



India, our country is located in the southern part of Asia continent. It is called **Indian peninsula** as its southern part is surrounded by water on three sides, the Arabian Sea in the south-west, the Bay of Bengal in the south-east and the Indian Ocean in the south. A **peninsula** is a land form that is surrounded by water on three sides and one side connected to the mainland. The Himalayas extend in the north-east to north-west. Kanyakumari is the southern tip of the Indian peninsula. However, Indira Point which is located in Andaman and Nicobar islands is the southernmost point of the Indian territory.

**Fact File**

India is the seventh largest country in the world. It is also the second most populous country (the first being China) in the world.

Mainland of India stretches about 3200 km from north to south (Kashmir to Kanyakumari) and about 2900 km from east to west (Arunachal Pradesh to Kuchchh). It has an area of about 3.28 million sq. km which is 2.4% of the Earth's total surface. India has a population of more than a hundred crores (1,02,87,37,436 according to 2001 Census).

Its population is more than one sixth (16%) of the world's total population but its land area is just about 2% of the world's total land area.

The total length of the coastline of India including the two island groups is about 7500 km. The landfrontier measures 15,200 km. Seven other countries share their land boundaries with India.

Unity in Diversity

The lofty mountains, the Northern Plains, the Great Indian Desert, the uneven plateau surface, the coast plains and islands present a diversity of landforms. There is a great variety in the climate, vegetation, wildlife as well as in the language and culture (religions, food habits and dress). In this diversity we find unity in the common traditions and feelings that bind us as one nation. Also, the monsoon which rises in the southern seas provide rain to the whole of the country. The rivers originating in the mountains flow through the northern plains. Northern plains are very fertile giving rich crops. The plateau is rich in minerals which are the base of the progress and development of the country. Thus, all the regions are dependent on one another.

Geographical Location of India

The geographic location of *main land* of India extends from south to north between $8^{\circ} 4' N$ and $37^{\circ} 6' N$ latitudes and from west to east between $68^{\circ} 7' E$ and $97^{\circ} 25' E$ longitudes (see figure 7.2). From this geographic location you will see that the Tropic of Cancer ($23\frac{1}{2}^{\circ} N$) passes almost halfway through India. India is located entirely in the northern hemisphere with respect to latitudinal division and entirely in the eastern hemisphere with respect to longitudinal division. It has only one time zone in spite of great longitudinal extent of more than 29° . There could be wide differences in local times of places located at two extreme points of India (about two hours). The local time changes by four minutes for every one degree of longitude. The Sun rises about two hours earlier in the east (Arunachal Pradesh) than in the west (Kuchchh of Gujarat). To avoid confusion the local time of $82^{\circ} 30' E$ (in the middle of the two extremes of longitudes) has been taken as the *Indian Standard Time*. This longitude ($82^{\circ} 30' E$) is known as the Standard Meridian of India. Indian Standard Time is $5\frac{1}{2}$ hours ahead of Greenwich Mean Time. This means that if it is 12 noon in London, it will be 5 : 30 p.m. in India.

Neighbouring Countries of India

The latitudinal extent of India is $6^{\circ} 45' N$ to $37^{\circ} 6' N$. The latitudinal extent of India's mainland is $8^{\circ} 4' N$ to $37^{\circ} 6' N$. Indian point in Great Nicobar Island of 'Andaman and Nicobar Islands' is the **southernmost point of the Indian territory**. Latitude of Indira Point is $6^{\circ} 45' N$.

There are seven countries that share land boundaries with India. In the north-west are Pakistan and Afghanistan, in the north are China, Nepal and Bhutan and in the north-east are Myanmar and Bangladesh. Across the sea to the south, lie our island neighbours—Sri Lanka and Maldives. Sri Lanka is separated from India by the *Palk Strait*.

The five countries—India, Pakistan, Nepal, Bhutan and Bangladesh—together occupy the land called the *Indian Subcontinent*. While India shares its land boundaries with all the rest four countries, none of them have common boundary between themselves. All these countries together with Sri Lanka and Maldives have formed an association called SAARC (South Asian Association for Regional Cooperation) to solve common problems.

Political and Administrative Divisions of India

India is one nation named as 'Republic of India' but for the sake of administration, it is divided into 28 States and 7 Union Territories.



India and its neighbouring countries

Observe the political map of India (Figure 7.2). **Visualize** their location and remember the names of their respective **capitals**. However, the states of Punjab, Haryana and Union Territory of Chandigarh have a common capital, Chandigarh. Delhi is the national capital. In terms of area, Rajasthan is the largest state and Goa is the smallest state. Uttar Pradesh is the most populous state. In the year 2000 we had only 25 States and 7 Union Territories. Three new states were recently carved out from the states of Uttar Pradesh, Bihar and Madhya Pradesh. These are Uttarakhand, Jharkhand and Chhattisgarh, respectively.

Physical Divisions of India

The world 'physical' denotes the natural surface—rivers, mountains, forests, deserts, plains, plateaus etc. Each physical division of a country has distinct land features, climate, soil and natural vegetation. This, in turn, means that the life of the people differs across these divisions. The word 'relief' is also used for the various kinds of landforms in relation to the general ground.

India has as many as six physiographic or physical divisions :

1. The Northern Mountains
2. The North Indian Plains
3. The Peninsular Plateau
4. The Indian Desert
5. The Coastal Plains
6. Islands

1. The Northern Mountains



Political Map of India

This region consists of the Karakoram and Himalayas ranges. The Karakoram range extends beyond Pamir plateau in the north. It enters India in Kashmir and moves eastward into Tibet where it is known as the Kailas range. It includes the plateau of Aksaichin. It has very high mountains including Mount K2—Godwin Austin (8811 metres) which is the second highest peak in the world. It does not belong completely to Indian territory. The Baltoro and the Siachin are two important glaciers in this region. The western extensions of Himalayas—Ladakh and Zaskar ranges lie to the south of Karakoram range, on either side of river Indus which flows towards West.

The Himalayas appear to have risen as a result of the collisions between the drifting Indian peninsular plate and the Tibetan plate. They are fold and young mountains. This range is the highest mountain system in the world.

The Himadri or the Greater Himalayas : These are snow-covered throughout the year being 6000 m above sea level on an average. These are

higher in the east where some of the world's very high peaks are located. Mount Everest (8848 m) in Nepal is the highest peak of the world. Kanchanjunga (8598 m) is the highest peak of Himalayas in India. It is the third highest peak in the world. Other high peaks are Nanga Parvat (8126 m), Nanda Devi (7817 m), Dhaulgiri (8172 m), Makalu (8481 m) and Annapurna (8078 m). On the peaks are also found glaciers. Most of the Himalayan rivers emerge from glaciers. Glaciers are huge mass of moving ice.

Ganga emerges from Gangotri glacier and Yamuna from Yamunotri glacier. Indus originates from lofty mountains near lake Mansarovar in Tibet. Brahmaputra also originates from Tsangpo in this region.

Himachal or the Middle or Lesser Himalayas : Its average height is 1500 to 3000 metres though some peaks rise up to 5000 m above sea level. There are many important hill stations in this range—Kullu, Manali, Dalhausie, Shimla, Mussoorie, Nainital and Darjeeling. The higher mountains (4000 m – 5000 m) has forests on their slopes. Some important valleys are Kullu and Kangra.

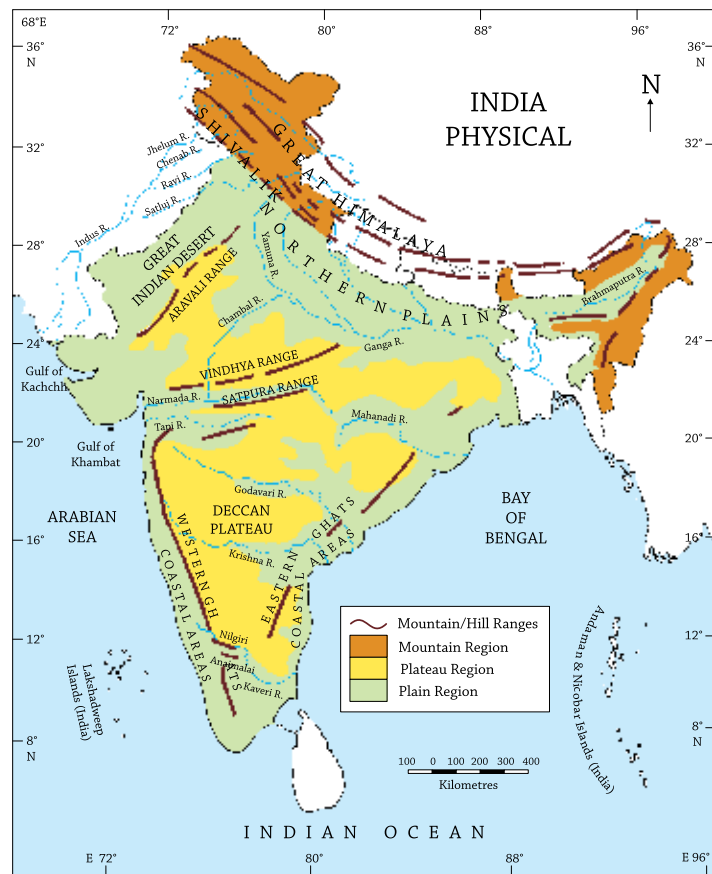
Shivalik or the Outer Himalayas : Its height is 900 to 1100 m above sea level on an average. It constitutes the foothills of the Himalayas. Loose stones, mud and silt is found here. It is prone to earthquakes and landslides. The region at the base of Shivaliks is known as the terai, a dense forest area, mostly cleared now.

Between the Himachal range and the Shivalik range there are long narrow valleys called **Duns**. Dehra Dun is one such dun.

The eastern extensions of the Himalayas are known as the Purvanchal Mountains. They run in north-south direction through the states of Arunachal Pradesh, Nagaland and Mizoram. They are not as high as the three ranges. These are called as hill ranges—Patkai Bum, Naga Hills and Mizo Hills. Another extension of the Himalayas stretches along Bangladesh–India border in Meghalaya known as the Garo, Khasi and Jaintia Hills.

At least ten states of India are mountainous regions — seven north-eastern states, Uttarakhand, Himachal Pradesh, Jammu and Kashmir, Uttar Pradesh, Bihar

and West Bengal have some parts covered by mountains.



India : Physical Divisions



2. The North Indian Plains

A plain is a vast flat area. The North Indian Plains have been formed by deposit of alluvium (very fine sand and clay) brought down by the rivers from the mountains—the Indus, the Ganga, the Brahmaputra and their tributaries. A small river or stream which joins/discharges its water into main river from either side is known as its *tributary*. The rivers like Jhelum, Ravi, Satluj and Beas join the river Indus at different places (in Pakistan). Yamuna joins Ganga at Allahabad. Other tributaries of Ganga are Gomti, Ghaghara, Gandak and Kosi. They all emerge from the Himalayas. Ganga also receives the waters of some rivers from the Peninsular plateau. These include Chambal, Betwa and Son. Tista is an important tributary of Brahmaputra. The Ganga and Brahmaputra join together in Bangladesh and flow into the Bay of Bengal.

Only one-third of the Indus basin lies in India. The Ganga and Brahmaputra basins lie in India for the most part. The area drained by a river is called its basin. Broadly speaking, it is an area of land through which a river and its tributaries flow.

The Northern plains stretch for about 2500 km from river Satluj in the West to the Brahmaputra in the east. They vary in width from 150 to 400 km. They are very fertile. That is the reason for high concentration of population in these plains. On the whole, the northern plains stretch over the states of Punjab, Haryana, Uttar Pradesh, Bihar, West Bengal and Assam.

Ganga and Brahmaputra together make a huge delta at their mouths. Where rivers enter into the sea, that point is called the *mouth* of the river. Delta is formed when a river begins to deposit its load to form a triangular shaped landmass resembling the delta letter (Δ) in Greek. It is made up of several islands and channels. These are formed because the river chokes its own passage with silt.

The **Ganga Brahmaputra** delta is the world's largest delta. Major part of the delta is marshy and is known as Sunderbans or Sunderban delta.

3. The Peninsular Plateau

The Peninsular Plateau lies to the south of the Northern Plains. This area has the oldest rocks of India's landmass. The Vindhya range of mountains divide the plateau into two main parts. The range almost runs parallel to Narmada river. The part to the north of the Vindhya is made up of the **Malwa Plateau** and **Chhota Nagpur Plateau**. The part to the south of the Vindhya (and the river Narmada) is called the **Deccan Plateau**.

The **Malwa Plateau** extends from the Arawalli range in the west up to Chhota Nagpur Plateau in the east. The extensions are known as Bundelkhand and Baghelkhand in southern Uttar Pradesh and Chhota Nagpur in Jharkhand respectively.

The **Deccan Plateau** is triangular in shape. It, as a whole, gently slopes west to east. It is flanked by hill ranges on the west known as **Western**

Ghats and on the east known as **Eastern Ghats**. Both the Western Ghats and Eastern Ghats meet at the Nilgiri Hills. Annai Mudi (2695 metres high) in Kerala is the highest peak in the region.

The Western Ghats are continuous and the Eastern Ghats are most discontinuous hills. They are broken by rivers flowing from west to east into Bay of Bengal. The important rivers are Mahanadi, Godavari, Krishna and Kaveri. They form large fertile deltas on their mouths at the sea. Godavari is the longest river of Peninsular India (Peninsular Plateau) and is known as 'Ganga of the South'.

The north-western part of the Deccan Plateau is covered by lava flows (lava sheets) and is called the **Deccan Trap**. It spreads the whole of Maharashtra and parts of Gujarat and Madhya Pradesh. Narmada and Tapi are two main rivers that drain the Deccan Trap and flow through rift valleys towards west (into the Arabian Sea).

4. The Indian Desert (Thar)

Beyond the Aravalli hills, lies the Thar Desert in the west of Rajasthan which further extends deep into Pakistan and merges with the Sind desert. It is a dry, hot and sandy stretch of land. It is also a vast plain but made up of rocks and sand. Fast moving winds make sand dunes. **Sand dunes** are small hills of sand. The Indian Desert has very little vegetation. The only large river Luni remains dry for most parts of the year. Sambhar Lake is the largest salt lake of the many salt lakes found in the region.



Fact File

The western coast has many natural harbours like Mumbai and Marmagao (in Goa). The sea is deep near the coast. The sea along the eastern coast is shallow and unsuitable for harbours.

5. The Coastal Plains

To the West of the Western Ghats and to the East of the Eastern Ghats lie the Coastal plains. The Western Coastal Plains are very narrow. They are uneven and rocky. The Narmada and Tapi flow fast and fall into the Arabian Sea. They enter the sea through a single channel. Such mouth of river is called an **estuary**. It is good for navigation as it is free from deposits. So the Western Coastal Plain is not a fertile land. Its northern part is called Konkan and southern part is called Malabar. Eastern Coastal Plains are broader. There are a number of east flowing rivers. The rivers Mahanadi, Godavari, Krishna and Kaveri drain into the Bay of Bengal. These rivers have formed fertile deltas at their mouths. The Eastern Coastal Plains are formed of these deltas. So they are broader and fertile. The population is dense because of the fertility of the land.

6. Islands of Arabian Sea and Bay of Bengal

Two groups of Islands also form part of India. **Lakshadweep Islands** are located in the Arabian Sea, 300 km off the coast of Kerala. Lakshadweep means a hundred of thousand islands but it is actually a group of only 36 coral islands. Corals are hardened skeletons of tiny sea animals called coral polyps. These islands are famous tourist spots.

The Andaman and Nicobar Islands located in the Bay of Bengal are larger and more numerous. They are the remnants of a submerged



Coral Islands

volcanic mountain range. They lie to the south-east of the Indian mainland in the Bay of Bengal. The Andaman and Nicobar Islands were affected by the Tsunami in the year 2004. **Tsunami** is a huge sea wave generated due to an earthquake on the sea floor. In December 2004 an earthquake in the ocean 100 km off Sumatra coasts of Indonesia was recorded measured 8.9 on Richter-scale. It was an earthquake at the sea floor which caused the tidal wave called Tsunami which killed hundreds of thousands of people in 15 nations of South East Asia including India and Sri Lanka.

All the physical divisions of India are dependent on each other for crops, minerals, fuels and forest resources. Each and every physical division plays a part in the welfare and economic prosperity of the people of the whole country.



Key Words

- » Relief : landforms of different heights in relation to the general ground.
- » Tributary : a small river or stream that discharges its water in the major river.
- » Delta : a triangular landform made of sediments near the mouth of a river at sea.
- » Ghats : hill ranges.
- » Island : a piece of land completely surrounded by water.
- » River basin : an area of land drained by a river and its tributaries.
- » Union territory : an area directly governed by the Union Government.
- » Corals : skeletons of tiny sea animals.
- » Tsunami : huge sea waves caused by the earthquake at the sea floor.
- » Physical divisions : parts of a country having distinct land features, climate, soil and natural vegetation.
- » Alluvium : fine sand and clay brought by rivers.

SUMMARY

- ▶ India, our country is located in the southern part of Asia continent.
- ▶ It is called Indian Peninsula as its southern part is surrounded by water on three sides.
- ▶ Main land of India stretches about 3200 km from north to south and about 2900 km from east to west.
- ▶ The geographic location of mainland of India, extends from 8° 4' N to 37° 6' N latitudes and from 68° 7' E and 97° 25' E longitudes.
- ▶ The local time of 82° 30' E has been taken as the Indian Standard Time.
- ▶ Pakistan, Afghanistan, China, Nepal, Bhutan, Myanmar, Bangladesh, Sri Lanka and Maldives are our neighbouring countries.
- ▶ For the sake of administration, the Republic of India has been divided into 28 states and 7 union territories.
- ▶ Each physical division of a country has distinct land features, climate, soil and natural vegetation.
- ▶ The Northern Mountains consist of Karakoram and the Himalayas ranges.
- ▶ The Himalayas consist of 3 parallel ranges—the Himadri, Himachal and Shiwalik.
- ▶ The Northern Plains are formed by the alluvium brought by the rivers Ganga, Indus and Brahmaputra and their tributaries.
- ▶ The Peninsular Plateau of India is formed by the Malwa, Chhota Nagpur and Deccan plateaus.
- ▶ The western coastal plains are narrower and infertile. The Eastern coastal plains are broader and fertile.
- ▶ Lakshadweep and Andaman Nicobar Islands are the main islands of India.

Exercise Time

A. Tick (✓) the only correct choice amongst the following :

- The Middle Himalayas are known as :
 - Shivaliks
 - Himadri
 - Himachal
 - Terai
- The Indian islands in the Arabian sea are known as :
 - Lakshadweep islands
 - Andaman Islands
 - Nicobar Islands
 - Maldives
- The most populous state of India is :
 - Rajasthan
 - Punjab
 - Uttar Pradesh
 - Madhya Pradesh
- The highest peak of the peninsular India is :
 - Mt. Everest
 - Mt. K-2
 - Mt. Kanchanjunga
 - Annaimudi
- According to 2001 census the population of India is :
 - 100 crores
 - less than 100 crores
 - more than 100 crore
 - 200 crores

B. Fill in the blanks :

- Indian Standard Time is fixed with respect to _____ Longitude.
- India has an area of about _____.
- The Greater Himalayas are also known as _____.
- The largest state in India in terms of area is _____.
- The latitude that runs almost halfway through India is _____.

C. Match the following :

- | | |
|---------------------------|-----------|
| 1. Mt. K2 (Godwin Austin) | a. 8848 m |
| 2. Mt. Kanchanjunga | b. 8811 m |
| 3. Mt. Everest | c. 2695 m |
| 4. Makalu | d. 8598 m |
| 5. Annaimudi | e. 8481 m |

D. Write true (T) or False (F) against the following statements in given brackets :


- The countries of Indian subcontinent share their boundaries with India.
- The river Narmada falls into the Arabian sea.
- Yamuna is a tributary of Indus.
- The largest delta of the world is Ganga-Brahmputra delta.
- Andaman and Nicobar Islands are located in the Arabian Sea.

E. Define the following terms :

- | | | | | |
|---------------|------------|----------------|----------------------|----------------|
| 1. Peninsula | 2. Estuary | 3. Delta | 4. Tributary | 5. River basin |
| 6. Sand dunes | 7. Dun | 8. Deccan Trap | 9. Physical Division | |

F. Identify the following :

- The line of latitude that passes through the middle of India _____
- The rivers of moving ice which are source of many rivers _____

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3. A land mass bounded by the sea on three sides _____
 4. Southern tip of the Republic of India _____
 5. A triangle shaped deposit at the mouth of a river _____

G. Differentiate between :

1. Peninsula and Island
2. Himadri and Himachal
3. Western Ghats and Eastern Ghats
4. Delta and Estuary
5. Political Division and Physical Division

H. Answer in one word or one phrase :

1. Which two major rivers fall into the Arabian Sea ?
2. Name the delta formed by the Ganga and the Brahmaputra.
3. How many States and Union Territories are there in India ?
4. Which States of India have a common capital ?
5. What is the location of India with respect to the Globe ?
6. Name three major rivers which originate from Himalayas.
7. What are known as ghats ?

I. Answer these questions briefly :

1. Name the major physical divisions of India.
2. India shares its land boundaries with seven countries. Name them.
3. Name all the Himalayan states from west to east.
4. Why do a large number of people live in the Northern Plains ?
5. Why do the sunrise and sunset occur at different times in different places in India ?
6. How do different geographical regions present unity in diversity ?
7. Name the first three highest peaks of the world and location of each.
8. Why is Lakshadweep known as a coral island ?

J. Answer these questions in detail :

1. Where is India located ? Write in terms of its length, breadth, latitudes and longitudes ?
2. Describe the North Mountains of India.
3. How are the Northern Plains formed ? Give an account.
4. What are the parts of the Peninsular Plateau ? How do the rivers flowing in them make the western coastal plains narrow and infertile while the eastern coastal plains broader and fertile ?

PROJECT WORK

1. On an outline map of India, mark the following :
 - a. Western Ghats and Eastern Ghats
 - b. Andaman Islands and Lakshadweep Islands
 - c. Three Himalayan ranges with their names
2. Draw the Standard Meridian of India in the map of India.