The Integumentary System

Using the given website, <http://www.zoology.ubc.ca/~biomania/tutorial/skin/outline.htm>, answer the questions and complete the statements.

Use the  to navigate between pages.

Introduction and Objectives

- 1 The _____ is one of the largest and heaviest organ of the body.
- 2 The two layers of the skin are the _____ and the _____.
- 3 List the 4 appendages (accessory organs) of the skin.
- 4 Another name for subcutaneous tissue is _____.
- 5 List the 7 functions of the integumentary system.



The Skin

The Epidermis

- 1 What type of tissue is the epidermis? _____
- 2 List 2 functions of the protein keratin.
- 3 List the 4 types of epidermal cells.
- 4 What is the function of a keratinocyte?
- 5 What are Merkel Cells?
- 6 What do melanocytes produce?
- 7 What type of cell is a Langerhans cell?

You will only need to know about the stratum basale and stratum corneum of the epidermis.

- 8 The _____ is the deepest epidermal layer.

- 9 What two types of epithelial cells will you find in the stratum basale?
- 10 The 3 types of cells found in the stratum basale are _____, that produce keratin, _____, that produce the pigment melanin, and _____, or sensory receptors.
- 11 What is the function of the pigment melanin?
- 12 The _____ is the outermost epidermal layer.
- 13 What type of epithelial cell would you find in the stratum corneum?
- 14 What does keratinized mean?

The Dermis

- 1 List the 7 types of appendages (accessory organs) found within the dermis.
- 2 _____ is the outer layer closest to the epidermis.
- 3 What type of connective tissue is the papillary layer composed of?
- 4 List the 4 types of appendages (accessory organs) found within the papillary layer.
- 5 _____ is the deeper layer and the thickest of the dermis.
- 6 What type of connective tissue is the reticular layer composed of?
- 7 List the two types of fibers found in the reticular layer.
- 8 List the 5 types of appendages (accessory organs) found within the reticular layer.



The Skin Appendages

Hair

- 1 The primary function of hairs is _____.
- 2 Hair is made of dead _____ cells.
- 3 The two areas of hair is the _____ and the _____.

- 4 What is the distinguishing characteristic that determines whether the part of hair is the shaft or the root?
- 5 What is the shape of the shafts of your hair?
- 6 The root of a hair is contained inside a bag called the _____.
- 7 As the older hair cells are pushed upward by the newer hair cells produced, they become increasingly _____ and die.
- 8 Associated with each hair follicle is a tiny band of smooth muscle: the _____.
- 9 Contraction of the arrector pili muscles causes _____.

Sebaceous Glands

- 1 Sebaceous glands are _____.
- 2 Sebaceous glands secrete _____.
- 3 Where are oil glands **not** found?

Sweat Glands

- 1 _____ are the most common type of sweat gland.
- 2 What is sweat?
- 3 What is the function of sweat?
- 4 _____ are found mainly in the skin of the armpits, of the anogenital areas and of the areola of the breasts.

Nails

- 1 _____ are hard plates of tightly packed keratinized cells.
- 2 List the 3 regions of the nail.
- 3 The _____: portion of the nail that is visible.
- 4 The nail body rests upon the _____.
- 5 The _____: visible portion of the nail that extend past the end of the digit.
- 6 The _____: hidden portion of the nail that is embedded in a fold of skin (or nail fold).
- 7 The site of nail growth is the _____ that is found beneath the nail root.



The Hypodermis

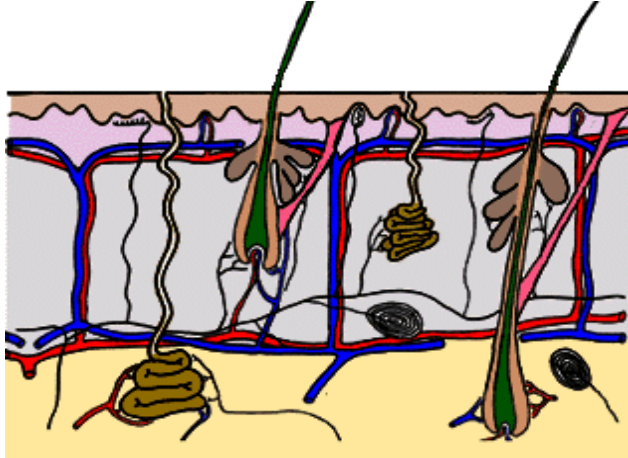
- 1 Is the hypodermis part of the skin?
- 2 What types of connective tissue is the hypodermis composed of?

3 What is the function of the hypodermis?

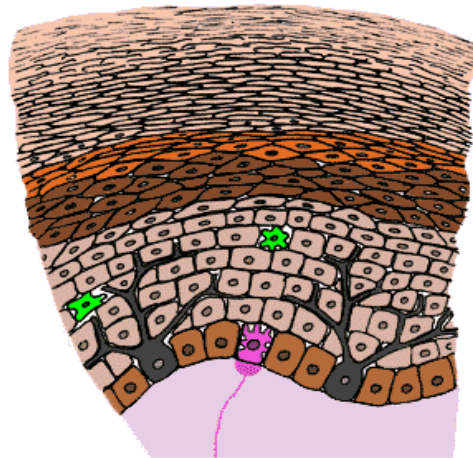


Click on Quiz #1

Using the diagram below, label the epidermis, dermis, hypodermis, hair, sebaceous gland, Pacinian corpuscle, sweat glands, Meissner corpuscle, free nerve endings



Using the diagram below, label the epidermis, dermis, keratinocyte, Langerhans cell, melanocyte, melanin, Merkel cell



Using the diagram below, label the shaft, root, follicle, sebaceous gland, arrector pili muscle

