

CLASS NOTES

Class: VII

Topic: CHAPTER 11: TRANSPORTATION IN ANIMALS AND PLANTS.

Subject: SCIENCE

QUESTIONS AND ANSWERS

TO BE WRITTEN IN SCIENCE COPY.

Q1, Q2, & Q3 are to be done in the text book after discussing in the class.

Q4. Why is transport of materials necessary in a plant or an animal? Explain.

Ans. All living organisms need food, water and oxygen for survival. They need to transport all these to various parts of their body. Animals need to transport waste to the parts from where they can be removed. That is why transportation of materials is necessary.

Q5. What will happen if there are no platelets in the blood?

Ans. The blood platelets are responsible for the clotting of the blood. When some injury occurs blood starts flowing. But it clots on its own. If there are no platelets, the blood will not clot and keep on flowing leading to huge loss of blood that ultimately causes death.

Q6. What are stomata? Write two functions of stomata.

Ans. Stomata are small openings (pores) on the lower surface of the leaves. These pores are called stomata. These openings are surrounded with guard cells.

Functions of stomata:

1. It helps in the loss of excess water from the plant.
2. Loss of water from the stomata creates a suction pull which helps in absorption of water from the roots.
3. They help in exchange of gases.

Q7. Does transpiration serve any useful function in plants? Explain.

Ans. (i) It helps to enhance the absorption of water and dissolved minerals by creation of a suction pull.
(ii) It helps in getting rid of the excess water.
(iii) It helps in transport of water and minerals to leaves and leaves use the water for photosynthesis.
(iv) It produces a cooling effect on the plant.

Q8. What are the components of blood?

Ans. There are four components of blood:

- (i) **Plasma:** It is liquid part of blood which is yellowish in colour and contain 90% water. It contains food, enzymes, wastes and proteins etc
- (ii) **Red blood cells:** These are disc shaped cells containing red coloured pigment called haemoglobin. Haemoglobin helps in transportation of oxygen.
- (iii) **White blood cells:** These are the fighting cells which protect us against bacteria and foreign materials causing infections.
- (iv) **Platelets:** Help in clotting of the blood.

Q9. Why is blood needed by all the parts of a body?

Ans. Blood is needed by all the parts because it contains the digested food and oxygen in it. It supplies the oxygen and digested food to various parts of the body to provide essential energy to them which helps the body to perform various functions.

Q10. What makes the blood look red?

Ans. A red pigment called haemoglobin gives the blood its red colour. This pigment helps in carrying

oxygen to various parts of the body by blood.

Q11. Describe the function of the heart.

Ans. The human heart is an organ that **pumps blood** throughout the body via the circulatory system, **supplying oxygen and nutrients** to the tissues and **removing carbon dioxide and other wastes**.

Q12. Why is it necessary to excrete waste products?

Ans. Certain waste and toxic products are formed during functioning of body cells. The waste products like **urea and other waste salts are toxic**. When these toxic materials are not removed from the body, they **get mixed with blood** and can **damage the cells** of body. It is necessary to remove such toxic waste materials from our body.

Q13. Draw a diagram of the human excretory system and label the various parts.

Ans.

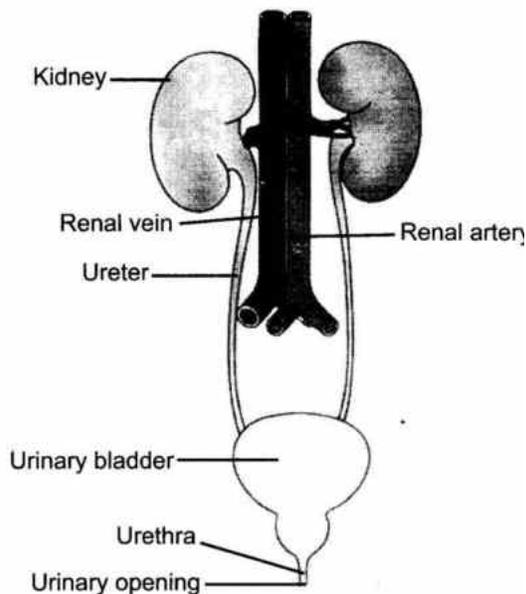


Fig. 11.7 Human excretory system.

EXTRA QUESTION ANSWERS: (Q3, 4 & 5 will be discussed in the class)

Q1. Q1. Differentiate between arteries and veins.

ARTERIES	VEINS
• They are thick walled	• They are thin walled
• It is present deep under the skin	• It is present just below the skin.
• It does not possess valves.	• It has valves to prevent backflow of blood.
• It carries oxygenated blood (except pulmonary artery).	• It carries deoxygenated blood (except pulmonary veins).
• Blood flows under high pressure.	• Blood flows under low pressure.
• It takes blood away from the heart.	• It brings blood towards the heart.

Q2. What is sweat? Write major functions of sweat.

Ans: Sweat is the liquid waste of the body that is produced by the sweat glands present in our skin.

The two major functions of sweat are as follows:

- It helps to remove excess water, salt and urea from the body.
- It helps to keep our body cool during hot summer days.

Q3. (a) Human have two major organs that perform transport of materials. Organ 'A' is bean-

shaped and dark red in colour lie just above the waist. It helps in removal of 'Q', a waste material from blood. The organ 'S' is the opening at the end of the urinary bladder through which the waste material is eliminated.

(b) Organ 'B' lies in the chest cavity slightly tilted towards the left side. It pumps continuously and pours liquid 'C' into arteries and through very fine tube-like structure 'D' distributes the liquid to various parts of the body. What are the names of these organs.

Q4. Boojho's uncle was hospitalised and put on dialysis after a severe infection in both of his kidneys.

(a) What is dialysis?

(b) When does it become necessary to take such a treatment?

Q5. What is the special feature present in a human heart which does not allow mixing of blood when oxygen-rich and carbon dioxide-rich blood reach the heart?