

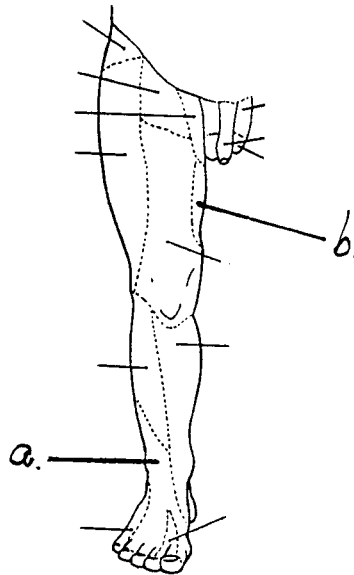
GROSS ANATOMY EXAMINATION I

September 4, 1998

PART I. Answer in the space provided. (17 pts)

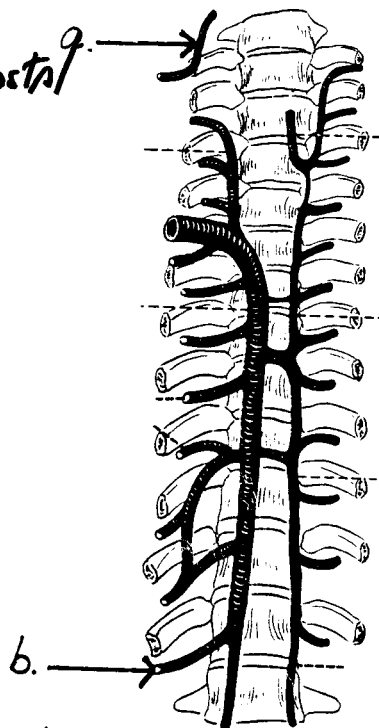
1. Identify the cutaneous innervation to the areas indicated. (1 pt)

- a. Superficial peroneal
- b. Obturator



2. Identify the veins. (1 pt)

- a. Supreme (Highest) Intercostal
- b. Subcostal



3. Identify the structures. (2 pts)

- a. TRANSVERSE process
- b. SUPERIOR ARTICULAR process
- c. Pedicle
- d. INFERIOR vertebral notch

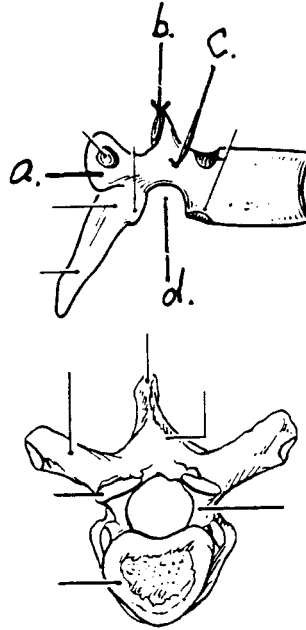
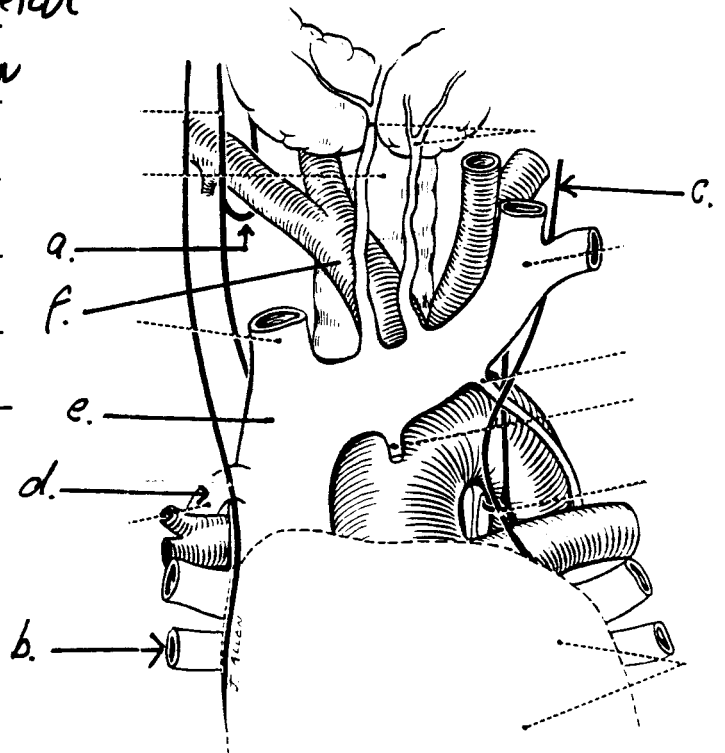


Figure 1.1. Typical thoracic vertebra in lateral and superior view.

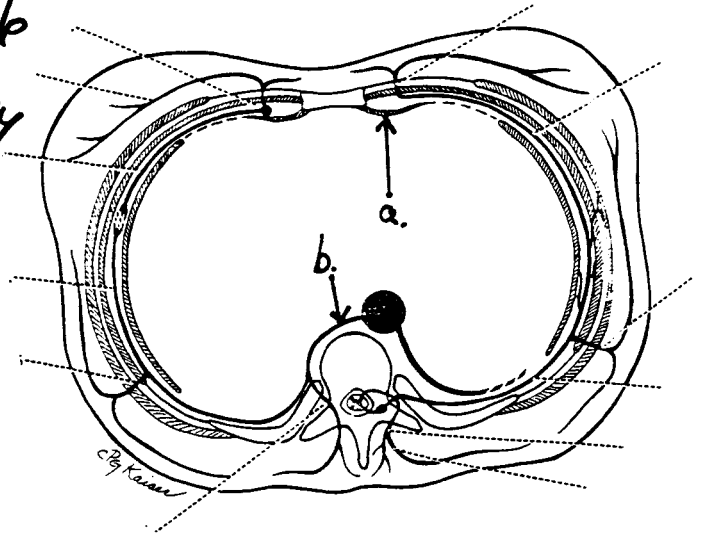
4. Identify the structures. (3 pts)

- a. Right Recurrent laryngeal nerve
- b. Right pulmonary vein
- c. Left phrenic nerve
- d. Azygos vein
- e. SUPERIOR VENA CAVA
- f. BRACHIOCEPHALIC TRUNK (ARTERY)



5. Identify the structures. (1 pt)

- a. Transversus thoracis muscle
- b. Posterior intercostal vein



6. Identify the structures. (1 pt)

- a. Abductor longus muscle
- b. Biceps femoris muscle

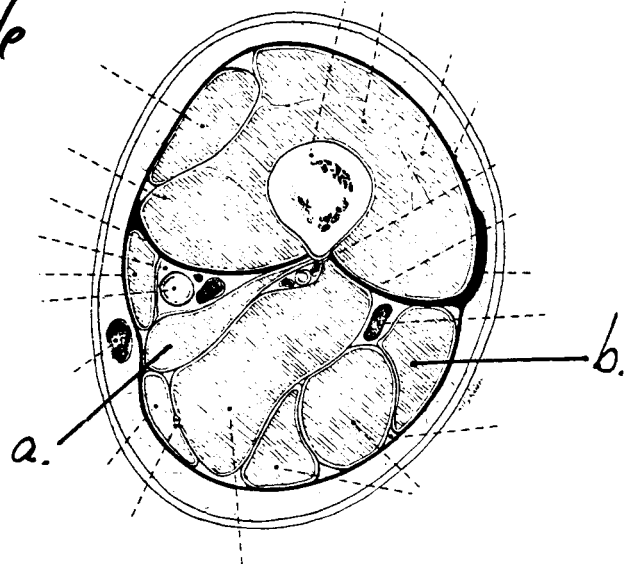


FIGURE 18-10.

A transverse section through the middle third of the thigh, drawn to show schematically the division of the musculature into compartments and to illustrate the position of the main nerves and vessels. The thickness of the fascia lata, intermuscular septa, and iliotibial tract is exaggerated.

7. Identify the arteries. (2 pts)

- a. Medial inferior genicular
- b. Peroneal (fibular)
- c. Lateral malleolar
- d. Circumflex fibular

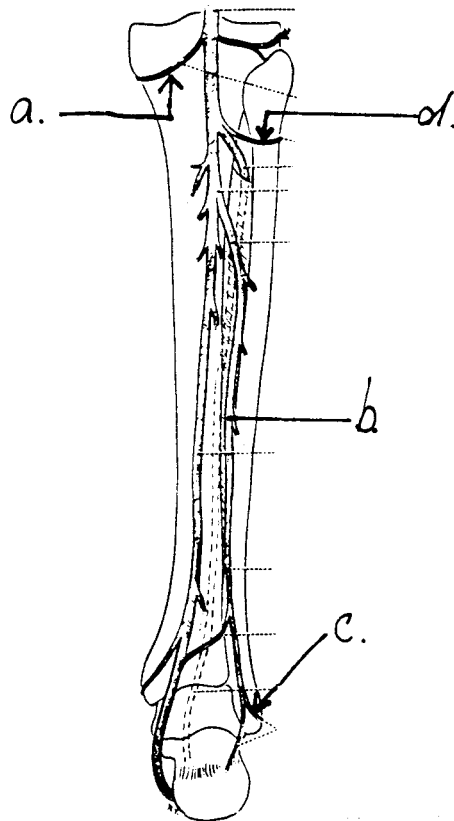


FIGURE 18-29. Diagram of the arteries of the leg; posterior view.

8. Identify the structures. (2 pts)

- a. Tendon of flexor hallucis longus
- b. First dorsal interosseus
- c. Adductor hallucis
- d. Flexor digiti minimi brevis

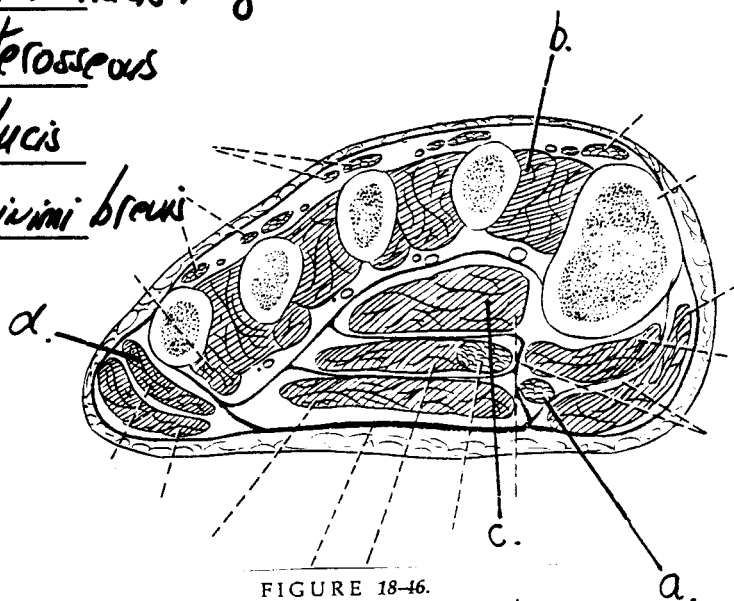


FIGURE 18-46. Schematic cross section through the foot showing fascial septa and muscle layers.

9. Identify the structures. (1 pt)

- a. Fibular collateral ligament
- b. Semimembranosus

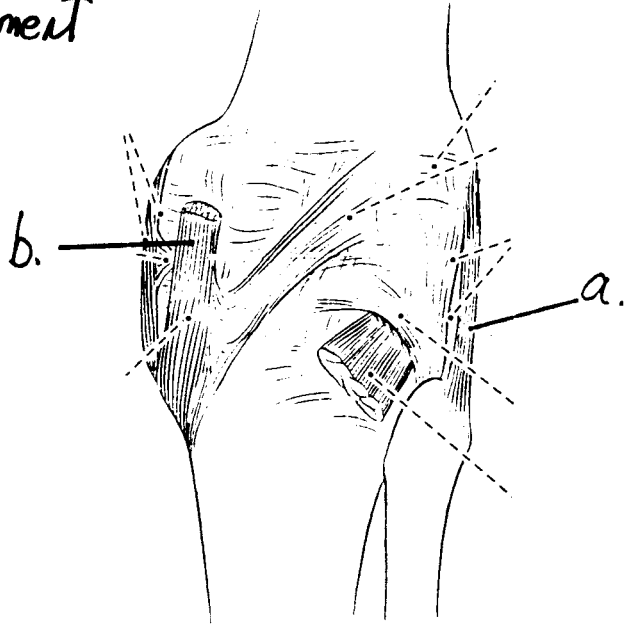
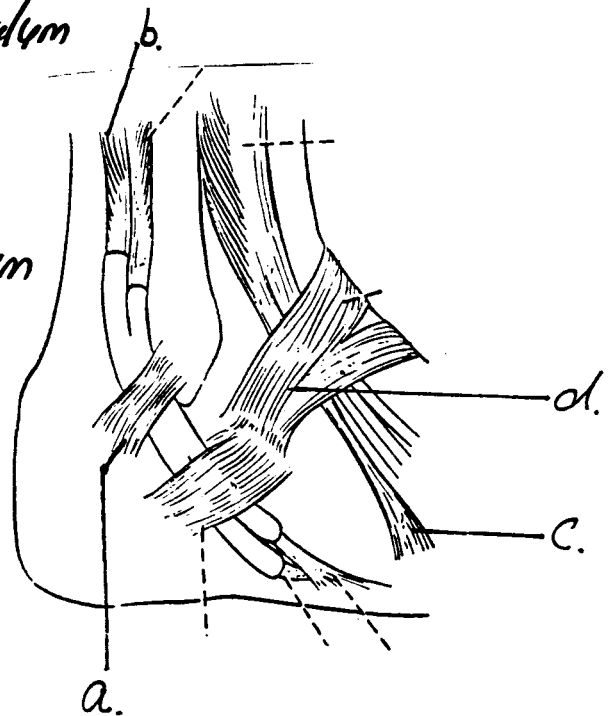


FIGURE 18-36.
Posterior view of the capsule of the knee joint.

10. Identify the structures. (2 pts)

- a. Superior peroneal retinaculum
- b. Peroneus longus
- c. Peroneus tertius
- d. Inferior extensor retinaculum



11. Identify the structures. (1 pts)

- a. Coronary sinus
- b. Middle cardiac vein

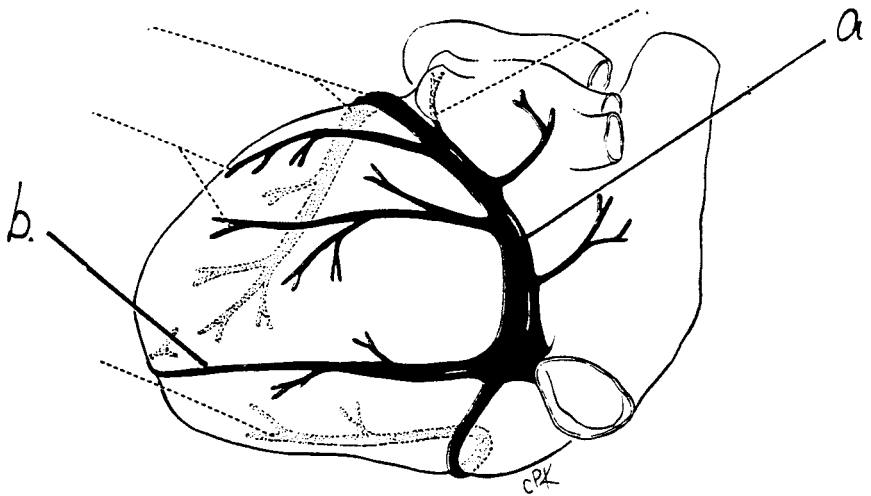


FIGURE 21-16.
The cardiac veins shown from a posterior view of the heart.

Part II. Circle the correct answer. All, none, or some may apply. (27 pts)

1. Muscles of respiration are innervated by:

- a. Intercostal nerves
- b. Anterior pulmonary plexus
- c. Greater splanchnic nerves
- d. Phrenic nerves
- e. Gray rami communicans

2. With respect to the pleura:

- a. The mediastinal parietal pleura is innervated by somatic nerves
- b. The parietal pleura extends caudally to the level of the 10th rib at the mid-axillary line
- c. The visceral pleura extends caudally to the level of the 6th rib at the mid-clavicular line
- d. The sensory innervation to the peripheral aspect of the diaphragm is by way of the intercostal nerves
- e. The cupula parietal pleura has its superior limit at the 2nd rib

3. With respect to the lungs and respiration:

- a. The surface projection of the horizontal fissure of the right lung is at the level of the fourth costal cartilage
- b. The trachea bifurcates at the level of T4
- c. The right principal bronchus is slightly smaller in diameter than the left and almost twice as long
- d. The right pulmonary artery is longer than the left

4. In the leg:
- a. The popliteus muscle attaches to the medial meniscus
 - b. The popliteus muscle is responsible for medial rotation of the femur
 - c. The peroneus brevis courses behind the lateral malleolus
 - d. Paralysis of the triceps surae results in a foot in plantar flexion
 - e. The subcutaneous prepatellar bursa lies between the skin and the patella and inflammation of this bursa has been termed "clergyman's knee"
5. In regard to the muscles (gastrocnemius, soleus, plantaris) of superficial posterior compartment of the leg:
- a. All plantar flex the foot
 - b. All take origin from the tibia or fibula
 - c. All insert onto the calcaneus
 - d. All are innervated by the tibial nerve
 - e. The posterior tibial artery courses down the leg between the gastrocnemius and soleus muscles
6. With respect to the nervous system:
- a. The somatic efferents of the femoral nerve consist of pre- and post-ganglionic neurons
 - b. The fibrous layer of the pericardium is innervated by the phrenic nerve
 - c. The visceral afferent fibers have cell bodies in the dorsal root ganglion
 - d. Post-ganglionic neurons of the parasympathetic nervous system are generally quite short compared to pre-ganglionic neurons
 - e. Parasympathetic pre-ganglionic neurons exit the central nervous system through white rami communicans

7. With regard to the saphenous veins:

- a. The greater saphenous vein begins in the dorsal venous arch of the foot
- b. The lesser saphenous vein begins in the plantar venous arch of the foot
- c. Valves in the communicating veins prevent blood from flowing from the deep to superficial veins
- d. The lesser saphenous vein passes up the leg anterior to the lateral malleolus
- e. The lesser saphenous vein pierces the popliteal fascia and terminates in the posterior tibial vein

8. The femoral nerve or branch/branches pass through:

- a. Femoral canal
- b. Adductor canal
- c. Adductor hiatus
- d. Femoral triangle
- e. Femoral ring

9. With regard to the heart:

- a. The middle cardiac vein is found in the coronary sulcus
- b. Trabeculae carneae are found in the left atrium
- c. The oblique pericardial sinus is created by reflection of the pulmonary veins and the aorta
- d. The sinoatrial node (S.A. node) is located in the endocardium at the cephalic end of the crista terminalis
- e. The greater splanchnic nerve contributes fibers to the superficial cardiac plexus

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10. With respect to the thoracic wall and mediastinum:

- a. The endothoracic fascia lies between the fibrous layer of mediastinal pleura and the fibrous portion of the pericardium
- b. The pericardiophrenic artery and vein is located between the fibrous and serous pericardium
- c. Intercostal spaces 10 and 11 do not have external intercostal muscles
- d. Blood supply to the 5th intercostal space arises from the aorta and the internal thoracic artery
- e. The posterior intercostal artery in the first thoracic space is a branch of the costocervical trunk

11. In the thorax:

- a. The thoracic duct is joined by the right lymphatic duct to drain into the junction of the left subclavian and left internal jugular veins
- b. The eparterial bronchus supplies blood to the left superior lobe
- c. The esophagus is narrowed in the region of association with the arch of the aorta
- d. The esophagus is narrowed in the region where it is crossed by the left bronchus
- e. Behind the 6th rib the internal thoracic artery divides into two terminal branches: the musculophrenic and the superficial epigastric arteries