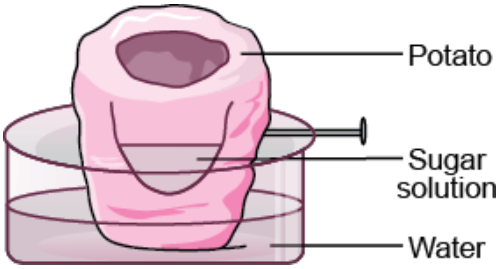
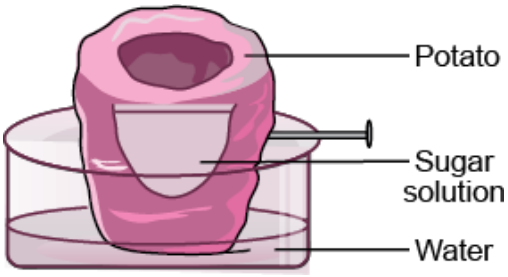
Short Answer Questions

Q.1. Look at figure. Draw another figure of the same set-up as would be observed after a few hours.



[NCERT Exemplar]

Ans.



Q.2. Paheli uprooted a rose plant from the soil. Most of the root tips, with root hair were left behind in the soil. She planted it in a pot with new soil and watered it regularly. Will the plant grow or die? Give reason for your answer.

[NCERT Exemplar]

Ans. Possible answers are:

- Without the root hairs the roots will not be able to absorb water and nutrients and the plant will die.
- The stem of the rose plant may grow new roots and the plant will live.
- The rose plant may not be able to survive in a different type of soil.

Q.3. 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?

Ans. (a) In dialysis, blood is filtered periodically through an artificial kidney.

(b) In the event of kidney failure.

Q.4. (a) Name the only artery that carries carbon dioxide-rich blood.

(b) Why is it called an artery if it does not carry oxygen-rich blood?

[NCERT Exemplar]

Ans. (a) Pulmonary artery

(b) It is so because arteries carry blood away from the heart.

Q.5. Name the process and the organ which helps in removing the following wastes from the body.

a. **Carbon dioxide**
b. **Undigested food**
c. **Urine**
d. **Sweat**

[NCERT Exemplar]

Ans.

Process	**Organ**
(a) Exhalation **(b)** Egestion **(c)** Excretion **(d)** Perspiration (sweating)	Lungs Large intestines and anus Kidneys Sweat glands

Q.6. Observe figure given below and answer the given questions:

(a) Name the instrument.

(b) Label the parts A, B and C.

[NCERT Exemplar]

Ans. (a) The given instrument is stethoscope.

(b) A—Diaphragm B—Tube C—Ear pieces

Q.7. Paheli noticed water being pulled up by a motor-pump to an overhead tank of a five-storeyed building. She wondered how water moves up to great heights in the tall trees standing next to the building. Can you tell why?

[NCERT Exemplar]

Ans. Water constantly evaporates from the leaves of the trees to form water vapour. This process is known as transpiration. This loss of water generates a “suction pull” which draws water up the tall trees.

Q.8. List the functions of the blood.

Ans. The following are the functions of the blood:

a. It transports oxygen from the lungs to the body cells and carbon dioxide from the cells to the lungs.
b. Blood carries in its plasma absorbed food, minerals, salts and vitamins from the small intestine to the liver for processing. These materials are then transported to the heart for distribution to all parts of the body.
c. It transports liquid waste from the body cells to the kidneys for removal from the body.

Q.9. Give reasons for the following statements.

Q. Ventricles have thicker walls than auricles.

Ans. This is because ventricles pump blood to lungs and to different body parts for which they need strength.

Q. Valves are present at the opening of auricles into ventricles.

Ans. Valves are present at the opening of auricles into ventricles to prevent backflow of blood.

Q. The walls of arteries are thick.

Ans. The walls of arteries are thick because they carry blood at high pressure.

Q.10. What is the function of the circulatory system in humans?

Ans. The function of circulatory system is to transport oxygen, carbon dioxide, hormones and excretory wastes from one region to another.

Q.11. How are oxygen and food circulated in Hydra?

Ans. Hydra does not have specialised organs for circulation. Oxygen and food are diffused into the body and undigested material is diffused out.