*1 DESCRIPTION OF THE HEART*

*The heart is a muscle,it’s about the size of ones fist.it lies behind and to the left of one’s breastbone or sternum.The heart’s purpose is to pump blood to all parts of the body through blood vessels which are arteries and veins.The inside of the heart is divided into 4 Chambers ,The top two Chambers are called the ATRIA(collection of Chambers for blood),The bottom two Chambers are called the VENTRICLES.Tge ventricles receive blood from Atria and pump it yo the lungs and body. The Chambers are separated by valves which control the direction of blood flow.There are four types of valves which are: Tricuspid valve, pulmonic valve,mitral valve and aortic valve.*

*CIRCULATION: Circulation begins at the right side of the heart where blood from the body comes to the right Atria.The blood passes to the right ventricle where its pumped to the lungs to receive oxygen.Once it receives oxygen it flows to the left Atria and then to the left ventricle where its pumped to the aorta and the rest of the body.On the right side of the heart the Tricuspid valve separates the right atrium and the right ventricle allowing blood to enter the ventricle but not flow backwards to the Atria.Blood flows through the pulmonic valve to go to the lungs.On the left side of the heart the mitral valve separates the left atrium and the left ventricle to the aorta through the aortic valve and to the rest of the body . Arteries carry blood with oxygen and other nutrients throughout vthe body.Veins ya blood back to the heart which pumps it to the lungs to be oxygenated.The heart arteries (coronary Arteries) supplies blood to the front of the heart.The other branch delivers blood to the left side of the heart.An electric system transmits signal throughout the heart to control it’s pumping. The electrical signal starts in the SINOATRIAL or SA NODE which is located vin the upper portion of the right atrium and is known as the natural pacemaker 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 ventricles .In the ventricles pathways carry the signal throughout the muscle so if they contract at the same time to pump blood to the lungs and through the body.*

*2 CONGENITAL ANOMALIES OF THE HEART*

*A.Tricuspid atresia*

*Tricuspid atresia is where the tricuspid heart valve hasn't formed properly. The tricuspid valve separates the right-sided collecting chamber (atrium) and pumping chamber (ventricle). Blood can't flow properly between the chambers, which causes the right pumping chamber to be underdeveloped.*

*B.Tetralogy of Fallot:Tetralogy of Fallot is a rare combination of several defects.*

*The defects making up tetralogy of Fallot are:*

*I.ventricular septal defect – a hole between the left and right ventricle*

*Ii.pulmonary valve stenosis – narrowing of the pulmonary valve*

*Iii.right ventricular hypertrophy – where the muscle of the right ventricle is thickened*

*Iv.overriding aorta – where the aorta isn't in its usual position coming out of the heart*

*As a result of this combination of defects, oxygenated and non-oxygenated blood mixes, causing the overall amount of oxygen in the blood to be lower than normal. This may cause the baby to appear blue (known as cyanosis) at times.*

*C. Total (or partial) anomalous pulmonary venous connection (TAPVC)*

*TAPVC occurs when the 4 veins that take oxygenated blood from the lungs to the left side of the heart aren't connected in the normal way. Instead, they connect to the right side of the heart.*

*Sometimes, only some of the 4 veins are connected abnormally, which is known as partial anomalous pulmonary venous connection and may be associated with an atrial septal defect. More rarely, the veins are also narrowed, which can be fatal within a month after birth.*

*D Transposition of the great arteries*

*It's where the pulmonary and aortic valves and the arteries they’re connected to (the pulmonary (lung) artery and the aorta (main body) artery) are "swapped over" and are connected to the wrong pumping chamber. This leads to blood that's low in oxygen being pumped around the body.*

*E Truncus arteriosus*

*It's where the two main arteries (pulmonary artery and aorta) don't develop properly and remain as a single vessel. This results in too much blood flowing to the lungs which, over time, can cause breathing difficulties and damage the blood vessels inside the lungs.*

*Truncus arteriosus is usually fatal if it isn't treated.*