Master Testing Agency
Practice papers, exam-standard · www.mastertestingagency.com

Water Resources — CBSE Class 10 Social Science Chapter Test

FREE CHAPTER TEST · CLASS X · SOCIAL SCIENCE (087) · PATTERN OF THE CBSE SAMPLE QUESTION PAPER 2026-27

TIME ALLOWED	MAXIMUM MARKS	QUESTIONS	NAME / ROLL NO.
1½ hours	40	20 (A 10 · B 4 · C 3 · D 1 · E 2)	

GENERAL INSTRUCTIONS

Read the following instructions very carefully and strictly follow them:

1. This question paper contains 20 questions. All questions are compulsory.
2. This question paper is divided into five sections: A, B, C, D and E.
3. In Section A, Questions 1 to 8 are multiple choice questions (MCQs) and Questions 9 and 10 are assertion-reason based questions of 1 mark each.
4. In Section B, Q11–14 are very short answer (VSA) type questions, carrying 2 marks each.
5. In Section C, Q15–17 are short answer (SA) type questions, carrying 3 marks each.
6. In Section D, Q18 is a long answer (LA) type question, carrying 5 marks.
7. In Section E, Q19–20 are case study based questions, carrying 4 marks each, with sub-parts of the values of 1, 1 and 2 marks.
8. There is no overall choice. However, an internal choice has been provided in 1 question of Section B, 1 question of Section C, 1 question of Section D and in the 2-mark sub-part of each question of Section E.
9. Answer very short answer questions in about 40 words, short answer questions in about 60 words, long answer questions in about 120 words and case-based questions in about 100 words.
10. This chapter test follows the section structure, question types and marks per question of the CBSE Class X Social Science (087) Sample Question Paper 2026-27, at about half the length of the 80-mark board paper: 40 marks in 1½ hours.
11. The answer key and the marking scheme are at the end of this booklet. Attempt the paper in 1½ hours before you look at them.

All questions are original and © Master Testing Agency. Free to download and use for personal practice; not for resale. Master Testing Agency is an independent test-prep publisher, not affiliated with, endorsed by or connected to the Central Board of Secondary Education (CBSE) or any other exam-conducting body.

Chapter: Water Resources (Geography: Contemporary India – II) · **Topics:** Water scarcity and the need for conservation · Multi-purpose river projects · Problems of large dams · Inter-State water disputes · Rainwater harvesting · Traditional and modern harvesting methods

SECTION A

This section comprises 10 questions of 1 mark each: 8 multiple choice questions (MCQs) and 2 assertion-reason based questions.

1. About what percentage of the world's total water is freshwater? 1

(A) 96.5 per cent
(B) 2.5 per cent
(C) 70 per cent
(D) 30 per cent

2. The Hirakud project, which integrates the conservation of water with flood control, is built on the river 1

(A) Narmada
(B) Krishna
(C) Sutlej
(D) Mahanadi

3. Who proclaimed dams as the 'temples of modern India'? 1

(A) Jawaharlal Nehru
(B) Mahatma Gandhi
(C) B.R. Ambedkar
(D) Sardar Patel

4. Which of the following, built in the eleventh century, was one of the largest artificial lakes of its time? 1

(A) Dal Lake
(B) Chilika Lake
(C) Bhopal Lake
(D) Loktak Lake

5. Which State was the first in India to make rooftop rainwater harvesting compulsory for all houses? 1

(A) Tamil Nadu
(B) Rajasthan
(C) Karnataka
(D) Meghalaya

6. The Narmada Bachao Andolan is a movement mobilising tribal people, farmers, environmentalists and human rights activists against the 1

(A) Bhakra Nangal Dam
(B) Hirakud Dam
(C) Tehri Dam
(D) Sardar Sarovar Dam

7. Which of the following movements opposed the building of a large dam? 1

(A) Chipko Movement
(B) Beej Bachao Andolan
(C) Tehri Dam Andolan
(D) Navdanya

8. Which of the following is NOT an objective of multi-purpose river projects? 1

(A) Irrigation
(B) Increasing the salinity of soils
(C) Electricity generation
(D) Flood control

9. **Assertion (A):** Many regions of India face water scarcity even though they receive adequate rainfall. 1
Reason (R): Water scarcity may be an outcome of over-exploitation, excessive use and unequal access to water among different social groups.

(A) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).

(B) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A).

(C) Assertion (A) is true, but Reason (R) is false.

(D) Assertion (A) is false, but Reason (R) is true.

10. **Assertion (A):** Large dams have no adverse effects on the environment or on people. 1
Reason (R): Regulating and damming rivers affects their natural flow, causing poor sediment flow and excessive sedimentation at the bottom of the reservoir.

(A) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).

(B) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A).

(C) Assertion (A) is true, but Reason (R) is false.

(D) Assertion (A) is false, but Reason (R) is true.

SECTION B

This section comprises 4 very short answer (VSA) type questions of 2 marks each.

11. (a) Give two reasons for water scarcity in India. 2

OR

(b) Why are dams now referred to as multi-purpose projects?

12. How have multi-purpose projects led to inter-State water disputes? Give one example. 2

13. Describe the bamboo drip irrigation system of Meghalaya. 2

14. How has rooftop rainwater harvesting helped in Gendathur village and in Shillong? 2

SECTION C

This section comprises 3 short answer (SA) type questions of 3 marks each.

15. (a) Describe any three traditional methods of rainwater harvesting in India. 3

OR

(b) Describe the system of tankas used for rooftop rainwater harvesting in Rajasthan.

16. Why are large dams being opposed in India? Give three reasons. 3

17. 'Water is a renewable resource, yet there is water scarcity.' Explain with three points. 3

SECTION D

This section comprises 1 long answer (LA) type questions of 5 marks each.

18. (a) What are multi-purpose river projects? Explain their advantages and disadvantages, giving examples. 5

OR

(b) What is rainwater harvesting? Describe five examples of traditional and modern rainwater harvesting from different parts of India.

SECTION E

This section comprises 2 case study based questions of 4 marks each, with sub-parts of 1, 1 and 2 marks.

19. Water scarcity in most cases is caused by over-exploitation, excessive use and unequal access to water among different social groups. In the housing societies or colonies of cities, you would find that most of these have their own groundwater pumping devices to meet their water needs. Urban centres with large and dense populations and urban lifestyles have not only added to water and energy requirements but have further aggravated the problem.

(i) Name one cause of water scarcity mentioned in the passage. [1]

(ii) How have housing societies in cities added to water scarcity? [1]

(iii) How do industrialisation and urbanisation add to water scarcity? Give two points. [2]

OR

(iii) Explain how the quality of water can lead to water scarcity even where water is available. [2]

20. In ancient India, along with sophisticated hydraulic structures, there existed an extraordinary tradition of water-harvesting systems. 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.

(i) Name the traditional diversion channels of the western Himalayas. [1]

(ii) Name the rain-fed storage structures of Jaisalmer. [1]

(iii) Why is rainwater harvesting considered a viable alternative to large dams? Give two reasons. [2]

OR

(iii) How did the Indira Gandhi Canal change traditional rooftop harvesting in western Rajasthan, and why is that a concern? [2]

END OF THE QUESTION PAPER

ANSWER KEY — SECTION A

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
(B)	(D)	(A)	(C)	(A)	(D)	(C)	(B)	(A)	(D)

MARKING SCHEME AND WORKED SOLUTIONS

Marks for each step are shown in brackets, as in the CBSE marking scheme. Any correct alternative method earns full marks.

Q1. Answer (B). About 96.5 per cent of the world's water is in the oceans; only 2.5 per cent is freshwater, and nearly 70 per cent of that is locked in ice sheets and glaciers.

Q2. Answer (D). Hirakud is on the Mahanadi in Odisha; Bhakra Nangal water is used for both hydel power and irrigation (Sutlej-Beas).

Q3. Answer (A). Nehru saw dams as the means to integrate the development of agriculture and the village economy with rapid industrialisation and growth of the urban economy.

Q4. Answer (C). Bhopal Lake was built in the eleventh century; Dal and Loktak are natural lakes and Chilika is a coastal lagoon.

Q5. Answer (A). Tamil Nadu made rooftop rainwater harvesting structures compulsory for all houses across the State, with legal provisions to punish defaulters.

Q6. Answer (D). It originally focused on environmental issues of trees submerged under the dam's water, and later on enabling the poor, especially displaced people, to get the benefits of the project.

Q7. Answer (C). The Tehri Dam Andolan, like the Narmada Bachao Andolan, opposed a large dam; Chipko resisted deforestation, and Beej Bachao Andolan and Navdanya promote diversified farming without synthetic chemicals.

Q8. Answer (B). Multi-purpose projects provide irrigation, electricity, water supply, flood control, recreation, inland navigation and fish breeding; soil salinisation is a harmful side effect of over-irrigation.

Q9. Answer (A). Both true, and R explains A: scarcity is not caused by low rainfall alone. Answer (A).

Q10. Answer (D). A is false: dams have caused displacement of people, loss of habitats, inter-state disputes and even floods. R is true. Answer (D).

Q11. (2 marks) Answer: (a) population and irrigation demand; industry, cities and pollution; (b) storing water for irrigation; many uses.
(a) A large and growing population means greater demand for water, for domestic use and to produce more food; a large part of the water is used for irrigation, especially for growing water-intensive crops in the dry season. [1]
Industrialisation and urbanisation have increased the demand for water and energy; even where there is enough water, it may be polluted by domestic and industrial wastes, chemicals and pesticides, making it unfit to use. [1]
OR (b) Dams were traditionally built to impound rivers and rainwater that could be used later to irrigate agricultural fields. [1]
Today they are built not only for irrigation but also for electricity generation, water supply for domestic and industrial uses, flood control, recreation, inland navigation and fish breeding; hence they are called multi-purpose projects. [1]

Q12. (2 marks) Answer: Sharing water between States; Krishna-Godavari dispute over Koyna.
When a river flows through several States, the sharing of costs and benefits of a project on it becomes a matter of dispute. [1]
Example: in the Krishna-Godavari dispute, Karnataka and Andhra Pradesh objected to Maharashtra diverting more water at Koyna for a multi-purpose project, which would reduce downstream flow in their States. [1]

Q13. (2 marks) Answer: Bamboo pipes carry stream water; reduces to drops at each plant.
It is a 200-year-old system of tapping stream and spring water using bamboo pipes to irrigate plants on the hill slopes. [1]
About 18–20 litres of water enters the bamboo pipe system, is carried over hundreds of metres, and finally reduces to 20–80 drops per minute at the site of the plant. [1]

Q14. (2 marks) Answer: Gendathur's household systems; Shillong's rooftop systems in a wet but water-short city.
In Gendathur, a remote village in Mysuru, Karnataka, villagers have installed rooftop rainwater harvesting in their households to meet their water needs, making the village rich in rainwater. [1]
In Shillong, Meghalaya, which receives heavy rainfall but faces acute water shortage, nearly every household has a rooftop rainwater harvesting structure that meets a large part of its water needs. [1]

Q15. (3 marks) Answer: (a) guls or kuls; rooftop and inundation channels; khadins and johads; (b) tankas connected to roofs; first rain not collected; palar pani, cool rooms.
(a) In hill and mountainous regions, people built diversion channels like the 'guls' or 'kuls' of the western Himalayas for agriculture. [1]
Rooftop rainwater harvesting was commonly practised to store drinking water, particularly in Rajasthan; in the floodplains of Bengal, people developed inundation channels to irrigate their fields. [1]
In arid and semi-arid regions, agricultural fields were converted into rain-fed storage structures that allowed water to stand and moisten the soil, like the 'khadins' in Jaisalmer and 'johads' in other parts of Rajasthan. [1]
OR (b) In Bikaner, Phalodi and Barmer, almost all houses traditionally had underground tanks or tankas for storing drinking water, built inside the main house or courtyard and connected to the sloping roof by a pipe. [1]
Rain falling on the rooftop travelled down the pipe and was stored in the tanka; the first spell of rain was usually not collected, as it would clean the roof and pipes. [1]
The stored water ('palar pani') was the purest form of natural water and was a reliable source when other sources dried up; the tankas also kept rooms cool in summer. [1]

Q16. (3 marks) Answer: Sediment and aquatic habitat; fragmented rivers and submerged land; displacement, floods, salinisation.
Regulating and damming rivers affects their natural flow, causing poor sediment flow, excessive sedimentation at the bottom of the reservoir and rockier stream beds, and poorer habitats for aquatic life. [1]
Dams fragment rivers, making it difficult for aquatic fauna to migrate; reservoirs on the floodplains submerge existing vegetation and soil. [1]
They cause large-scale displacement of local communities, who often do not get benefits; ironically, dams meant to control floods have triggered floods due to sedimentation, and over-irrigation has caused salinisation of soil. [1]

Q17. (3 marks) Answer: Renewed by the hydrological cycle; over-exploitation from rising demand; unequal access and pollution.
Freshwater is mainly obtained from surface run-off and groundwater, continually renewed and recharged through the hydrological cycle, so water is a renewable resource. [1]
But demand has grown with a large and growing population, irrigation, industrialisation and urbanisation, leading to over-exploitation of groundwater in many areas. [1]
Water is also unequally accessed by different social groups, and polluted by domestic and industrial wastes, so good-quality water is scarce even where water is available. [1]

Q18. (5 marks) Answer: (a) definition; Bhakra Nangal and Hirakud; advantages; ecological costs and displacement; disputes, floods, salinisation; (b) meaning; guls, rooftop; inundation channels, khadins; bamboo drip; Gendathur, Shillong, Tamil Nadu.
(a) Multi-purpose river projects are dams that serve several purposes, such as irrigation, electricity generation, water supply, flood control, recreation, inland navigation and fish breeding. [1]
Examples: the Bhakra Nangal project water is used for both hydel power production and irrigation; the Hirakud project in the Mahanadi basin integrates conservation of water with flood control. [1]
Advantages: they provide irrigation for agriculture, generate hydroelectricity, supply water to homes and industries and control floods; Nehru called them the 'temples of modern India'. [1]
Disadvantages: they affect the natural flow of rivers, cause sedimentation, fragment rivers and submerge vegetation and soil; they cause displacement of local communities. [1]
They have led to inter-State water disputes, floods due to sedimentation and salinisation of soil from over-irrigation; movements such as the Narmada Bachao Andolan and the Tehri Dam Andolan have opposed them. [1]
OR (b) Rainwater harvesting is collecting and storing rainwater for later use, a viable alternative to dams both socio-economically and environmentally. [1]
Western Himalayas: diversion channels (guls or kuls); Rajasthan: rooftop harvesting and tankas for drinking water. [1]
Floodplains of Bengal: inundation channels; Jaisalmer and other parts of Rajasthan: khadins and johads. [1]
Meghalaya: 200-year-old bamboo drip irrigation system. [1]
Modern examples: Gendathur village in Karnataka, Shillong, and Tamil Nadu, the first State to make rooftop rainwater harvesting compulsory for all houses. [1]

Q19. (4 marks) Answer: (i) over-exploitation; (ii) private pumping of groundwater; (iii)(a) industry's water and power needs; urban demand; (b) pollution makes water unfit.
(i) Over-exploitation (or excessive use, unequal access). [1]
(ii) They have their own groundwater pumping devices, which over-exploit groundwater. [1]
(iii)(a) Industries are heavy users of water and also need power, much of which comes from hydroelectric power. [1]
Large and dense urban populations with urban lifestyles add to water and energy needs; fragile water resources are over-exploited. [1]
OR (iii)(b) Water may be polluted by domestic and industrial wastes, chemicals, pesticides and fertilisers used in agriculture. [1]
Such polluted water is hazardous for human use, so good-quality water is scarce even when the quantity is enough. [1]

Q20. (4 marks) Answer: (i) guls or kuls; (ii) khadins; (iii)(a) cheap, no displacement; recharges groundwater; (b) decline of rooftop harvesting; loss of a sustainable source.
(i) Guls or kuls. [1]
(ii) Khadins. [1]
(iii)(a) It is cheaper and does not cause displacement of people or submergence of land. [1]
It recharges groundwater and suits local ecological conditions and needs. [1]
OR (iii)(b) With water now available from the perennial canal, the practice of rooftop harvesting is on the decline. [1]
This is a concern because traditional systems are a reliable, sustainable source; some houses still maintain tankas, as they do not like the taste of tap water. [1]

All questions are original and © Master Testing Agency. Free to download and use for personal practice; not for resale. Every answer in this paper was checked against the NCERT Class 10 Geography textbook, Contemporary India – II, and the marks in every model answer were checked by computer.