

CHOOSE THE SINGLE BEST ANSWER FOR QUESTION 1 - 42.

1. A stab wound into the abdomen transected the hepatoduodenal ligament. Each of the following structures would have been cut EXCEPT the:
 - A. Bile duct
 - B. Portal vein
 - C. Proper hepatic artery
 - D. Splenic artery
 - E. Lymphatic vessels

2. The right border of the cardiac shadow on a chest x-ray is formed by all the following EXCEPT the:
 - A. Pulmonary trunk
 - B. Right brachiocephalic vein
 - C. Inferior vena cava
 - D. Superior vena cava
 - E. Right atrium

3. Each statement regarding the peritoneal cavity is CORRECT EXCEPT:
 - A. In the left upper quadrant of the abdomen the gastrosplenic and spleno-renal ligaments separate the greater and lesser sacs of the peritoneal cavity
 - B. In the adult the superior recess of the lesser sac (omental bursa) is larger than the inferior recess
 - C. The subphrenic spaces are located in the lesser sac (omental bursa)
 - D. At the epiploic (omental) foramen the greater and lesser sacs of the peritoneal cavity communicate with each other
 - E. An opening made through the transverse mesocolon will permit entry into the lesser sac (omental bursa)

4. The ascending lumbar veins normally drain directly into the:
- A. Inferior epigastric veins
 - B. Gonadal veins
 - C. Azygos system
 - D. Inferior mesenteric vein
 - E. Superior vena cava
5. In regard to the lungs and their relations all of the following statements are TRUE EXCEPT:
- A. The inferior lobe of each lung usually enters the costodiaphragmatic recess during deep inspiration
 - B. The costal surface of the lungs relates to the ribs
 - C. The apex of the right lung relates to the right common carotid artery and brachiocephalic trunk
 - D. The two most important factors during expiration are the elasticity of the lung and intrapleural pressure
 - E. The medial (or mediastinal) surface of the left lung relates to the aorta, left subclavian artery, trachea, esophagus, heart and thoracic vertebrae
6. Each of the following statements regarding the duodenum is CORRECT EXCEPT:
- A. The lymphatic drainage from the duodenum ultimately reaches the thoracic duct
 - B. The horizontal (3rd) part crosses anterior to the inferior vena cava and aorta
 - C. The descending (2nd) part of the duodenum is retroperitoneal
 - D. The superior and inferior pancreaticoduodenal arteries are respectively branches of the gastroduodenal artery and superior mesenteric artery
 - E. The accessory pancreatic duct opens into the ascending (fourth) part of the duodenum

7. In regard to the superior mediastinum which of the following statements is CORRECT:
- A. The left phrenic nerve lies posterior to the brachiocephalic artery and posterior to the left pulmonary artery
 - B. The superior vena cava receives the brachiocephalic veins and posteriorly the termination of the azygos vein
 - C. The trachea lies posterior and to the left of the esophagus and anterior to the arch of the aorta
 - D. The thoracic duct lies anterior to the esophagus and to the left of the left subclavian artery
 - E. The left vagus nerve lies to the left of the brachiocephalic artery and anterior to the left pulmonary root
8. The lumbar plexus gives rise to all of the following nerves EXCEPT:
- A. Obturator
 - B. Lumbosacral trunk
 - C. Femoral
 - D. Subcostal
 - E. Lateral femoral cutaneous
9. Regarding the mitral valve all of the following are CORRECT EXCEPT:
- A. Each cusp receives chordae tendinae from more than one papillary muscle
 - B. It allows blood flow between the left atrium and the left ventricle
 - C. It is best heard in the left 5th intercostal space about 5 cm from the midline
 - D. It has two papillary muscles that contract during systole
 - E. Its septal cusp attaches to the membranous portion of the interventricular septum

10. Which of the following is the CORRECT statement with regard to the enteric nervous system in the wall of the gastrointestinal (GI) tract:
- A. Intrinsic activity in the enteric plexus can initiate peristaltic motility without contribution from extrinsic autonomic fibers
 - B. Fibers for reflex control of the GI tract follow sympathetic fibers to the spinal cord
 - C. Stimulation of the greater splanchnic nerve will result in increased contractility of the GI smooth muscle
 - D. Mechanoreceptors in the enteric plexus are activated in response to constriction of the GI wall
 - E. The majority of pain fibers from the GI wall follow the vagus nerves
11. In regard to the thoracic esophagus and aorta all of the following are CORRECT EXCEPT:
- A. The thoracic aorta, in addition to other branches, also supplies the esophagus
 - B. The hemiazygos and accessory hemiazygos veins are posterior and to the left of the thoracic aorta
 - C. The right and left vagus nerves are related to the thoracic aorta
 - D. The esophagus crosses the aorta anteriorly before coursing through the thoracic diaphragm
 - E. The esophagus is related to the left atrium of the heart

12. In regard to the inguinal region which of the following statements is INCORRECT:
- A. The deep inguinal ring is the mouth of the evaginated transversalis fascia
 - B. The external or superficial inguinal ring is bounded by medial and lateral crura which are parts of the external abdominal oblique aponeurosis
 - C. The inguinal triangle is formed by the inferior epigastric artery, the inguinal ligament and the semilunar line
 - D. The internal spermatic fascia is derived from the conjoined tendon
 - E. The inguinal ligament is an inferior part of the external abdominal oblique aponeurosis
13. Which of the following is the CORRECT composition of nerve fibers found in the cardiac plexus
- A. Preganglionic sympathetics, postganglionic sympathetics, postganglionic parasympathetics
 - B. Postganglionic sympathetics, preganglionic parasympathetics, and visceral sensory fibers
 - C. Preganglionic sympathetics, postganglionic parasympathetics and visceral sensory fibers
 - D. Preganglionic parasympathetics, postganglionic parasympathetics and visceral sensory fibers
 - E. Postganglionic sympathetics, postganglionic parasympathetics and visceral sensory fibers

14. Regarding the inferior vena cava all of the following are CORRECT EXCEPT:
- A. Some of its tributaries are the hepatic, renal and common iliac veins
 - B. The right renal artery and anterior longitudinal ligament lie posterior to the vein
 - C. The abdominal aorta lies on the left side of the vein
 - D. The left lumbar sympathetic trunk and ureter lie posterior to the vein
 - E. The portal vein, the root of the mesentery and pancreas are some of its anterior relations
15. Choose the INCORRECT statement concerning the rectus sheath:
- A. Superior to the arcuate line, its anterior lamina is formed by the aponeuroses of the external oblique and internal oblique muscles
 - B. Inferior to the arcuate line, its posterior lamina is absent and is replaced by transversalis fascia
 - C. It is formed by the aponeuroses of the three flat abdominal muscles.
 - D. At the level of the xiphoid process, the anterior lamina is formed by the aponeurosis of the external oblique
 - E. It has anterior and posterior laminae which fuse in the median plane to form the linea semilunaris

16. Which of the following is the INCORRECT statement with regard to the autonomic control of the bronchial smooth muscle
- A. The bronchial wall contains the cell bodies of postganglionic parasympathetic neurons
 - B. Stimulation of the vagus nerves results in constriction of the bronchi and narrowing of the airways to the pulmonary alveoli
 - C. Postganglionic sympathetic nerve terminals release norepinephrine on the bronchial smooth muscle
 - D. Stimulation of postganglionic sympathetic fibers results in increased mucous secretions in the bronchi
 - E. Preganglionic sympathetic cell bodies are located in the intermediolateral cell column at T1-5 thoracic spinal levels
17. Choose the INCORRECT statement concerning the stomach:
- A. Its posterior surface is an anterior relation of the lesser sac (omental bursa)
 - B. The preganglionic autonomic innervation to the stomach is the vagus nerve for the parasympathetic component and a thoracic splanchnic nerve for the sympathetic component
 - C. The serosa (visceral peritoneum) of the stomach is continuous with the lesser omentum, greater omentum, the gastrosplenic and gastrophrenic ligaments
 - D. Right and left gastric arteries supply the greater curvature of the stomach
 - E. All of the venous drainage of the stomach is into tributaries of the hepatic portal vein

18. Each statement regarding the spleen is CORRECT EXCEPT:
- A. It lies under cover of the left 9th - 11th ribs
 - B. It is the largest single mass of lymphoid tissue in the body but is not essential for life, especially in the adult
 - C. The small branches of the splenic artery that enter the hilus are end-arteries
 - D. The diaphragmatic surface of the spleen is related to the lesser sac of the peritoneal cavity
 - E. The splenic vein joins the superior mesenteric vein to form the portal vein
19. A patient is diagnosed with cancer of the hepatic flexure of the colon. Which one of the following groups of lymph nodes would you expect to contain initial evidence of lymphatic spread of tumor cells
- A. Inferior mesenteric nodes
 - B. Celiac nodes
 - C. Superior mesenteric nodes
 - D. Hepatic nodes
 - E. Lumbar (lateral aortic) lymph nodes
20. In regard to inguinal hernia which of the following is INCORRECT:
- A. An indirect hernia usually courses lateral to the inferior epigastric vessels
 - B. A direct hernia courses through the inguinal triangle and can acquire as one of its coverings the falx inguinalis (conjoined tendon)
 - C. An indirect hernia usually courses through the inguinal canal and acquires the coverings of the spermatic cord
 - D. An indirect hernia is usually associated with a patent processus vaginalis
 - E. Indirect hernia does not occur in the female due to the absence of a spermatic cord

21. Each statement concerning the suprarenal glands is CORRECT EXCEPT:
- A. The left suprarenal gland is related to the stomach
 - B. The suprarenal glands are enclosed by the renal fascia
 - C. Superior suprarenal arteries arise from the inferior phrenic artery
 - D. A portion of the right suprarenal gland lies posterior to the inferior vena cava
 - E. The left suprarenal vein drains into the inferior vena cava
22. All of the following statements regarding the ureter are TRUE EXCEPT:
- A. The psoas major muscle is posterior to the ureter
 - B. The ureter receives its blood supply from the abdominal aorta and the gonadal artery
 - C. Referred pain from the ureter is often due to calculi
 - D. The ureter is located retroperitoneally
 - E. The expanded superior portion of the ureter is called the renal sinus
23. All of the following statements concerning the pancreas are CORRECT EXCEPT:
- A. It is supplied via branches of the splenic and superior mesenteric arteries
 - B. It is innervated by postganglionic parasympathetic axons whose cell bodies are located in the prevertebral ganglia (celiac and superior mesenteric)
 - C. The union of the splenic and superior mesenteric veins to form the portal vein occurs posterior to its "neck"
 - D. The superior mesenteric artery is related to its "neck" and "uncinate process"
 - E. Its accessory pancreatic duct usually opens into the second part of the duodenum

24. Choose the INCORRECT statement concerning the colon:
- A. Whereas all portions of the colon have taeniae coli, epiploic appendages, and haustra, its ascending and descending portions are normally partially retroperitoneal, while its transverse and sigmoid portions are peritoneal
 - B. Ligation (tying off) of the left colic artery would deprive the descending colon of its blood supply
 - C. The transverse colon varies in position and may extend into the pelvis
 - D. The appendix is peritoneal and its position is usually retrocecal
 - E. The transverse mesocolon fuses superiorly with the greater omentum
25. Which of the following is the INCORRECT statement with regard to the autonomic innervation of the jejunum, ileum, cecum, ascending and transverse colons.
- A. Preganglionic parasympathetic cell bodies are located in the brainstem
 - B. Preganglionic parasympathetic fibers follow the branches of the celiac trunk and superior mesenteric artery
 - C. Postganglionic parasympathetic cell bodies are localized in the wall of the viscera
 - D. Stimulation of the posterior vagal trunk increases peristaltic contractions
 - E. Stimulation of the greater splanchnic nerve increases intestinal secretions

26. All the following veins form portal-systemic anastomoses EXCEPT:
- A. Retroperitoneal veins from the colon with tributaries of lumbar veins
 - B. Para-umbilical veins in the falciform ligament with tributaries of the superficial epigastric vein
 - C. Esophageal branches of the left gastric vein with tributaries of the azygos system
 - D. Splenic vein with left renal vein
 - E. Superior rectal vein with inferior rectal vein
27. Each statement concerning the liver is CORRECT EXCEPT:
- A. The division between the functional right and left lobes of the liver is approximately indicated by a plane joining the fossae of the inferior vena cava and the gallbladder
 - B. The fissure for the ligamentum teres separates the caudate lobe from the quadrate lobe
 - C. The cystic artery commonly arises from the right hepatic artery in the angle between the common hepatic duct and the cystic duct
 - D. The bare area of the liver is related to the diaphragm
 - E. The lesser omentum is attached to the margins of the porta hepatis
28. The internal abdominal oblique muscle and its fascia give rise to the:
- A. Dartos muscle and fascia
 - B. External spermatic fascia
 - C. Cremaster muscle and cremasteric (middle spermatic) fascia
 - D. Internal spermatic fascia
 - E. Processus vaginalis

29. Choose the INCORRECT statement concerning the kidneys:
- A. Posterior relations of the left kidney include the psoas major and quadratus lumborum muscles
 - B. The left renal artery courses posterior to the inferior vena cava
 - C. The right ureter lies posterior to the second or third part of the duodenum and is crossed anteriorly by the root of the mesentery and right gonadal vessels
 - D. The renal fascia is a condensation or extension of the extraperitoneal connective tissue and lies between the capsule and the peritoneum
 - E. An anterior relation of the right kidney is the second (descending) part of the duodenum
30. Concerning the pleura all of the following are CORRECT EXCEPT:
- A. The parietal pleura receives blood from intercostal, pericardiophrenic, internal thoracic and musculophrenic arteries
 - B. The surface projection of the inferior border of the lung is two-rib levels superior to that of the inferior border of the pleura
 - C. Parietal pleura consists of mediastinal, costal, diaphragmatic and cervical (cupola) pleurae
 - D. The parietal and visceral pleura are separated by endothoracic fascia
 - E. Sharp pain from the parietal pleura will be transmitted by the intercostal nerves

31. With regard to the small intestine all of the following statements are TRUE EXCEPT:
- A. The circular folds (plicae circulares) are numerous in the proximal jejunum but absent in the distal part of the ileum
 - B. The jejunum has a greater number of vascular arcades than the ileum
 - C. The jejunum and ileum are drained by the superior mesenteric vein which lies in the root of the mesentery
 - D. The parasympathetic innervation of the jejunum is from the celiac division of the posterior vagal trunk
 - E. The lymphatics in the intestinal villi are called lacteals
32. All of the following statements about the diaphragm are TRUE EXCEPT:
- A. In the anatomical position, the caval opening is most commonly found at the level of thoracic vertebra 8
 - B. The lateral arcuate ligament is related to the quadratus lumborum muscle
 - C. The esophageal hiatus (opening) transmits the thoracic duct
 - D. Its blood supply includes branches from the thoracic aorta, the abdominal aorta, and the internal thoracic artery
 - E. Its sensory innervation is carried by the phrenic, lower intercostal, and subcostal nerves

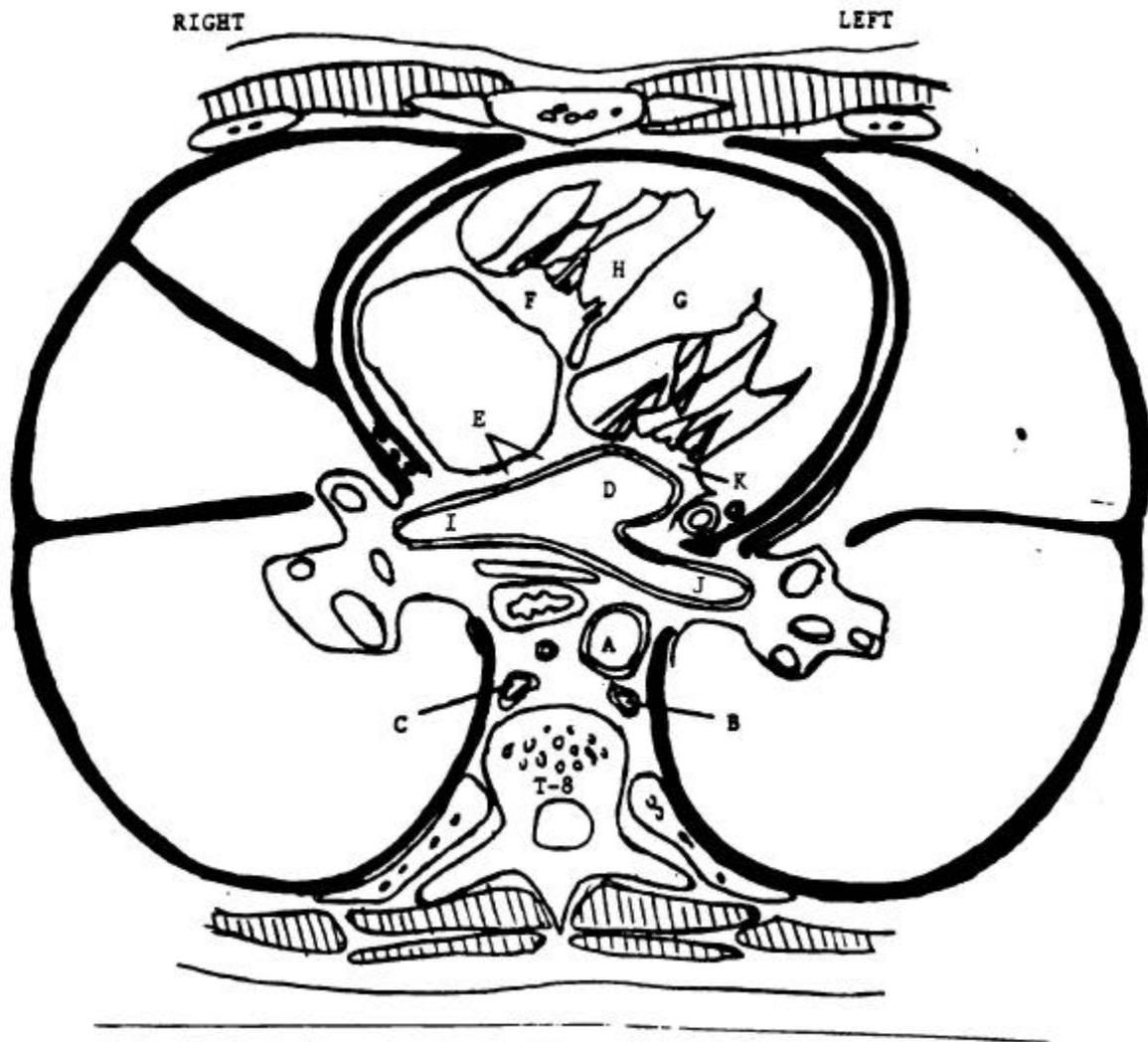
33. In order to hear sounds from the pulmonary valve, where should a physician place the stethoscope:
- A. In the second right intercostal space close to the sternum
 - B. In the left fifth intercostal space about 5 cm from the midline
 - C. Over the lower half of the sternum
 - D. In the second left intercostal space close to the sternum
 - E. Over the manubrium of the sternum
34. In regard to the posterior mediastinum which of the following statements is CORRECT:
- A. The right sympathetic trunk and ganglia lies to the left of the azygos vein and is connected to the thoracic spinal nerves only by gray rami communicantes
 - B. The azygos vein lies posterior to the right posterior intercostal arteries and to the left of the thoracic duct
 - C. The thoracic aorta begins at approximately the level of the 4th thoracic vertebra and at the level of the 5th thoracic vertebra the thoracic duct crosses it posteriorly
 - D. The esophagus lies posterior to the thoracic aorta and anterior to the left bronchus
 - E. The inferior vena cava courses through the diaphragm and receives the hemiazygos vein

35. Each statement regarding the gallbladder and biliary system is CORRECT EXCEPT:
- A. The bile duct is formed by the junction of the common hepatic and cystic ducts
 - B. The cystic artery commonly arises from the right hepatic artery
 - C. Peritoneum completely surrounds the fundus and body of the gallbladder
 - D. The superior (first part) of the duodenum courses anterior to the bile duct
 - E. The fundus of the gallbladder usually projects below the inferior margin of the liver
36. In regard to the blood supply, lymph, and nerves of the lungs which of the following is TRUE:
- A. The pulmonary tissue of the lungs is drained only by bronchial veins
 - B. The innervation of the lungs is derived from the intercostal nerves
 - C. The vagus nerves carry sensory fibers from both lungs
 - D. A bronchopulmonary segment is defined as a secondary bronchus with its surrounding pulmonary tissue and blood vessels
 - E. The thoracic duct receives all the lymphatic vessels of the right lung

37. In regard to the thoracic wall which of the following statements is CORRECT:
- A. Only the external intercostal muscles contract during the quiet expiratory phase of breathing
 - B. The posterior intercostal arteries arise from the aorta while the anterior intercostal arteries arise from the internal thoracic artery
 - C. The thoracic diaphragm contracts during the expiratory phase of breathing
 - D. The intercostal nerves and vessels course along the superior margin of each rib
 - E. The "pump handle" movement of the thoracic cage results in an increase in the transverse diameter of the thorax
38. Regarding the posterior abdominal wall, which of the following statements is INCORRECT:
- A. The bifurcation of the abdominal aorta occurs at the level of the fourth lumbar vertebra
 - B. The sympathetic trunk on each side enters the abdomen by passing posterior to the medial arcuate ligament
 - C. Infections contained by the psoas fascia can be detected in the inguinal region
 - D. The anterior and middle layers of the thoracolumbar fascia enclose the quadratus lumborum muscle
 - E. The cisterna chyli lies anterior to the left crus of the diaphragm at the level of the fourth lumbar vertebra

This diagram is a transverse section through the thorax at the level of the eighth thoracic vertebra. It is depicted in the CT format as though you are viewing the section from below:

Select the option (A-K below) which best fits the statements numbered 39 and 40



39. The fossa ovalis is located in this structure
40. This valve is located posterior to the body of the sternum at the level of the 4th and 5th intercostal spaces

DIRECTIONS:

Select the option (A-T below) which best fits the descriptions numbered 41-42

- A. Celiac trunk
- B. Common hepatic artery
- C. Gastroduodenal artery
- D. Iliocolic artery
- E. Inferior mesenteric artery
- F. Left colic artery
- G. Left gastric artery
- H. Left renal artery
- I. Left gastro-omental (epiploic) artery
- J. Middle colic artery
- K. Proper hepatic artery
- L. Right colic artery
- M. Right gastric artery
- N. Right gastro-omental (epiploic) artery
- O. Sigmoid arteries
- P. Splenic artery
- Q. Supraduodenal artery
- R. Superior mesenteric artery
- S. Superior pancreaticoduodenal artery
- T. Superior rectal artery

- 41. The blood supply of the stomach is derived from the direct branches of A which include B, P and this structure.

- 42. Arteries supplying the hepatic flexure of the colon are derived from this direct branch of the abdominal aorta