

Class: 8<sup>th</sup>

Subject: Biology

Chapter: 6 (Circulatory system)

Choose the correct option:

1. Which of the following is not a part of blood: **lymph**.
2. The universal recipient blood group is: **AB**.
3. This is the instrument used to measure blood pressure: **sphygmomanometer**.
4. Which of the following is not a blood group: **X**.
5. Which of the following term is used for contraction of the heart: **none of these**.

Fill in the blanks:

1. The fluid which protect the heart from external jolts and shocks is called: **Pericardial fluid**.
2. In the pulmonary circulation, the **deoxygenated** blood is collected from the different parts of our body in the pulmonary artery.
3. A person with blood group AB can receive any type of blood and is called the universal **recipient**.
4. The **vein** collects the blood from the different parts of the body and brings it back to the heart.
5. **Ventricle** is the two lower Chamber of the heart.

write true false:

1. Right auricle receives deoxygenated blood: **true**
2. The person having blood group O can give blood to a person with any blood group: **true**
3. The Rh negative people have an antibody in the plasma similar to Rh factor: **false**
4. The blood that is transferred to the victim is checked for the transfusion take place: **true**
5. Lower limit of blood pressure is called diastolic pressure: **true**
6. Pulmonary circulation and systematic circulation are the same thing: **false**.

Answer the following questions in short:

1. What do you mean by transfusion of blood?  
Ans.. The transfer of blood from one person to the another is called blood transfusion.
2. Define the term blood Transfusion?  
Ans. The transfer of blood from one person to the another is called blood transfusion.

3. Name the instrument used to hear the heartbeat?  
Ans. stethoscope is the instrument used to hear the heartbeat.
4. What is the function of the valves present in the heart?  
Ans. Valves present in the heart direct the flow of blood in one direction and prevent back flow.
5. What is the function of platelets in the blood?  
Ans. platelets help in the clotting of blood in a cut or wound.
6. What is the heartbeat? Name the instrument used by doctors to listen to our heartbeat?  
Ans. The contraction of auricles and ventricles make a sound called heartbeat. stethoscope is the instrument used by doctor to listen to our heartbeat.
7. How many chambers are there in the heart? a) Name the upper chambers of heart? b) Name the lower chambers of heart?  
Ans. There are four chambers in our heart. Auricles are the upper chambers and ventricles are the lower chambers.

Answer the following questions in detail:

1. State the function of circulatory system. name the various part of the human circulatory system. draw a labelled diagram of the human circulatory system.  
Ans. In the circulatory system blood carries digested food, water and oxygen to all the parts of the body. it also takes away the waste product like carbon dioxide made in the body cells. Thus, the blood circulatory system makes food, water and oxygen available to every part of the body and helps in removing waste material of the body like carbon dioxide etc.  
The various organs of the circulatory system in humans are heart and blood vessels. There are three types of blood vessels present in the circulatory system arteries, veins and capillaries. Blood is also considered a part of the circulatory system.  
( fig no. 6.1 from pg no. 81)
2. Differentiate between the arteries and veins?  
Ans. **Arteries:** The arteries help in carrying blood from the heart to the different part of the body. arteries are thick walled and strong and elastic too. the arteries do not have valve. all the arteries except of the pulmonary artery carries oxygenated blood. the blood flow with high pressure within the arteries and they have a narrow lumen.  
**Veins:** The veins collect the blood from the different part of the body and bring it back to the heart. the veins are thin walled and non- elastic. the veins have valve. all the veins except pulmonary vein carry deoxygenated blood and the blood flow with less pressure in the veins. veins have a wide lumen.
3. What are the different components of blood? Explain.  
Ans. there are four components of the blood :
  - a. **Plasma:** The yellow part of the blood is called plasma. plasma is a pale yellow, sticky liquid. it is 90% water and 3.5% common salt plasma contains dissolved substance such as digested food and waste product like carbon dioxide and urea.
  - b. **Red blood cells:** Red blood cells are red in colour due to the presence of haemoglobin. this haemoglobin is helpful to carry oxygen to different part off the body, if there is a

deficiency of haemoglobin in the blood of a person it becomes difficult to provide oxygen.

- c. **White blood cells:** The white blood cells fight infection and protect us from disease, this is because white blood cells help to fight against germs which may enter our body and cause disease. some white blood cells can eat up the germs like bacteria which cause disease.
  - d. **Platelets:** Platelets are the tiny fragments of special cells formed in the bone marrow. platelets help in the clotting of blood in a cut or wound.
4. What is lymphatic system? What are its functions?

Ans. A system of tiny tubes called lymph vessels and lymph nodes in the human body which transports the liquid called lymph from the body tissue to the blood circulated system is called the lymphatic system.

Functions of the lymphatic system:

1. Lymph takes part in the nutritive process of the body. It puts into circulation large protein molecules and digested fat by carrying them from the tissue into the blood stream.
2. It protects the body by killing the germs drained out of the body tissue with the help of lymphocytes.
3. lymph helps in removing the waste products like fragments of dead cell.

**END.**