Structure/ Procedure	Location
The imaginary line dividing the mediastinum into superior mediastinum and inferior mediastinum	From the sternal angle to the lower border of the 4th thoracic vertebra
The beginning of the brachiocephalic vein	Posterior to the sternoclavicular joint
The termination of the brachiocephalic vein	1st right costal cartilage
The beginning of the SVC	At the level of the right 1st costal cartilage
The azygos joins the SVC	At the level of the right 2nd costal cartilage
The SVC enters the right atrium	At the level of the right 3rd costal cartilage
The IVC enters the right atrium	At the level of the right 5th costal cartilage
The beginning of the arch of the aorta	Right border of the sternum at the 2nd right costal cartilage
The termination of the arch of the aorta	Lower border of the 4th thoracic vertebra
The brachiocephalic trunk	Posterior to the manubrium (anterior to the trachea + posterior to the left brachiocephalic vein)
The division of the brachiocephalic trunk into the right common carotid and right subclavian arteries	At the level of the right sternoclavicular joint
The left common carotid enters the neck	Posterior to the left sternoclavicular joint
The left subclavian artery enter the neck	Posterior to the left sternoclavicular joint
The right phrenic nerve enters the diaphragm	Through the caval opening to right side of the IVC
The left phrenic nerve enters the diaphragm	By piercing it to the left of the pericardium
The posterior boundary of the posterior mediastinum	The lower 8 thoracic vertebrae (T5-T12)
The beginning of the descending aorta	On the left side of the inferior border of the body of the T4 vertebra
The descending aorta descends	On the left side of T5 to T12 vertebrae
The esophagus descends on the right side of aorta then crosses in front of it	At the level of T7 vertebra

The termination of the descending aorta (becomes the abdominal aorta)	Enters the abdomen at the level of T12 vertebra through the aortic hiatus of the diaphragm
The beginning of the azygos vein	From the back of IVC opposite to L2 vertebra (level of the renal vein) Or by union of right subcostal and right ascending lumbar veins
The azygos vein passes the diaphragm	Through the aortic opening of the diaphragm
The termination of the azygos vein	The back of SVC opposite to the right 2nd costal cartilage
The termination of the superior hemiazygos	At the level of the T7 vertebra, it curves to the right to join the azygos.
The beginning of the inferior hemiazygos	From the back of the left renal vein opposite L2 vertebra Or by union of left subcostal and left ascending lumbar veins.
The termination of the inferior hemiazygos	At the level of the T8 vertebra, it curves to the right to end into the azygos vein.
Pericardiocentesis (in case of pericardial effusion)	Inserting a needle at a 45° angle in the left 5th or 6th intercostal spaces close to the sternum to avoid piercing left lung and pleura
The apex of the heart	It lies posterior to the left 5th intercostal space, 9 cm (a hand's breadth) from the median plane
The base of the heart	The base is related posteriorly to bodies of T6–T9 vertebrae
Preganglionic sympathetic fibers originate from	Cell bodies in the intermediolateral cell columns (IMLs) of the superior five or six thoracic segments of the spinal cord
Preganglionic sympathetic fibers relay at	Cervical and superior thoracic ganglia of the sympathetic trunks
The afferent pain fibers run with thoracic cardiac branches of the sympathetic trunk and enter the spinal cord through	the posterior roots of the upper four thoracic nerves
	the posterior roots of T7, T8, and T9
Surface anatomy of the heart	
Point A	Upper border of right 3rd costal cartilage (1

	inch) from midline.
Point B	Lower border of left 2nd costal cartilage (1.5 inch)from midline.
Point C (apex)	In the left 5th intercostal space (3.5 inches) from midline.
Point D	On the right 6th costal cartilage (1/2 inch) from the midline.
Heart Auscultation	
Pulmonary valve	Left 2nd sternocostal junction
Aortic valve	Right 2nd sternocostal junction
Mitral valve	Apex of the heart
Tricuspid valve	Xiphisternal joint

Unipolar Chest Leads	
V1	In the 4th intercostal space (right side) just beside the sternum
V2	In the 4th intercostal space (left side) around the sternum
V3	Mid-way between V2 and V4
V4	In the 5th intercostal space (left side) in the midclavicular line
V5	In the 5th intercostal space in the anterior axillary line
V6	In the 5th intercostal space in the mid axillary line