

## Thorax Test Questions

College of Medicine

Gross Anatomy

These Questions have come from the old tests available in the Center For Academic Excellence. Please note that all of the questions have not been checked, and the answers may be wrong.

1. A tape passed through the transverse pericardial sinus would lie behind the
  - A. ascending aorta alone
  - B. ascending aorta and superior vena cava
  - C. ascending aorta and pulmonary trunk
  - D. superior vena cava alone
  - E. superior vena and 4 pulmonary veins
  
2. The mediastinum
  - A. is separated into superior and inferior portions of the sternal angle
  - B. ends inferiorly at the level of the tracheal bifurcation
  - C. lies anterior to T2 to T10, but not T1, T11, or T12
  - D. does not contain the thoracic duct
  - E. does not contain the phrenic nerves
  
3. In the superior mediastinum:
  - A. the brachiocephalic vein lies posterior to the arteries which originate from the arch of the aorta
  - B. the trachea lies posterior to the esophagus
  - C. the esophagus lies to the right of the arch of the aorta
  - D. the left recurrent laryngeal nerve loops around the subclavian artery
  - E. the thoracic duct lies along the right border of the esophagus
  
4. The mediastinum is bounded laterally by the
  - A. parietal layer of serous pericardium
  - B. fibrous pericardium
  - C. mediastinal portions of the right and left pleural sacs
  - D. costal parts of right and left pleural sacs
  - E. right and left lungs
  
5. This nerve lies on the lateral side of the superior vena cava before passing anterior to the root of the lung
  - A. right vagus
  - B. right phrenic
  - C. left phrenic
  - D. left vagus

6. In a CT scan of the thorax at the level of the right pulmonary artery, what structure(s) lie(s) directly anterior to this artery?
- A. superior vena cava
  - B. ascending aorta
  - C. right main bronchus
  - D. both A and B
  - E. A, B and C
7. Visceral pericardium coats each of the following EXCEPT :
- A. pulmonary trunk
  - B. aortic arch
  - C. lower part of the superior vena cava
  - D. part of the inferior vena cava
  - E. right coronary artery
8. Which structure lies anterior to the transverse pericardial sinus?
- A. superior vena cava
  - B. descending aorta
  - C. right pulmonary artery
  - D. pulmonary trunk
  - E. right coronary artery
9. The fibrous pericardium is:
- A. fused with the central tendon of the diaphragm
  - B. synonymous with the epicardium
  - C. both A and B
  - D. neither A nor B
10. In a normal heart, the left ventricular myocardium is thicker than the right ventricular myocardium, reflecting the fact that:
- A. the left ventricle pumps more blood than the right ventricle
  - B. systemic arterial resistance is normally greater than pulmonary arterial resistance
  - C. the left ventricle pumps against gravity whereas the right ventricle does not
  - D. the right ventricle contains oxygenated blood whereas the left ventricle contains unoxygenated blood
  - E. all of the above
11. The posterior bronchopulmonary segment of the superior lobe of the right lung is immediately superior and anterior to this bronchopulmonary segment:
- A. superior of the inferior lobe
  - B. medial of the middle lobe
  - C. lateral of the middle lobe
  - D. superior of the middle lobe
  - E. posterior of the middle lobe

12. Suppose that the esophageal cancer is at the level of bifurcation. Which primary bronchus would you expect to become directly involved most frequently and why?
- A. right bronchus, because esophagus passes directly posterior to it
  - B. left bronchus, because esophagus passes directly posterior to it
  - C. right bronchus, because esophagus passes directly anterior to it
  - D. left bronchus, because esophagus passes directly anterior to it
  - E. neither bronchus would be more frequently involved because the esophagus is not more closely related to one than the other
13. The usual number of tertiary bronchi in the right lung is:
- A. 2
  - B. 3
  - C. 8
  - D. 10
  - E. 20
14. Small foreign bodies that enter the trachea will usually enter the:
- A. upper lobar bronchus of left lung
  - B. lower lobar bronchus of left lung
  - C. upper lobar bronchus of right lung
  - D. eparterial bronchus of right lung
  - E. middle or lower lobar bronchus of right lung
15. The inferior border of the parietal pleura, at a point adjacent to the vertebral column, is at a level of which rib?
- A. 4<sup>th</sup> rib
  - B. 6<sup>th</sup> rib
  - C. 8<sup>th</sup> rib
  - D. 10<sup>th</sup> rib
  - E. 12<sup>th</sup> rib
16. The transverse (horizontal) fissure of the lung can be indicated on the anterior surface of the thorax by a line that follows the:
- A. second costal cartilage
  - B. fourth costal cartilage
  - C. sixth costal cartilage
  - D. eighth costal cartilage
  - E. medial border of the scapula with the arm abducted
17. The most superior structure in the root of the left lung is the left:
- A. eparterial bronchus
  - B. pulmonary ligament
  - C. pulmonary artery
  - D. pulmonary vein

- E. main bronchus
18. Because of their close relationship, an invasive tumor in which area of the right lung would most likely endanger the right recurrent laryngeal nerve?
- A. apex
  - B. mediastinal surface
  - C. costal surface
  - D. diaphragmatic surface
  - E. area around the root of the lung
19. The vertical extent of the mediastinum is from the diaphragm inferiorly to the level of the \_\_\_\_\_ superiorly.
- A. xiphisternal junction
  - B. sternal angle
  - C. superior thoracic aperture
  - D. apex of the pericardium
  - E. second thoracic vertebra
20. Which statement concerning costal pleura is FALSE?
- A. It is directly continuous with visceral pleura around the root of the lung.
  - B. It is directly continuous with the diaphragmatic pleura at the inferior border of the pleural sac
  - C. It is directly continuous with the mediastinal pleural at the anterior border of the pleural sac.
  - D. It is sensitive to common sensations such as touch and pressure.
  - E. It lines the inner surfaces of the ribs, costal cartilages, posterior surface of sternum, and sides of the bodies of thoracic vertebrae.
21. When a surgeon cuts the pulmonary ligament of the right lung from inferior to superior, what is the first structure (s)he encounters (at the base of the pulmonary ligament)?
- A. inferior pulmonary vein
  - B. inferior pulmonary artery
  - C. lower lobe bronchus
  - D. intermediate bronchus
  - E. middle lobe bronchus
22. Pain from irritation of the diaphragmatic pleura is often referred to the shoulder. What is the major nerve involved in this sensory pathway?
- A. vagus
  - B. phrenic
  - C. 10<sup>th</sup> intercostal
  - D. 4<sup>th</sup> intercostal
  - E. greater splanchnic
23. The middle mediastinum:
- A. is part of the inferior mediastinum

- B. contains the pericardial cavity
  - C. is bounded laterally by parietal pleura
  - D. is bounded inferiorly by the diaphragm
  - E. all of the above
24. The left coronary artery:
- A. arises just above the left aortic semilunar valve
  - B. normally gives rise to the posterior interventricular artery of the heart
  - C. provides most of the blood supply to both atria
  - D. provides a branch to the sino-atrial node
  - E. all of the above
25. The inter-atrial septum:
- A. usually exhibits a patent foramen ovale
  - B. is the site or origin of the moderator band
  - C. closes only after birth
  - D. is attached to coronary valves via chordae tendineae
  - E. does not contain conduction fibers
26. Serous pericardium:
- A. has two layers, visceral and parietal
  - B. when attached to fibrous pericardium is parietal pericardium
  - C. lining the outside of the heart is epicardium
  - D. surrounds the roots of the ascending aorta and pulmonary trunk
  - E. all of the above
27. The oblique pericardial sinus:
- A. is a space lying between the arterial and venous pericardial reflections
  - B. contains a thin layer of serous fluid
  - C. is found between two layers of parietal pericardium
  - D. lies anterior to the heart
  - E. all of the above
28. In cross sections through the superior mediastinum, you usually see the right phrenic nerve located directly lateral to the:
- A. trachea
  - B. esophagus
  - C. brachiocephalic trunk
  - D. right subclavian
  - E. superior vena cava
29. Which of the following lies directly inferior to the last tracheal ring (in the crotch of the tracheal bifurcation)?
- A. arch of the azygos vein
  - B. superior vena cava
  - C. left pulmonary artery

- D. lymph nodes
  - E. left recurrent laryngeal nerves
30. In a cross section of the thorax at a level one centimeter superior to the aortic arch, the brachiocephalic trunk usually lies directly anterior to the:
- A. esophagus
  - B. trachea
  - C. right brachiocephalic vein
  - D. superior vena cava
  - E. right pulmonary artery
31. In a CT scan of the thorax at the level of the aortic semilunar valve, this valve lies directly anterior to the:
- A. right atrium
  - B. left atrium
  - C. right ventricle
  - D. esophagus
  - E. descending aorta
32. The central tendon of the diaphragm lies at (about) this vertebral level:
- A. T2
  - B. T4
  - C. T6
  - D. T8
  - E. T10
33. The vagal trunk passes through the \_\_\_\_\_ of the diaphragm:
- A. aortic opening
  - B. caval opening
  - C. esophageal opening
  - D. left and right crura
  - E. central tendon
34. The following structures are partially within the middle mediastinum:
- A. phrenic nerve
  - B. superior vena cava
  - C. vagus nerve
  - D. all the above
  - E. both A and B, but not C
35. The aortic valve is heard best at this location:
- A. just lateral to the sternum at the second **right** intercostal space
  - B. just lateral to the sternum at the second **left** intercostal space
  - C. just lateral to the sternum at the fourth **right** intercostal space

- D. just lateral to the sternum at the fourth **left** intercostal space
  - E. about 3 and ½ inches from the midline in the **left** fifth intercostal space
36. The following structure passes between the vagus nerve and the phrenic nerve in the left superior mediastinum:
- A. left superior intercostal vein
  - B. arch of the aorta
  - C. ascending aorta
  - D. arch of the azygos vein
37. The carina lies :
- A. within the transverse sinus of the pericardium
  - B. in relation to the right side of the interventricular septum
  - C. within the lingular division of the right and left main bronchi
  - D. between the entrances of the right and left main bronchi
  - E. within the oblique sinus of the pericardium
38. True statements concerning the usual vertebral levels of the 3 major hiatuses in the diaphragm include:
- A. the caval hiatus is at T8
  - B. the aortic hiatus is at T12
  - C. the esophageal hiatus is at T10
  - D. all the above
  - E. both (only) B and C
39. Posterior intercostal arteries:
- A. can be found just superior to the costal groove
  - B. run deep to the subcostal muscles
  - C. travel inferior to their corresponding segmental vein in the lateral thorax
  - D. arise from the internal thoracic artery
  - E. none of the above
40. The thoracic duct:
- A. drains the right side of the thorax
  - B. carries lymph to the cisterna chyli
  - C. crosses the midline at about the level of the sternal angle
  - D. lies just lateral and posterior to the azygous vein
  - E. empties its lymph into the right subclavian artery
41. Sensory innervation from the central part of the diaphragmatic pleura is provided by the
- A. phrenic nerves
  - B. vagus nerves
  - C. lower intercostal nerves
  - D. greater splanchnic nerves
  - E. none of the above

42. One is most likely to damage an intercostal nerve or vessel when inserting a needle through an intercostal space as follows:
- A. just above a rib
  - B. just below a rib
  - C. halfway between adjacent ribs
43. The thoracic duct:
- A. passes through the aortic opening of the diaphragm
  - B. has valves
  - C. passes from right to left posterior to the esophagus in the posterior mediastinum
  - D. all the above
  - E. only A and C
44. The connecting pleura between the visceral pleura and mediastinal pleura has a dependent fold called the:
- A. pulmonary ligament
  - B. median arcuate ligament
  - C. suspensory ligament
  - D. apical ligament
  - E. hilar ligament
45. These structures of the superior mediastinum lie posterior to the plane of the trachea:
- A. esophagus
  - B. right recurrent laryngeal nerve
  - C. left brachiocephalic vein
  - D. all the above
  - E. only A and B
46. The right main bronchus is shorter, wider and has its long axis more vertically oriented than the left main bronchus:
- A. true
  - B. false
47. The anatomical, functional and surgical units of the lung are the:
- A. whole lung
  - B. lobes
  - C. bronchopulmonary segments
  - D. alveolar sacs
  - E. alveoli
48. This bronchopulmonary segment of the right lung is in the middle lobe:
- A. anterior basal
  - B. superior
  - C. anterior
  - D. posterior

- E. medial
49. The epicardium:
- A. lines the heart chambers
  - B. is tough and fibrous
  - C. is the visceral layer of the serous pericardium
  - D. all the above
  - E. only B and C
50. If you placed your fingers between the epicardium of left atrium and the posterior parietal serous pericardium of the pericardial sac below the venous mesocardium, your fingers would be in this space:
- A. oblique sinus
  - B. transverse sinus
  - C. sinus venarum
  - D. sinus venosus
  - E. posterior mediastinum
51. This/These parts of the conducting system of the heart is/are found totally or partially in the atrial walls:
- A. sino-atrial node
  - B. atrioventricular node
  - C. atrioventricular bundle
  - D. all the above
  - E. only A and B
52. When naming the cusps of the pulmonary semilunar valves according to their development we have a right, left and \_\_\_\_\_ cusp.
- A. anterior
  - B. posterior
53. The venous blood in this vein does not enter the coronary sinus before entering the right atrium.
- A. great cardiac vein
  - B. middle cardiac vein
  - C. small cardiac vein
  - D. anterior cardiac vein
54. The sound of the aortic valve is heard best anteriorly over the medial end of the:
- A. left 2<sup>nd</sup> intercostal space
  - B. right 2<sup>nd</sup> intercostal space
  - C. left 4<sup>th</sup> intercostal space
  - D. right 4<sup>th</sup> intercostal space
  - E. left 6<sup>th</sup> intercostal space
55. The suprasternal notch:

- A. lies at the level of the upper border of the body of the first thoracic vertebra
  - B. is the most superior portion of the thoracic inlet
  - C. indicates the level of the attachment of the second costal cartilage to the sternum
  - D. is the notch on the superior aspect of the body of the sternum
  - E. is the anterior landmark for the superior boundary of the mediastinum
56. The sternal angle:
- A. is at the same level as the intervertebral disc between the T4 and T5 vertebrae
  - B. is at the level where the aortic arch begins and ends
  - C. is at the level where the hemiazygos vein usually joins the azygos vein
  - D. all the above are correct
  - E. only A and B are correct
57. The apex of the lung:
- A. lies in the superior mediastinum
  - B. continues above the level of the medial end of the clavicle
  - C. is innervated by the phrenic nerve
  - D. lies anterior to the phrenic nerve
  - E. lacks a covering of visceral pleura because it is outside the thoracic cavity
58. The lateral arcuate ligament of the respiratory diaphragm:
- A. lies anterior to the quadratus lumborum
  - B. is a thickening of the transversalis fascia layer
  - C. extends from the transverse process of L1 to the 12<sup>th</sup> rib
  - D. all the above
  - E. only A and B
59. The right dome of the diaphragm is slightly higher than the left dome, but the two domes usually rise this high during respiration. (Use the midclavicular line as a reference)
- A. 3<sup>rd</sup> rib
  - B. 5<sup>th</sup> rib
  - C. 7<sup>th</sup> rib
  - D. 9<sup>th</sup> rib
  - E. 12<sup>th</sup> rib
60. The motor supply to the voluntary muscle of the respiratory diaphragm is by:
- A. the phrenic nerve
  - B. the lower intercostal nerves
  - C. the vagus nerve
  - D. all the above
  - E. only A and B

61. The superior mediastinum is separated from the inferior mediastinum by a horizontal line that would pass through the :
- A. sternal angle
  - B. 2<sup>nd</sup> costal cartilage
  - C. disc between T4-T5 vertebrae
  - D. all the above
  - E. only A and C
62. If a patient has a flail chest, the flail segment is pushed out during inspiration:
- A. True
  - B. False
63. This structure forms the right border of the heart:
- A. right atrium
  - B. left atrium
  - C. right ventricle
  - D. left ventricle
  - E. pulmonary trunk
64. All thoracic vertebrae have this characteristic:
- A. long bifid spines
  - B. a kidney bean-shaped body
  - C. costal facets on their bodies
  - D. costal facets on their transverse processes
  - E. superior articular processes that face medialward
65. In the midaxillary line the intercostal nerves and blood vessels lie between these adjacent layers:
- A. parietal pleura-endothoracic fascia
  - B. endothoracic fascia-transversus thoracis layer
  - C. transversus thoracis layer-internal intercostal layer
  - D. internal intercostal layer-external intercostal layer
  - E. external intercostal membrane- internal intercostal membrane
66. The endothoracic fascia forms the:
- A. suprapleural membrane
  - B. anterior intercostal membrane
  - C. posterior intercostal membrane
  - D. central tendon of the diaphragm
  - E. fibrous pericardium
67. The posterior intercostal arteries that arise from the descending thoracic aorta consist of \_\_\_\_\_ pairs supplying the \_\_\_\_\_ intercostal spaces:
- A. 11...11
  - B. 10...10 upper

- C. 9...9 upper
- D. 9...9 lower
- E. 10...10 lower

68. The following is/are true concerning the pleura:
- A. mediastinal pleura is visceral pleura
  - B. the visceral pleura is extremely sensitive to touch and pain
  - C. The cardiac notch of the pleura does not extend as far to the left as does the cardiac notch of the lung
  - D. All the above
  - E. Only B and C are correct
69. The most laterally projecting part of the heart is usually the:
- A. apex
  - B. base
  - C. right atrium
  - D. left atrium
  - E. right ventricle
70. The position of the horizontal fissure of the lung (midinspiration) is indicated by this right costal cartilage:
- A. 2<sup>nd</sup>
  - B. 4<sup>th</sup>
  - C. 6<sup>th</sup>
  - D. 8<sup>th</sup>
  - E. 10<sup>th</sup>
71. The lowest margin of the posterior parietal pleura is usually slightly below the neck of this rib:
- A. 12
  - B. 11
  - C. 10
  - D. 7
  - E. 8
72. This structure is not found in the superior mediastinum:
- A. phrenic nerve
  - B. vagus nerve
  - C. thoracic duct
  - D. beginning of brachiocephalic artery
  - E. greater splanchnic nerve
73. If a person received a shallow stab wound in the anterior part of the right fifth intercostals space about one-half inch lateral to the sternum, the structure most likely to be damaged is the:

- A. right brachiocephalic vein
- B. superior vena cava
- C. thoracic duct
- D. beginning of the brachiocephalic artery
- E. internal thoracic artery

74. Posterolaterally the structure that is most superiorly situated in the costal groove is the:

- A. posterior intercostal artery
- B. posterior intercostal nerve
- C. posterior intercostal vein

75. The posterior intercostal veins drain directly into this/these veins:

- A. brachiocephalic
- B. azygos
- C. left and right superior intercostals
- D. hemiazygos and accessory hemiazygos
- E. all the above

76. True statements concerning the trachea include:

- A. cancer of the trachea near its bifurcation could paralyze the muscles of the left side of the larynx, but not the right side
- B. the trachea descends during deep inspiration
- C. the “tracheal tug” sign is usually indicative of an aneurysm of the aortic arch
- D. all the above
- E. both (only) A and B

77. The bundle of His contains

- A. parasympathetic nerve fibers
- B. sympathetic nerve fibers
- C. conducting (Purkinje) fibers
- D. all the above
- E. only A and B above

78. This ligament lies directly anterior to the vertebral canal:

- A. ligamentum flavum
- B. anterior longitudinal ligament
- C. posterior longitudinal ligament
- D. supraspinous ligament
- E. ligamentum nuchae

79. The following normal curvatures of the vertebral column are present at birth and in the adult:

- A. scoliosis to the right in the upper thoracic region in right handed individuals

- B. posterior concavity in the cervical region
- C. lordosis in the lumbar region
- D. posterior convexity in the thoracic region
- E. posterior concavity in the lumbar region

80. The spinal cord in the adult usually ends at the level of the:

- A. first coccygeal vertebra
- B. second sacral vertebra
- C. fourth lumbar vertebra
- D. first lumbar vertebra
- E. tenth thoracic vertebra

81. The anterior edge of the left parietal pleura passes obliquely lateralward and downward from the midline at the level of this costal cartilage to form the cardiac notch:

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5

82. The large opening in the central tendon of the diaphragm transmits the:

- A. inferior vena cava
- B. esophagus
- C. aorta
- D. greater splanchnic nerve
- E. thoracic duct

83. If a patient has a spontaneous pneumothorax on the right side:

- A. he will have a paradoxical movement of the chest wall on the right
- B. his right lung would be fully expanded because of the loss of the vacuum effect
- C. the mediastinum would be shifted to the left
- D. the lung will compress the right recurrent laryngeal nerve
- E. the right side of his diaphragm will be paralyzed

84. When draining fluid from the pleural cavity, the needle should pass through the thoracic wall:

- A. just below a rib
- B. just above a rib
- C. about halfway between adjacent ribs
- D. through the periosteum and rib to avoid the neurovascular bundle
- E. into the anterior mediastinum before entering the pleural cavity

85. The esophagus:

- A. is about 16 inches long
- B. passes through the left crus of the diaphragm

- C. passes through the the left dome of the diaphragm
  - D. is compressed by the left main bronchus at the T5 vertebral level
  - E. is pushed to the left by the arch of the aorta in the superior mediastinum at the level of the body of the T3 vertebra
86. The azygos vein usually does not receive blood from these intercostal spaces:
- A. 2-4 on the right side
  - B. 2-4 on the left side
  - C. 5-11 on the right side
  - D. 5-8 on the left side via a (superior) hemiazygos vein
  - E. 9-11 on the left side via a (inferior) hemiazygos vein
87. The lymph drainage from the lower third of the esophagus goes first to these nodes:
- A. lumbar para-aortic
  - B. bronchomediastinal nodes
  - C. subcarinal nodes
  - D. posterior mediastinal nodes
  - E. left gastric nodes
88. The most important/ largest supplier of blood to the intercostal spaces is the:
- A. posterior intercostal artery
  - B. anterior intercostal artery
  - C. Both A and B
  - D. None of the above
89. The posterior intercostal artery supplying the seventh intercostals space arises from the:
- A. thoracic aorta
  - B. internal thoracic artery
  - C. anterior intercostal artery
  - D. none of the above
90. The phrenic nerve lies \_\_\_\_\_ to the root of the lung and the vagus nerve lies \_\_\_\_\_ to the root of the lung.
- A. Anterior, Posterior
  - B. Anterior, Anterior
  - C. Posterior, Anterior
  - D. Posterior, Posterior
91. The nerve that lies just to the right of the superior vena cava is the:
- A. greater splanchnic
  - B. lesser splanchnic
  - C. right phrenic
  - D. right vagus
  - E. sympathetic trunk

92. Concerning the pulmonary arteries:
- A. The right pulmonary artery lies on a higher plane than the left pulmonary artery because the right lung is shorter than the left.
  - B. The left pulmonary artery passes anterior to the descending aorta and posterior to the esophagus.
  - C. The right pulmonary artery passes posterior to the superior vena cava and the ascending aorta.
  - D. They enter the hilum of the lung inferior to the pulmonary veins.
  - E. They lie directly anterior to the lower part of the trachea.
93. The thoracic duct lies just to the right of this structure in the lower part of the thorax:
- A. descending aorta
  - B. azygos vein
  - C. phrenic nerve
  - D. trachea
  - E. esophagus
94. The following structures pass anterior to the trachea in the superior mediastinum:
- A. brachiocephalic artery
  - B. left common carotid artery
  - C. right common carotid artery
  - D. all the above
  - E. both A and B but not C
95. Each bronchopulmonary segment:
- A. contains a segmental artery
  - B. contains a tertiary bronchus
  - C. contains a segmental vein
  - D. all of the above
  - E. both A and B but not C
96. The apical bronchopulmonary segment of the right upper lobe is adjacent to the posterior segment of the right upper lobe.
- A. True
  - B. False
97. The motor nerve supply to the peripheral parts of the diaphragm is by way of the :
- A. lower intercostal nerves
  - B. subcostal nerve
  - C. iliohypogastric nerve
  - D. vagus nerve
  - E. phrenic nerve
98. The internal thoracic artery:
- A. lies between the transverse thoracic and internal intercostal layers in the upper intercostal spaces

- B. lies about a half inch lateral to the sternum
- C. gives rise to a branch that supplies the pericardium
- D. all the above
- E. both A and B but not C

99. The phrenic nerve passes:

- A. anterior to the subclavian artery
- B. posterior to the internal thoracic artery
- C. anterior to the root of the lung
- D. through the middle mediastinum
- E. all of the above

100. The serous pericardium:

- A. attaches to fibrous pericardium as part of the parietal pericardium
- B. has two layers: visceral and parietal
- C. lines the heart as part of the epicardium
- D. surrounds the roots of the great vessels
- E. all of the above

101. The suprapleural membrane is formed by:

- A. external intercostal membrane
- B. internal intercostal membrane
- C. pretracheal layer of cervical fascia
- D. parietal pleura
- E. endothoracic fascia

102. The thymus gland:

- A. is a lymphatic organ
- B. is normally found in the superior mediastinum
- C. descends from the cervical region into the thorax during embryonic development
- D. may extend into the anterior mediastinum
- E. all of the above

103. The inferior angle of the scapula lies at the level of the spine of this vertebra:

- A. T1
- B. T3
- C. T5
- D. T7
- E. T9

104. In the midaxillary line the space between the eighth and tenth ribs corresponds to the:

- A. costodiaphragmatic recess
- B. costomediastinal recess—anterior
- C. costomediastinal recess—posterior
- D. dome of the right part of the diaphragm
- E. location of the lower segment of the lingual

105. A knife wound that pierces the anterior chest wall about one-half inch lateral to the sternum but does not enter the heart or lung would be most likely to damage this structure:

- A. thoracic duct
- B. superior vena cava
- C. phrenic nerve
- D. vagus nerve
- E. internal thoracic artery

106. A patient that has erosion of the lower borders of the ribs would be a good candidate for having this problem:

- A. emphysema
- B. hepatitis
- C. blockage of the inferior vena cava as it enters the heart
- D. blockage of the thoracic duct
- E. narrowing (coarctation) of the posterior part of the aortic arch

107. The sensory innervation to the peripheral portions of the diaphragm is by way of:

- A. lower intercostal nerves
- B. phrenic nerve
- C. vagus nerve
- D. greater splanchnic nerve
- E. lesser and lowest splanchnic nerves

108. Which of these structures would lie in the connective tissue between adjacent bronchopulmonary segments:

- A. segmental arteries
- B. segmental bronchi
- C. segmental veins
- D. segmental lymph vessels
- E. segmental autonomic nerves

109. The position of the horizontal fissure of the lung (at midinspiration) is indicated by this right costal cartilage:

- A. 2<sup>nd</sup>
- B. 4<sup>th</sup>
- C. 6<sup>th</sup>
- D. 8<sup>th</sup>
- E. 10<sup>th</sup>

110. The lowest margin of the posterior parietal pleura is usually slightly below the neck of this rib:

- A. 12
- B. 11
- C. 10

- D. 7
- E. 8

111. The sternal angle:

- A. is at the same level as the intervertebral disc between the T4 and T5 vertebrae
- B. is at the level where the aortic arch begins and ends
- C. is at the level where the hemiazygous vein usually joins the azygos vein
- D. all the above are correct
- E. only A and B are correct

112. The apex of the lung:

- A. lies in the superior mediastinum
- B. continues above the level of the medial end of the clavicle
- C. is innervated by the phrenic nerve
- D. lies anterior to the phrenic nerve
- E. lacks a covering of visceral pleura because it is outside the thoracic cavity

113. The portion of the conducting system of the heart that lies in the atrial septum just above the opening for the coronary sinus is the:

- A. sino-atrial node
- B. atrioventricular node
- C. left bundle branch
- D. right bundle branch
- E. moderator band

114. The branch of the aortic arch that arises most posteriorly is the:

- A. brachiocephalic artery
- B. right common carotid artery
- C. left common carotid artery
- D. left subclavian artery

115. In the upper portion of the superior mediastinum the structure that lies posterior and to the left of the esophagus is the:

- A. thoracic duct
- B. azygos vein
- C. superior vena cava
- D. left brachiocephalic vein
- E. left recurrent laryngeal nerve

Thorax Question Answers:

1 C  
2 A  
3 E  
4 C  
5 B  
6 D  
7 B  
8 D  
9 A  
10 B  
11 A  
12 A  
13 D  
14 E  
15 E  
16 B  
17 C  
18 A  
19 C  
20 A  
21 A  
22 B  
23 E  
24 A  
25 C  
26 E  
27 B  
28 E  
29 D  
30 B  
31 B  
32 D  
33 C  
34 E  
35 A  
36 A  
37 D  
38 D  
39 C  
40 C

41 A  
42 B  
43 D  
44 A  
45 A  
46 A  
47 C  
48 E  
49 C  
50 A  
51 D  
52 A  
53 D  
54 B  
55 E  
56 E  
57 B  
58 D  
59 B  
60 A  
61 D  
62 B  
63 A  
64 C  
65 C  
66 A  
67 D  
68 C  
69 A  
70 B  
71 A  
72 E  
73 E  
74 C  
75 E  
76 D  
77 C  
78 C  
79 D  
80 D

81 D  
82 A  
83 C  
84 B  
85 A  
86 B  
87 E  
88 A  
89 A  
90 A  
91 C  
92 C  
93 E  
94 E  
95 E  
96 A  
97 E  
98 D  
99 E  
100 E  
101 E  
102 E  
103 D  
104 A  
105 E  
106 E  
107 A  
108 C  
109 B  
110 A  
111 E  
112 B  
113 B  
114 D  
115 A