

15/05/21

# Worksheet

Q) Define double circulation. Describe with a neat schematic diagram.

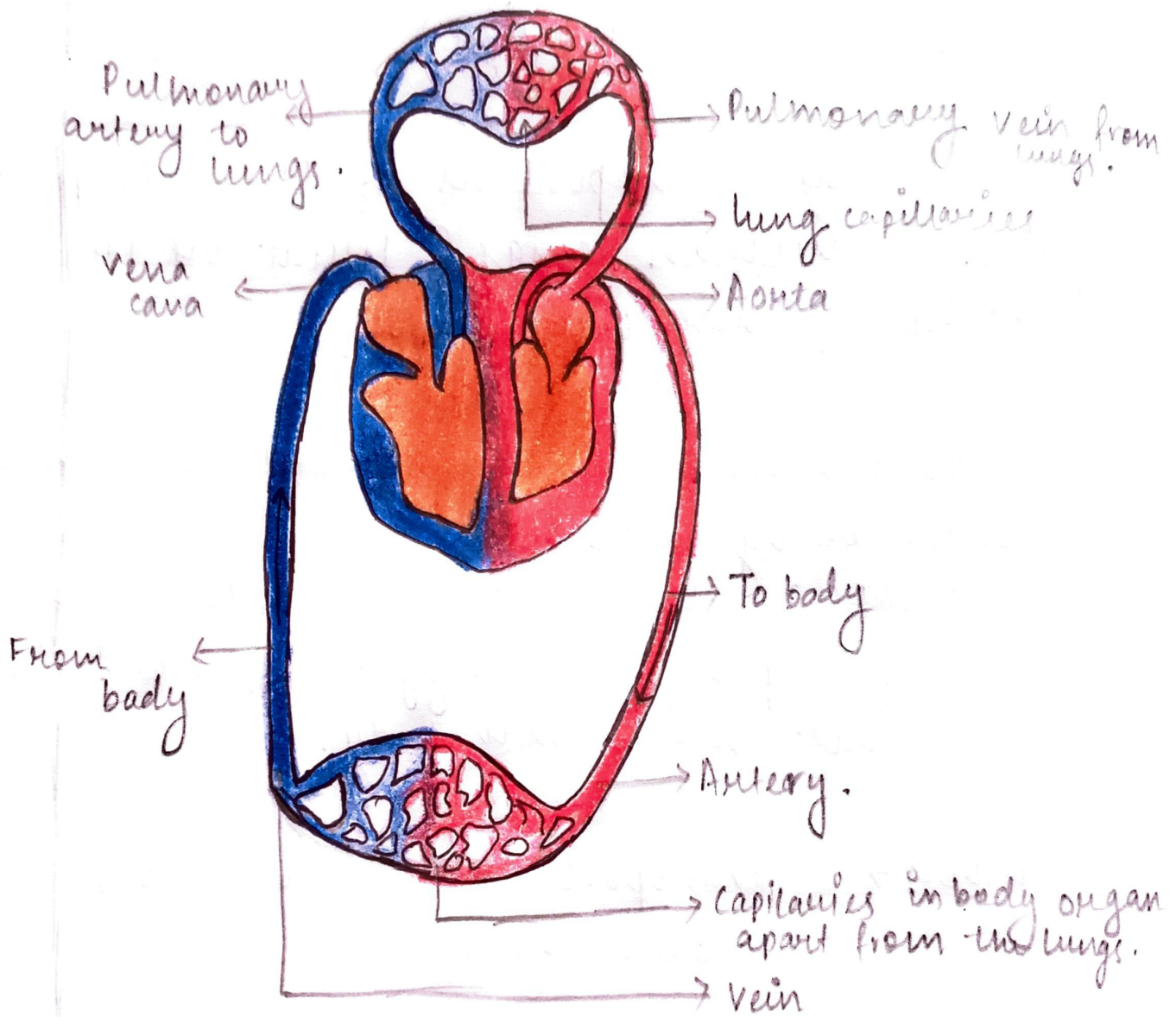
A) The human circulatory system is a double circulatory system. It has two separate circuits and blood passes through the heart twice: the pulmonary circuit is between the heart and lungs. The systemic circuit is between the heart and the other organs.

Q) Draw a neat labelled diagram of human heart and explain the different parts with functions.

A) The heart is made up of two chambers:

\* The upper two chambers of the heart are called auricles.

\* The lower two chambers of the heart are called ventricles.



Double circulation.

→ The heart wall is made up of three layers:

\* The outer layer of the heart wall is called epicardium.

\* The middle layer of the heart wall is called myocardium.

\* The inner layer of the heart wall is called endocardium.

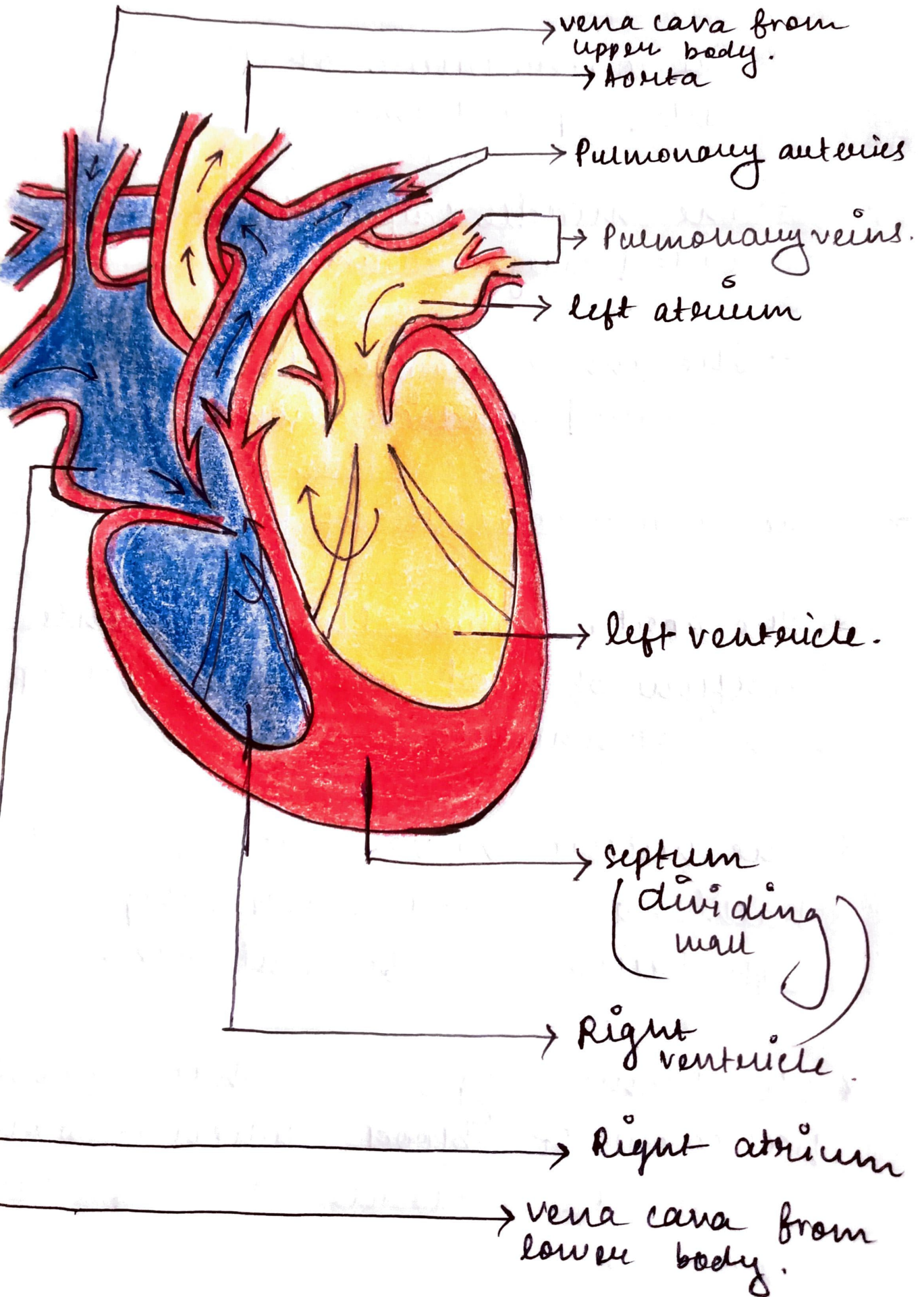
→ The heart consists of four valves:

\* The aortic valve that prevents the backflow of blood when it is pumped from left ventricle to aorta.

\* The mitral valve, that prevents the backflow of blood when pumped from left atrium to left ventricle.

\* The pulmonary valve that prevents backflow of blood when it flows from the right ventricle to the pulmonary artery.

# Human Heart



\* The tricuspid valve that prevents backflow of blood when it is pumped from the right atrium to right ventricle.

→ The arteries carry the blood rich in oxygen from the heart to different parts of the body. The pulmonary artery, being an exception, carries deoxygenated blood to the lungs for purification.

→ The veins carry impure blood from different parts of the body to the heart for oxygenation. However, the pulmonary vein carries oxygenated blood to the heart.

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