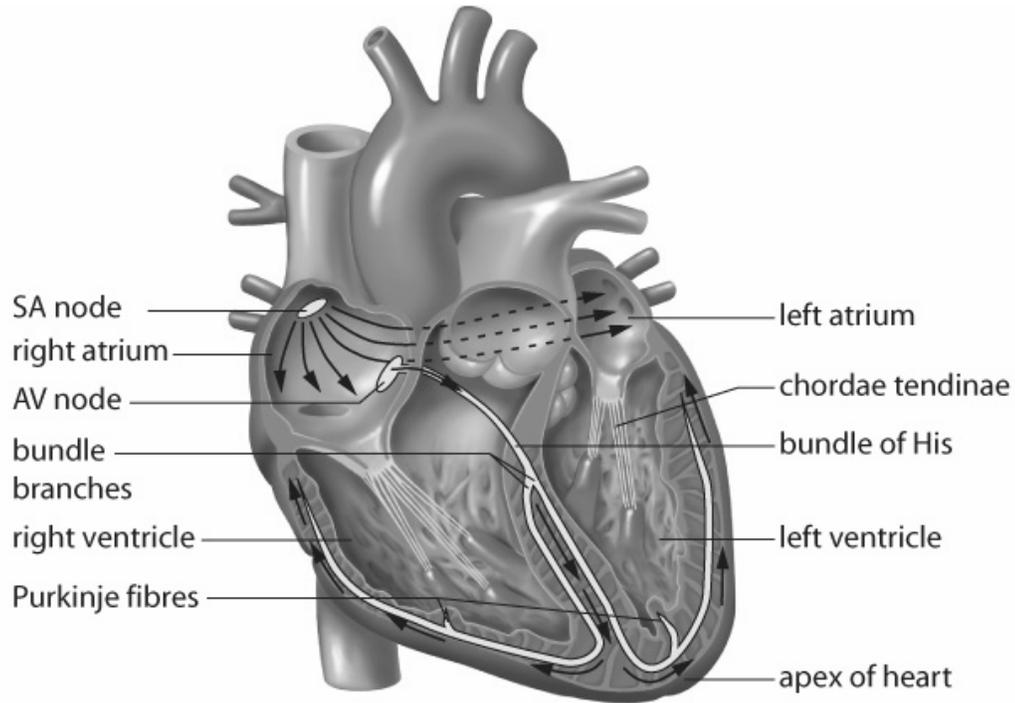


Part A Electrical System of the Heart

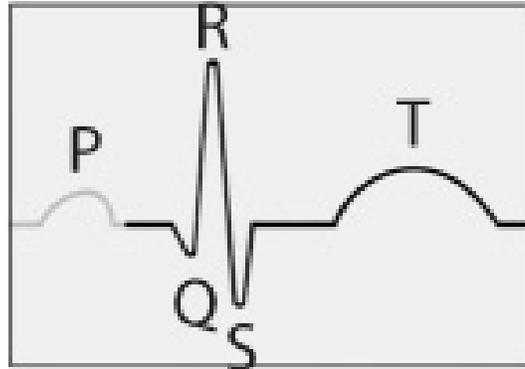
1.



2. The SA node sends out an electrical stimulus that causes the atria to contract. When this stimulus reaches the AV node, it is passed through the bundle of His and the Purkinje fibres. The stimulus causes the ventricles to contract, starting from the apex and then upward, which forces blood toward the pulmonary artery and aorta. The chordae tendinae are strong, fibrous strings that prevent the valves in the heart from inverting when the heart contracts.

Part B

3.



4.

ECG Wave Part	Corresponding Cardiac Cycle
P	Atrial excitation begins and atria contract, AV valves open, semilunar valves closed.
QRS	Ventricular excitation and ventricles contract, AV valves (bicuspid and tricuspid) close. Semilunar valves forced open by ventricular contraction.
T	Ventricles relax –AV valves open, semilunar valves closed.

5. There may be more than one explanation as to why PQRST is used on the ECG wave. One idea is that Einthoven, the scientist who identified the parts of the ECG wave, chose letters from the middle of the alphabet to allow for letters before and after in case more parts of the wave were discovered (for example “U” was later identified).