Exercise Questions **Page Number: 145-146**

1. Fill up the blanks in the following.

(a) The process of changing of water into its vapour is called _____.

(b) The process of changing water vapour into water is called _____.

(c) No rainfall for a year or more may lead to _____ in that region.

(d) Excessive rains may cause _____.

Solution:

(a) The process of changing of water into its vapour is called **evaporation**.

(b) The process of changing water vapour into water is called **condensation**.

(c) No rainfall for a year or more may lead to **drought** in that region.

(d) Excessive rains may cause **floods**.

2. State for each of the following whether it is due to evaporation or condensation.

(a) Water drops appear on the outer surface of a glass containing cold water.

(b) Steam rising from wet clothes while they are ironed.

(c) Fog appearing on a cold winter morning.

(d) Blackboard dries up after wiping it.

(e) Steam rising from a hot girdle when water is sprinkled on it.

Solution:

(a) Condensation

(b) Evaporation

(c) Condensation

(d) Evaporation

(e) Evaporation

3. Which of the following statements is "true"?

(a) Water vapour is present in the air only during the monsoon. ( )

(b) Water evaporates into the air from oceans, rivers and lakes but not from the soil. ( )

(c) The process of water changing into its vapour is called evaporation. ( )

(d) The evaporation of water takes place only in sunlight. ( )

(e) Water vapour condenses to form tiny droplets of water in the upper layers of air where it is cooler. ( )

Solution:

a) False

b) False

c) True

d) False

e) True

4. Suppose you want to dry your school uniform quickly. Would spreading it near an anghiti or heater help? If yes, how?

Solution:

Spreading uniform near an anghiti or heater will help because it increases the rate of evaporation due to heat.

5. Take out a cooled bottle of water from the refrigerator and keep it on a table. After some time, you notice droplets of water around it. Why?

Solution:

This is because the surface of the air around the bottle cools down and air condenses around the bottle.

6. To clean their spectacles, people often breathe out on glasses to make them wet. Explain why the glasses become wet.

Solution:

The air we breathe out contains water vapour which condenses on the surface of the spectacles. So, the glass becomes wet, and with the help of a small number of water molecules, it becomes easier to clean the spectacles.

7. How are clouds formed?

Solution:

The process of condensation plays an important role in bringing water back to the surface of the earth. As we go higher from the surface of the earth, it gets cooler. When the air moves up, it gets cooler and cooler. At sufficient heights, the air becomes so cool that the water vapour present in it condenses to form tiny drops of water called droplets. It is these tiny droplets that remain floating in the air and appear to us like clouds.

8. When does a drought occur?

Solution:

If it does not rain for two or more years, water is lost from the soil due to evaporation and transpiration. Since it is not being brought back by rain, the soil becomes dry. The level of water in ponds and wells of the region goes down, and some of them may even dry up. Groundwater may also become scarce; this may lead to drought.