

CBSE Class IX Social Science
NCERT Solution
Geography Chapter 3
Drainage

Question 1. Choose the right answer from the four alternatives given below.

(i) Which one of the following describes the drainage patterns resembling the branches of a tree?

- (a) Radial
- (b) Dendritic
- (c) Centrifugal
- (d) Trellis

Answer (b) Dendritic

(ii) In which of the following states is the Wular lake located?

- (a) Rajasthan
- (b) Uttar Pradesh
- (c) Punjab
- (d) Jammu and Kashmir

Answer : (d) Jammu and Kashmir

(iii) The river Narmada has its source at

- (a) Satpura
- (b) Brahmagiri
- (c) Amarkantak

(d) Slopes of the Western Ghats

Answer : (c) Amarkantak

(iv) Which one of the following lakes is a salt water lake?

(a) Sambhar

(b) Dal

(c) Wular

(d) Gobind Sagar

Answer : (a) Sambhar

(v) Which one of the following is the longest river of the Peninsular India?

(a) Narmada

(b) Krishna

(c) Godavari

(d) Mahanadi

Answer : (c) Godavari

(vi) Which one amongst the following rivers flows through a rift valley?

(a) Mahanadi

(b) Tungabhadra

(c) Krishna

(d) Tapi

Answer : (d) Tapi

Question 2. Answer the following questions briefly.

(i) What is meant by a water divide? Give an example.

Answer : i) Any upland, elevated area or a mountain separating two adjoining drainage basins is known as water divide. An example of water divide is the Western Ghats.

(ii) Which is the largest river basin in India?

Answer (ii) The Ganga river basin is the largest river basin in India.

(iii) Where do the rivers Indus and Ganga have their origin?

Answer : (iii) The Indus river has its origin in Tibet near the Mansarovar Lake while the Ganga River has its origin in Gangotri Glacier in Uttaranchal.

(iv) Name the two headstreams of the Ganga. Where do they meet to form the Ganga?

Answer (iv) Alaknanda and Bhagirathi are the two headstreams of the Ganga. They both meet to form the Ganga at Devprayag.

(v) Why does the Brahmaputra in its Tibetan part have less silt, despite a longer course?

Answer : (v) The Brahmaputra river, which is known as Tsangpo in Tibet, receives very little volume of water in Tibet so it carries little silt there. But once it enters India, Brahmaputra is fed by heavy rains, and it carries a lot of water and silt.

(vi) Which two Peninsular rivers flow through troughs?

Answer : (vi) The two rivers that flow through troughs are Narmada and Tapi. They form estuaries while entering the sea.

(vii) State some economic benefits of rivers and lakes.

Answer : (vii) Lakes

Lakes are of a great value to human beings.

Lakes help to regulate the flow of rivers.

Lakes help to prevent flooding during rainy season.

During the dry season, lakes help to maintain an even flow of water.

Lakes can also be used for developing hydel power.

They moderate the climate of the surroundings and maintain the aquatic ecosystem.

They enhance natural beauty and help to develop tourism and provide recreation. e.g., Dal Lake and Naini Lake at Nainital.

Lakes provide opportunities for fishery development.

Rivers

They help to develop hydel power.

They provide water for irrigation, for drinking and other requirements.

They help to develop fisheries.

Question 3. Below are given names of a few lakes of India. Group them under two categories

– natural and created by human beings.

(a) Wular

(b) Dal

(c) Nainital

(d) Bhimtal

(e) Gobind Sagar

(f) Loktak

(g) Barapani

(h) Chilika

(i) Sambhar

(j) Rana Pratap Sagar

(k) Nizam Sagar

(l) Pulicat

(m) Nagarjuna Sagar

(n) Hirakund

Answer : Natural Lakes: Wular, Dal, Nainital, Bhimtal, Chilika, Pulicat, Sambhar, Barapani, Loktak

Created by human beings: Gobind Sagar, Hirakud, Rana Pratap Sagar, Nagarjuna Sagar, Nizam Sagar

Question 4. Discuss the significant difference between the Himalayan and the Peninsular rivers.

Answer :

| Himalayan Rivers | Peninsular Rivers |
|--|---|
| Originate from Himalayas | Originate in the Deccan Plateau |
| These are perennial rivers. | These are seasonal rivers. |
| These rivers receive water from rain as well as from melted snow from the lofty mountains. | These rivers are dependent upon rainfall. During the dry season, even the large rivers have reduced flow of water |
| For example: Indus, Ganga, Brahmaputra | For example: Godavri, Mahanadi, Krishna, Cauvery |

OR

The Himalayan Rivers The Peninsular or Deccan Rivers

1. The Himalayan rivers rise in the snow-covered mountains as such they flow throughout the year. The mountains in which the Deccan rivers rise are not snow-covered. Hence they dry up in summer.
2. The Himalayan rivers flow in levelled Northern Plains. Therefore, they are quite useful for navigation and irrigation. The Peninsular rivers flow on uneven rocky surface. Therefore they are neither navigable nor useful for irrigation.
3. The Himalayan rivers bring with them fertile alluvium which they deposit in the Indo-Gangetic Plains. The Peninsular rivers do not bring with them enough alluvium. As the current is swift so the deposition activity is negligible.

4. Canals have been dug to use the water of these rivers for irrigation. As the terrain is rocky and the banks of these rivers are high, canals cannot be dug. However, dams are built to store the flood water for irrigation with the help of small channels.
5. Many important towns and centres of trade are situated on the banks of these rivers. Very few important towns and centres of trade are situated on the banks of these rivers.
6. The porous soil absorbs a lot of water, which is later on used as ground water by digging wells and tubewells for domestic and irrigation purposes. The rocky soil does not absorb any water. Hence no wells can be dug. All the water flows down the sea at one and the same time.

Question 5. Compare the east flowing and the west flowing rivers of the Peninsular plateau.

Answer :

| East Flowing Rivers | West Flowing Rivers |
|---|---|
| Major rivers flowing eastwards: Mahanadi, Godavari, Krishna, Kaveri | Only two long rivers flow westwards: Narmada, Tapi |
| These rivers drain in the Bay of Bengal. | These rivers drain in the Arabian sea. |
| Carry greater amount of sediments, so form deltas at their mouths | Carry lesser amount of sediments, so form estuaries at their mouths |
| Greater number of tributaries | Lesser number of tributaries |
| These rivers do not flow through very deep canals. | These rivers flow in troughs. |

OR

East Flowing Rivers

1. The Mahanadi, the Godavari, the Krishna and the Kaveri are the main east flowing rivers of Peninsular India. These rivers drain in the Bay of Bengal. These rivers make deltas at their mouth

West Flowing Rivers. These rivers have a developed tributary system. Their tributaries are comparatively large in size. These rivers flow through not very deep channels.

1. The Narmada and the Tapi are the main west flowing rivers of Peninsular India. These

rivers drain in the Arabian Sea. These rivers enter the sea through estuaries. These rivers are devoid of developed tributary system. Their tributaries are quite small in size. These rivers flow in a trough or a funnel like narrow but deep channels.

Question 6. Why are rivers important for the country's economy?

Answer : The rivers important for the country's economy because:

- i) Water for drinking- It is source of natural fresh water which is required for the survival of most of the animals including human.
 - ii) Water for other uses- The water from the rivers is used for various domestic, industrial and agricultural purposes.
 - iii) Inland Transport- The presence of rivers boosts trade and commerce by helping in the easy transport of goods.
 - iv) Energy- The river water can be tapped to produce electricity. Thus they are also a potential source of renewable energy.
 - v) Fishing- It also provide for breeding of fresh water fishes.
 - vi) Recreational sites- The rivers can be developed for the tourist purposes by developing the asthetic beauty, serving as an attractive tourist spot.
 - vii) They help to moderate the climate and environment of nearby areas.
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Map Skills

- (i) On an outline map of India mark and label the following rivers: Ganga, Satluj, Damodar, Krishna, Narmada, Tapi, Mahanadi, and Brahmaputra.
- (ii) On an outline map of India mark and label the following lakes: Chilika Sambhar, Wular, Pulicat, Kolleru.

Answer

