

Class: VII
Subject: Chemistry
Topic: Water a Precious Resource
No. of Questions: 20

1. Give an example of wastage of water occurring due to negligence of civic authorities.

Ans. Leaking of water supply pipes causes a lot of water gushing out of the pipes, thereby leading to wastage of water.

2. What do you understand by aquifer?

Ans. At some places the groundwater is stored between layers of hard rock below the water table. This is known as an aquifer.

3. Why do plants need water? What will happen if water is not available to plants?

Ans. Plants need water to get nutrients from the soil to prepare their food. If water is not available to plants, plants will wilt and die and the green character of the planet shall be lost. This may mean the end of all life, since without plants, there will be many problems like no food, oxygen and not enough rain.

4. Which two natural forces may deplete the water table?

Ans. Scanty rainfall and hot winds are natural forces that may deplete the water table.

5. Name any six factors causing depletion of water table.

Ans (i) Increase in population.

(ii) Increase in industrial activities.

(iii) Increase in agricultural activities and overgrazing by cattle.

(iv) Scanty rainfall.

(v) Deforestation.

(iv) Decrease in effective area for water seepage.

(vii) Saltwater intrusion.

6. Why do Indian farmers have to use groundwater for irrigation?

Ans A majority of farmers in India depend upon rains for irrigating their crops. Irrigation systems such as canals are there only in a few places. Even these systems may suffer from lack of water due to erratic rainfall. Therefore, farmers have to use groundwater for irrigation.

7. Water harvesting is the need of the hour. Justify.

Ans. Surface water is inadequate to meet our demands and we have to depend on ground water. Due to rapid urbanization, infiltration of rain water into the sub-soil has decreased drastically and recharging of ground water has diminished. Hence, there is urgent need for rainwater harvesting.

8. What is shown in the below figure?



Ans. The above figure shows drip irrigation in a field.

9. Does salt water intrusion affect the water table? How?

Ans. Yes. Over use of underground freshwater reservoirs often allows salt water to intrude into aquifers and affect the water table. Thus, the amount of fresh water becomes less available.

10. Write any four ways how individuals waste water at home?

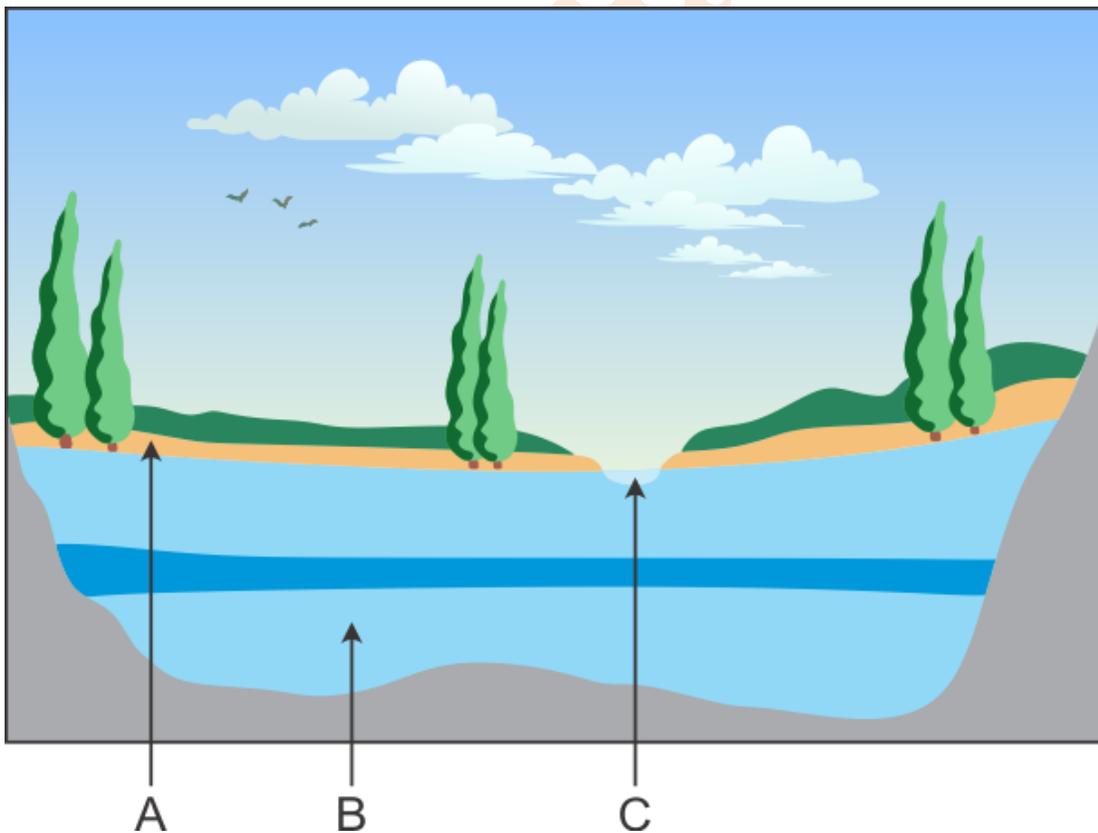
Ans. (i) People waste water while brushing or shaving.

(ii) Water flowing from taps while bathing for a long time.

(iii) Leaking taps.

(iv) Wasting water while washing utensils and clothes.

11. (a) Identify A, B and C in the above figure.



(b) How do industries contribute to ground water depletion?

Ans. (a)

A - Water table

B - Aquifer

C - Stream

(b) The number of industries is increasing continuously to cater to the needs of the growing population. Water is needed at several steps in all the industrial production process and this water is usually drawn from the ground. Thus industries contribute to ground water depletion.

12. (a) What do you understand by rainwater harvesting?

(b) Mention any two habits that can be done to save water at home.

Ans. (a) The activity of collecting rainwater directly or recharging it into ground to improve ground water storage in the aquifer is called rain water harvesting.

(b)

(i) Turning off taps while brushing.

(ii) Mopping the floor instead of washing.

(iii) Reducing flow of tap water while washing utensils.

(Any two)

13. What is drip irrigation? Why is this technique advantageous in regions of water scarcity?

Ans. Drip irrigation is a technique of watering plants by making use of narrow tubings which deliver water directly at the base of the plant. Water falls drop by drop just at the position of the roots. Hence water is not wasted at all. Thus, it proves advantageous in regions of water scarcity.

14. (a) On digging a hole in the ground near a water body, we find the soil to be moist. Why?
(b) How can we pump out the water in the aquifers?

Ans. (a) The moisture in the soil indicates the presence of underground water.
(b) Water in the aquifers can usually be pumped out with the help of tube wells or hand pumps.

15. Write any three advantages of water harvesting.

Ans. (i) Rainwater harvesting can reduce flooding in city streets.
(ii) Sea water intrusion in coastal areas can be arrested.
(iii) The ground water can be recharged and conserved .
(iv) Rainwater harvesting can reduce topsoil loss.
(v) It can improve plant growth.

(Any three)

16. Discuss how increasing population causes depletion of water table?

Ans: Increasing population creates demand for construction of houses, shops, offices, roads and pavements. This decreases the open areas like parks, and playgrounds which affects the seepage of rainwater into the ground. Also, increasing population consumes more water for all their activities. So, the increasing population ends up consuming more groundwater as well as allowing lesser water to seep into the ground. This results in depletion of water table.

17. What do you understand by water table? Name the factors that affect water table.

Ans. The top level of the underground water is called the water table.
Factors affecting water table:
i. Average rainfall in that area.
ii. Pumping out of groundwater.

18. The technique of watering plants by making use of narrow tubes which deliver water directly at the base of the plant is called:
- Sprinkler system
 - Drip irrigation
 - Bawri
 - Roof top harvesting

Ans. (b)

The technique of watering plants by making use of narrow tubes which deliver water directly at the base of the plant is called drip irrigation.

19. Which process helps in raising the ground water?
- Baolis
 - Rain water harvesting
 - Drip irrigation
 - Deforestation

Ans. (b)
Rain water harvesting helps in raising the groundwater.

20. Which place in India experience flood almost every year?
- South East
 - North East
 - North West
 - South West

Ans. (b)
Some places such as North East India get so much of rain that there are floods almost every year.