

## Chapter - 3

### Water Resources

#### (Assertion and Reason Questions)

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**In the following questions, a statement of assertion is followed by a statement of reason. Mark the correct choice as :**

- (a)** If Both assertion and reason are true and reason is the correct explanation of assertion.
- (b)** If Both assertion and reason are true but reason is not the correct explanation of assertion.
- (c)** If Assertion is true but reason is false.
- (d)** If Both assertion and reason are false.

**Q.1. Assertion (A) :** Water is a renewable resource.

**Reason (R) :** Freshwater is mainly obtained from surface run off and ground water that is continually being renewed.

**Q.2. Assertion (A) :** The availability of water resources varies over space and time.

**Reason (R) :** Availability of water resources helps in storing water.

**Q.3. Assertion (A) :** Dams are referred to as multi-purpose projects.

**Reason (R) :** Dams are built for irrigation, electricity generation, water supply for domestic and industrial use, flood control, recreation and fish breeding.

**Q.4. Assertion (A) :** Dams are only used for generating electricity, not for irrigation.

**Reason (R) :** Water stored in dam does not produce electricity.

**Q.5. Assertion (A) :** Irrigation has also changed the cropping pattern.

**Reason (R) :** Crops are now sown according to the amount and availability of water.

**Q.6. Assertion (A) :** Irrigation is considered to be the major source of agriculture.

**Reason (R) :** Dams are well-known for their capacity to hold water for agriculture.

**Q.7. Assertion (A) :** Multi-purpose projects help to control floods by regulating water flow.

**Reason (R) :** Dams are constructed to conserve water.

**Q.8. Assertion (A) :** Growing Population is the main reason for water scarcity.

**Reason (R) :** Irrigation from tube wells and canals is responsible for water scarcity.

**Q.9. Assertion (A) :** Ground water is a highly overused resource.

**Reason (R) :** Ground water is used for domestic and drinking purpose.

**Q.10. Assertion (A) :** It was observed that the multi-purpose projects induced earthquakes, caused water-borne disease.

**Reason (R) :** People had in-depth knowledge of rainfall regimes and soil types and developed wide ranging techniques to harvest rainwater, groundwater, river water and flood water in keeping with the local ecological conditions and their water needs.

**Q.11. Assertion (A) :** Today, dams are built not just for irrigation but for electricity generation, water supply for domestic and industrial uses, flood control, recreation, inland navigation and fish breeding.

**Reason (R) :** Hence, dams are now referred to as multi-purpose projects where the many uses of the impounded water are integrated with one another.

**Q.12. Assertion (A) :** In ancient India, along with the sophisticated hydraulic structures, there existed an extraordinary tradition of water-harvesting system.

**Reason (R) :** Rainwater, or palar pani, as commonly referred to in these parts, is considered the purest form of natural water.

**Q.13. Assertion (A) :** In Gujarat, the Sabarmati-basin farmers were agitated and almost caused a riot over the higher priority given to water supply in urban areas, particularly during droughts.

**Reason (R) :** Inter-state water disputes are also becoming less common with regard to sharing the costs and benefits of the multi-purpose project.

**Q.14. Assertion (A) :** Most of the objections to the projects arose due to their success to achieve the purposes for which they were built.

**Reason (R) :** Ironically, the dams that were constructed to control floods have triggered floods due to sedimentation in the reservoir.

**-X-X-X-**

### **ANSWER KEY**

**Q.1 :** (a) The total volume of world's water is estimated to exist as oceans and only few cent occurs to be fresh water. Nearly 70 per cent of this freshwater occurs as ice sheets and glaciers in Antarctica, Greenland and the mountainous regions of the world.

**Q.2 :** (c) Water resources varies over space and time due to the variation in seasonal and annual precipitation however water scarcity in most cases is caused by over-exploitation and excessive use.

**Q.3 :** (a) Dams were traditionally built to impound rivers and rainwater that could be used later to irrigate agricultural fields. They also help in various activities. Thus, the reason justifies the assertion.

**Q.4 :** (d) Dams are built to impound rivers and rainwater that could be used later to irrigate agricultural fields and it also helps to generate electricity and fulfills a variety of purposes at the same time. Thus, both reason and assertion are false.

**Q.5 :** (a) Irrigation has also changed the cropping pattern of many regions with farmers shifting to water intensive and commercial crops. Large farmers are benefitted through changing the cropping pattern.

**Q.6 :** (c) Assertion is true but reason is false. Irrigation is considered to be the major source of agriculture. The major sources of irrigation are from canals, tanks, wells and tubes but dams are used only to store large water for later use.

**Q.7 :** (b) Multi-purpose projects include dam which helps us in conserving and managing water. Floods occur due to very rainfall. Building dams in most of our river basins helps in controlling floods as it helps in storing and regulating water resource. Thus both are true, but the reason does not justify the answer.

**Q.8 :** (c) Water is utilized on large basis because, increasing population requires more water for cooking, washing and bathing. Irrigation is not a major contributor. Thus, the assertion is true but the reason is not.

**Q.9 :** (a) Ground water a highly' overused resource as it used for domestic purpose and drinking purpose. Huge population mainly depends upon the ground water for basic requirements

**Q.10 :** (a)

**Q.11 :** (a)

**Q.12 :** (b)

**Q.13 :** (c)

**Q.14 :** (d)