

Exercises

Q. A. Multiple choice questions:

Answers-

1. C. Precipitation exceeds Evaporation
2. D. All of these
3. D. Damodar
4. B. Indiscriminate pumping of water
5. B. The sheep can tolerate the high levels of salt in the water

Q. B.complete the table-

Projects	River	States benefiting
1. Hirakund	- Mahanadi	- Odisha
2. Chambal	- Chambal	- Madhyapradesh, Rajasthan
3. Rihand	- Rihand	- UP, Bihar
4. Sardar sarovar	- Narmada	- Gujarat
Or narmada valley		
5. Bhakra Nagal	- Satluj	- Punjab, Hariyana, Rajasthan, Himachal Pradesh, Delhi

C. Match the following-

1. - B. Desert
2. - C. Disinfecting the water
3. - E. A tributary of Ganga
4. - D. USA
5. - A. Meghalaya

D. True or false-

1. True
2. False
3. True
4. True
5. True

E. Short answers:

1. The scarcity of water and poor quality of water is worring because of the total amount of water present on the Earth, only a small amount of water can be used. Water is found in three different forms- solids, liquid and gas. Of the total 1400 millions cu km of water on Earth, 97 percent found in

the oceans, is saline and unfit for human consumption. Of the remaining 3 percent, Two-third is locked up as ice sheets and glaciers. Only 1 percent freshwater, which is 14 millions cu km, is found in rivers, lake, ponds and wells.

2. The different steps to conserve water are:

Rainwater: Plant trees and other vegetation to check run off and allow rain to seep underground.

Restore traditional ponds, tanks and lakes to store the rainwater. Allow Percolation of water into the ground by constructing dams.

Irrigation water: Adopt agricultural practices that need less water. Water losses can be prevented by concrete or brick lining of canals to check 'seepage losses'.

Switch to organic farming and dry farming methods and grow draught resistant crops.

Domestic water: check loss of water that drip off due to wastage, leakage and defective pipes.

Create new awareness among people to use less water for washing cars and clothes.

3. As rivers are not confined to a single state, an integrated system is devised for a river Valley project and it gives several benefits like irrigation to drought-prone areas, control of floods, generation of electricity, providing water for domestic use and supporting tree plantation to conserve ground water and soil. Such projects are called multipurpose projects. Some major river Valley projects are Hirakund, Chambal and Rihand.

4. Drinking water or potable water can be obtained by several purification methods like, UV method, distillation and filtration method.

5. Large multipurpose projects can cause displacement of the natural habitat of an area. It also affects the population and their lifestyle in the area where the project is built. Sharing of resources between states is also problem. Thus, small irrigation projects are favoured.

F. Long answers:-

1. In the drip irrigation method, water is supplied to plant roots by trickling through holes in a network of underground pipes. This would prevent water loss by evaporation in dry areas.

Over irrigation leads to waterlogging and salinisation. To save irrigation water, it is important that drip irrigation method should be popularised. This method will be very beneficial in dry areas.

2. Water resources is very important in India. Water is impounded by making dams on rivers so that it is available in times of shortage. Excess water from areas that have surplus water is transferred to areas in need of water by an extensive network of canals. As rivers are not confined to a single state, an integrated system is devised for a river Valley project and it gives several benefits like irrigation to drought-prone areas, control of floods, generation of electricity, providing water for domestic use and supporting tree plantation to conserve groundwater and soil. Such projects are called multipurpose

projects. The reservoir or man-made lake in which the water is stored behind the dam is stocked with fish. India's first such project was set up on the river Damodar, a tributary of the Ganga that flows through Bihar and Bengal.

3. When there is shortage of water to fulfill the needs of human, plants and animals, it is known as water scarcity. The three continents facing this problem are Africa, West Asia and nearly all of Australia.

4. Water shortage occurs because:

1. Distribution of rainfall is unequal at different places.
2. Global warming is changing rainfall patterns. Also high temperatures increase the evaporation.
3. Increase in population causes disproportionate increase in the demand for water.
4. Modern agricultural technology, involving the use of chemical fertilizers, has also increased the demand for irrigation water.
5. Accessibility to groundwater is becoming more and more difficult: Indiscriminate pumping of groundwater has resulted in falling water tables.
6. Water conservation methods are either obsolete or remain unimplemented.

5. Some measures to conserve water are:

Rainwater: plant trees and other vegetation to check run off and allow rainwater to seep underground.

Restore traditional ponds, tanks and lakes to store the rainwater. Allow Percolation of water into the ground by constructing dams.

Irrigation water: Adopt agricultural practices that need less water. Water losses can be prevented by concrete or brick lining of canals to check 'seepage losses'.

Switch to organic farming and dry farming methods and grow drought resistant crops.

Domestic water: check loss of water that drips off due to wastage, leakage and defective pipes.

Create new awareness among people to use less water for washing cars and clothes.

Install water saving taps and other such sanitary ware in toilets.

Use kitchen waste water for cleaning floors and watering plants.

<https://youtu.be/yFHxfggjWAw>

<https://youtu.be/H-saT2FnRr0>