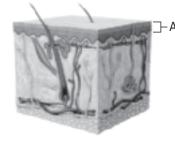


1 Identify the layer of skin labeled A that contains cells with keratin and melanin.



- **A** epidermis
- **B** dermis
- **C** subcutaneous layer
- **D** nerve tissue layer

2 Which layer of the skin continually divides by mitosis to replace cells that are lost from the skin's surface?

- **A** fatty connective tissue
- **B** inner epidermal layer
- **C** the dermis
- **D** melanin-producing cells

(3) Which type of tissue contracts causing hair and skin to stand up and form a "goose bump?"

- **A** muscle
- **B** hair follicle
- **C** sweat gland
- **D** hair shaft

A What characteristic of skin is important for bone formation?

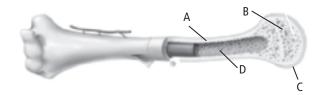
- **A** Sweat absorbs body heat when it evaporates and cools skin.
- **B** Vitamin D is made when skin is exposed to ultraviolet light.
- **C** Nerve endings in the dermis protect from scrapes and breaks.
- **D** Intact skin prevents entry of many microorganisms and foreign substances.

5 What type of damage to skin is characterized by redness, mild discomfort, and the death of only epidermal cells?

Class

- **A** first degree burns
- **B** deep scrapes
- **C** third degree burns
- **D** uncontrollable division of cells

Use the diagram below to answer questions 6 and 7.



6 What type of tissue is located at the area labeled A in the illustration above?

- **A** compact bone
- **B** spongy bone
- **C** marrow
- **D** cartilage

Where is spongy bone located in the diagram above?

- A A
- **B** B
- **C** C
- DD

(B) What produces red and white blood cells and platelets?

- **A** osteoblasts
- **B** osteoclasts
- **C** red bone marrow
- **D** yellow bone marrow

An elbow is an example of what type of joint?

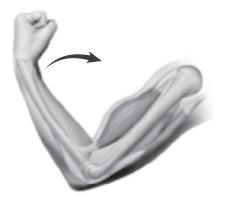
- **A** ball-and-socket
- **B** pivot
- **C** hinge
- **D** gliding

- **A** bursitis
- **B** osteoarthritis
- **C** sprains
- **D** rheumatoid arthritis

Which type of muscle is under conscious control?

- **A** smooth muscle
- **B** skeletal muscle
- **C** cardiac muscle
- **D** involuntary muscles

What does the illustration below describe about muscles?



- **A** Muscles always push but never pull.
- **B** One muscle in a pair relaxes as the other contracts.
- **C** Sarcomeres lengthen as muscles contract.
- **D** Paired muscles contract at the same time.

13 In contrast to muscles in a long-distance runner, muscles in a weight lifter have _____

- **A** more myoglobin
- **B** more mitochondria
- **C** fewer mitochondria
- **D** fewer fast-twitch muscles

During strenuous activity, lack of which substance limits ATP available for muscle contraction?

- A lactic acid
- **B** calcium
- **C** oxygen
- **D** melanin

1 The part of the muscle that contracts is the

- **A** sarcomere
- **B** muscle fiber
- **C** myosin
- **D** actin