

HUMAN CIRCULATORY SYSTEM QUESTIONS

1. List the functions of blood in humans.
2. What purpose does haemoglobin serve?
3. What effect do excess amounts of carbon monoxide from cigarettes and car exhausts have on the body?
4. What are the components of blood, and what are their functions?
5. Briefly describe the clotting mechanism of blood.
6. Describe the 3 different types of blood vessels.
7. People with varicose veins in their legs have faulty valves in the veins. What non-surgical remedies would you recommend to a person with this condition?
8. In what part of the circulatory system does the blood flow most slowly and why?
9. By what process do nutrients and oxygen from the blood pass out of the blood into the tissue cells, and how wastes from the tissues pass back into the blood?
10. The body of an adult human makes about two million new red blood cells every second. About how many red blood cells are made in a day?
11. Trace the path of blood through the heart.
12. What role is performed by the heart valves?
13. In the early development of vertebrate animals, the first organ to form and function is the heart. Suggest why.
14. Explain the “double-beat” heartbeat sound heard with a stethoscope.
15. (a) Normal blood pressure is about 120/80. What do these numbers represent?
(b) What would it mean if the first number was much higher than 120?
(c) What would it mean if the second number was much higher than 80?
16. The medical name for a heart attack is a coronary occlusion. What does this mean?
17. Death occurs very quickly if the heart stops beating. Explain why.
18. What is a pulse?
19. It is said that fainting is nature’s way of telling a person to lie down. Is there any truth in this statement?
20. What would happen if a person with the AB blood type was given a transfusion of type O blood? Explain.
21. Differentiate between clotting and agglutination.

22. Citric acid forms a tight union with calcium ions so that the calcium is unable to react with other substances. In view of this, why is sodium citrate added to whole blood immediately after it is drawn from a blood donor?