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Dr. Rajesh Verma, Assistant professor and head, U.G. Department of zoology, D.K. College, Gurgaon (Buxar). Notes for B.Sc part 2nd, paper I V (A).

Question :- Heart ke compartment of zoology, B.Sc. college Gurgaon (

Question :- Heart ke comparative anatomy ko chitna sahit Vahon kare...?

Answer :- The heart is a muscular organ in most animals, which pumps blood through the blood vessels of the circulatory system. The pumped blood carries oxygen and nutrients to the body, while carrying metabolic waste such as carbon dioxide to the lungs. In humans, the heart is approximately the size of a closed fist and is located between the lungs, in the middle compartment of the chest.

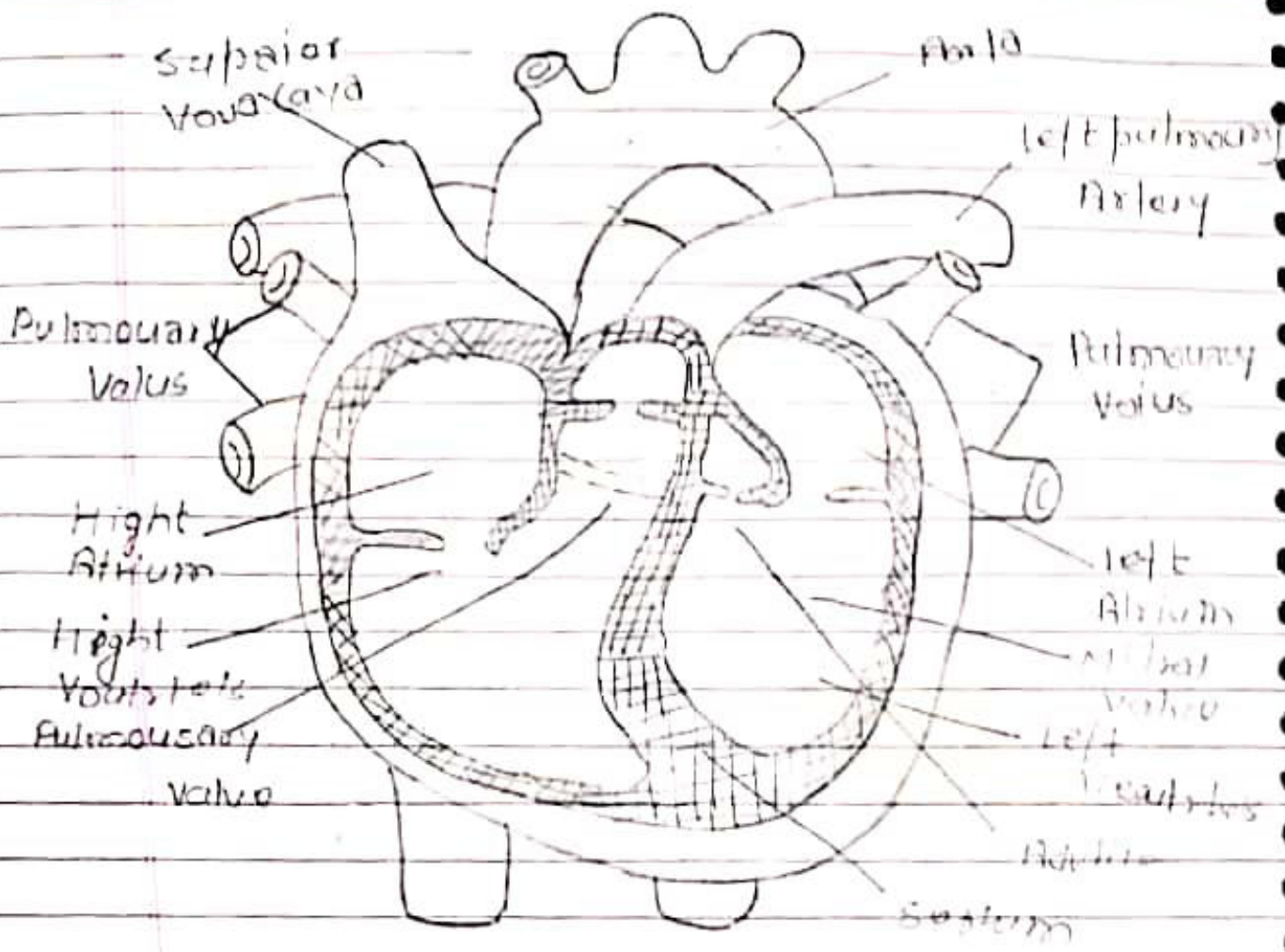
Details

System

Artery

Circulatory

Aorta, pulmonary trunk and right and left pulmonary arteries, right coronary artery, left coronary artery



Heart Diagram

Heart Diagram labeled worksheet

vein	Superior vena cava, inferior vena cava, right and left pulmonary veins, great cardiac vein, middle cardiac vein, small cardiac vein, anterior cardiac veins.
Nerve	Accelerans nerve, vagus nerve

Latin

cor

Greek

kardia (kapsla)

Mesh

0006321

TA

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In humans, other mammals, and birds, the heart is divided into four chambers: upper left and right atria and lower left and right ventricles. Commonly the right heart and their left counterpart is as the left heart. Fish, in contrast, have two chambers, an atrium and a ventricle, while reptiles have three chambers. In a healthy heart blood flows one way through the heart is enclosed in a protective sac, the pericardium which also contains a small amount of fluid. The wall of the heart is made up of three layers: epicardium, myocardium, and endocardium. The heart pumps blood with a rhythm determined by a group of pacemaking cells in the sinoatrial node. These generate a current that causes contraction of the heart, traveling through it

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atrioventricular node and along the conduction system of the heart.

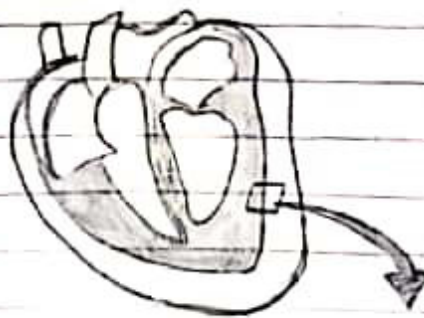
Left heart :-

The left heart has two chambers: the left atrium and the left ventricle, separated by the mitral valve.

The left atrium receive oxygenated blood back from the lungs via one of the four pulmonary veins. The left atrium has an outpouching called the left atrial appendage.

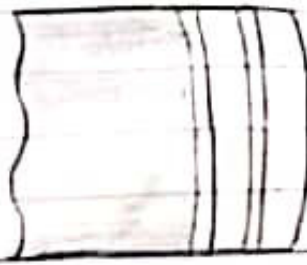
Like the right atrium, the left atrium is lined by pericardial muscles. The left atrium is connected to the left ventricle by the mitral valve.

Heart wall :-



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Layers of the heart wall, including visceral and parietal pericardium.

The heart wall is made up of three layers: the inner endocardium, middle myocardium and out epicardium. These are surrounded by a double membraned sac called the pericardium.

Right Heart :-

The right heart consists of two chambers, the right atrium and the right ventricle, separated by a valve, the tricuspid valve.

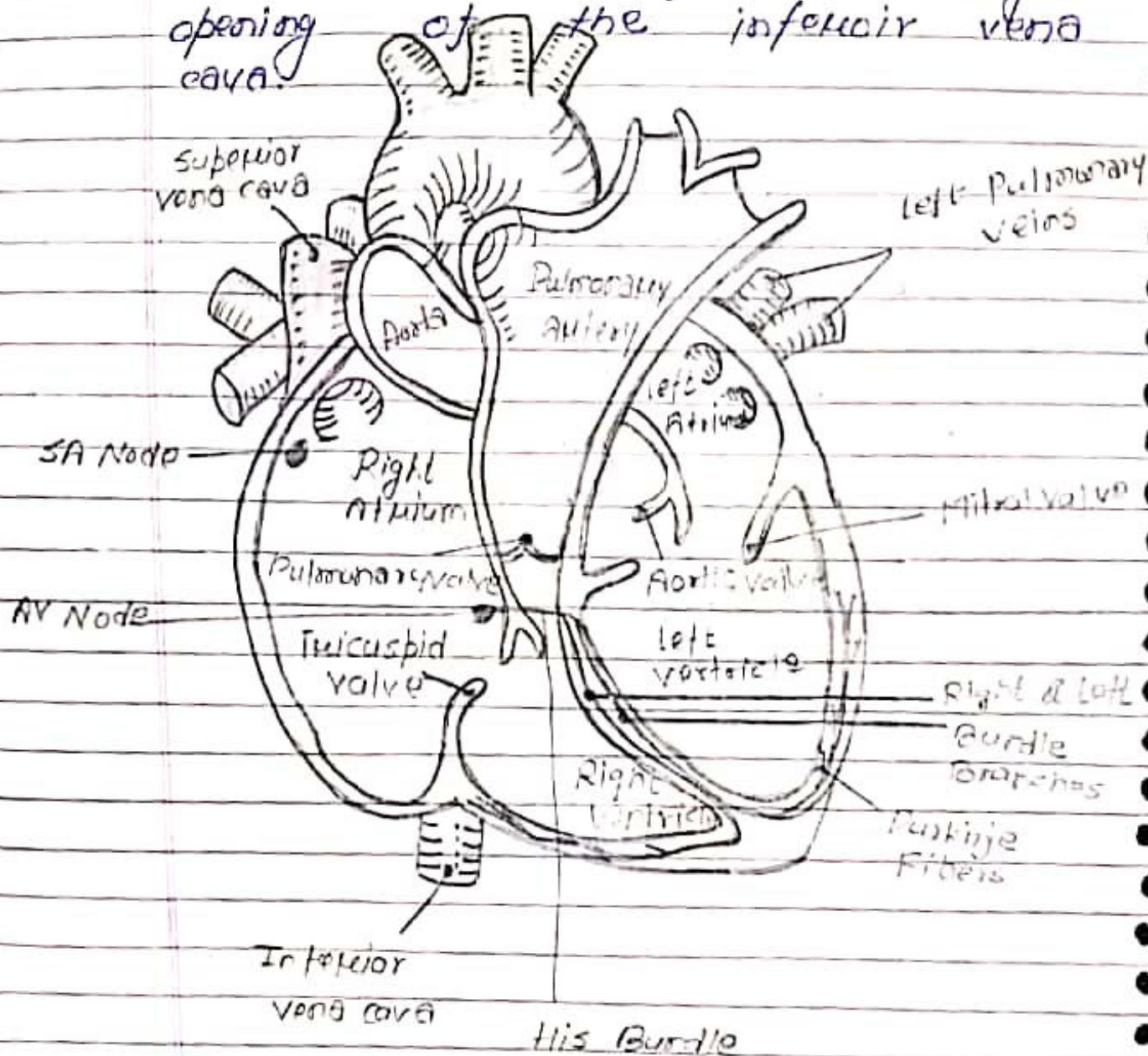
The right atrium receives blood almost continuously from the body's two major veins, the superior and inferior vena cava. A small amount of blood from the coronary circulation also drains into the right atrium via the coronary sinus, which

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is immediately above and to the middle of the (right) opening of the inferior vena



A small amount of blood almost continuously flows from the body's two major veins, the superior and inferior venae cavae.