ANA 202
QUESTION.

1. The heart is a muscle the size of a fist, it lies behind into the left of the breastbone or rather called the sternum. The heart has four chambers, divided into two;
A. The top two chambers are THE ATRIUM which are the collection chambers for blood.
B. The bottom two chambers are called THE VENTRICLES that receives the blood from the atrium then pumps the blood to the lungs.

The chambers are separated by valves which are responsible for controlling the direction of the flow of blood. There are FOUR valves which are Tricuspid, pulmonary, mitral and aortic valve. Circulation begins at the right side of the heart, where blood from the body comes to the right atrium, then passes to the right ventricle where it is pumped to the lungs to receive oxygen. The blood then flows to the left atrium and then to the left ventricle where it is pumped to the aorta and other parts of the body. On the right side of the heart the tricuspid valve separates the right atrium from the right ventricle allowing blood to enter the ventricle but not letting it flow backwards to the atrium. Blood flows to the pulmonic valve to get to the lungs, on the left side of the heart, the mitral separates the left atrium from the left ventricle. Blood flows from the left ventricle to the aorta to the aortic valve then to the rest of the body. Arteries carry blood with oxygen and other nutrients throughout the body, veins take blood back to the heart which pumps the blood to the lungs to be oxygenated. The heart arteries, coronary arteries provide oxygen and other nutrients to the heart muscle.
The right coronary arteries supplies blood to the bottom and the back of the heart. The left coronary arteries splits into two branches; one branch supplies blood to the front of the heart, the other branch supplies to the left side of the heart. An electric system sends signals to the heart to control the pumping, the electrical signal starts at the Sinal Atrium (SA Node) which is located in the upper portion of the right atrium which is known as the natural pace maker of the heart. The Electrical signal passes down to the lower chambers of the heart via the Atrioventricular or AV node which controls the signal so the atria contracts before the ventricle, then the ventricle pathways carry the signal throughout the muscle so they contract at the same time to pump blood to the lungs and through the body.

THE FUNCTIONS OF THE HEART.

1. The heart is an organ that pumps blood throughout the body via the circulatory system supplying oxygen and nutrients to the tissues removing carbon dioxide and other wastes.
2. The heart circulates oxygen and removes carbon dioxide.
3. The heart provides cells with nutrients as well as assisting the removal of metabolic wastes in humans.

CONGENITAL ANOMALIES OF THE HEART.

1. CORONARY ARTERY DISEASE: Over the years, cholesterol plaques can narrow the arteries supplying blood to the heart. The narrowed arteries are at higher risk for complete blockage from a sudden blood clot (THIS BLOCKGE IS CALLED A HEART

ATTACK).
2. ARRHYTHMIA: An abnormal heart rhythm due to changes in the conduction of electrical impulses through the heart. Some arrhythmias are benign, but others are life-threatening.
3. CONGESTIVE HEART FAILURE: The heart is either too weak or too stiff to effectively pump blood through the body. Shortness of breath and leg swelling are common symptoms.
4. CARDIOMYOPATHY: A disease of heart muscle in which the heart is abnormally enlarged, thickened, and or stiffened. As a result, the heart's ability to pump blood is weakened.
5. MYOCARDITIS: Inflammation of the heart muscle, most often due to a vial infection.