

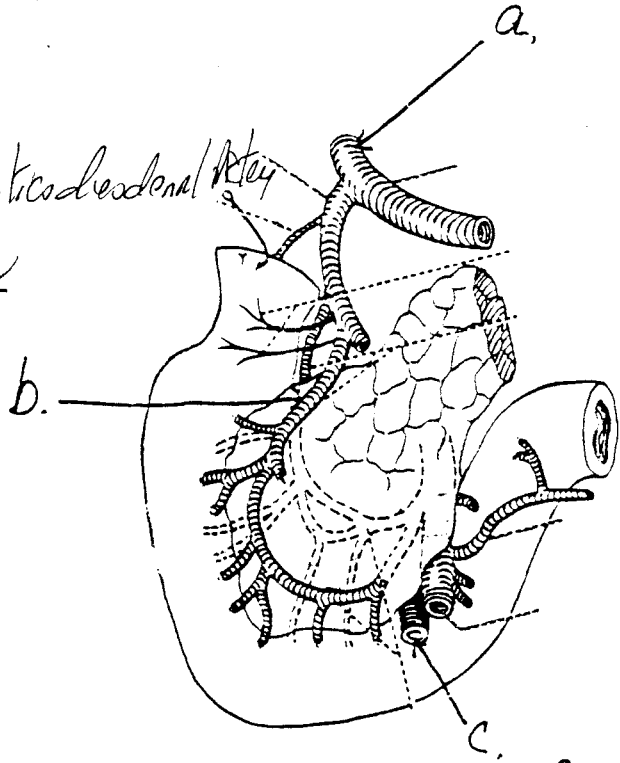
**STRUCTURAL BASIS OF MEDICAL PRACTICE
EXAMINATION 3**

September 23, 2004

PART I. Answer in the space provided. (8 pts)

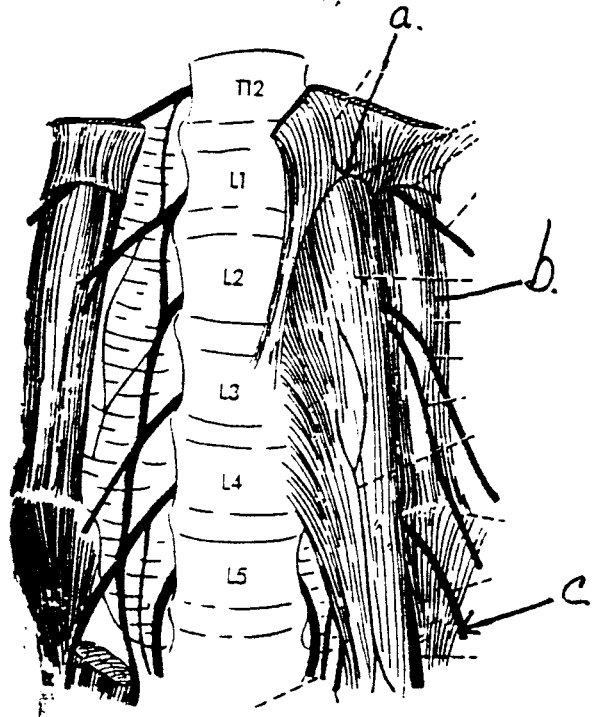
1. Identify the structures. (1.5 pts)

- a. Superior Mesenteric Artery
- b. Superior Anterior Pancreaticoduodenal Artery
- c. Superior Mesenteric Vein



2. Identify the structures. (1.5 pts)

- a. Medial lumbar costal arch (Medial Arcuate Ligament)
- b. Quadratus lumborum
- c. Lateral femoral cutaneous nerve



3. Identify the structures. (1.5 pts)

- a. Anococcygeal raphe
- b. IschioCoccygeus muscle
- c. Piriformis muscle

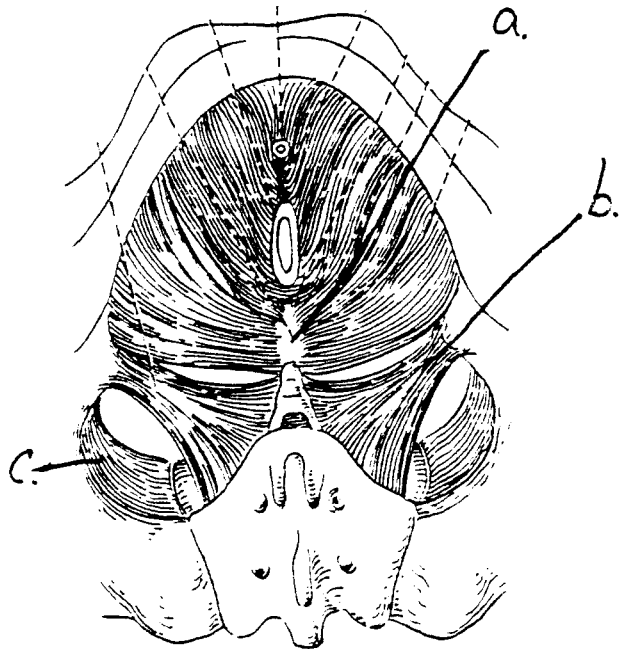


FIGURE 27-5.
The pelvic diaphragm of the male from below.

4. Identify the structures. (1.5 pts)

- a. Internal iliac artery
- b. Vaginal artery
- c. Internal pudic artery

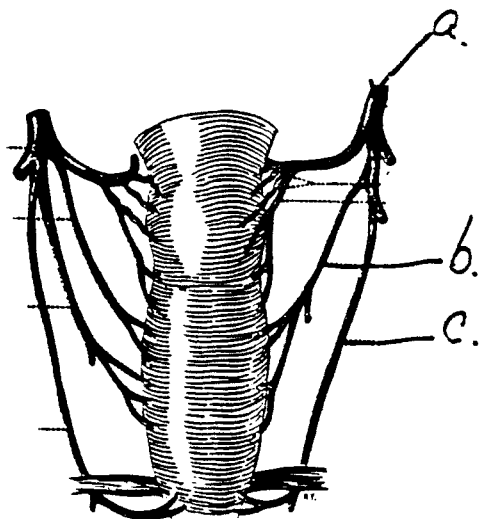
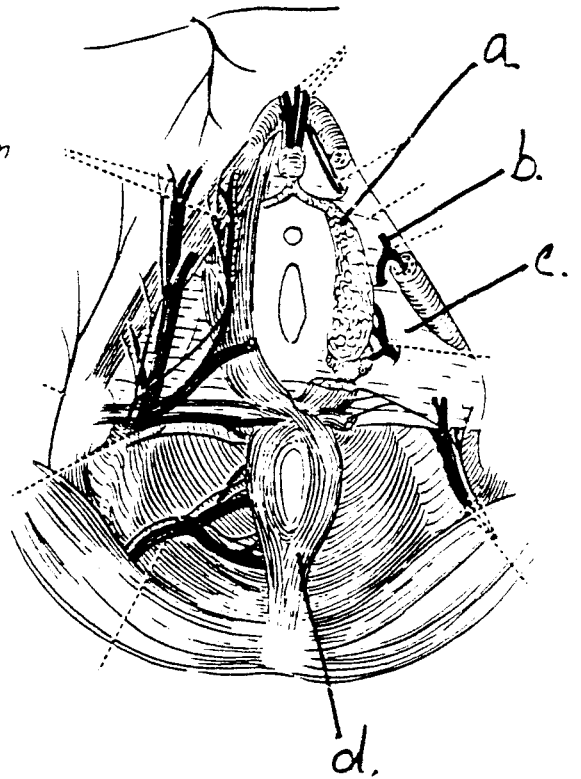


FIGURE 27-44.
Arteries to the vagina.

5. Identify the structures. (2 pts)

- a. Vestibular bulb
- b. Deep Artery of clitoris
- c. Inferior Fascia of U.G. Diaphragm
- d. External Anal Sphincter



Part II. Circle the correct answer. All, none, or some may apply. (18 pts)

1. In regard to the nervous system of the abdomen, pelvis, and perineum:
- a. Transection of the spinal cord at S2-4 allows for an "autonomous (neurogenic)" bladder.
 - b. The ischiocavernosus muscle is skeletal and innervated by the somatic nervous system.
 - c. The puborectalis muscle is innervated by the pelvic splanchnic nerves and sympathetic fibers from the lumbar splanchnics.
 - d. The sphincter urethra raises the pelvic diaphragm to close off the urethra at the uvula.
 - e. Pelvic splanchnic nerves stimulate peristaltic movement in the descending colon.
 - f. The external anal sphincter muscle must be stimulated to contract for defecation.
 - g. The "nervi erigentes" refers to somatic afferent fibers traveling in the pudendal nerve.
 - h. The sympathetic trunks converge on the anterior surface of the coccyx in the ganglion impar.
2. With regard to the kidneys and suprarenals:
- a. The pararenal fat is derived from the extraperitoneal connective tissue.
 - b. The minor calyx drains directly into the renal pelvis.
 - c. The renal arteries are derived from the aorta superior to the testicular arteries.
 - d. The inferior suprarenal artery is derived from the renal artery.
 - e. The renal veins are located anterior to the renal arteries at the hilum of the kidney.
 - f. The sympathetic nerve innervation of the suprarenal gland is the greater splanchnic nerve.

3. With respect to the abdomen:

- a. At week 10, the stomach undergoes a 270 degree clockwise rotation.
- b. Meckel's diverticulum is located in the jejunum.
- c. Vasa recta of the jejunum and ileum are derived from the marginal artery.
- d. The splenic artery courses in part through the lienorenal ligament.
- e. The sigmoidal arteries are located in the sigmoid mesocolon, a derivative of the dorsal mesentery.
- f. According to internal morphology (e.g., vasculature), the quadrate lobe is part of the left lobe of the liver.
- g. The hepatorenal recess is part of the greater sac.
- h. The gastroduodenal ligament is derived from the ventral mesentery.
- j. The left medial umbilical ligament represents the left umbilical artery in the fetus.
- k. The fundus of the stomach is vascularized by the short gastric arteries.
- l. In portal hypertension, blood flow from the superior rectal vein to the middle and inferior rectal veins may occur, resulting in hemorrhoids.
- m. Pain in the appendix may be referred to the umbilical region by way of T10.

4. In regard to the pelvis and perineum:

- a. Hemorrhoids above the pectinate line are painful because they involve somatic pain fibers.
- b. The arcus tendineus is formed by a condensation of the visceral pelvic fascia.
- c. The deep transverse perineal muscle is situated within the urogenital diaphragm.
- d. The coccygeus (ischiococcygeus) muscle is part of the pelvic diaphragm.
- e. The suspensory ligament of the penis is derived from Scarpa's fascia.
- f. The round ligament (ligament teres) of the uterus is derived from the gubernaculum.
- g. The middle one-third of the rectum has peritoneum on the anterior and lateral surfaces.

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- h. The perineal branch of the pudendal nerve is located in the deep pouch and forms the anterior scrotal nerves.
- i. The mesosalpinx is part of the broad ligament.
- j. The uterus is normally in an anteflexed and anteverted position.