

## Chapter 16: Water : A Precious Natural Resource

### Multiple Choice Questions

Page-168

1. (b)
2. (a)

### EXERCISE

#### A. Tick (✓) the correct options.

1. (b)
2. (a)
3. (d)
4. (d)

#### B. Fill in the blanks.

1. solid
2. infiltration
3. 22<sup>nd</sup> March
4. *Bawri*

#### C. State whether the following statements are true (T) or false (F). Rewrite the false statements correctly.

1. F, Correct statement – Our earth is called watery planet as there is abundance of water.
2. F, Correct statement – Increase in agricultural activities has decreased the water table abundantly.
3. T
4. F, Correct statement – Revival of *bawris* will lead to conservation of water.
5. T

#### D. Very Short Answer Questions.

1. (a) Ice                      (b) Steam
2. The upper limit of groundwater is called water table.
3. Minimum amount of water per person per day as recommended by the United Nations for various basic needs is 50 litres.
4. Drip irrigation and sprinkler irrigation are the modern methods of irrigation which help in conservation of water.

#### E. Short Answer Type-I Questions.

1. There is 97.5% of water available on the earth, but is still unfit for human consumption because this water is salty or saline. Therefore, it is unfit for human consumption.
2. The huge reservoirs of water inside the earth, formed by the collection of groundwater between the layers of hard rock below the water table are called aquifers.
3. The *bawris* are being revived due to the acute shortage of water.

4. The three factors which deplete the water table at a place are—
  - (i) increase in population
  - (ii) increase in industries
  - (iii) increase in agricultural activities
5. Any component of the earth or environment which can be utilised by human beings to fulfil their needs is known as natural resource.

**F. Short Answer Type-II Questions.**

1. The process of collecting rainwater from roofs and street corners and storing it for later use is called rainwater harvesting.

Two advantages of rainwater harvesting are-

- (i) The water table can be raised by rainwater harvesting.
  - (ii) It reduces flood and topsoil erosion.
2. The natural sources of water contain many impurities. Following steps are involved to remove these impurities:
    - (a) sedimentation
    - (b) filtration
    - (c) aeration
    - (d) chlorination
  3. (a) Saving water is important for us because the supply of clean and fresh water is depleting at an alarming rate in some regions and we may suffer from moderate to severe water crisis in the coming years.  
(b) Concern for the society and needs of people
  4. The continuous circulation of water from the earth's surface and water bodies as water vapour to the atmosphere and from the atmosphere back to the earth's surface as rain, hail and snow is called the water cycle in nature.  
The processes involved in water cycle are—
    - (a) evaporation
    - (b) transpiration
    - (c) condensation
    - (d) precipitation
  5. Effects of water scarcity are—
    - (a) Non-availability of food – Plants cannot make food by the process of photosynthesis without water. Animals directly or indirectly depend on plants for food. Without plants, animals will also have no food.
    - (b) Non-availability of oxygen for breathing – Plants release oxygen gas during photosynthesis (which needs water). Without photosynthesis, no oxygen will be available to animals for breathing.
    - (c) Less rainfall

**G. Long Answer Questions.**

1. Following are the factors which deplete the water table at a place:
  - (a) **Increase in population:** Human population is increasing day by day. To meet the needs of an ever-increasing population, more



houses, offices, schools, shops and roads are being build. These construction activities require huge supply of water. Borings made at the construction sites withdraw more and more groundwater which leads to depletion of water table.

- (b) **Increase in industries:** The number of industries is also increasing continuously so more water is used by industries leading to depletion of water table.
  - (c) **Increase in agricultural activities:** The demand for agricultural food crops has also increased due to increasing population. A majority of farmers depend on rainwater to grow crops. But due to unpredictable rainfall, they depend on irrigation methods. In many places, the canal system may suffer from the lack of water due to erratic rainfall. Nowadays, farmers use large quantities of groundwater by digging deep tube wells to cultivate crops. This results in depletion of water table.
  - (d) **Deforestation:** Cutting down a large number of trees at a place is called deforestation. This leads to failure of soil to hold moisture. The water just runs off on the ground surface.
2. The following steps can be taken for proper management of water:
- (a) **Rainwater harvesting:** In this method, water is collected in percolation pits and recharge wells so as to recharge groundwater. This is an ideal solution to water problem in areas with inadequate water resources.
  - (b) **Prevention of wastage of water:** Wastage of water in households, commercial buildings, schools and public places can be prevented by closing taps when not in use, repairing any leakage from pipes, etc.
  - (c) **Revival of *bawris*:** *Bawris* are the ancient practice of water storage and water recharge system in India. They provided water to the people during drought periods. Due to the acute water shortage faced by the people in some places, the *bawris* are being renovated and revived.
  - (d) **Drip Irrigation:** It is a technique of watering plants by making use of system of narrow pipes or tubes with small holes which deliver water drop by drop directly around the roots. Thus, the wastage of water is avoided. This system allow the farmers to produce a high yield with very little water.

## Chapter 17: Forests : Our Lifeline



### Multiple Choice Questions

Page-177

1. (c)
2. (a)

### EXERCISE

#### A. Tick (✓) the correct options.

1. (c)
2. (b)
3. (c)
4. (d)
5. (a)
6. (d)
7. (d)

#### B. Fill in the blanks.

1. sun
2. food web
3. vegetation
4. afforestation
5. tribal

#### C. Very Short Answer Questions.

1. Forests cover approximately one-third of the earth's total land surface.
2. On forest floor
3. Understorey layer
4. Canopy layer
5. Carbon dioxide
6. Snake

#### D. Short Answer Type-I Questions.

1. A series of organisms linked together by the process of eating and being eaten for food is called a food chain.
2. Decomposers are those organisms which feed upon the dead plant and animal tissues and convert them into a dark-coloured substance called humus.
3. The forest's top layer consists of branches and leaves of tall trees. These branches overlap with each other and this layer is so dense that it allows very little sunlight to penetrate through it. So, there is dark inside the forests.
4. The uppermost branches and leaves of all tall trees which act like a roof or umbrella over the smaller trees in the forest is called canopy.

#### E. Short Answer Type-II Questions.

1. Plants are beneficial to animals in the following ways:
  - (a) Animals directly or indirectly depend on plants for food.



- (b) Tall trees give shelter to various animals.
  - (c) Plants produce oxygen during photosynthesis which is taken up by animals for respiration.
2. Some of the ways to conserve forests are given below:
- (a) Excessive cutting down of forest trees should not be allowed by the government.
  - (b) 'Tree for a tree' principle should be adopted. For every tree that has been fallen, a new tree should be planted.
  - (c) Paper products such as old newspapers, magazines, books and notebooks, etc., should be recycled to conserve forests.
3. Planting more and more trees to save the environment from the harmful effects of deforestation is called afforestation. It is our moral duty to conserve forests and protect our environment for the benefit of our future generations.
4. Causes of deforestation :
- (i) Forest fires: Once the forest fire starts, it does not stop easily and many trees are burnt causing deforestation.
  - (ii) Increase in population: With increasing population, more land is required. Forest area is cleared to obtain this land.
  - (iii) Construction of dams: A large forest area has to be cleared to construct a dam. This causes deforestation.

#### F. Long Answer Questions.

1. Harmful effects of deforestation are as follows:
- (a) Deforestation causes soil erosion, leading to loss of soil fertility.
  - (b) It causes change in the rainfall pattern and results in drought.
  - (c) Burning of wood, obtained from deforestation, causes increase in the concentration of carbon dioxide in the atmosphere. Excess of carbon dioxide causes air pollution. Carbon dioxide is a greenhouse gas and causes global warming (increase in the earth's temperature).
  - (d) In the absence of trees of the forest, the rainwater flows faster causing flood conditions.
  - (e) By deforestation, climate becomes warmer and drier in the absence of humidity in the deforested area.
  - (f) In the absence of trees and plants, the animals will not get food and shelter.
2. Forests are useful to us in many ways, such as –
- (a) Forests are a good source of wood like teak, *sheesham*, rosewood and *sal* which are used in making furniture.
  - (b) Several plants that grow in forests are used in the preparation of medicines. The bark of *Cinchona* tree is source of a medicine called quinine which is used in treatment of malaria.



- (c) Forests maintain balance of gases in nature, maintain water cycle, prevent soil erosion.
- (d) Forests prevent floods, replenish groundwater, provide food and shelter to wildlife and help in reducing pollution.

6. Name a secondary carnivore.

**D. Short Answer Type-I Questions:**

1. What is meant by forest? *Ans: Forest is a large area of land covered thickly with different kinds of trees, shrubs, herbs, grasses, creepers and climbers.*
2. Define food chain.
3. What are decomposers?
4. Why is there dark inside the forest?
5. What is canopy?

**E. Short Answer Type-II Questions:**

1. How are plants beneficial to animals?
2. What are the ways to conserve forests?
3. What is meant by deforestation?
4. Give three causes of deforestation.

*Ans 3 - ~~page~~ Clearing a forest by cutting trees to fulfil our need of wood and land is called deforestation.*

**F. Long Answer Questions:**

1. What are the harmful effects of deforestation?
2. How are forests useful to us? Explain in detail.

**G. HOTS (Higher Order Thinking Skills) Questions:**

1. Recycling of paper helps in the conservation of forests. Explain.
2. Why are forests called 'green lungs'?

**H. Practical Skill Based Question:**

Dig a pit and allow leaves and vegetable wastes to decay in it. Is the pit warm? What can you conclude from it?