



UNIT II
DRAINAGE

SOLUTIONS

TEXTUAL QUESTIONS & ANSWERS

EXERCISES

1. Choose the correct answer from the four alternatives given below:

- (i) Which of the following drainage patterns takes the shape of the branches of a tree?
(a) Dendritic
(b) Radial
(c) Rectangular
(d) Trellis

Ans - (a) Dendritic

- (ii) Which one of the following is a right bank tributary of the Ganga?

- (a) Gandak
(b) Ghaghara
(c) Kosi
(d) Son

Ans - (d) Son

- (iii) Which one of the following falls into the Arabian Sea?

- (a) Godavari
(b) Ghaghara
(c) Krishna
(d) Narmada

Ans - (d) Narmada

- (iv) Which one of the following is also known as the Dakshin Ganga?

- (a) Bhima
(b) Godavari
(c) Kaveri
(d) Krishna

Ans- (b) Godavari

- (v) Which one of the following is a salt water lake?

- (a) Barapani
(b) Dal
(c) Sambhar
(d) Wular

Ans - (c) Sambhar



2. *Answer the following questions briefly:*

(i) **What is a drainage basin?**

Ans: A drainage basin is the area which is drained by a major river and its tributaries. The Ganga plain is drained by the Ganga and its tributaries.

(ii) **What is water divide? Give an example.**

Ans: A water divide is an elevated region which separates two drainage basins. Ambala town is situated between the Indus and the Ganga river systems.

(iii) **Where does the Indus River rise?**

Ans: The Indus River rises in Tibet near the Mansarowar Lake.

(iv) **What are the two headwater of the Ganga ? Where do they meet to form the Ganga?**

Ans: The two headwater of the Ganga are the Bhagirathi and Alaknanda. They meet at Devaprayag to form the Ganga.

(v) **Why does Brahmaputra have many riverine islands?**

Ans: In Assam the Brahmaputra carries a large volume of water more silt as it passes through a region of high rainfall. Due to the formation of braided channels, the river has many riverine islands.

(vi) **Where do the rivers Narmada and Kaveri have their origin?**

Ans: The Narmada rises in the Amarkantak hills in Madhya Pradesh and the Kaveri rises in the Brahmagiri range of the Western Ghats.

(vii) **Which two rivers of the Peninsula flow through rift valley?**

Ans: Two rivers of the Peninsular India – Narmada and Tapi flow through rift valley.

(viii) **Name two freshwater lakes of the Himalayan region?**

Ans: The two freshwater lakes of the Himalayan region are the Dal Lake and the Bhimtal or Nainital Lake.



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3. Below are given names of the some lakes of India. Group them under two headings – natural and man-made?

- | | |
|-----------------------|---------------------|
| (a) Chilika | (b) Dal |
| (c) Gobind Sagar | (d) Hiraakund |
| (e) Loktak | (f) Nagarjuna Sagar |
| (g) Nizam Saagar | (h) Pulicat |
| (i) Rana Pratap Sagar | (j) Nainital |

Ans -

Natural Lake	Man-Made Lake
(a) Chilika	(a) Gobind Sagar
(b) Dal	(b) Hiraakund
(c) Loktak	(c) Nagarjuna Sagar
(d) Pulicat	(d) Nizam Saagar
(e) Nainital	(e) Rana Pratap Sagar

4. Compare the Himalayan Rivers with those of the Peninsula in respect of source, volume and flow.

Ans – The Indus, the Ganga and the Brahmaputra are the major Himalayan Rivers, receive water from rain and Melting snow. Thus they are perennial i.e., they have water all the year round. The volume of water is much greater than the other rivers. In the plains of Northern India they become slow, broad rivers and meandering across the plain. They carry the large volume of water and more silt as they pass through the regions of high rainfall. The major rivers of the peninsula India such as the Mahanadi, the Godavari, the Krishna and the Kaveri flows eastward and fall into the Bay of the Bengal. These rivers have deltas at their mouths. They rise in the hills of the plateau and they are fed only by the monsoon rains. In the dry season they become almost dry. A member of the small streams flows westward from the Western Ghats. The Narmada and the Tapi are the two long rivers of the Peninsula and fall into the Arabian Sea. The Peninsula Rivers have small drainage basins.



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5. Compare the Godavari basin with that of the Narmada?

Ans – The Godavari basin rises in the Western Ghat in the Nasik district of Maharashtra. It is the longest as well as the largest river of the peninsula. It flows south eastwards and drain into the Bay of Bengal. Its drainage basin covers parts of Maharashtra, Madhya Pradesh, Orissa and Andhra Pradesh.

It is about 1,500 km long and has a number of tributaries like the Purna, the Wardha, the Pranhita, the Manjra and Penganga.

The Narmada raises in the Amarkantak hills in Madhya Pradesh. It flows westward for a distance of 1,300 km to drain into the Arabian Sea. It flows in a rift valley, formed due to faulting.

The ‘Marble rock’ near Jabalpur where the river flows through a deep gorge and the ‘Dhuadhar falls’ are created by the river. It has some short tributaries and its basin covers parts of Madhya Pradesh and Gujarat.

6. Give three points of difference between the east flowing and west flowing rivers of the Peninsular Plateau?

Ans – The east flowing major rivers of the Peninsula are the Damodar, the Mahanadi, the Godavari, the Krishna and Kaveri. These rivers rise in the western Ghat and the Chotanagpur Plateaus. They flow eastward and fall into the Bay of Bengal. These rivers have deltas at their mouths. Some of them make waterfalls. They make dendritic patterns.

A number of small streams flow westward from the western Ghat. The Narmada and the Tapti rivers are the two long river of the Peninsula. They flow from east to west and fall into the Arabian Sea through estuaries. Some rivers make waterfalls. The Narmada and the Tapti also flow in the rift valleys.

7. State the economic benefits of lakes and rivers?

Ans – Lake are very useful to human beings. They help to regulate the flow of rivers. They also generated hydel power. During the rainy season, they control floods by storing excess rain water in them. In the dry season, they can maintain the flow of water. They moderate the climate and maintain ecosystem. They enhance natural beauty and develop tourism.



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Rivers have played an important role in the human history. Water from the river is basic natural resource. It is essential for various human activities. Rivers are used for irrigation, navigation, hydro – power generation. The economic benefits of rivers are so great to our country where agriculture is the main source of livelihood.

8. Explain how rivers are polluted and suggest measures to control pollution of rivers?

Ans - The growth demand for water from rivers for domestic, agricultural, and industrial purposes affects the quality of water. More and more water is being extracted from the river thereby reducing its volume.

Besides, a large amount of untreated sewage and industrial effluents are dumped into the river and affects the quality of water as well as the self – cleansing capacity of the river.

Thus the Ganga River is being polluted by industrial wastes and sewages of cities. The ever increasing urbanization and industrialization leads to the rise of pollution level of the many rivers. This is actually an issue of serious concern. In order to save the river and to clean the polluted rivers, various action plans has been taken up.



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