

BIOL 2401 Lab
Assignment 1

Name: _____

Lab Section: _____

1. Match the directional term with its correct definition

_____ Distal	A. Away from the surface/toward the body's interior
_____ Lateral	B. Toward the back of the body
_____ Anterior	C. Closer to the point of origin (e.g., of a limb)
_____ Proximal	D. Away from the Body's midline
_____ Inferior	E. Toward the head
_____ Deep	F. Farther from the point of origin (e.g., of a limb)
_____ Superficial	G. Toward the body's midline
_____ Posterior	H. Away from the head/toward the tail
_____ Medial	I. Toward the front of the body
_____ Superior	J. Toward the surface/skin

2. Anatomical position and specific directional and regional terms are used in anatomy and physiology to

- Standardize units of measure
- Provide a standard that facilitates communication and decreases the chances for errors
- Provide a standard used to develop drug delivery systems
- Make students' lives difficult

3. A nurse tells a patient that she will administer an injection to his brachial region. The patient should respond by exposing his _____.

- Thigh
- Arm
- Calf
- Forearm

4. The knee is _____ to the ankle

- Lateral
- Distal
- Proximal
- Ipsilateral

5. The esophagus, gallbladder, and liver belong to the _____ system

- Integumentary
- Reproductive
- Lymphatic
- Digestive

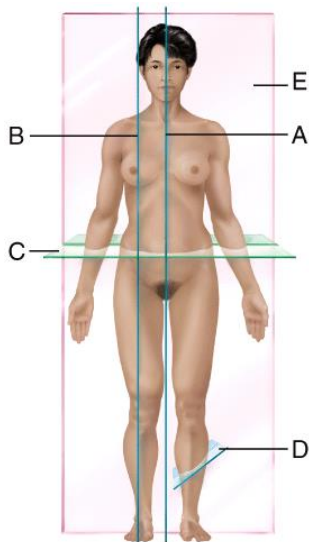
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6. The liver, gallbladder, and portions of the large and small intestines are found in the _____.
- Lower right quadrant
 - Upper left quadrant
 - Upper right quadrant
 - Lower left quadrant
7. The lungs are located in the
- cranial cavity.
 - vertebral cavity.
 - abdominal cavity.
 - pericardial cavity.
 - pleural cavity
8. The ventral cavity consists of the _____ and _____ cavities
- Abdominal; pelvic
 - Mediastinum, pleural
 - Cranial; vertebral
 - Thoracic; abdominopelvic
9. Which plane divides the body into equal right and left halves?
- Frontal
 - Midsagittal
 - Transverse
 - Oblique
 - Coronal

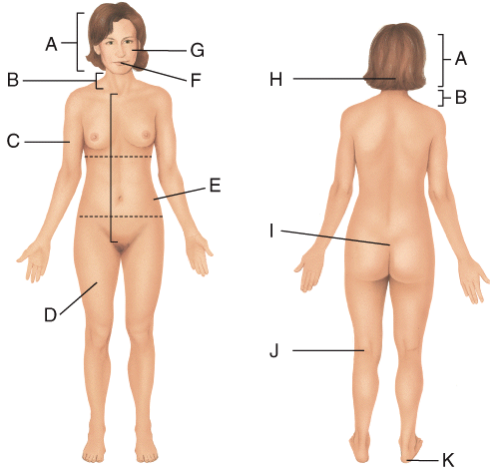
10. Circle the letter that indicates a frontal plane



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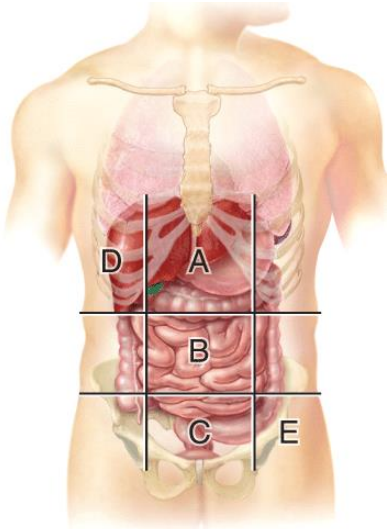
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11. Match the labels on the figure below with the appropriate term



- _____ Brachial
- _____ Coxal
- _____ Sacral
- _____ Cephalic
- _____ Oral
- _____ Calcaneal
- _____ Femoral
- _____ Occipital
- _____ Popliteal
- _____ Cervical
- _____ buccal

12. Circle the letter that indicates the epigastric region

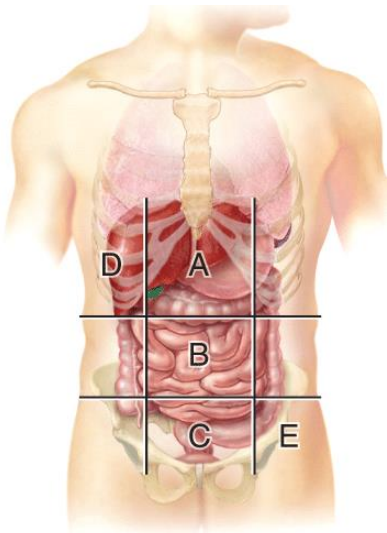


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13. Circle the letter that indicates the left inguinal region



14. Calculate the total magnification of a specimen through a microscope using the 40x objective.

- a. 4000X
- b. 40x
- c. 4x
- d. 400x

15. Match the parts of the microscope below with their function

- | | |
|------------------------------|---|
| _____ Ocular lens | A. Provides the light source |
| _____ Stage | B. Allow for various powers of magnification to view an slide |
| _____ Coarse-adjustment knob | C. The lens through which you look to examine the slide |
| _____ Objective lenses | D. The surface on which the slide sits |
| _____ Fine-adjustment knob | E. The large knob on the side of the arm that moves the stage up and down. It is ONLY used with the scanning objective. |
| _____ Iris diaphragm | F. Used to hold the slide securely in place |
| _____ Stage clip | G. The smaller knob on the side of the arm that allows for fine-tuning of the image's focus |
| _____ Lamp | H. Adjustable wheel on the underside of the stage that controls the amount of light allowed to pass through the slide |

16. Which of the following statements about epithelial tissues is false?

- a. Epithelial tissues lack blood vessels
- b. Epithelial tissues consist of few cells and an extensive ECM
- c. The ECM of epithelial tissues is located in the basal lamina
- d. Epithelia tissues are our covering and lining tissues

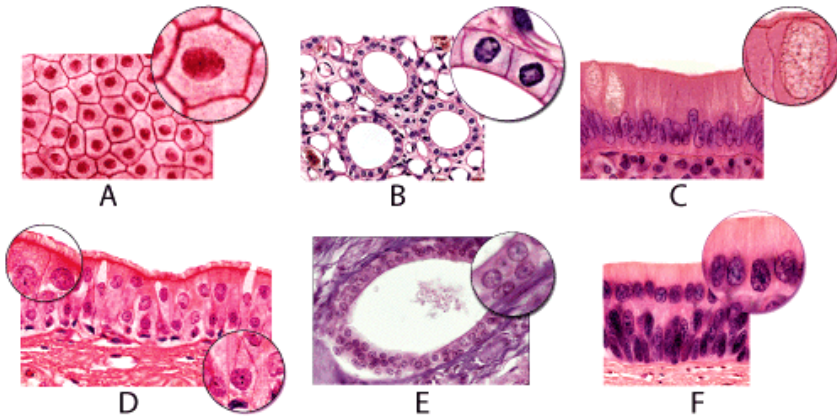
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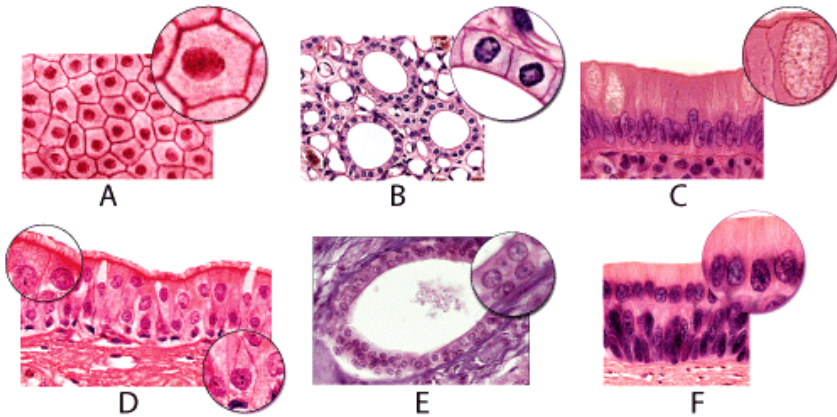
17. Which of the following statements about connective tissues is false?
- a. All connective tissues stem from a common embryonic tissue
 - b. Connective tissues may contain three types of protein fibers: collagen, elastic and reticular fibers
 - c. Most connective tissues are highly vascular, with the exception of cartilage
 - d. Most connective tissues consist largely of cells with little ECM.
18. Which of the following statements about muscle tissue is true?
- a. Skeletal muscle and cardiac muscle tissues have no striations
 - b. Smooth muscle tissue is found in the heart
 - c. The cells of skeletal muscle tissue are long, tubular, and multinucleated
 - d. Smooth muscle cells are joined by intercalated disks

19. Circle the image that represents simple cuboidal epithelium



Photos: Mark Nielsen

20. Circle the image that represents pseudostratified ciliated epithelium



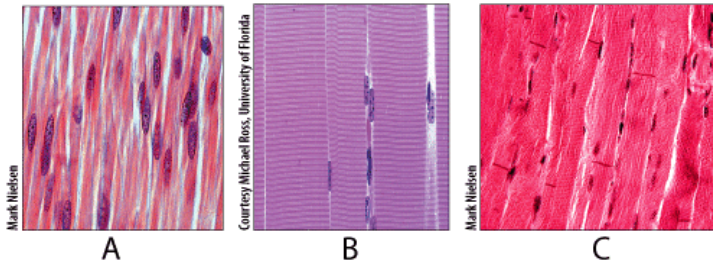
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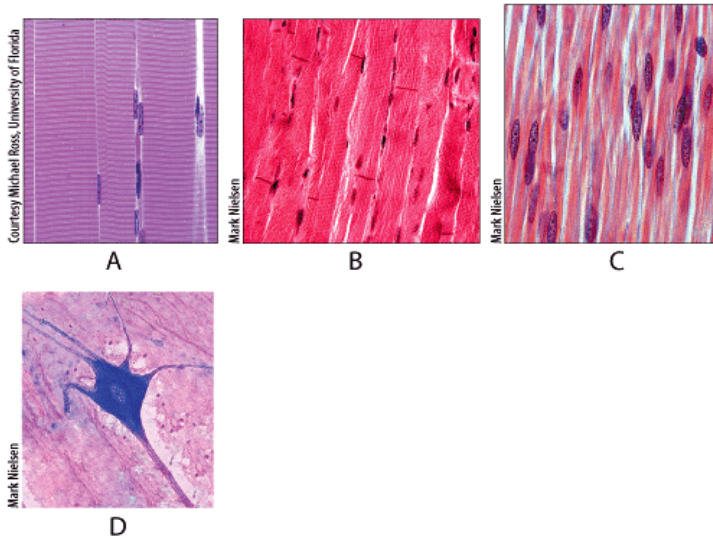
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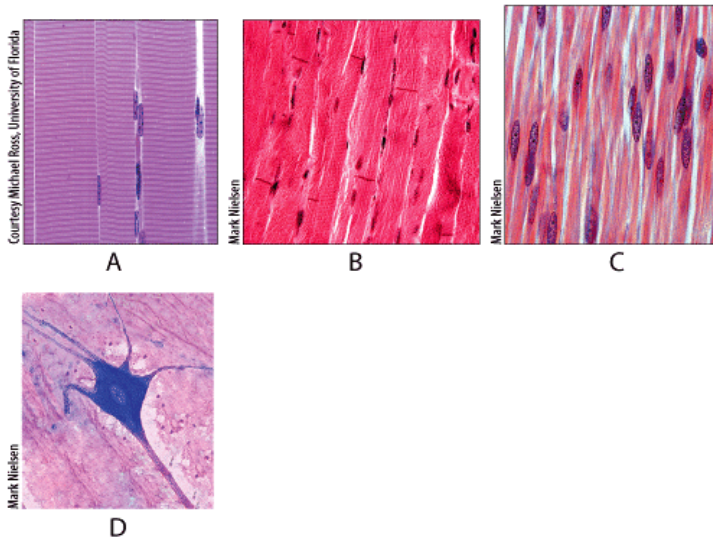
21. Circle the image below that represents a muscle type under voluntary control



22. Circle the tissue type below that would be responsible for heat generation in the body.



23. Circle the tissue type below that would be responsible for conducting nerve impulses to muscle fibers.



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24. Which of the following are characteristics of thick skin?

- a. Located over the palms and soles of the feet
- b. Contains hair and arrector pili muscles
- c. Contains sweat glands
- d. Very thick stratum corneum
- e. Contains sebaceous glands
- f. Contains stratum lucidum

25. Circle the letter that indicates the dermal papilla.

