

CBSE Class-VII Science
NCERT Solutions
CHAPTER-11
TRANSPORTATION IN ANIMALS AND PLANTS

Question 1. Match the structures given in Column I with functions given in Column II.

Column I	Column II
(i) Stomata	(a) Absorption of water
(ii) Xylem	(b) Transpiration
(iii) Root hairs	(c) Transport of food
(iv) Phloem	(d) Transport of water
	(e) Synthesis of carbohydrates.

Answer: (i) (b) (ii) (d) (iii) (a) (iv) (c)

Question 2. Fill in the blanks.

- (i) The blood from the heart is transported to all parts of the body by the-----.
- (ii) Hemoglobin is present in ----- cells.
- (iii) Arteries and Veins are joined by a network of -----.
- (iv) The rhythmic expansion and contraction of the heart is called -----.
- (v) The main excretory product in human beings is -----.
- (vi) Sweat contains water and -----.
- (vii) Kidneys eliminate the waste materials in the liquid form called -----.
- (viii) Water reaches great heights in the trees because of suction pull caused by -----.

Answer: (i) The blood from the heart is transported to all parts of the body by the **arteries**.
(ii) Hemoglobin is present in **red blood** cells.
(iii) Arteries and Veins are joined by a network of **capillaries**.
(iv) The rhythmic expansion and contraction of the heart is called **heart beat**.
(v) The main excretory product in human beings is **urea**.
(vi) Sweat contains water and **salts**.

- (vii) Kidney eliminates the waste materials in the liquid form called **urine**.
(viii) Water reaches great heights in the trees because of suction pull caused by **transpiration**.

Question 3. Choose the correct options:

(a) In plants, water is transported through

- (i) Xylem
- (ii) Phloem
- (ii) Stomata
- (iv) Root hair

(b) Water absorption through roots can be increased by keeping the plants

- (i) in the shade
- (ii) in dim light.
- (iii) under the fan
- (iv) covered with a polythene bag.

Answer: (a) (i) Xylem (b) (iii) under the fan.

Question 4. Why is transport of materials necessary in a plant or in an animal? Explain.

Answer: In plants and animals the transport of materials is necessary. It can be explained as below:

- (i) Animals need to transport food and water from intestine and oxygen from lungs to all other body parts.
- (ii) Animals need to transport the wastes from where they are produced to parts from where they can be removed.
- (iii) Plants need to transport the food from leaves, water and minerals to all other parts of the plant.

Question 5. What will happen if there are not platelets in the blood?

Answer: Blood cannot clot without the platelets help in the clotting of blood at the time of injury with bleeding. If there is no platelets, then there would be no clotting of blood and ultimately the person may die due to excess of flow of blood.

Question 6. What are stomata? Give two functions of stomata.

Answer: Small pores in leaves of plant are called stomata.

Functions of stomata-

- (i) Exchange of carbon dioxide and oxygen.
- (ii) Transpiration to remove excess of water.

Question 7. Does transpiration serve any useful function in the plants? Explain.

Answer: (i) The excess water absorbed by the root system of the plants lost in the form of water vapour to their surroundings by the process of transpiration.

(ii) It also in transport of absorbed water to the leaves of plants from the roots for photosynthesis and helping the plants keeping erect.

(iii) It also produces cooling effect for the plants.

Question 8. What are the components of blood?

Answer: The main component of blood cells are:

Red blood cells (RBC), white blood cells (WBC), platelets and plasma.

Question 9. Why blood needed by all the parts of a body?

Answer: Blood is needed by all the parts of a body because:

- (i) It carries oxygen to all the parts of the body and also carries carbon dioxide back to the lungs.
- (ii) It carries digested food to various parts of the body for absorption.
- (iii) It contains platelets which help in the clotting of blood.
- (iv) It helps in maintaining constant body temperature.
- (v) It transports hormones and help in fighting the body with germs and bacteria.

Question 10. What makes the blood look red?

Answer: The presence of red pigment called haemoglobin.

Question 11. Describe the functions of the heart.

Answer: Functions of the heart:

- (i) It helps in the circulation of oxygen rich blood throughout the body by the pumping.

- (ii) It receives oxygenated blood from the lungs.
- (iii) It also pumps back the blood carrying carbon dioxide to the lungs.
- (iv) It shows rhythmic contraction and relaxation for movement of blood.

Question 12. Why is it necessary to excrete waste products?

Answer: The waste products produced in various metabolic process in our body are harmful for the body. So it is necessary to excrete it.

Question 13. Draw a diagram of the human excretory system and label the various parts.

Answer:

