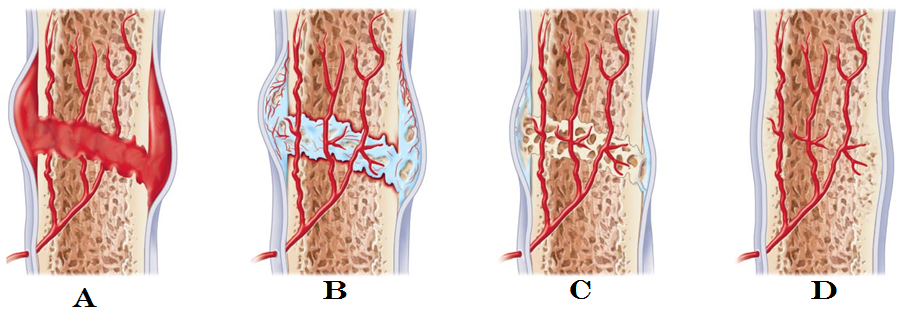
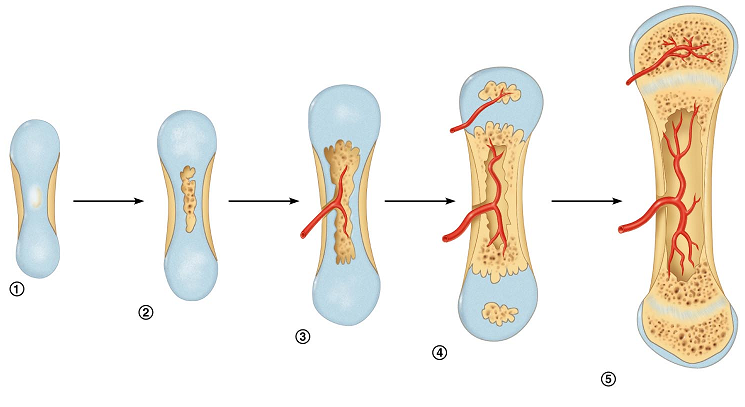
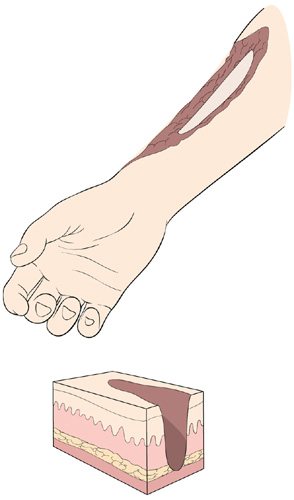
**BSC 181 Exam Two**

Each question has **one** correct answer. Please read each question carefully before responding.

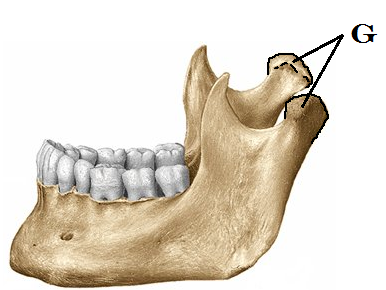
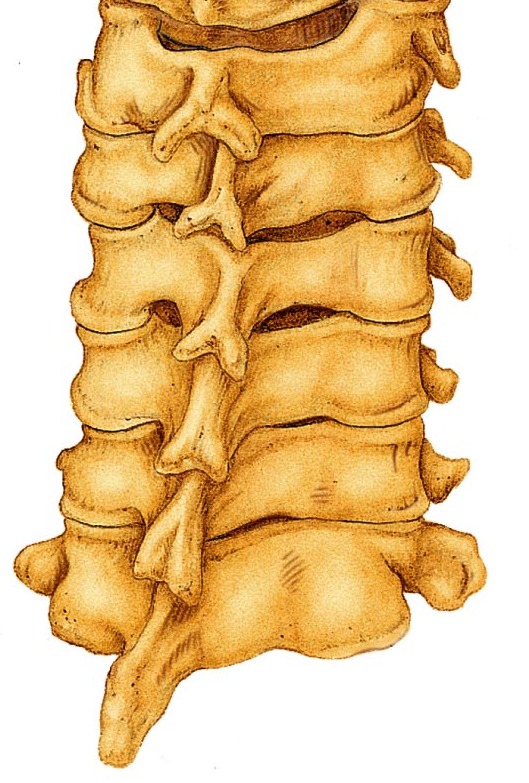
1. Apocrine sweat glands
2. are most common in the armpit and groin
3. respond only to elevated body temperature
4. are located in the palms of the hand and soles of the feet
5. are associated with mucus
6. produce a conditioning oil for the skin
7. Red bone marrow is responsible for
   1. fat storage
   2. formation of red and white blood cells
   3. formation of white blood cells only
   4. formation of red blood cells only
   5. carbohydrate storage
8. As epidermal cells are pushed toward the surface, strands of tough water-proof protein called \_\_\_\_\_ develop in their cytoplasm
9. stratum germinativum
10. collagen
11. keratin
12. elastin
13. carotene



1. The image above demonstrates bone repair. In which one would you find the soft callus?
   1. Image A
   2. Image B
   3. Image C
   4. Image D
   5. The soft callus is present in all stages
2. Which cell type is NOT present in the epidermis?
   1. Melanocytes
   2. Langerhans cells
   3. Merkel Cells
   4. Keratinocytes
   5. Kuppfer cells
3. The type of articular cartilage that is found at the end of joints as well as the soft portions of the nose is
4. myocartilage
5. keratin
6. elastic
7. hyaline
8. fibrocartilage

1. Which process is represented above?
   1. Osteopoesis
   2. Osteogenesis
   3. Intramembranous ossification
   4. Interosseus calcification
   5. Endochondral ossification
2. Which layer of epidermis is the deepest layer and responsible for growth?
   1. Stratum spinosum
   2. Stratum lucidum
   3. Stratum basale
   4. Stratum granulosum
   5. Stratum corneum
3. Osteoblasts are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; whereas osteoclasts are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. mature bone cells; immature bone cells
5. bone repairing cells; bone repairing cells
6. bone building cells; bone destroying cells
7. immature bone cells; mature bone cells
8. bone destroying cells; bone building cells
9. What type of burn is described?

**Full thickness burn, no pain, no edema. Cherry red**

1. first degree burn
2. second degree burn
3. third degree burn
4. fourth degree burn
5. fifth degree burn
6. The presence of an epiphyseal disk indicates
7. the marrow has ruptured out of its cavity
8. the bone is still growing
9. the bone has matured
10. the person is over 30 years old
11. the bone diameter is increasing
12. Identify the bone to the right
    1. Mandible
    2. Maxilla
    3. Sphenoid bone
    4. Vomer
    5. Temporal bone
13. Identify “G”
    1. Occipital Condyles
    2. Mandibular fossas
    3. Alveolar Margins
    4. Mandibular condyles
    5. Coronoid Processes
14. Which type of fine hair would be found in both children and in adult females?
15. lanugo
16. alopecia
17. vellus
18. terminal
19. axillary
20. Exposure to ultraviolet light causes the skin to darken by stimulating the production of
21. keratin
22. seratonin
23. melanin
24. carotene
25. melatonin
26. Which of the ABC’s of skin cancer (melanoma) are **incorrectly** paired?
    * 1. A: Appearance
      2. B: Border
      3. C: Color
      4. D: Darkness
    1. 1 and 2 are incorrect
    2. 2 and 3 are incorrect
    3. 3 and 4 are incorrect
    4. 1 and 4 are incorrect
    5. 4 is the only incorrect option
27. Which three pigments are responsible for skin color?
    * + 1. Melanin
        2. Biliverdin
        3. Carotene
        4. Hemoglobin
        5. Myoglobin
           1. 1, 4, 5
    1. 2, 4, 5
    2. 1, 2, 3
    3. 1, 2, 5
    4. 1, 3, 4

1. Which **region** are these vertebrae from?
   1. Cervical
   2. Thoracic
   3. Lumbar
   4. Sacral
   5. Coccygeal
2. Which of the following is **NOT** an **exocrine** gland?

a. salivary glands

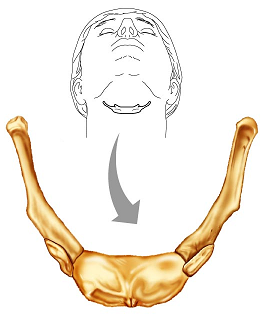
b. sweat glands

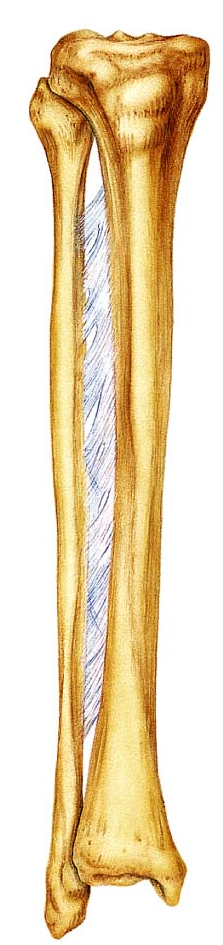
c. sebaceous glands

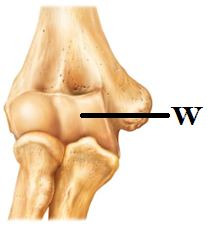
d. digestive glands

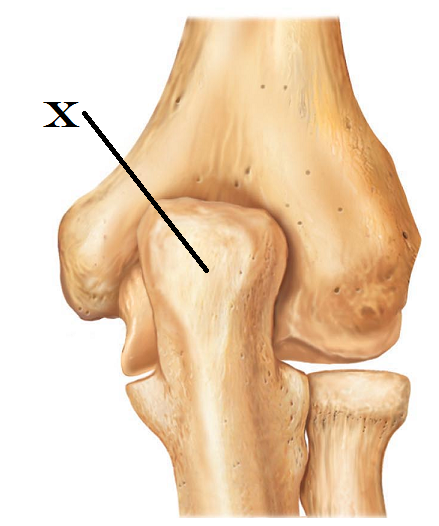
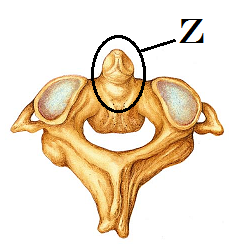
e. pituitary gland

1. Which skin cancer is being described: **Arises from keratinocytes of stratum spinosum; most often appears on scalp, ears, and lower lip; fast growing; treated by removal or radiation**
2. Basal cell carcinoma
3. Squamous cell carcinoma
4. Small cell carcinoma
5. Melanoma
6. The description fits both basal cell and squamous cell carcinomas



1. Which bone is shown in the image to the right? This bone does not articulate with other bones.
2. C1, atlas
3. C2, axis
4. First rib
5. hyoid
6. patella
7. Match the term to the following definition:   
   “narrow, slit like opening”
8. Trochanter
9. Tuberosity
10. Fissure
11. Foramen
12. Fossa
13. The thinner and more slender of these two bones is the
    1. Radius
    2. Ulna
    3. Tibia
    4. Fibula
    5. Femur
14. Match the term to the following definition:   
    “a rounded articular projection”
    1. Head
    2. Facet
    3. Condyle
    4. Turburcle
    5. Meatus
15. Within an osteon, what is the **function** of the canaliculi?
16. Provides structural support for the bone
17. Provides a pathway between the lacunae and the central canal
18. Clears out the debris within the central canal
19. Acts as an attachment site for muscles
20. Provides small cavities or nests that house osteocytes
21. Which type of ossification starts with a thin, fibrous tissue that gets filled in with bone: seen in the skull
22. synchondesmal ossification
23. syndesmosis ossificiation
24. chondrocartilaginous ossification
25. endochondral ossification
26. intramembranous ossification
27. Where are the **secondary** ossification centers located in long bones?
28. epiphysis
29. diaphysis
30. enuresis
31. syndesmosis
32. most long bones will not have secondary ossification centers
33. Which “law” relates to bony growth and adaptation to stresses?
    1. Wolff’s Law
    2. Weirneke’s Law
    3. The law of osseous hyperplasia
    4. Starling’s Law
    5. Cole’s Law
34. In which bones are we most likely to observe a **depression** fracture?
35. Vertebra
36. Skull
37. Femur
38. Rib
39. Sternum
40. In which bones are we most likely to observe a **compression** fracture?
    1. Femur
    2. Vertebra
    3. Skull
    4. Rib
    5. Sternum
41. Which ribs have **no** attachment to the sternum
42. all of the ribs are attached to the sternum
43. floating ribs
44. true ribs
45. flying ribs
46. ribs one through seven
47. The half-moon shaped structure at the base of the nail is called
    1. Moonula
    2. Lateral fold
    3. Lunula
    4. Eponychium
    5. Hyponychium
48. Which of these bones of the skull is **NOT** a bone found in the **cranium**?
    1. Parietal
    2. Occipital
    3. Sphenoid
    4. Vomer
    5. Frontal
49. The epidermis has four or five layers, depending on its location. One layer is present in thick skin that is not present in any other location. Which is it?
    1. Stratum germinativum
    2. Stratum granulosum
    3. Stratum corneum
    4. Stratum spinosum
    5. Stratum lucidum
50. Identify the structure “w”
    1. Trochlea
    2. Olecranon Process
    3. Ulnar Head
    4. Capitulum
    5. Medial epicondyle



1. Which of the following statements is **correct** regarding spinal curves?
2. The cervical kyphosis is formed after the infant holds up his/her own head
3. The cervical lordosis is a primary curve
4. The thoracic kyphosis is a primary curve
5. The lumbar kyphosis is a secondary curve
6. The sacral lordosis is formed after an infant begins to walk upright
7. Which of these is **NOT** a carpal bone?
8. lunate
9. hamate
10. cuneiform
11. scaphoid
12. capitate
13. Identify “K”
    1. Inferior Tubercle
    2. Fovea centralis
    3. Femoral head
    4. Lesser Trochanter
    5. Medial epicondyle
14. Identify “M”
    1. Lateral Epicondyle
    2. Medial Condyle
    3. Patellar surface
    4. Acetabulum
    5. Intercondylar fossa
15. Which of the vertebrae have a transverse foramina?
    1. all of the cervical vertebrae
    2. all of the thoracic vertebrae
    3. all of the lumbar vertebrae
    4. all of the vertebrae
    5. some of the cervical and some of the thoracic vertebrae
16. Which of the following is correct of the female pelvis when comparing it with the male pelvis?
17. there are no anatomical differences
18. distance between the female ischial spines is less
19. the female pelvis is tall and narrow
20. the angle of the female pubic arch is smaller
21. distance between the female ischial spines is greater
22. Calculate how many **long bones** there are in the hand
23. fourteen
24. twenty
25. nineteen
26. twenty five
27. twenty four
28. The ceruminous gland produces cerumin. What is cerumin?
    1. Breast milk
    2. Mucus
    3. Sweat
    4. Ear wax
    5. Conditioning oil
29. Identify the “x”
    1. Tibial tuberosity
    2. Olecranon Process
    3. Ulnar condyle
    4. Head of radius
    5. Capitulum
30. Which pelvic structure is responsible for supporting your weight as you sit? (The “sitting bones”)
    1. Pubic rami
    2. Iliac crest
    3. Ischial tuberosity
    4. Sacral ala
    5. Posterior inferior iliac spine
31. The periosteum is
32. the cartilage that covers the articular surface of a bone
33. a layer of epithelium that covers bone
34. a layer of connective tissue that covers bone
35. tissue that covers the medullary cavity
36. closely associated with yellow bone marrow
37. In the epiphyseal plate, what is the osteogenic zone responsible for?
    1. meiosis
    2. mitosis
    3. destruction (cavitation) of cartilage
    4. producing the periosteum
    5. producing the new bone material
38. This type of break in bone occurs when there is a  
     complete break that causes the bone to **shatter**.
    1. Comminuted
    2. Greenstick
    3. Spiral
    4. Compound
    5. Oblique
39. The Tibia is
40. short and thick
41. located on the medial aspect of the lower leg
42. articulates with the radius bone in the forearm
43. forms the lateral malleolus (ankle bone)
44. often absent after skeletal maturation
45. Identify the structure “Z” 
46. Spinous Process
47. Pedicle
48. Centrum (body)
49. Odontoid process (Dens)
50. Transverse process

**Please turn in your exam.**

Put your name and set it in a separate pile ONLY if you have made a comment for me to read on the exam.

Please double check to see that your name and ID# are correctly entered and bubbled-in on the Opscan form

**Turn in your Opscan**

Enjoy the rest of your day.

Grades should be posted late tonight or early tomorrow.