

CBSE CLASS X
Social Science (087)

QUESTION PAPER
AI-generated question paper

Code: JAUIEB

Questions: 26

Maximum Marks: 76

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SELECTIONS USED

Subject	Social Science
Lessons	3 Water Resources
Level of understanding	Thorough understanding
Question selection	Curated chapter coverage (~5 questions per section + 8 synthesis)
Model	claude-sonnet-4-6

Composition — Difficulty: 1 straightforward · 14 medium · 11 deep | Types: 18 Short · 4 MCQ · 4 Long

Q1. medium thorough-understanding § Introduction **[3]**

Despite being a renewable resource with three-fourths of the Earth's surface covered by water, many regions still face water scarcity. Explain how a city receiving adequate rainfall can still suffer from water scarcity, identifying at least two distinct causes.

◆ Water Resources

Q2. medium thorough-understanding § WATER SCARCITY AND THE NEED FOR WATER CONSERVATION AND MANAGEMENT **[3]**

A region receives abundant rainfall every year, yet its residents frequently face water shortages. Give TWO distinct reasons that could explain this apparent paradox.

◆ Water Resources

Q3. straightforward thorough-understanding § WATER SCARCITY AND THE NEED FOR WATER CONSERVATION AND MANAGEMENT **[1]**

Which of the following is the LARGEST consumer of water resources in India?

- (A) Domestic households in urban areas
- (B) Hydroelectric power generation
- (C) Irrigated agriculture
- (D) Industrial units and MNCs

- A Domestic households in urban areas
- B Hydroelectric power generation
- C Irrigated agriculture
- D Industrial units and MNCs

◆ Water Resources

Q4. medium thorough-understanding § WATER SCARCITY AND THE NEED FOR WATER CONSERVATION AND MANAGEMENT **[3]**

Explain the chain of consequences that links rapid population growth to the depletion of groundwater resources in agricultural regions of India.

◆ Water Resources

Q5. medium thorough-understanding § WATER SCARCITY AND THE NEED FOR WATER CONSERVATION AND MANAGEMENT [3]

A city has a plentiful supply of water from a nearby river, but health authorities warn residents not to use it for drinking or cooking. In what way does this situation represent water scarcity, and what human activities typically cause it?

◆ Water Resources

Q6. medium thorough-understanding § WATER SCARCITY AND THE NEED FOR WATER CONSERVATION AND MANAGEMENT [2]

How do industries contribute to water scarcity? Explain with reference to both the quantity and quality of available water resources.

◆ Water Resources

Q7. deep thorough-understanding § WATER SCARCITY AND THE NEED FOR WATER CONSERVATION AND MANAGEMENT [5]

"Over-exploitation of water is ultimately a threat to food security, livelihoods, and natural ecosystems alike." Justify this statement by connecting the mismanagement of water resources to consequences across each of these three areas.

◆ Water Resources

Q8. medium thorough-understanding § MULTI-PURPOSE RIVER PROJECTS AND INTEGRATED WATER RESOURCES MANAGEMENT [3]

Jawaharlal Nehru famously referred to large dams as the 'temples of modern India.' What vision of development did this statement reflect, and how did multi-purpose river projects align with the priorities of newly independent India?

◆ Water Resources

Q9. medium thorough-understanding § MULTI-PURPOSE RIVER PROJECTS AND INTEGRATED WATER RESOURCES MANAGEMENT [3]

The Bhakra-Nangal project is located in a semi-arid region while the Hirakud project is located in a flood-prone river basin. How does the geographical and hydrological context of a river basin determine the primary purpose for which a multi-purpose project is designed? Illustrate with reference to these two projects.

◆ Water Resources

Q10. medium thorough-understanding § MULTI-PURPOSE RIVER PROJECTS AND INTEGRATED WATER RESOURCES MANAGEMENT [1]

Which of the following is a direct ecological consequence of excessive sedimentation caused by a large dam?

- (A) Increased downstream water flow, benefiting agriculture
- (B) Rockier stream beds that reduce suitable habitats for aquatic life
- (C) Improved soil fertility on the flood plains due to deposited silt
- (D) Easier migration of fish to their spawning grounds

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◆ Water Resources

Q11. medium thorough-understanding § MULTI-PURPOSE RIVER PROJECTS AND INTEGRATED WATER RESOURCES MANAGEMENT [3]

Large dams were originally built to control flooding, yet they have sometimes triggered floods themselves. Explain the mechanism by which this happens.

◆ Water Resources

Q12. deep thorough-understanding § MULTI-PURPOSE RIVER PROJECTS AND INTEGRATED WATER RESOURCES MANAGEMENT [3]

A dam constructed on a river creates a large reservoir on what was previously a floodplain. Identify TWO distinct environmental problems that arise specifically because of this submergence, and explain the long-term consequence of each.

◆ Water Resources

Q13. deep thorough-understanding § MULTI-PURPOSE RIVER PROJECTS AND INTEGRATED WATER RESOURCES MANAGEMENT [3]

The Sardar Sarovar Dam is built on the Narmada River, which flows through multiple states. Explain why large river projects built on shared rivers often become a source of inter-state disputes. What makes it difficult to resolve such conflicts equitably?

◆ Water Resources

Q14. deep thorough-understanding § MULTI-PURPOSE RIVER PROJECTS AND INTEGRATED WATER RESOURCES MANAGEMENT [5]

Irrigation from multi-purpose projects has led to salinisation of soil in some agricultural regions. Trace the chain of decisions and processes — from a farmer's choice of crops to the degradation of land — that produces this outcome.

◆ Water Resources

Q15. deep thorough-understanding § RAINWATER HARVESTING [3]

Rooftop rainwater harvesting was once widespread in the semi-arid districts of Rajasthan but has declined significantly in recent decades. Identify the development that led to this decline and analyse how this trend illustrates the tension between short-term convenience and long-term water security.

◆ Water Resources

Q16. deep thorough-understanding § RAINWATER HARVESTING [3]

Shillong faces acute water shortage even though Cherrapunjee and Mawsynram — located only 55 km away — receive the highest rainfall in the world. Using this contrast, explain what water scarcity really means and why high rainfall alone does not guarantee water security.

◆ Water Resources

Q17. medium thorough-understanding § RAINWATER HARVESTING [2]

The bamboo drip irrigation system of Meghalaya channels spring water over long distances directly to the base of plants. What is the key advantage of this method of water delivery over conventional surface irrigation, and why is it particularly suited to the region's terrain and crops?

◆ Water Resources

Q18. medium thorough-understanding § RAINWATER HARVESTING [1]

Which of the following best explains why Tamil Nadu made rooftop rainwater harvesting structures compulsory for all houses?

- (A) It is the state with the highest annual rainfall in India, making collection easy.
 (B) Groundwater levels in Tamil Nadu have never been a concern, so rooftop harvesting supplements surface water.
 (C) Mandating the structure ensures recharge of groundwater and secured household water supply as a matter of legal obligation rather than individual choice.
 (D) The state government wanted to reduce dependence on the Indira Gandhi Canal.

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◆ Water Resources

Q19. deep thorough-understanding § RAINWATER HARVESTING [5]

Communities across India — from the Western Himalayas to Rajasthan, Bengal, and the semi-arid peninsular region — have developed distinct rainwater harvesting techniques such as guls and kuls, khadins and johads, inundation channels, and rooftop tankas. (a) Identify the common underlying principle that links all these diverse techniques. (b) What does this diversity of practices reveal about the relationship between local ecology and water management? Support your answer with specific examples.

◆ Water Resources

Q20. deep thorough-understanding § BAMBOO DRIP IRRIGATION SYSTEM [3]

The bamboo drip irrigation system in Meghalaya transports water over hundreds of metres, eventually reducing the flow to just 20–80 drops per minute at the plant site. Why is this drastic reduction in flow rate at the final stage an advantage rather than a drawback for the crops being irrigated?

◆ Water Resources

Q21. medium thorough-understanding § (whole-chapter synthesis) [3]

Water is technically a renewable resource, yet billions of people face water scarcity. Explain the TWO fundamentally different reasons — one quantitative and one qualitative — that can cause water scarcity even in regions where water is physically available.

◆ Water Resources

Q22. deep thorough-understanding § (whole-chapter synthesis) [5]

Multi-purpose dams were envisioned as solutions to water scarcity, yet they have themselves become sources of new environmental and social problems. Justify this statement by discussing at least FOUR specific problems caused by large dams, and explain how each problem contradicts one of the original purposes for which dams were built.

◆ Water Resources

Q23. deep thorough-understanding § (whole-chapter synthesis) [3]

Rajasthan's Thar Desert and the highlands of Meghalaya represent two contrasting environments, yet both have developed traditional water harvesting systems that are celebrated examples of local ingenuity. Compare the rooftop rainwater harvesting system (tanka) of Rajasthan with the bamboo drip irrigation system of Meghalaya: (i) What specific local water problem does each system address? (ii) What is the core engineering or ecological principle underlying each system?

◆ Water Resources

Q24. deep thorough-understanding § (whole-chapter synthesis) [3]

In western Rajasthan, the expansion of canal irrigation in the latter half of the twentieth century coincided with the gradual abandonment of traditional rooftop rainwater harvesting. Elsewhere in India, rapid industrialisation and urbanisation have led to a steep rise in groundwater extraction through tube-wells. Analysing BOTH trends together, explain how solutions introduced to solve an immediate water problem can themselves generate a long-term water crisis.

◆ Water Resources

Q25. medium thorough-understanding § (whole-chapter synthesis) [1]

Which of the following BEST explains why irrigated agriculture, even when it expands food production, can contribute to long-term water scarcity and land degradation?

- (A) It reduces the amount of annual precipitation over agricultural regions.
- (B) It over-exploits groundwater, encourages water-intensive crops and can cause salinisation of soil.
- (C) It fragments rivers and prevents aquatic fauna from spawning.
- (D) It increases sedimentation in river channels, depriving flood plains of natural fertiliser.

- A It reduces the amount of annual precipitation over agricultural regions.
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◆ Water Resources

Q26. medium thorough-understanding § (whole-chapter synthesis) [3]

Traditional water harvesting structures — such as kuls in the Himalayas, johads in Rajasthan, and tank systems in peninsular India — and post-Independence multi-purpose river valley projects were both intended to address water and agricultural needs. In what ways were their purposes similar? In what ONE critical respect did the scale and centralised nature of modern large dam projects create environmental and social problems that traditional local systems generally avoided?

◆ Water Resources

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