# 10TH GEOGRAPHY
# UNIT - I
# INDIA - LOCATION, RELIEF AND DRAINAGE

## TEXT BOOK BACK SOLUTION

**I. Choose the correctanswer:**

1. The north-south extent of Indiais
   a. 2,500km  b. 2,933km  **c. 3,214km**  d. 2814k

2. River is known as 'Sorrow ofBihar'.
   **a.** Narmada  b.Godavari  **c.Kosi**  d.Damoda

3. A landmass bounded by sea on three sides is referredto as_____.
   a. Coast  b.Island  **c.Peninsula**  d.Strait

4. The Palk Strait and Gulf of Mannar separates Indiafrom_____
   a. Goa  b.WestBengal  **c.SriLanka**  d.Maldives

5. The highest peak in South Indiais
   a. Ooty  b. Kodaikanal  **c. Anaimudi**  d.Jindhagada

6. Plains are formed by the olderalluviums.
   a. Bhabar  b. Tarai  **c.Bhangar**  d.Khadar

7. Pulicat Lake is located between the statesof
   a. West Bengal andOdisha
   b. Karnataka andKerala
   c. Odisha and AndhraPradesh
   **d. Tamil Nadu and AndhraPradesh**

**II. Matchthefollowing:** **ANSWERS**

| | | |
|---|---|---|
| **1.** Tsangpo | — Tributary ofRiverGanga | **— River Brahmaputra inTibet** |
| **2.** Yamuna | — Highest peakinIndia | **— Tributary of RiverGanga** |
| **3.** Newalluvium | — River BrahmaputrainTibet | **—Khadhar** |
| **4.** Mt.Godwin Austen(K2) | — Southern partofEast CoastalPlain | **— Highest peak inIndia** |
| **5.** CoromandelCoast | —Khadhar | **— Coastal Plain** |

**6. III. GiveReasons:**

**1. Himalayas are called young foldmountains**

- The Himalayas have been formed only few millions yearsago
- The Himalayas were formed because of the folding of the earth crust due to tectonic activity.
- Hence, Himalayas are called young foldmountains

**2. North Indian Rivers areperennial**

- North Indian Rivers originate from snow coveredHimalayas.
- They also received rainfall from southwest monsoon and melting of snow during summer.
- Hence, North Indian Rivers areperennial

**3. South Indian rivers are east flowing.**

- Most of the south Indian rivers have the source from Western Ghats which are at a higher altitude .
- The peninsular plateau slightly slopes towards the east .
- Due to the gradient of the land South Indian rivers are east flowing .

4) West flowing rivers do not form deltas .

- They are fast flowing rivers as they flow through high gradient.
- They travel shorter distance and don't carry much sediments.
- Hence west flowing rivers do not form deltas.

**IV. Distinguish between thefollowing:**

**1. Himalayan rivers and PeninsularRivers.**

| S.NO | HIMALAYAN RIVERS | PENINSULAR RIVERS |
|---|---|---|
| **1.** | Rivers found in north India are called Himalayan rivers and they originate from Himalayas. | Rivers found in south India are called peninsular rivers and they originate from western Ghats. |
| **2.** | These rivers are perennial rivers. | These rivers are seasonal rivers(non-perennial) |
| **3.** | They are unsuitable for hydro power generation. | As these rivers form waterfall and cataracts they help to generate hydro power. |
| **4.** | These rivers are long and wide and suitable for navigation. | These rivers are short and swift and hence not suitable for navigation. |
| **5.** | E.g. Indus, Ganga, Brahmaputra,etc | E.g. Godavari, Krishna, Kaveri, etc. |

**2. Western Ghats and EasternGhats.**

| S.NO | WESTERN GHATS | EASTERN GHATS |
|---|---|---|
| **1.** | The Western Ghats forms the western edge of the Deccan Plateau. | The Eastern Ghats forms the eastern edge of Deccan Plateau. |

| | | |
|---|---|---|
| **2.** | The northern part of this range is called as Sahyadris. | This range is also called as Poorvadri. |
| **3.** | The Western Ghats is a continuous range which runs parallel to the coast. | The Eastern Ghats are not continuous range and are wide and irregular. |

**3. Western Coastal Plains and Eastern Coastal Plains.**

| S.NO | WESTERN COASTAL PLAINS | EASTERN COASTAL PLAINS |
|---|---|---|
| **1.** | Western Coastal Plains lies between the Western Ghats and the Arabian Sea. | Eastern Coastal Plains lies between the Eastern Ghats and the Bay of Bengal |
| **2.** | It extends from Rann of kutch in the north to Kanniyakumari in the south | It extends from river Subarnarekha in the north to Kanniyakumari in the south |
| **3.** | It stretches along the states of Gujarat, Maharashtra, Goa, Karnataka and Kerala. | It *stretches* along the states of West Bengal, Odisha, Andhra Pradesh and Tamil Nadu. |

**V. Answer in brief:**

**1. Name the neighbouring countries of India.**

- India shares frontier with
    1. Pakistan in the west
    2. Afghanistan in the north-west
    3. China, Nepal and Bhutan in the north
    4. Bangladesh and Myanmar in the east.
- India and Sri Lanka are separated by a narrow and shallow sea called Palk Strait in the south.

**2. Give the importance of IST.**

- The longitudinal difference between Gujarat in the west and Arunachal Pradesh in the east is about30°.
- The Earth rotates through its axis around 360° in 24hours.
- Thus, a difference of 1° longitude will make a difference of 4 minutes in time.
- Hence the difference in local time between these two places is

  29°18' X 4' (minutes) = 1 hour 57 minutes 12 seconds (approximately 2hours).
- Since Arunachal Pradesh is towards east, it will have sunrise about two hours earlier than the sunrise at Gujarat which is in the west.
- In order to avoid these differences, Indian standard time is calculated.

**3. Write a short note on Deccan Plateau.**

- Deccan Plateau is the largest part of the plateau region of India.
- **Shape :** roughly triangular.
- It lies between
    1. Satpura Range,
    2. Western Ghats,
    3. Eastern Ghats,
    4. Mahadeo Hills,
    5. Maikal Range and
    6. The Rajmahal Hills.
- **Area:** 7 lakh square km
- **Height:** ranges from 500 to 1000 m above sea level.

**4. State the west following rivers of India.**

1. Narmada,
2. Tapti,
3. Sabarmati and Mahi.

**5. Write a brief note on the island group of Lakshadweep**

- **Lakshadweep Island** is a small group of coral islands located in Arabian Sea.
- **Area:** 32 sq.km.
- **Capital:** Kavaratti.
- The Eight Degree Channel separates Lakshadweep islands and the Maldives Islands.
- Earlier, it had three divisions namely Laccadive, Minicoy and Amindivi.
- It was named as Lakshadweep in1973.

## VI. Answer in aparagraph:

**1. Explain the divisions of Northern Mountains and its importance to India.**

### The divisions of Northern Mountains and its importance toIndia

**Introduction:**

- The Himalayan Mountains (Northern Mountains) consist of the youngest and the loftiest mountain chains in the world
- The term “Himalaya” is derived from Sanskrit.
- It means **“The Abode of Snow”**.
- The Northern Mountains is grouped into three divisions;

**1) The Trans-Himalayas**

**2) Himalayas**

**3) Eastern or Purvanchal**

**hills**.**The divisions of Northern Mountains:**

**1. TheTrans-Himalayas:**

- It is also known as western Himalaya’s.
- It lies to the north of the great Himalayan range.
- It lies in Jammu and Kashmir and Tibetian plateau.
- As its areal extent is more in Tibet, it is also known as Tibetian Himalayas.
- The Trans-Himalayas are about 40 km wide in its eastern and western extremities and about 225 km wide in its central part.
- They contain the Tethys sediments.

- The rocks of this region contain fossils bearing marine sediments which are underlain by **'Tertiary granite'.**
- It has partly metamorphosed sediments and constitutes the core of the Himalayan axis.
- The prominent ranges of Trans Himalayasare
    - Zaskar
    - Ladakh
    - Kailashand
    - Karakoram.

**2. TheHimalayas**:

- It constitutes the core part of northernmountains.
- It is an young foldmountain.
- It was formed by the movement of Angara land mass in the north and Gondwana land mass in thesouth.
- The Tethys Sea found between these two land masses was uplifted by the compression and the resultant landform was theHimalayas.
- It consists of manyranges.
- The main divisions of the Himalayas arethe
    - ***GreaterHimalayas***
    - ***the Lesser Himalayasand***
    - ***theSiwaliks***

| S.NO | HIMADRI | HIMACHAL | SIWALIKS |
|---|---|---|---|
| **1.** | Himadri is also known as greater Himalayas or inner Himalayas. | Himachal is also known as lesser or middle Himalayas. | Siwaliks is also known as outer Himalayas. |
| **2.** | The average height of this range is 6,000 m. | The average Height of this range varies from 3,700 to 4,500 m. | The average Height of this range varies from 900-1100 metres. |
| **3.** | The Greater Himalayas are about 25 km wide. | The lesser Himalayas width varies up to 80 km. | The outer Himalayas width varies between 10-50 km. |
| **4.** | This is the most continuous of all ranges with permanent snow cover. | This is the discontinuous ranges and subjected to extensive erosion. | It is the most discontinuous range and partly made by the debris brought by the Himalayan rivers |
| **5.** | The most notable characteristic features are peaks, passes and glaciers. | The most notable characteristic features are hill stations and pilgrim centres. | The most notable characteristic features are duns and duars. |
| **6.** | **E.g.** Mt. Everest, Kanchenjunga peaks.<br>Gangothri, Yamunothri glaciers.<br>Shipkila, jalepla passes. | **E.g.** Shimla, Nainital hill station.<br>Badrinath, Kedarnath pilgrim centres. | **E.g.** dehradun |

**3. PurvanchalHills**

- These are the eastern off-shoot of Himalayas.
- It extends in the north-eastern states of India.
- Most of these hills are located along the border of India and Myanmar while others are inside India.

1. Dafla Hills
2. Abor Hills
3. Mishmi Hills
4. PatkaiBum Hills
5. Naga Hills
6. Manipur Hills
7. Mizo Hills
8. Tripura Hills
9. Mikir Hills
10. Garo Hills
11. Khasi Hills and
12. Jaintia Hills

These hills are collectively known as **purvanchal Hills**.

**Importance of Himalayas:**

- Himalayas blocks southwest monsoon winds and causes heavy rainfall to north India.
- It forms a natural barrier to the sub-continent.
- It is the source for many perennial rivers like Indus, Ganges, Brahmaputra etc.
- The Northern Mountains are described as the paradise of tourists due to its natural beauty.
- Many hill stations and pilgrim centres like
    1. Amarnath
    2. Kedarnath
    3. Badrinath and
    4. Vaishnavidevi temples are situated here.
- It provides raw material for many forest based industries.
- It prevents the cold winds blowing from the central Asia and protects India from severe cold.
- Himalayas are renowned for the rich biodiversity.

**Conclusion:**

- The Himalayan Mountains have been formed only few millions years ago
- The Himalayan Mountains were formed because of the folding of the earth's crust due to tectonic activity.

**2. Give an account on the major peninsular rivers ofIndia.**

**The major peninsular rivers of India**

**Introduction:**

- The rivers in south India are called the Peninsular Rivers.
- Most of these rivers originate from the Western Ghats.
- These are seasonal rivers (non–perennial).
- Based on the direction of flow, the peninsular rivers are divided into
    1. The West flowing and
    2. The East flowing rivers.

## THE WEST FLOWINGRIVERS:

| S. No. | Name | Length KM | Area SQ. KM. | Originates from | Ends in | Tributary | Distributory | Places/ benefitted |
|---|---|---|---|---|---|---|---|---|
| 1. | Narmada | 1312 | 98, 796 | Amarkantak hill in Madhya Pradesh | Arabian Sea | Burhner, Halon, Heran, Banjar | --- | Madhya Pradesh, Gujarat and Maharashtra |
| 2. | Tapti | 724 | 65,145 | Bettul near Multai in the district of Odisha | Arabian Sea | Vaki, Gomai, Arunavati | --- | Madhya Pradesh, Gujarat |

## THE EAST FLOWINGRIVERS:

| S. No. | Name | Length KM | Area SQ. KM. | Originates from | Ends in | Tributary | Distributory | Places/ benefitted |
|---|---|---|---|---|---|---|---|---|
| 1. | Mahanadi | 858 | 1,41,600 | Amarkantak Plateau | Bay of Bengal | Seonath, Telen, Sandur and Ib | Birupa, Chitartala Nun | Jharkhand, Chhattisgarh, Odisha |
| 2. | Godavari | 1465 | 3,12,812 | Nasik Hills | Bay of Bengal | Purna, Penganga, Indravati, Tal | Vasista Gowtami | Telangana and Andhra Pradesh |
| 3. | Krishna | 1400 | 2,59,000 | Near Mahabaleswar in Maharashtra | Bay of Bengal | Bhima, Musi,Peddavagu, Thungabhadra | --- | Maharashtra and Andhra Pradesh |
| 4. | Kaveri | 805 | 87,900 | Hills of Coorg Karnataka | Bay of Bengal | Hemavati, Kabini, Bhavani, Noyyal, Amaravathi | Coleroon | Karnataka and Tamil Nadu |

**Conclusion:**

Peninsular rivers are

- Short and narrow
- Non perennial in nature
- Suitable for hydro power generation

**3. Give a detailed account on the basin of the Ganga.**

## The Ganga River System

**Introduction:**

- The drainage system of India is broadly divided into two major groups on the basis of their location.
- They are Himalayan Rivers and the Peninsular Rivers.
- These rivers are found in north India and originate from Himalayas.
- So, they are also called as Himalayan Rivers.
- These are perennial rivers.

**The Ganga River System:**

- The Ganga River system is the largest drainage system of India.
- **Area:** 8, 61,404 sq km in India.
- The Ganga plain is the most densely populated place in India and many towns are developed on the banks of this river.
- The river Ganga originates as Bhagirathi from the Gangotri Glacier in Uttar Khasi District of Uttarkhand state.
- **Elevation :**7,010m
- **Length of the river Ganga:** 2,525km.
- **Its majortributaries:**
    - **from thenorth:**
        1. Gomti
        2. Gandak
        3. Kosi
        4. Ghaghra
        5. Yamuna (largest tributary ofGanga)
    - **from south:**
        1. Son
        2. Chambal etc.
- The river Ganga is known as the River Padma in Bangladesh.

The combined river of Ganga and Brahmaputra creates the World's largest delta known as Sundarbans in Bangladesh before joining the Bay of Bengal.

**Conclusion:**

Himalayan Rivers are

- Long and wide
- Perennial in nature
- suitable for navigation.

**Extra questions**

1) What is the latitudinal & longitudinal extent of India ?
    - Latitudinal Extent – 8*4'N to 37*6'N
    - Longitudinal Extent – 68*7'E to 97*25'E.

2 ) What are the major physiographic divisions of India ?

- The Himalayan Mountains.
- The Great Northern Plains.
- The Peninsular Plateau.
- The Indian Desert.

- The Coastal Plains.
- The Islands.

3 ) Mention some of the major passes in the Northern Mountains.

- The major passes in the Himalayas are
- Karakoram pass ( Jammu and Kashmir )
- Zojila pass,
- Shipkila pass ( Himachal Pradesh )
- Bomdila pass ( Arunachal Pradesh )
- Nathula pass & Jhelepla pass ( Sikkim )

4) Write a note on Khadar.

- Khadar or Bet lands – They are new alluvium tracts along the courses of the rivers.
- Fresh deposits of silt enrich Khadar tracts every year during rainy seasons.
- The Khadar land consists of sand, silt, clay, &mud.
- It is highly fertile soil.

5 ) What is Bhangar ?

- The Bhangar represents the upland alluvial tracts of the Great Plains.
- The land lies above the flood limits of the rivers.
- Hence it is formed by older alluvium.
- This soil is dark in colour, rich in humus content, well drained & useful for agriculture.