

The Himalayas and other lofty mountains form India's northern boundary except in the Nepal region. In the Northwest, Afghanistan and Pakistan border on India. A series of mountain ranges in the East separate India from Burma also in the East is Bangladesh bounded by Indian states of West Bengal, Assam, Meghalaya, and Tripura and Mizoram. The Gulf of Mannar and the Palk Straits separate India from Sri Lanka. The Andaman and Nicobar Islands in the Bay of Bengal and Lakshadweep in the Arabian Sea are parts of the territory of India.

- Kanyakumari is the southernmost tip on the mainland is situated on three seas (Indian Ocean, Arabian Sea and Bay of Bengal).
- Indira Point in Great Nicobar in the Andaman and Nicobar Islands is the southernmost point of the Indian union. It has got submerged under sea water in 2004 during the Tsunami.
- The Tropic of Cancer ($23^{\circ}30'N$) divides India into almost two equal parts. The southern part is in tropical zone while its northern is in sub-tropical zone.

The central location of India at the head of the Indian Ocean is of great advantage. Hence countries of East Africa and West Asia can be reached through sea routes. As such India can establish close cultural and commercial relation with these countries.

Note

Subcontinent – It is a landmass having a distinct character in respect of physical features, climate, vegetation and the other aspects of cultural environment from the rest of the continent. Indian subcontinent consists of Pakistan, Indian, Bhutan, Nepal and Bangladesh; Sri Lanka is often included in the subcontinent.

Location and Size

- The mainland extends between latitudes $8^{\circ}4' N$ and $37^{\circ}6' N$ and longitudes $68^{\circ}7' E$ and $97^{\circ}25' E$; The latitudinal and longitudinal extent of the mainland is about 30° .
- The country is divided into almost two equal parts by the Tropic of Cancer ($23^{\circ}30' N$).
- India has a landmass of 3.28 million square km which accounts for about 2.4% of the total geographical area of the world; It has a land boundary of about 15,200 km and

the mainland including the Andaman and Nicobar and Lakshadweep has a coastline of 7,516.6 km.

India's Neighbours: India has 29 states and 7 Union Territories; its land boundaries are shared by Pakistan and Afghanistan in the Northwest; China (Tibet), Nepal and Bhutan in the North; Myanmar and Bangladesh in the East and Sri Lanka and Maldives, both island countries are our southern neighbours.

- A narrow channel of sea formed by Palk Strait and Gulf of Mannar separates India from Sri Lanka.
- Maldives islands are situated to the South of Lakshadweep islands.
- India's distance from Europe has been reduced by 7,000 km since the opening of the Suez Canal in 1869.

India's Standard Time: The standard time for the whole country is the time along the Standard Meridian of India $82^{\circ}30' E$ passing through Mirzapur in Uttar Pradesh. There is a time lag of 2hrs from Gujarat to Arunachal Pradesh. The sun shines overhead at noon twice a year at all places which is situated between the Equator and the Tropic of Cancer, in the Northern Hemisphere. Since, Ahmedabad ($23^{\circ}3' N$) falls within this range, it sees the sun overhead twice in a year.

Besides Nepal, Sri Lanka also adopts $82^{\circ}30' E$ as the standard meridian to have uniformity of time with India. It avoids the inconvenience caused from local time. Local time at each longitude is different. There is about 2 hours different between the local time of Eastern most part and western most parts of India.

The Different Regions: According to the Theory of Plate Tectonics, the crust of the earth has been formed out of seven major and minor plates. The movement of the plates causes stress within the plates and continental rocks resulting in folding faulting and volcanic activity. The plate boundaries may be classified into convergent boundary, divergent boundary and transform boundary.

- The northern mountains are a rich source of water resources and forest wealth.
- The northern plains are the granaries of the country.
- The plateau is a storehouse of minerals.
- The coastal region and the islands facilitate fishing and port activities.

The Himalayan Mountains: The Himalayan mountains run in West-East direction from the Indus to the Brahmaputra; They cover a distance of 2,400 km and have three parallel ranges in their longitudinal extent such as the Inner the Himadri, Outer the Shivaliks and the Himachal or Lesser Himalaya. Himalayas have also been divided on the basis of regions from West to East, demarcated by river valleys such as Punjab Himalayas or Kashmir and Himachal Himalayas, Kumaon Himalayas, Nepal Himalayas, Assam Himalayas and Purvachal or the Eastern hills.

Table: 1.1 Himalayan Mountains.

Criteria	Himadri	Himachal	Shivalik
Height and width	It is the most continuous range with an average height of 600 m.	The height varies between 3700 and 4500 m and width 50 km.	There height varies from 900 to 1100 m and width 10 to 50 km.
Geography	They are a symmetrical in nature.	These ranges are composed of compressed and altered rocks.	These ranges are composed of loose sediment brought down by rivers from main Himalayan ranges.
Composition	They are composed of granite.		They are composed of sediment, and alluvial.
Special features	It is covered with snow throughout the year and a no. of glaciers descent from this range.	Pir Panjal range forms the longest range and Dhauladhar and Mahabhart are prominent ones	The longitudinal valley between Himadri and Shivalik form duns.

The Northern Plains: It has been formed by three major river systems-the Indus, the Ganga and the Brahmaputra along with their tributaries. The northern plain is broadly divided into Punjab plains formed by Indus and its tributaries, the Ganga plains extends between Ghaggar and Teesta rivers and the Brahmaputra plains lie in Assam. The northern plains can be divided into four regions based on the variations in relief feature.

Table: 1.2 The Northern Plains

Bhabar	Bhangar	Kankar	Khadar
River deposit pebbles in a narrow belt of about 8–16 km which lie parallel to Shivalik.	The largest part of Northern plain formed of older Alluvial.	The soil in this region contains calcareous deposits.	The newer younger deposit of flood plain.

All the streams disappear in this belt.	They lie above the flood plain.		It does not contain kankar nodules.
Terai is formed at the base.	It is less fertile.		It is very fertile.

The Peninsular Plateau: It is an elevated upland with relatively extensive level surface. The Plateau is bounded by deep slopes on one or more sides. It is uneven and rocky. The Peninsular Plateau which forms the oldest structure of Indian subcontinent was formed due to the breaking and drifting of the Gondwanaland. The Plateau has broad and shallow valley and rounded hills. Narmada river divide it into two main divisions:

1. **Central Highland:** It is made of hard igneous and metamorphic rocks. It lies North to the Narmada and covers a major area of Malwa Plateau. Few rivers like Narmada and Tapi originate from these hills. In the extreme West by the rocky desert of Rajasthan, in the North-west by the Aravallis. In the North by Gangetic Plain and in the South by Vindhya range. The Eastward extension of this plateau are locally known as the Bundelkhand. The Chota Nagpur Plateau marks the further eastward extension drained by Damodar river.

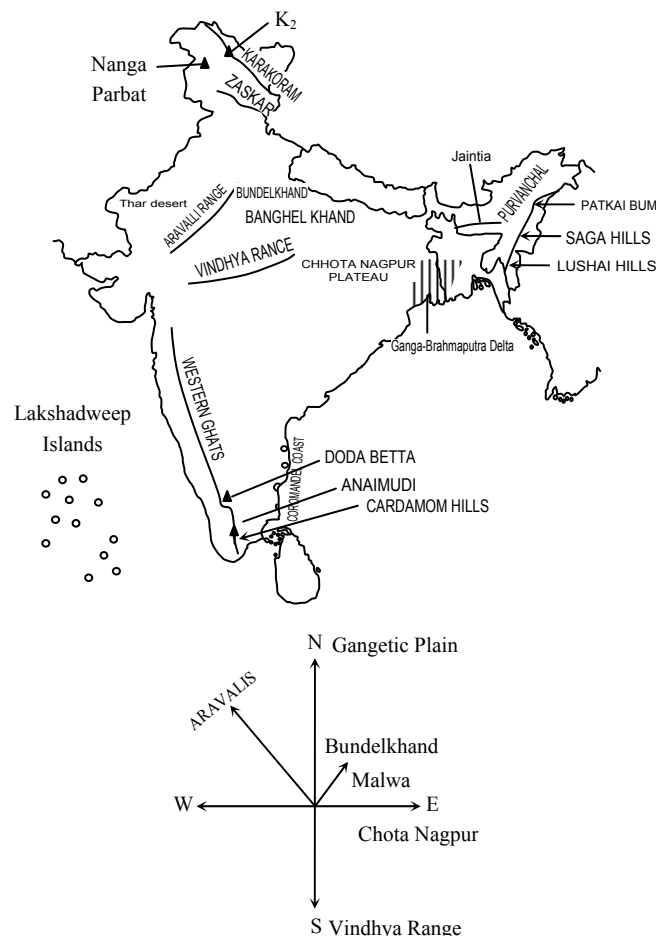


Figure: 1.1

Deccan Plateau: It is a triangular landmass that lies South of the river Narmada. The North-western part of the Deccan Plateau is Maharashtra, consists of an extensive lava belt called the Deccan trap region. This is of volcanic origin and hence rocks are igneous. These rocks have denuded over time and formed black soil. The rest of the Deccan Plateau consists of crystalline metamorphic rocks.

It is bounded on its North by the Vindhya and Satpura hills. Mahadev, the Kaimur hills and the Maikal ranges from its eastern extension while its South-eastern and western boundaries are formed by the eastern and western Ghats. Three prominent hill ranges from the West to East are the Garo, the Khasi and the Jaintia Hills.

The Indian Desert: It lies towards western margins of the **Aravalli Hills**. It is an undulating sandy plain covered with sand dunes with low vegetation cover; **Barchans** and **longitudinal dunes** are the types of dunes found here. It has an arid climate with rainfall below 150 mm. **Luni** is a large river of this region.

Table: 1.3 Western Ghats and Eastern Ghats

Western Ghats	Eastern Ghats
Western Ghats form a sharp edge all along the western boundary of the Deccan plateau. They rise abruptly from the coastal plains and run parallel to the Arabian sea.	Eastern ghats form the eastern edge of Deccan plateau, parallel to the Bay of Bengal with low irregular hills.
They are continuous, high and wellmarked with natural gaps or	They are discontinuous and cut by several rivers like Godavari,

passes like Bhore Ghat, Thal Ghat and Pal ghat.	Krishna and Kaveri.
The height increases from North to South, Anamudi in Annamalai and Doddabetta (2637 m) in Nilgiri hills are in the southern part.	The height of the Eastern Ghats increase from South to North.
They are known by different names Sahyadri in Maharashtra and Karnataka, the Nilgiris in Tamil Nadu and the Annamalai and Cardamom Hills along Kerala-Tamil Nadu border.	They are known as Northern hills, Nallamala, Shevaroy and Javadi hills.

The Coastal Plains: There are two narrow coastal strips, the **western coast** running along the Arabian Sea on the West and the **eastern coast** along the Bay of Bengal on the East. The plains along the Bay of Bengal also known as Northern (northern part), Coromandel Coast (southern part) and an important feature along the eastern coast is the Chilika Lake. The western coast consists of three sections:

- Konkan (Mumbai-Goa)
- Kannad Plain (the central stretch)
- Malabar Coast (the southern stretch)

The Islands: Our country has two groups of islands one Lakshadweep islands lying close to the Malabar Coast of Kerala is composed of small coral islands; other Andaman and Nicobar islands are elongated chain of islands located in the Bay of Bengal and are an elevated portion of submarine mountains.

Multiple Choice Questions

- The Tropic of Cancer does not pass through:
 - Rajasthan
 - Orissa
 - Chhattisgarh
 - Tripura
- The easternmost longitude of India is:
 - 97°25'E
 - 68°7'E
 - 77°6'E
 - 82°32'E
- Uttaranchal, Uttar Pradesh, Bihar, West Bengal and Sikkim have common frontiers with:
 - China
 - Bhutan
 - Nepal
 - Myanmar
- If you intend to visit Kavaratti during your summer vacation, which one of the following Union Territories of India you will be going to?
 - Puducherry
 - Lakshadweep
 - Andaman and Nicobar
 - Diu and Daman
- My friend hails from a country which does not share a land boundary with India. Identify the country.
 - Bhutan
 - Tajikistan
 - Bangladesh
 - Nepal
- Area-wise which is the largest state of India?
 - Madhya Pradesh
 - Maharashtra
 - Rajasthan
 - Andhra Pradesh
- The latitude that divides India into two equal halves is:
 - Tropic of Cancer
 - Tropic of Capricorn
 - Equator
 - Arctic Circle
- The latitudinal extent of India is:
 - 80°30'N to 97°25'N
 - 23°30'N to 23°30'S
 - 68°7'N to 97°25'N
 - 8°4'N to 37°6'N
- The island group which is towards South-east of India is:
 - Andaman and Nicobar
 - Sri Lanka
 - Maldives
 - Lakshadweep
- Which plateau lies between the Aravalli and the Vindhyan ranges?
 - Malwa plateau
 - Deccan plateau
 - Chhota Nagpur plateau
 - Bundelkhand

11. The distance between north and south extremity of India is:
 a. 3214 km b. 3000 km
 c. 2933 km d. 3600 km
12. India's neighbour towards North West is:
 a. Afghanistan b. Nepal
 c. Bhutan d. Myanmar
13. India is separated from Sri Lanka through:
 a. Gulf of Khambhat b. Gulf of Kutch
 c. Gulf of Mannar d. Gulf of Persia
14. From Gujarat of Arunachal Pradesh the time lag is:
 a. 2 hrs 15 min b. 2 hrs 30 min
 c. 1 hr 45 min d. 2 hrs
15. The Standard Meridian of India passes through Mirzapur in the state of
 a. Madhya Pradesh b. Bihar
 c. Andhra Pradesh d. Uttar Pradesh
16. The southernmost part of India is:
 a. Kanyakumari b. Kavaratti
 c. Indira Point d. Port Blair
17. Name of group of inlands lying in the Arabian Sea.
 a. Andaman & Nicobar b. Lakshadweep
 c. Hawaii d. Philippines
18. A landmass bounded by sea on three sides is referred to as:
 a. coast b. island
 c. peninsula d. none of these
19. Mountain ranges in the eastern part of India forming its boundary with Myanmar are collectively called
 a. Himachal b. Uttaranchal
 c. Purvachal d. None of these
20. The western coastal strip, south of Goa is referred to as
 a. Coromandel b. Konkan
 c. Kannad d. Northern Circar
21. The highest peak in the Eastern Ghats is:
 a. Anamudi b. Kanchenjunga
 c. Mahendragiri d. Khasi
22. Which one of the following rivers has the largest inhabited riverine islands in the world?
 a. Ganga b. Indus
 c. Yamuna d. Brahmaputra
23. In which belt of Northern plains do all the rivers disappear?
 a. bhabar b. terai
 c. khadar d. bhangar
24. The highest peak of South India is:
 a. Doda Betta b. Mahendragiri
 c. Anai Mudi d. Shevroy
25. Which type of soil is found in Deccan Trap region?
 a. Black soil b. Alluvial soil
 c. Arid soil d. Laterite soil
26. The largest river of the Indian desert is:
 a. Chambal b. Betwa
 c. Indus d. Luni
27. The largest salt water lake of India:
 a. Sambhar b. Pulicat
 c. Chilika d. Kolleru
28. The two tributaries of the Indus are:
 a. Ravi and Yamuna b. Sutlej and Kosi
 c. Jhelum and Chenab d. Beas and Damodar
29. What is the name given to the southern part of eastern coastal plains?
 a. Kannad plain b. Malabar
 c. Konkan d. Coromandel
30. Which of the following is composed of corals?
 a. Lakshadweep b. Andaman and Nicobar
 c. Puducherry d. Malabar

ANSWERS

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
c	a	c	b	b	c	a	d	a	a
11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
a	a	c	d	d	c	b	d	c	c
21.	22.	23.	24.	25.	26.	27.	28.	29.	30.
c	d	a	c	a	d	c	c	d	a