

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) Centrifugal
- (c) Dendritic
- (d) Trellis

Answer: (c) Dendritic

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

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

Answer: (d) Jammu and Kashmir

(iii) The river Narmada has its source at

- (a) Satpura
- (b) Amarkantak
- (c) Brahmagiri
- (d) Slopes of the Western Ghats

Answer: (b) Amarkantak

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

- (a) Sambhar
- (b) Wular
- (c) Dal
- (d) Gobind Sagar

Answer: (a) Sambhar

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

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

Answer: (b) Godavari

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

- (a) Mahanadi
- (b) Krishna
- (c) Tungabhadra
- (d) Tapi

Answer: (d) Tapi

Question 2:

Answer the following questions briefly,

- (i)** What is meant by a water divide? Give an example.
- (ii)** Which is the largest river basin in India?
- (iii)** Where do the rivers Indus and Ganga have their origin?
- (iv)** Name the two head-streams of the Ganga. Where do they meet to form Ganga?
- (v)** Why does the Brahmaputra in its Tibetan part have less silt, despite a longer course?
- (vi)** Which two peninsular rivers flow through trough?
- (vii)** State some economic benefits of rivers and lakes.

Answer 2:

- (i)** Any upland or a mountain separating two adjoining drainage basins is known as water divide. Though the Indus, the Sutlej and the Brahmaputra rivers rise very close to each other near the Mansarovar Lake but because of the water divides they flow in different directions.
- (ii)** The Ganga basin is the largest river basin in India.
- (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) Alaknanda and Bhagirathi are the two headstreams of the Ganga. They meet at Devaprayag.

(v) The Brahmaputra river, which is known as Tsangpo in Tibet, receives very little volume of water in Tibet so; it has very little silt there. On the other hand, this river when enters India it passes through such a region which receives heavy rainfall. As such in India, in India it carries a large volume of water and larger amount of silt.

(vi) Narmada and Tapi are two peninsular rivers which flow through trough.

(vii) Lake can be used for generating hydroelectricity. A lake can be a good tourist attraction. Rivers have been the centre of human civilization since ancient times. Even today, many big cities are situated on the bank of a river. River water is used for irrigation, navigation, hydroelectricity, fisheries, etc.

Question 3:

Below are given names of a few lakes of India. Group those under two categories - natural and created by human beings.

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|---------------------|-----------------------|
| (a) Wular | (b) Dal |
| (c) Nainital | (d) Bhimtal |
| (e) Govind Sagar | (f) Loktak |
| (g) Barapani | (h) Chilika |
| (i) Sambhar | (j) Rana Pratap Sagar |
| (k) Nizam Sagar | (l) Pulicat |
| (m) Nagarjuna Sagar | (n) Hirakund. |

Answer 3:

- | | |
|-----------------------------------|-------------------------------------|
| (a) Wular: Natureal | (b) Dal: Natureal |
| (c) Nainital: Natureal | (d) Bhimtal: Natureal |
| (e) Govind Sagar: Human beings | (f) Loktak: Natureal |
| (g) Barapani: Natureal | (h) Chilika: Natureal |
| (i) Sambhar : Natureal | (j) Rana Pratap Sagar: Human beings |
| (k) Nizam Sagar: Human beings | (l) Pulicat : Natureal |
| (m) Nagarjuna Sagar: Human beings | (n) Hirakund: Human beings |

Question 4:

Discuss the significant difference between the Himalayan and the Peninsular Rivers.

Answer 4:

The following table differentiates between the Himalayan and the Peninsular Rivers:

The Himalayan Rivers	The Peninsular Rivers
<p>1. The Himalayan rivers rise in the snow-covered mountains are perennial type.</p> <p>2. They flow in levelled Northern Plains and are highly useful for irrigation, cultivation and also navigation purpose.</p> <p>3. The Himalayan Rivers bring with them fertile alluvium which they deposit in the Indo-Gangetic plains.</p> <p>4. Canals have been dug to use the water of these rivers for irrigation.</p> <p>5. Many important towns and centers of trade are situated on the banks of these rivers.</p> <p>6. The porous soil of Northern Plain absorbs the water which is later on used as ground water by digging wells and tube wells.</p>	<p>1. The mountains in which the Peninsular Rivers rise not snow covered. Hence they dry up during summer.</p> <p>2. The Peninsular Rivers flow on rocky surface and so, they are neither navigable nor useful for irrigation.</p> <p>3. They do not bring with them any alluvium. Due to their swift current the depositional activity are negligible.</p> <p>4. as the terrains are rocky and the banks of these rivers are high so, canals can not be dug. However, dams are built to store the flood water for irrigation with the help of small channels.</p> <p>5. Very few important towns and centers of trade are situated on the banks of these rivers.</p> <p>6. The underlying soil being rocky does not absorb any water. Hence, no wells can be dug.</p>

Question 5:

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

Answer 5:

The following table gives a comparison between the east flowing and the west flowing rivers of the Peninsular plateau:

East Flowing Rivers	West Flowing Rivers
1. The Mahanadi, the Godavari, the Krishna, the Cauvery are the main east flowing rivers of Peninsular India.	1. The Narmada and the Tapi are the main west flowing rivers of Peninsular India.
2. These rivers drain in the Bay of Bengal.	2. These rivers drain in the Arabian sea.
3. These rivers make deltas at their mouth.	3. These rivers enter the sea through estuaries.
4. These rivers have a developed, large tributary system.	4. These rivers are devoid of a developed tributary system. Their tributaries are quite small in size.
5. These river flow not through very deep canals.	5. These rivers flow in troughs.

Question 6:

Why are rivers important for the country's economy?

Answer 6:

Rivers are highly important for the country's economy. Following are some of the points which indicate the importance of rivers for the country's economy:

- The rivers contain natural fresh (sweet) water which is required for the survival of most of the animals including man.
- They provide water for irrigation and cultivation.
- They make soil rich and arable which can be easily brought under cultivation without much labour.
- Used for navigation and transport thus, important for commercial activities.
- Estuaries near the sea-shores, where the sweet water mixes freely with the salty water of the oceans, have proved one of the most biologically productive areas of the world.
- The rivers are being harnessed for generating hydro-electric power.
- Some lakes are also important tourist spots e.g. Dal Lake, Nainital etc.