



ASSIGNMENT NO. 5

SUBJECT: SCIENCE

CLASS-VII

October'2025

Chapter -7: Transportation in Animal and Plants

1. In each of the following questions, two statements are given one labeled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below:

- a) Both A and R are true, and R is correct explanation of the assertion.
 - b) Both A and R are true, but R is not the correct explanation of the assertion.
 - c) A is true, but R is false.
 - d) Both assertion and reason are false.
- (i) **Assertion:** Xylem helps in the transport of water in plants.
Reason: Xylem transports food from leaves to other parts of the plant.
- (ii) **Assertion:** Veins carry oxygen-rich blood from the lungs to the heart.
Reason: All veins carry oxygen-rich blood in the human body.
- (iii) **Assertion:** Transpiration helps in the upward movement of water in plants.
Reason: Transpiration causes a suction force that pulls water through the xylem vessels.
- (iv) **Assertion:** The heart has four chambers.
Reason: The chambers of the heart help in the separation of oxygenated and deoxygenated blood.

2. Answer the following case study based question.

Aarav is working on his science project about how water, minerals, and food are transported in plants and how blood circulates in the human body. To observe this, he places a green leafy plant in a glass of colored water. After a few hours, he notices that the veins in the leaves turn slightly colored.

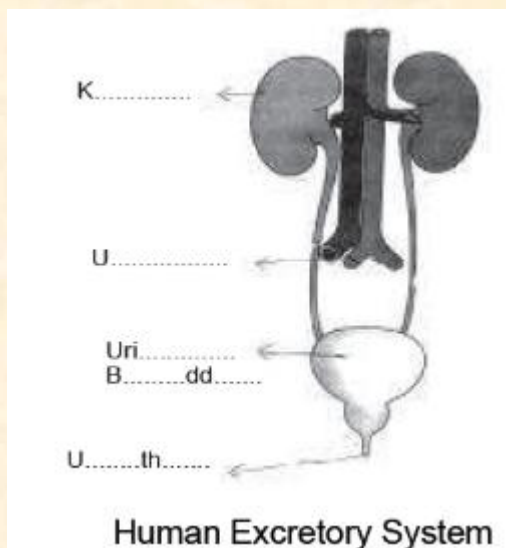
Meanwhile, his friend Sara is researching how the human heart works. She reads that the heart pumps blood through different types of blood vessels – arteries, veins, and capillaries – and that blood carries oxygen and nutrients to all parts of the body.

Both of them want to understand how transportation is essential in plants and animals to keep them alive and healthy.

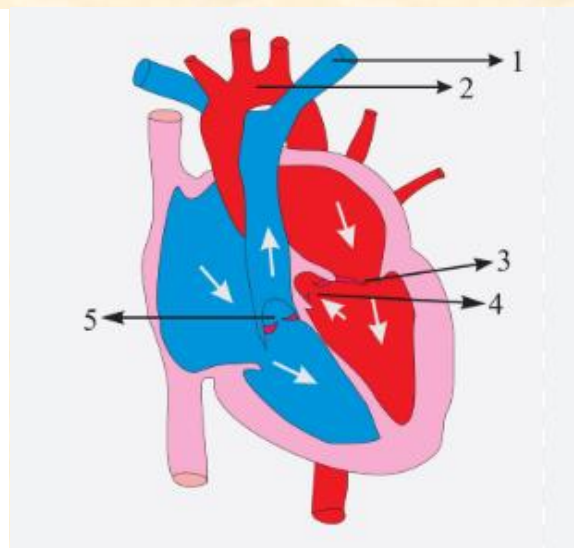
1. What process in plants helped the colored water move up to the leaves in Aarav's experiment? Name the plant tissue involved.
2. Which plant tissue is responsible for transporting food made in the leaves to other parts of the plant?
3. What are the three main types of blood vessels found in humans? Write one function of each.
4. Why is the human heart called a "double pump"?
5. Explain the role of blood in transporting substances in the human body. Mention at least three substances it carries.
6. Aarav learns that water is pulled upward in plants due to transpiration. How does transpiration help in transportation?

3. Label the following diagrams

1.



(a)



(b)

2. Draw a well labelled diagram of circulatory system.

Chapter 8 Reproduction in Plants.

- 1. In each of the following questions, two statements are given one labeled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below:**

- a) Both A and R are true, and R is correct explanation of the assertion.
- b) Both A and R are true, but R is not the correct explanation of the assertion.
- c) A is true, but R is false.
- d) Both assertion and reason are false.

(i) Assertion: Pollination is necessary for the formation of seeds in flowering plants.

Reason: Pollination is the transfer of pollen grains from the anther to the stigma.

(ii) Assertion: In asexual reproduction, the offspring are genetically identical to the parent

Reason: Asexual reproduction involves only one parent and no fusion of gametes.

(iii) Assertion: Seeds are dispersed to help plants spread to new areas.

Reason: Seeds are only dispersed by wind.

(iv) Assertion: The process of fertilization occurs after pollination in plants.

Reason: Fertilization is the fusion of male and female gametes to form a zygote.

2. Answer the following case study based question.

Class 7 students at Green Valley School started a garden in their schoolyard. They planted a variety of flowering and non-flowering plants. Riya noticed that some plants, like rose and money plant, were grown using cuttings. Others, like tomato and sunflower, grew from seeds. One day, a gust of wind blew across the garden, and Rohan observed tiny seeds of dandelion being carried away by the wind.

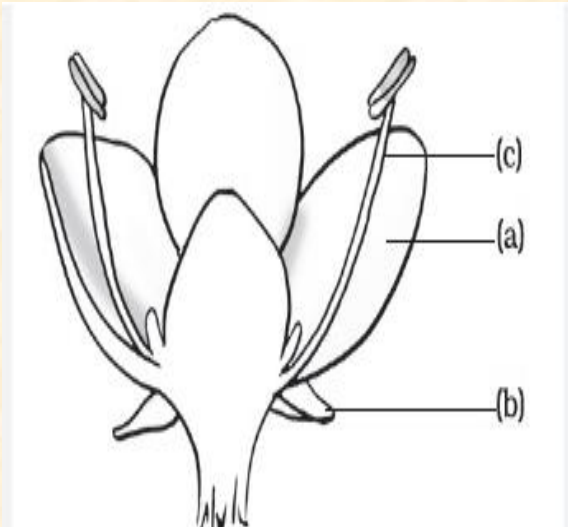
Later, the teacher explained how different plants reproduce in different ways – some by seeds, some by parts of the plant, and some with the help of pollinators like bees.

1. What type of reproduction was used for growing the rose and money plant? Name the method and define it.
(Hint: Is it from seeds or from plant parts?)
2. Tomato and sunflower reproduce through which method? What is the key structure involved in this type of reproduction?
3. How does wind help in the reproduction of dandelion plants? Which method of seed dispersal is this?

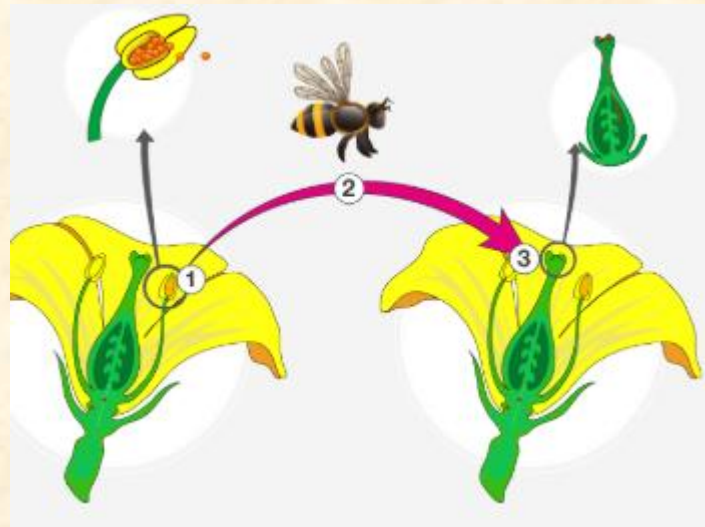
4. Explain the role of pollinators in plant reproduction. Give one example of a pollinator.

5. List two differences between sexual and asexual reproduction in plants.

3. Label the following diagrams



(a)



(b)

4. Diagrammatically represent the following process

1. Budding in yeast
2. Spore formation.