Chapter-03

# WATER

## QUESTION BANK

### SUB-TOPIC: - Water Scarcity and the need for water conservation and management

LEVEL-1

1: Which of these is the major source of fresh water in India?
(a) Ground water (b) Ocean water (c) Tanks (d) Water falls

2.How much of the earth surface is covered with water?
(a) About 1/4 (b) About 1/2 (c) About 3/4 (d) About 2/3

3: Which of the following is a source of fresh water?
(a) Precipitation (b) Surface runoff (c) Groundwater (d) All the above

4.How is fresh water obtained?

5.What is Hydrological cycle?

6.What cause water longing (scarcity) in most places?

7.What is water scarcity?

LEVEL-2

8: Explain any two consequences of changing crop pattern due to irrigation.

9: Examine the ill effects of industrialization and urbanization on water resources.

10: How have intensive industrialization and urbanization posed a great pressure on existing fresh water resources in India? Explain.

11: Water resources are depleting fast in India and water is a necessity for life. Suggest three measures to conserve water.

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12: "Water is a very important and critical resource in India." Support the statement by explaining any three points.

13: Analyze three major causes of water scarcity in India.

14: Why is the need for water increasing day by day? Explain three reasons.

15. State the causes of growing scarcity of water?

16.Explain how water becomes a renewable resource.

17.What are main causes for water scarcity? *

18.Even though India has perennial and non-perennial rivers and various sources of water, we suffer with water scarcity. Critically examine with three examples.

19.'Three-fourths of the earth's surface is covered with water but there is still scarcity of water across the globe.' Explain giving three reasons. *(3 marks)

20.Why is the need of water increasing day-by-day? explain 3 reasons? *(3 marks)

21.Is it possible that an area or region may have ample water resource but it is still facing water scarcity? Explain? *

22.What will lead to falling groundwater levels, adversely affecting water availability and food security of the people?

23.Why is groundwater a highly overused resource?

24.Imagine your neighbor switches on the motor to fill the overhead tank and often forgets to switch it off. The water overflows most of the time. What will be the consequences of this careless behavior?

25.In a situation where water is sufficiently available to meet the needs of the people, but, the area still suffers from water scarcity. Why?

26.Why entire life stands threatened?

LEVEL-3

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27. There is a yawning gap between demand and supply of water. Why?
28. "Availability of water varies from place to place and time to time in India." Explain the statement with one example of each?
29. Describe the importance of water in life?

30: Explain any four reasons responsible for water scarcity in India.

31.Write a note on the fact and figures of water resources.

32.Post-independent India witnessed intensive industrialization and urbanization, creating vast opportunities for us. Justify this statement in terms of water scarcity. OR

33.Industrialization and urbanization have aggravated water crisis in India. Support this with suitable arguments. *(3 marks)

34.Examine the ill effects of industrialization and urbanization on water resources. *(3 marks)

35.How has the ever increasing number of industries in India made worse position by exerting pressure on existing fresh water resources? Explain*(3 marks, Board 2018)

36.Why do we need to conserve and manage our water resources?

**SUB-TOPIC: - Multi-Purpose River Projects and Integrated Water Resource Management**

LEVEL-1

37: Bamboo drip irrigation is prevalent in which of the following state?
(a) Rajasthan (b) Meghalaya (c) Karnataka (d) Madhya Pradesh

38: Narmada Bachao Andolan is related to :
(a) Sardar Sarovar (b) Bhakra Nangal (c) Rihand (d) Tehri

39: Who among the following proclaimed dams as the "temples of modern India"?
(a) Rajendra Prasad (b) Jawaharlal Nehru (c) Sardar Patel (d) Mahatma Gandhi

40: According to Falken Mark, a Swedish expert, water stress occurs when water availability is between (a) 1000 to 1200 cubic meter per person / year (b) 1000 to 1050 cubic meter per person

/ year (c) 600 to 900 cubic meter per person / year (d) 1000 to 1600 cubic meter per person / year

41: In which one of the following states *palar pani* is considered the purest form of natural water?
(a) Gujarat (b) Rajasthan (c) Madhya Pradesh (d) Chhattisgarh

42.Define the term 'dam'.

43.How are dams classified?

44.Dams are referred to as 'The Temples of Modern India' why? *(1 mark)

45.Why did Jawaharlal Nehru proudly proclaimed the dams as the 'temples of modern India'?

LEVEL-2

46: Which multipurpose project is built on River Satluj How this project has led to the development of the country?

47: What is a multipurpose river valley project? Give any four objectives of the multi-purpose river valley projects.

48. What is a river valley project?

49. What is the objectives of Multipurpose River Valley Projects? Give examples?

50.Why are dams referred to as multipurpose projects?

51.What are the advantages of dams?

52.Multi-purpose projects and large dams have come under great scrutiny and opposition for a variety of reasons.

53.Why did most of the objections to multipurpose project arise? OR

54.Explain any three reasons due to which large dams have come under great opposition in recent years. *(3 marks)

55.Explain any 3 disadvantages of dams. *

56.Evaluate the role of large scale developmental projects in accelerating the loss of forests in India. *(3 marks)

57.Compare the advantages and disadvantages of multi-purpose river projects.

LEVEL-3

58. How will you provide efficient management of our water resources?

59.Name the ancient Hydraulic structures of India.

60.In ancient India, along with the sophisticated hydraulic structures, there existed an extraordinary tradition of water-harvesting system. Explain any three of them.

**SUB-TOPIC: - Rainwater Harvesting**

LEVEL-1

61: Rooftop rainwater harvesting system in Rajasthan in known as :
(a) Guls (b) Kuls (c) Tankas (d) Bauris

62: Which of the following is not a method of water harvesting used in Rajasthan?
(a) Johads (b) Khadins (c) Guls (d) Tankas

63: Name the state in India which has made roof top rainwater harvesting structure compulsory to all the houses across the state.
(a) Gujarat (b) Rajasthan (c) Tamil Nadu (d) Karnataka

64.Which water is recharged by roof-top rainwater harvesting technique?

65.Name the diversion channels of western Himalayas?

66.Name two rainwater harvesting structure built in Jaisalmar.

67.Name two rainwater harvesting structures built in Rajasthan?

68. In Gendathur, a remote backward village in Mysore, a remote backward village in Mysuru, Karnataka, villagers have installed, in their household's rooftop, rainwater harvesting system to meet their water needs. *Why has Gendathur become a much known name?

69.Which state in India has made roof rain top water harvesting mandatory?

LEVEL-2

70: Describe the procedure for rooftop rainwater harvesting.

71: What is palar pani? What is its significance in the arid regions of Rajasthan?

72: Describe any three different rainwater harvesting systems practiced in India.

73: Explain three traditional methods of rainwater harvesting in India.

74. What do you mean by rainwater harvesting?

75: Why is rooftop rainwater harvesting important in Rajasthan? Explain.

76.How did rainwater harvesting gain popularity? OR

77.Water harvesting system was alternative way in both socioeconomically and environmentally. Support the statement with 3 examples. *(3 marks)

78.Why is there a need to develop rainwater harvesting system in India? Explain. (3 marks)

79.Describe any three rainwater harvesting system practiced in India. ***(3 marks)

80.Discuss how modern adaptations of traditional rainwater harvesting methods are being carried out to conserve and store water.

81.What are the benefits of rainwater harvesting?

LEVEL-3

82: Why are different water harvesting systems considered a viable alternative in a country like India.

83.Why different harvesting systems considered a viable alternative both socio-economically and environmentally in a country like India? *(5 marks)

84.What were traditionally built rainwater harvesting across India? *(5 marks)

85.What was the traditional rainwater harvesting system practiced in arid and semi-arid areas (Rajasthan)? OR

86.Discuss how rainwater harvesting in semi-arid regions of Rajasthan is carried out. **

87.In Gendathur, a remote backward village in Mysore, a remote backward village in Mysuru, Karnataka, villagers have installed, in their household's rooftop, rainwater harvesting system to meet their water needs. Why has Gendathur become a much known name? What values doe it generates?

**SUB-TOPIC: - MAP SKILL (DAMS OF INDIA)**

LEVEL-1

88: Hirakud dam is built on which river?
(a) Chenab (b) Mahanadi (c) Krishna (d) Satluj

89: Salal Dam is built on which river?
(a) Chenab (b) Mahanadi (c) Krishna (d) Satluj

90: Nagarjuna Sager Dam is built on which river? (a) Chenab (b) Mahanadi (c) Krishna (d) Satluj

91: On which one of the following rivers Mettur dam is constructed?
(a) River Kaveri (b) River Krishna (c) River Godavari (d) River Mahanadi

92.On which river the Sardar Sarovar Dam built?

93.Name any two river valley projects or dams which have led to social movements.

LEVEL-2

94: Explain any three reasons due to which large dams have come under great opposition in recent years.

**NOTE**: Guls or Kuls irrigation– western Himalayas, Canal irrigation– Nagaland **, Bamboo drip irrigation– Meghalaya**

| *River* | *Dams constructed* | *State/place* |
|---|---|---|
| Mahanadi | Hirakud Dam | Odisha |
| Satluj | Bhakhra Nangal Dam | Himachal Pradesh in northern India |
| Krishna | Nagarjuna Sagar Dam | Nalgonda District, Telangana State. |
| Chenab | Salal Dam* | Jammu and Kashmir. |
| Narmada | Sardar Sarovar Project* | Gujarat |
| Bhagirathi | Tehri Dam | Uttarakhand |
| Ganges | Naraura dam | Uttar Pradesh |
| Chambal River | Rana Pratap Sagar Dam | Rajasthan |
| Chambal | Gandhi Sagar Dam | Madhya Pradesh |

***95.*** Show the following in the India Map: -

I. Dam on river Narmada
II. Tehri Dam
III. Sardar Sarovar dam**
IV. A dam on River Ganges
V. A dam on river Chenab
VI. Rana Pratap Sagar Dam
VII. Bhakhra Nangal Project
VIII. Gandhi Sagar Dam
IX. Hirakud Dam (Board 2019)
X. River of Sorrow– Damodar river
XI. A project on River Satluj- Bhakra Nangal project

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INDIA
MAJOR RIVERS AND DAMS
PAKISTAN
CHINA (TIBET)
NEPAL
BHUTAN
BANGLADESH
MYANMAR
ARABIAN SEA
BAY OF BENGAL
INDIAN OCEAN
SRI LANKA
LAKSHADWEEP (INDIA)
ANDAMAN & NICOBAR ISLANDS (INDIA)
Indus R.
Jhelum R.
Chenab R.
Ravi R.
Satluj R.
Beas R.
Salal Project
Bhakra Nangal
Tehri
Naraura
Ganga R.
Yamuna R.
Sarda R.
Ghaghara R.
Gandak R.
Kosi R.
Tsangpo R.
Brahmaputra R.
Lohit R.
Chambal R.
Kota Barrage
Rana Pratap Sagar
Gandhi Sagar
Betwa R.
Son R.
Rihand
Tilaiya
Konar
Maithon
Panchet
Damodar R.
Ganga R.
Tropic of Cancer
Sardar Sarovar
Narmada R.
Hirakud
Mahanadi R.
Penganga R.
Godavari R.
Pravara
Koyna
Krishna R.
Nagarjuna Sagar
Tungabhadra
Tungabhadra R.
Ponnaiyar
Mettur
Kaveri R.
Periyar
0 200 400 600 km
36°N
32°
28°
24°
20°
16°
12°
8°N
68°E
72°
76°
80°
84°
88°
92°
96°E

## LIST OF IMPORTANT DAMS IN INDIA

| SNo. | Dams | Power Generation (MW) | Height | State |
|---|---|---|---|---|
| 1. | Bhakra Dam | 1325 MW | 740 ft | Himachal Pradesh |
| 2. | Baglihar Dam | 900 MW | 472 ft | Jammu & Kashmir |
| 3. | Tehri Dam | 2400 MW | 855 ft | Uttarakhand |
| 4. | Nagarjuna Sagar Dam | 816 MW | 407 ft. | Telangana, Andhra Pradesh |
| 5. | Bansagar Dam | 425 MW | 220 ft. | Madhya Pradesh |
| 6. | Hira Kund Dam | 347 MW | 200 ft. | Odisha |
| 7. | Sardar Sarovar Dam | 1450 MW | 535 ft. | Gujarat |
| 8. | Indirasagar Dam | 1000 MW | 302 ft. | Madhya Pradesh |
| 9. | Bhavanisagar Dam | 1920 MW | 105 ft | Tamil Nadu |
| 10. | Idukki Dam | 780 MW | 554 ft. | Kerala |
| 11. | Mettur Dam | 840 MW | 120 ft | Tamil Nadu |
| 12. | Srisailam Dam | 1670 MW | 476 ft | Telangana, Andhra Pradesh |
| 13. | Koyna Dam | 1960 MW | 339 ft. | Maharashtra |
| 14. | Tungabhadra Dam | 72 MW | 162 ft | Karnataka |

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| | | | | |
|---|---|---|---|---|
| 15. | Pong Dam | 396 MW | 436 ft | Himachal Pradesh |
| 16. | Mullaperiyar Dam | 175 MW | 176 ft | Tamil Nadu |
| 17. | Nathpa Dam | 1500 MW | 205 ft | Himachal Pradesh |
| 18. | Rana Pratap Sagar Dam | 172 MW | 177 ft | Rajasthan |
| 19. | Chamera Dam | 1071 MW | 226 ft | Himachal Pradesh |
| 20. | Rangit Dam | 60 MW | 148 ft | Sikkim |

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