



Biology
Leaving Certificate
Ordinary Level

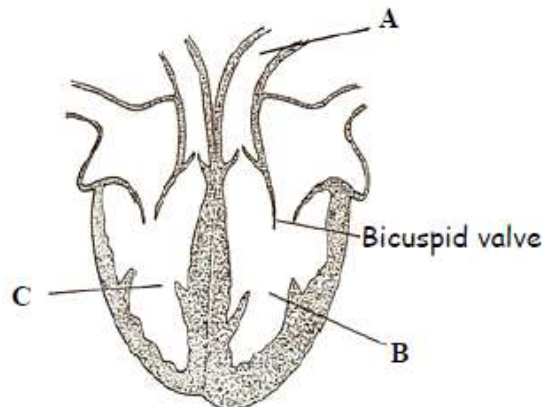
Past Exam Questions on
Blood and Circulatory System

Q14 Part (b) Section C 2013

- (b) (i) Blood is made up of plasma and blood cells. What is plasma?
(ii) What is the function of white blood cells?
(iii) Where in the body are white blood cells produced?
(iv) Some people may have the blood group B Positive (B+).
What factor is present in their blood that makes it positive?
(v) The heart pumps blood around the body.
1. Name the structure in the heart that controls the heartbeat.
2. Where is this structure located in the heart?
(vi) What causes the sound of a heartbeat?
(vii) Name the blood vessels that supply the heart cells with blood.
(viii) Mention two ways to maintain a healthy heart.

Q13 Part (a) and (b) Section C 2011

13. (a) (i) Name the liquid part of the blood.
(ii) Different lifestyle factors have an effect on the health of our circulatory system.
Name any two of these factors. (9)
- (b) The diagram shows a section through the human heart.



- (i) Name the blood vessel labelled A.
(ii) Does A carry blood towards or away from the heart?
(iii) Name the chamber of the heart labelled C.
(iv) Why is the wall of chamber B thicker than the wall of chamber C?
(v) Name the arteries that supply the heart wall with blood.
(vi) What is the role of valves in the heart?
(vii) The lymphatic system is another series of vessels carrying fluid in the body.
Give any two functions of the lymphatic system. (24)

Q5 Section A 2009

5. (a) Name the liquid part of blood.

- (b) Give two components of this liquid.

(i) _____

(ii) _____

- (c) Complete the following table in relation to blood cells:

Cell type	One function
Red blood cell	
White blood cell	
Platelet	

Q13 Section C 2009

13. (a) Name the blood vessel referred to in each of the following cases:
- (i) The vein connected to the lungs.
 - (ii) The artery connected to the kidneys.
 - (iii) The vein that joins the intestine to the liver.

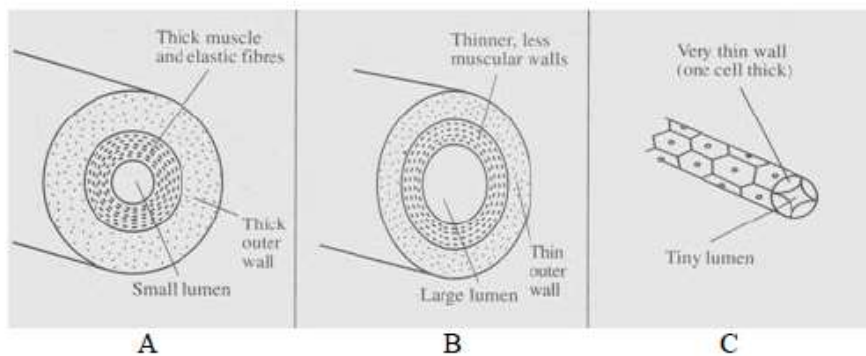
(9)

- (b) The following questions relate to the human heart.

- (i) Give the precise location of the heart in the human body.
- (ii) What structure(s) protects the heart?
- (iii) Name the upper chambers of the heart.
- (iv) Name the valve between the upper and lower chambers on the left-hand side.
- (v) What is the average resting human heart rate?
- (vi) Give **two** factors which cause an increase in heart rate.
- (vii) Name the blood vessels that bring oxygen to the heart muscle.
- (viii) Explain why the walls of the lower chambers of the heart are thicker than the walls of the upper chambers.

(27)

- (c) Copy the table below into your answerbook and use your knowledge of blood vessels and the information in diagrams A, B and C to complete the table. Some boxes have been filled as examples.



Vessel	A	B	C
Name		Vein	
Lumen	Small		
Wall			
Direction of blood flow			
Valves present			

Q2 Section A 2008

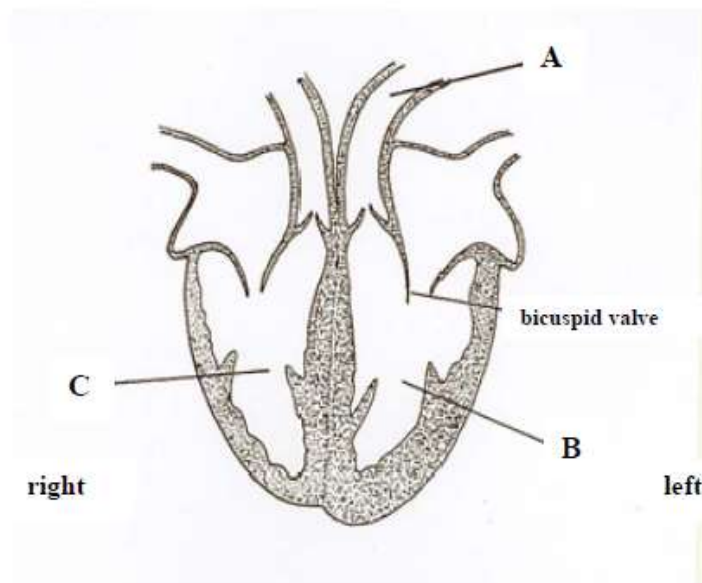
2. Choose a term from the following list and place it in **Column B** to match the description in **Column A**. The first one has been completed as an example:

amino acid, nitrogen, haemoglobin, keratin, enzyme

Column A	Column B
A protein present in blood	haemoglobin
An element always present in proteins along with C, H, O	
A protein which changes reaction rates	
The end product of protein digestion	
A structural protein	

Q4 Section A 2008

4. The diagram shows a section through a human heart.



- (a) Name blood vessel A. _____
- (b) Is the blood in A oxygenated or deoxygenated? _____
- (c) Name the chamber of the heart labelled B. _____
- (d) Give one reason why the wall of chamber B is thicker than the wall of chamber C.

- (e) What is the role of the bicuspid valve? _____

Q15 Part (b) Section C 2008

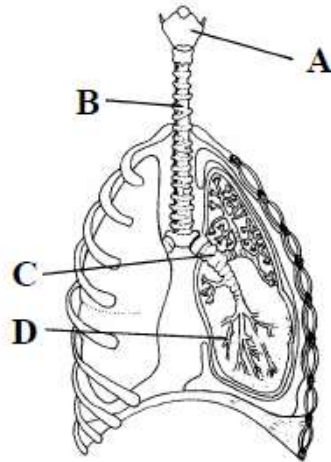
- (b) Answer the following questions in relation to blood.
- What is blood plasma? Give a role for blood plasma.
 - Name two types of cell found in the blood and give a function for each of them.
 - The ABO blood group system has four blood groups. What are these four groups?
 - Suggest a reason why it is important to know a person's blood group.

Q7 Section B 2006

7. (a) (i) Name the chamber of the heart that receives blood back from the lungs.
.....
- (ii) Name the blood vessels that bring this blood back from the lungs.
.....
- (b) Answer the following in relation to the dissection of a heart.
- (i) What instrument did you use for the dissection?
- (ii) Describe how you carried out the dissection.
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
- (iii) Draw a diagram of the dissected heart and on it label the following:
bicuspid valve, left ventricle, right atrium, tricuspid valve.

Q12 Section C 2005

12. (a) (i) Name the major blood vessels that carry blood
1. from the heart to the lungs
2. from the lungs to the heart.
(ii) What gas is released from the blood when it reaches the lungs? (9)
- (b) The diagram shows part of the human breathing system.



- (i) Name A, B, C, D.
(ii) D ends in a small sac. What is the name of this sac?
(iii) What is the function of A?
(iv) B contains rings of cartilage. Suggest a function of this cartilage.
(v) Where is the epiglottis? What is its function? (27)
- (c) (i) Name the muscles that are used in breathing.
(ii) Breathing causes pressure changes in the thoracic cavity. Describe briefly how these pressure changes are brought about.
(iii) Name a breathing disorder. Give a possible cause of this disorder and suggest a means of prevention or treatment. (24)

Q14 Part (c) Section C 2005

- (c) Answer the following questions in relation to blood vessels in the human body.
- (i) Valves are present in veins. What is their function?
(ii) Why are valves not needed in arteries?
(iii) Which has the bigger lumen (cavity), an artery or a vein?
(iv) The wall of capillaries is only one cell thick. How is this related to their function?
(v) How does a portal vein differ from other veins?
(vi) Name the following blood vessels;
1. the vessels that carry blood from the aorta to the kidneys.
2. the vessels that supply the heart's muscle with blood.