



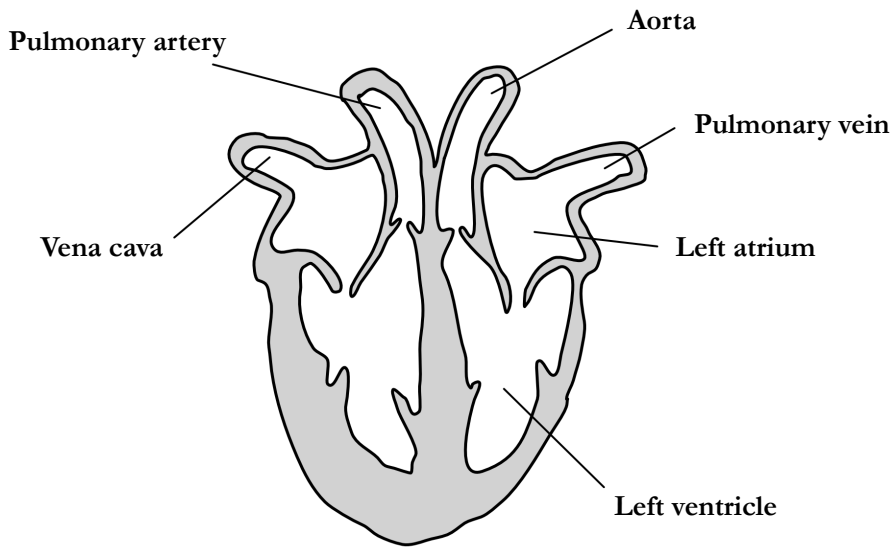
Heart

1 What organ system is the heart part of?

Circulatory system

[1 mark]

2 Label the diagram below



[5 marks]

3 Name the vessel that carries blood from the lungs to the heart

Pulmonary vein

[1 mark]

4 Explain why the circulatory system is often described as a 'double circulatory system'

It consists of 2 loops.

One carries blood to the lungs and back, the other carries blood to the body and back.

[2 marks]

5 Name the vessel that carries blood out of the left ventricle and state whether it is oxygenated or deoxygenated.

The aorta - carries oxygenated blood

[2 mark]

6 Are the following definitions true (T) or false (F)?

F

An artery is a vessel that carries oxygenated blood

T

An vein is a vessel that carries blood to the heart

T

An artery is a vessel that carries blood away from the heart

F

An vein is a vessel that carries deoxygenated blood

[2 marks]

7 Discuss how the heart is adapted to it's function of pumping blood around the body

It has thick muscular walls that contract to force the blood out at high pressures

It has valves to ensure that blood only travels in one direction

It has a pacemaker to ensure it contracts regularly

[2 marks]

8 Describe how the heartbeat is controlled

Pacemaker cells in the right atrium

Send regular impulses to the heart muscle tissue causing it to contract

[2 marks]

9 In some cases, the heartbeat can become irregular, how can doctors treat this?

Place an artificial pacemaker under the skin above the heart

So that it can send a regular electric impulse down to the heart to stimulate contractions

[2 marks]

10 What are the coronary arteries and why are they so important?

Arteries that supply blood (oxygen and nutrients) to the heart muscle

The heart muscle needs a constant and good supply of blood as it uses a lot of energy to contract regularly

[2 marks]

[Total 21 marks]