NCERT SOLUTIONS
CLASS-VI SCIENCE
CHAPTER-14
WATER

Exercise 14

1. ***Fill in the blanks for the following:***

(a) The process by which the water is converted to water vapour is called _____

(b) The process by which water vapor is converted into water is known as _____

(c) If there is no rainfall in a region for a year or two, it may lead to _____ in that region.

(d) Huge amount of rainfall results in ___

Ans. (a) evaporation or vaporization (b) condensation (c) drought (d) flood

2.Determine whether the following phenomena is caused due to evaporation or condensation:

(a) Water drops are formed on the outer surface of the bottle or any container containing cold water.

(b) Formation of steam from wet clothes while they are ironed.

(c) Appearance of fog on a cold winter morning.

(d) Wiping of blackboard dries it up.

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

Ans. (a) Condensation (b) Evaporation (c) Condensation (d) Evaporation (e) Evaporation

3. ***State True or False for the following statements:***

(a) Only during the monsoon season, the water vapor is present in the air

(b) Water vaporizes into steam only from oceans, lakes, and rivers but not from the soil.

(c) The process of converting water into its vapor is called evaporation.

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

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

Ans. (a) False (b) False (c) True (d) False (e) True

4.If in any case, you want to dry your school uniform quickly. Would spreading it near a heater help you? Explain.

Ans: Yes, in order to dry the uniform faster, the uniform is spread near a heater since the rate of evaporation is faster at higher temperatures. The rate of evaporation is directly proportional to temperature. So the uniform is dried up quickly.

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

Ans: Since the water bottle is at a very low temperature the surface exposed is also very cold. As the cool surface is exposed, condensation of water vapor present in the air occurs. Now the condensed water molecules spread around the bottle. So a puddle of water is noticed after some time.

6. ***To clean our spectacles, we often breathe out hot air on glasses to make them dry, when the glasses become wet. Explain.***

Ans: The air we blow out contains water vapour. The water vapour condenses on the spectacles forming moisture and the glass is coated with a layer of minute water droplets. With the addition of small amount of water, we can easy to clean the spectacles.

7. ***How are clouds formed?***

Ans: The water present on the earth's surface evaporates due to heat radiated by the sun. The water vapour present in the air condenses to form tiny droplets of water at high altitude which in large quantity look as clouds. Thus, clouds are formed by the condensation of water vapors available in the air at high altitude.

8. ***When does a drought occur?***

Ans: When there is no rain for many years over a long period of time then there will arise a scarcity of water in that locality or region. This leads to drought.

Very short answer type questions.

1. ***Write the different sources of water available on the earth.***

Ans: Sources of water on the earth are: Seas, Springs, Lakes, Tubewells, Oceans, Rivers, etc.

2. ***What are the different forms of water available on the earth?***

Ans: Water is available on the earth in all three physical forms: ice, water and water vapour.

3. ***What is transpiration?***

Ans: The process of loss of water in the form of water vapour through stomata of leaves is known as transpiration.

4. ***Explain how clouds are formed?***

Ans: Clouds are formed by the condensation of water vapour at high altitude.

5. ***Explain what is conservation of water?***

Ans: Careful and economical and use of water by avoiding wastage or misuse of water is called conservation of water.

SHORT ANSWER TYPE QUESTIONS

1. ***What are the two main functions of water on living organisms.***

Ans: The two main functions of water for living organisms are:

(i) Water is very essential for the growth of plants, germination of seeds and in photosynthesis process.

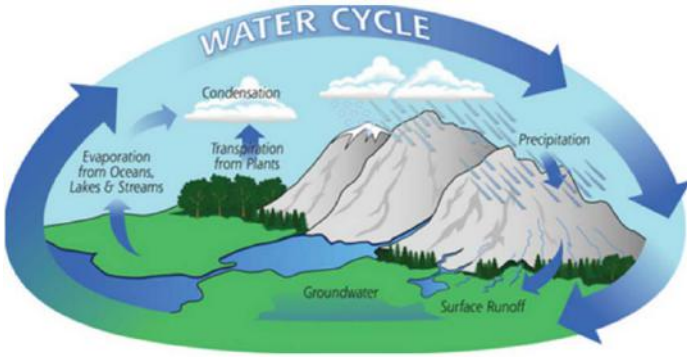
(ii) Water is also very essential for the transportation of goods and people.

2. ***Why is sea water not used for domestic use?***

Ans: Sea and ocean water contains huge amounts of different types of salts. Because of the presence of these salts, the ocean water is salty and cannot be used for any domestic purpose such as drinking, washing and for irrigation purposes. So, only water from lakes, rivers, ponds and rain water harvesting are used for domestic purpose.

3. ***Why does the water which is split on the floor disappear after a period of time?***

Ans: Due to the process of evaporation the water split on the floor is converted into water vapor. So it disappears after a period of time.



4. ***How does heavy rain affect us?***

Ans: Heavy rains may cause:

(i) Rise of water level in reservoirs, rivers, pond, lakes, etc.

(ii) Waterlogging in household areas and floods.

(iii) Floods cause drastic damage to crops, property and animals.

5. ***How does the failure of rainfall affect people on the earth?***

Ans: The failure of rainfall can cause the following:

(i)The soil in that region becomes dry and may lead to drought.

(ii) Water level in rivers, lakes, dams, etc. may fall below the minimum level, ponds and canals may even dry up. Which results in people of that region may not have access to water for even basic needs.

(iii) The ground water level will also fall.

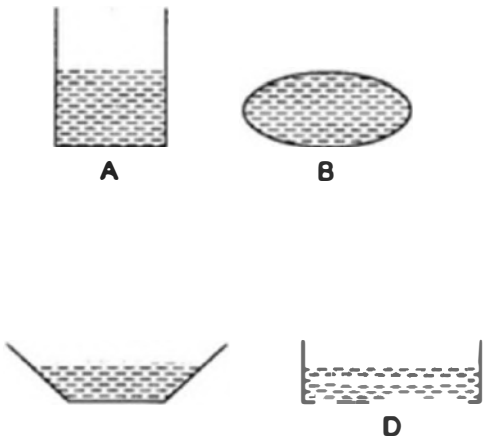
6. ***Name two processes which are responsible for the formation of clouds.***

Ans: Evaporation and transpiration.

7. ***There are 4 containers A, B, C and D with the same quantity of water in each of them. Answer the following based on them.***

(a) Identify in which container does the water evaporate faster than the rest of them.

(b) Identify in which container the water evaporates at the slowest rate. Justify your answer.



Ans. (a) C — More the exposed surface area, more will be the rate of evaporation.

(b) B — Since it is closed, evaporation does not take place.

8. ***Why do we see more fog in areas where there are a lot of trees during winter season?***

Ans: Due to the presence of a lot of trees, air at that region will have more water vapor than compared to cities or other regions. These water vapors tend to condense on smoke or dust particles which lead to the formation of thick fog.

LONG ANSWER TYPE QUESTIONS

1. ***Explain the term conservation of water? Propose any three approaches to conserve water.***

Ans: Avoiding wastage of water by discreet and economical use is called conservation of water. Proposals for conserving water:

1. Use only required or limited quantity of water
2. Plant as much trees as possible as trees and forests plays a major role in the formation of clouds and rainfall.

Rainwater Harvesting: Collecting the rainwater from rooftops and harvest them in tanks, ponds, lakes.

2. ***What is meant by rainwater harvesting? Explain the different methods involved in rainwater harvesting.***

Ans: Rainwater harvesting is the process of collecting the rainwater and storing it in tanks, ponds, lakes. In this process, rainwater in collected from the rooftops of houses, buildings with help of pipes into a tank for storage purpose and can be used at a later point of time.

Methods involved in Rainwater Harvesting:

1. Rooftop rainwater harvesting. In this structure, the rainwater from the rooftop is collected into a storage tank, employing pipes to collect and transfer.
2. Another method, a huge pit is dug at close proximity to the house for collecting the rainwater This pit is stuffed with different layers of coarse gravels, bricks, and granite or sand pieces.