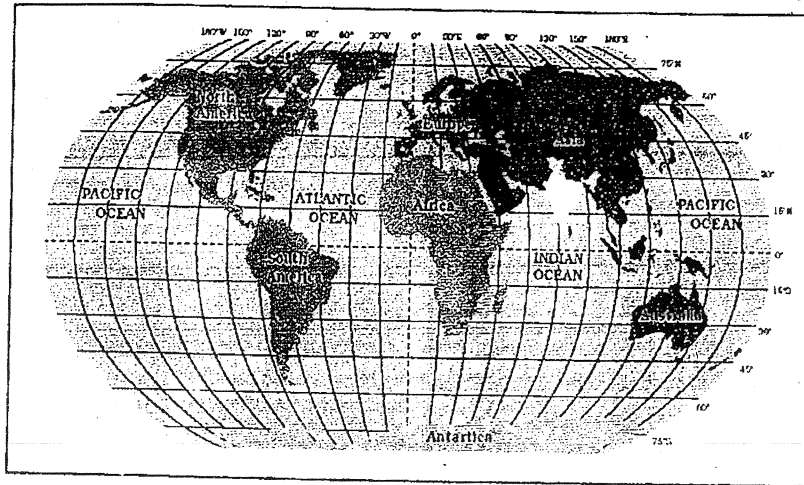


# India - Size and Location



India is one of the ancient civilisations in the world. It has achieved multi-faceted socio-economic progress during the last five decades. It has moved forward displaying remarkable progress in the field of agriculture; industry, technology and overall economic development. India has also contributed significantly to the making of world history.

## 6.1 Location

India is a vast country. Lying entirely in the Northern hemisphere the main land extends between latitudes  $8^{\circ}4'N$  (Kanyakumari/Cape of comorin in Tamiinadu) and  $37^{\circ}6'N$  (Jammu & Kashmir) and longitudes  $68^{\circ}7'E$  (Ghuar Moira) and  $97^{\circ}25'E$  Kibithu (in Anjaw district of Arunachal Pradesh).

The southernmost point of the Indian Union- 'Indira Point' got submerged under the sea water in 2004 during the Tsunami.

The Tropic of Cancer ( $23^{\circ}30'N$ ) divides the country into almost two equal parts. To the southeast and southwest of the mainland, lie the Andaman and Nicobar islands and the Lakshadweep islands in Bay of Bengal and Arabian Sea respectively.

## 6.2 Impact of the longitudinal extent of India

The earth takes 24 hours to complete one rotation ( $360^{\circ}$ ) about its axis which means the earth rotates at the pace of  $15^{\circ}$  per hour ( $360/24$ ) or we can say it takes  $4'$  to cover the distance between two longitudes on equator. As the longitudinal extent of India is about  $30^{\circ}$  longitude (i.e.,  $97^{\circ}25'E - 68^{\circ}7'E$ ) the time lag between easternmost and westernmost points of India is of two hours (i.e.,  $30 \times 4' = 120$  minutes). When it is 6.00 a.m at easternmost point of India, its still 4.00 a.m at the western most point. That will create a lot of time confusion. To avoid this time confusion, time along the  $82^{\circ}30'E$  is been taken as the Standard Time of India because -

- (i) It is exactly divisible by  $7^{\circ}30'$ , a standard adopted by almost all the countries of the world.
- (ii) It lies almost in the middle of India.

## 6.3 Impact of the latitudinal extent of India

*"India, officially the Republic of India, is a country in South Asia. It is the seventh-largest country by area, the second-most populous country with over 1.2 billion people, and the most populous democracy in the world."*

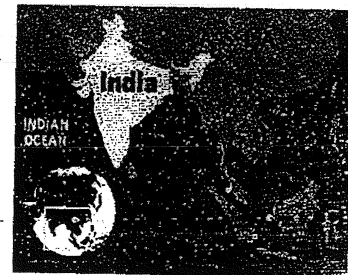


Fig.1 India in the world

**THE SPOT LIGHT**

The  $82^{\circ}30'E$  longitude is taken as Standard Time Meridian of India, as it passes through the middle of India (from Naini, near Allahabad.) Hence Naini (Mirzapur), near Allahabad is the Standard Time Meridian of India.

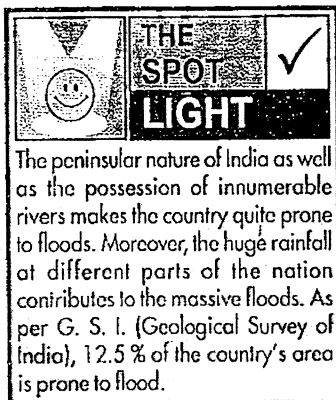
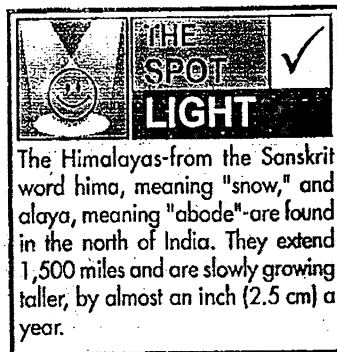


Fig.3 Himalyas



Kanyakumari the southernmost point of the mainland of India is situated very much near to the equator. Here the difference between the durations of day and night is hardly felt, the maximum difference is of 45 minutes only. But as we move further towards north, towards Kashmir the difference between the durations of day and night increases. It reaches upto 5 hrs in Kashmir. This difference occurs because as we move away from the the equator the difference of duration of day and night increases according to season.

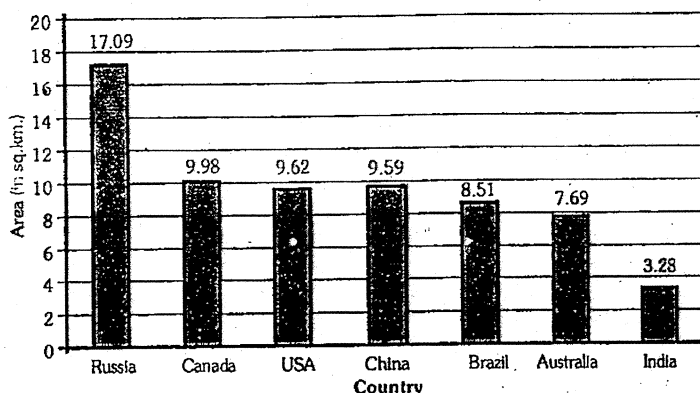


Fig.2 Seven largest countries of the world

## 6.4 Size

The land mass of India has an area of 3.28 million square km. India's total area accounts for about 2.4 per cent of the total geographical area of the world. India has a land boundary of about 15,200 km and the total length of the coast line of the mainland including Andaman and Nicobar and Lakshadweep is 7,516.6 km.

India is bounded by the young fold mountains in the northwest, north and north east. South of about 22° north latitude, it begins to taper, and extends towards the Indian Ocean, dividing it into two seas, the Arabian Sea on the west and the Bay of Bengal on its east.

The difference between the latitudinal and longitudinal extent seems to be equal (30°) on map. But in actual the north-south extension (3214 kilometre) of the country is more then the east-west extension (2933 kilometre). This is because the latitudes are always parallel to each other, that's why they are even termed as Parallels, but the longitudes converge towards each other as they move towards the poles. The latitudes and the longitudes make the shape of a square on the equator but it makes the shape of a rectangle as it moves towards the poles. Because India doesn't lie exactly on the equator, it lies above equator, on both sides of the Tropic of Cancer, so the grid of latitude and longitude, seems to be a square of 30°, but in reality its a rectangle with north-south extension being more then the east-west extension.

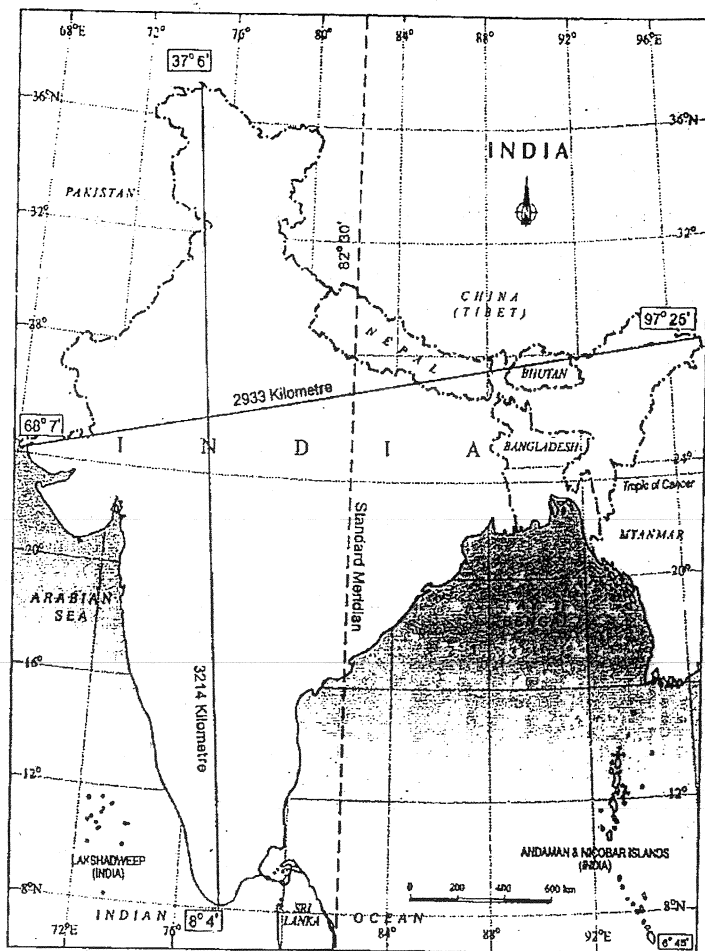


Fig.4 India: Extent and Standard Meridian

### CHECK YOUR LEARNING 6.1

1. Name the Union Territories on the eastern and western coast of India.
2. Area-wise which is the smallest and which is the largest state?
3. Classify the states into four groups each having common frontiers with (i) Pakistan, (ii) China, (iii) Myanmar, and (iv) Bangladesh.

### 6.5 India and the world

The Indian landmass has a central location between the East and the West Asia. India is a southward extension of the Asian Continent. The trans Indian Ocean routes which connect the countries of Europe in the West and the countries of East Asia provide a strategic central location to India. Note that the Deccan Peninsula protrudes into the Indian Ocean, thus helping India to establish close contact with West Asia, Africa and Europe from the western coast and with Southeast and East Asia from the eastern coast. No other country has a long coastline on the Indian Ocean as India has and indeed, it is India's eminent position in the Indian Ocean which justifies the naming of an Ocean after it.

(Since the opening of the Suez Canal in 1869, India's distance from Europe has been reduced by 7,000 km.)

India's contacts with the world have continued through the ages but her relationships through the land routes are much older than her maritime

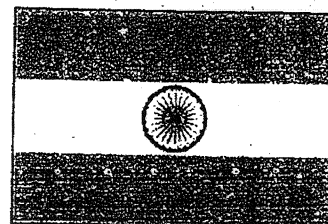
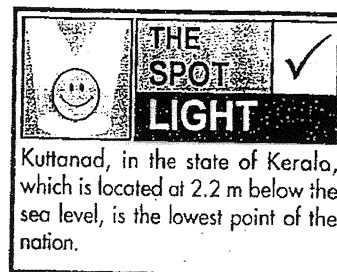
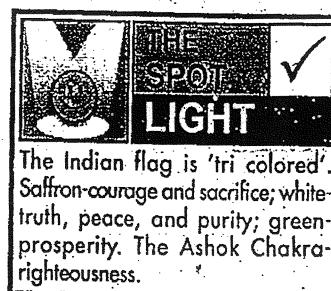


Fig.5 Indian tricolour flag



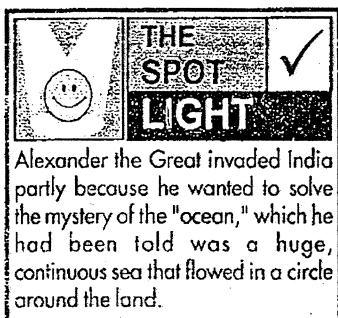
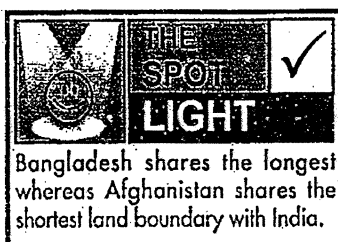


Fig.7 Alexander



contacts. The various passes across the mountains in the north have provided passages to the ancient travellers, while the oceans restricted such interaction for a long time.

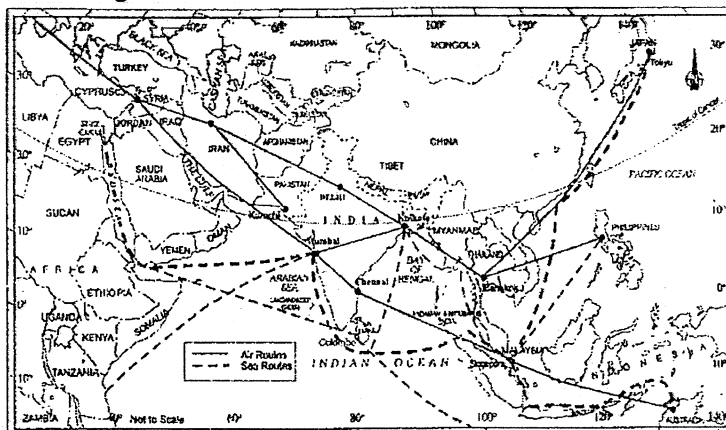


Fig.6 : India on International Highway of Trade and Commerce

These routes have contributed in the exchange of ideas and commodities since ancient times. The ideas of the Upanishads and the Ramayana, the stories of Panchtantra, the Indian numerals and the decimal system thus could reach many parts of the world. The spices, muslin and other merchandise were taken from India to different countries. On the other hand, the influence of Greek sculpture, and the architectural styles of dome and minarets from West Asia can be seen in different parts of our country.

## 6.6 India's neighbours

India occupies an important strategic position in South Asia. India has 28 states and 7 Union Territories.

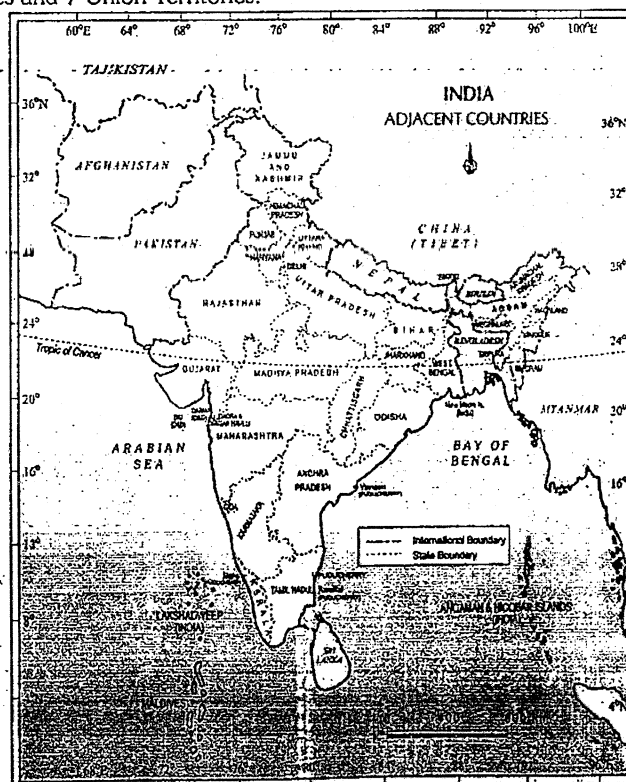


Fig.8 India and adjacent countries

India shares its land boundaries with Pakistan and Afghanistan in the northwest, China (Tibet), Nepal and Bhutan in the north and Myanmar and

Bangladesh in the east. Our southern neighbours across the sea consist of the two island countries, namely Sri Lanka and Maldives. Sri Lanka is separated from India by a narrow channel of sea formed by the Palk Strait and the Gulf of Mannar while Maldives Islands are situated to the south of the Lakshadweep Islands.

### CHECK YOUR ANSWERS 6.1

1. Union Territories on the western coast of India are four in number - Diu and Daman, Dadra and Nagar Haveli, Mahe (Pondicherry) and Lakshadweep. Union Territories on the eastern coast of India are two - Pondicherry and Andaman and Nicobar Islands.
2. Smallest State in India (areawise) - Goa  
Largest State in India (areawise) - Rajasthan
3. (i) States having common frontiers with Pakistan are Jammu and Kashmir, Punjab, Rajasthan and Gujarat.  
(ii) States having common frontiers with China are Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh.  
(iii) States having common frontiers with Myanmar are Arunachal Pradesh, Nagaland, Manipur and Mizoram.  
(iv) States having common frontiers with Bangladesh are West Bengal, Meghalaya, Assam and Tripura.

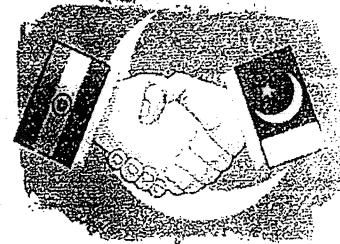
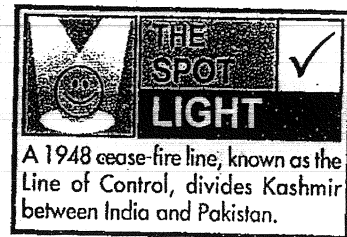


Fig.9 Indo-Pak relations



### IMPORTANT TERMS

#### 1. FOLD MOUNTAINS

Mountains which develop when two tectonic plates come together causing compression resulting in buckling & folding of rocks.

#### 2. INDIAN STANDARD TIME (IST)

This is local time of the longitude 82°30' East, taken as the time for the whole of India. This is five half and a half-hours ahead of GMT.

#### 3. STANDARD MERIDIAN

The longitude which passes through a country/region which is used to fix the standard time for that country/region.

#### 4. SUB - CONTINENT

This is a part of a continent having specific climatic conditions and cultural identity, which is separated from the rest of the continent by natural features like mountains.

## EXERCISE # 1

## FORMATIVE ASSESSMENT

### Multiple choice questions

- What is the official name of India ?  
(A) Hindustan (2) Bharat  
(3) Bharatvarsha (4) Aryavarta
- What is the eastern most longitude of India?  
(1) 97°27'E (2) 72°10'E  
(3) 68°7'E (4) 97°25'E
- What is the latitudinal extent of India?  
(1) 6°4'N to 30°6'N (2) 7°4'N to 37°6'N  
(3) 8°4'N to 37°6'N (4) 4°3'N to 35°2'N
- What is the length of the Indian coast line?  
(1) 7010km. (2) 5310km.  
(3) 7516.6 km. (4) 3200 km
- What is the length of the Indian Land boundary?  
(1) 12000Km. (2) 15000Km.  
(3) 15,200Km. (4) 10,100Km.
- Name the parallel of latitude which divides India into almost two equal parts.  
(1) Equator (2) Tropic of Capricorn  
(3) Arctic circle (4) Tropic of Cancer
- From which state the Tropic of Cancer does not pass?  
(1) Gujarat (2) Bihar  
(3) West Bengal (4) Mizoram
- From which latitude the Tropic of Cancer passes.  
(1) 20°N (2) 23½°S  
(3) 23½°N (4) 66½°N
- What is the longitudinal extent of India ?  
(1) 67°4'E to 96°2'E (2) 62°3'E to 95°12'E  
(3) 68°7'E to 97°25'E (4) 64°4' E to 96°25'E
- Uttaranchal, Uttar Pradesh, Bihar, West Bengal and Sikkim have common frontiers with  
(1) China (2) Bhutan  
(3) Nepal (4) 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  
(1) Pondicherry (2) Daman and Diu  
(3) Andaman and Nicobar (4) Lakshadweep
- Which longitude represents the Standard Meridian of India ?  
(1) 81°30'E (2) 82°32'E  
(3) 0° (4) 82°30'E
- Which triangular shape country lies to the south of the Kanyakumari ?  
(1) Maldives (2) Bangladesh  
(3) Sri Lanka (4) Nepal
- What is the southern most point of the Indian Union?  
(1) Kanya Kumari (2) Leh  
(3) Indira Point (4) Kerala
- Which is the largest country in the world ?  
(1) Russia (2) India  
(3) China (4) Canada
- Which canal shortened the distance between India and Europe?  
(1) Panama Canal (2) Suez Canal  
(3) Indira Gandhi Canal (4) None of these
- Name the group of islands in Arabian sea.  
(1) Goa (2) Lakshadweep  
(3) Andaman & Nicobar (4) None of these
- Name the southern neighbour of India other than Sri Lanka ?  
(1) Lakshadweep (2) Maldives  
(3) Bangladesh (4) Afghanistan
- Name the Ocean which lies to the south of India.  
(1) Indian Ocean (2) Pacific Ocean  
(3) Arctic Ocean (4) Atlantic Ocean
- Which water body lies to the east of India?  
(1) Arabian Sea (2) Indian Ocean  
(3) Bay of Bengal (4) Arctic ocean

### Match the following Columns

	Column I		Column II
1.	(A) 8°4'N - 37°6'N	(i)	Southernmost tip of mainland of India
	(B) 68°7'E - 97°25'E	(ii)	Standard Meridian of India
	(C) 8230'E	(iii)	Longitudinal extension of India
	(D) Kanyakumari	(iv)	Latitudinal extension of India.
	(E) Indira Point	(v)	Largest state of India.
	(F) Rajasthan	(vi)	Southernmost tip of Indian Union.

### True or false

- India lies entirely in the Northern Hemisphere.
- The Tropic of Capricorn divides the country into almost two equal parts.

3. To avoid time confusion, time along the 82°30'E is been taken as the Standard Time of India.
  4. India has a land boundary of about 7,516.6 km and the total length of the coast line of the mainland including Andaman and Nicobar and Lakshadweep is 15,200 km.
  5. The north-south extension of the country is 2933 kilometre and the east-west extension is 3214 kilometre.
  6. No other country has a long coastline on the Indian Ocean as India has.
  7. Since the opening of the Panama Canal in 1869, India's distance from Europe has been reduced by 7,000 km.
  8. India shares its land boundaries with Pakistan and Afghanistan in the northwest.
- Fill in the blanks**
1. The southernmost point of the Indian Union- ..... got submerged under the sea water in 2004 during the Tsunami.
  2. As the extent of India is about 30 longitude the time lag between easternmost and westernmost points of India is of ..... hours.
  3. The Longitude which passes from Mirjapur (in Uttar Pradesh) is taken as the Standard Meridian of India.
  4. The land mass of India has an area of ..... million square km.
  5. India is bounded by the ..... in the northwest, north and north east.
  6. The Indian landmass has a ..... location between the East and the West Asia.
  7. The various passes across the mountains in the ..... have provided passages to the ancient travellers, while the oceans restricted such interaction for a long time.
  8. The spices, **muslin** and other merchandise were taken from ..... to different countries.

## ANSWER KEY

### Multiple choice questions

Que.	1	2	3	4	5	6	7	8	9	10
Ans.	2	4	3	3	3	4	2	3	3	3
Que.	11	12	13	14	15	16	17	18	19	20
Ans.	4	4	3	3	1	2	2	2	1	3

### Match the column

1. A → iv ; B → v ; C → i ; D → ii ; E → vi ; F → iii

### True or false

1. True    2. False    3. True    4. False    5. False    6. True    7. False    8. True

### Fill in the blanks

1. 'Indira Point'    2. longitudinal    3. two    4. 3.28    5. young fold mountains  
 6. central    7. north    8. India

## EXERCISE # 2

## SUMMATIVE ASSESSMENT

### Short answer type questions

1. What is the longitudinal extent of India? State its two implications.
2. What is the latitudinal extent of India? How does it affect India?
3. What is the southernmost point of the Indian Union called? Describe its location in India and its current situation.
4. What is the Standard Meridian of India? From where does it pass?
5. What was the contribution of land routes to India in ancient times? Explain any three.
6. Why India is called a subcontinent? Write any three points.
7. Do you think naming the Indian Ocean after a country is justified. Why?
8. How does India occupy an important strategic position in South Asia? Illustrate your answer by explaining three suitable points.

9. Give a reason for the following statement :

- (a)  $82^{\circ} 30' E$  Latitude has been selected as the Standard Meridian of India.
- (b) The distance between India and Europe has been reduced by 7000 km. with the opening of Suez Canal.
- (c) Days and night are almost of equal duration at Kanniyakumari.

### Long answer type questions

1. Which are the countries with which India shares land boundaries? Write a short note about India's position among its neighbours.
2. Write a note on the location and size of India.
3. Write a note on the Indian Standard Time? Why is there a time difference of almost 2 hours from Arunachal Pradesh to Gujarat?
4. How many states form the Union of India? Write a note on the smallest and the largest Indian states.
5. What are the two groups of Indian islands? Write a note on each, describing its geographic position with relation to India.
6. How has India's geographic location aided the nation?
7. The Tropic of Cancer passes half-way through the country. What does this imply?



## NCERT QUESTIONS WITH ANSWERS

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

(i) The Tropic of Cancer does not pass through:

- (a) Rajasthan (b) Chhattisgarh (c) Orissa (d) Tripura

Ans. Orissa.

(ii) The eastern-most longitude of India is:

- (a)  $97^{\circ} 25'E$  (b)  $68^{\circ} 7'E$  (c)  $77^{\circ} 6'E$  (d)  $82^{\circ} 32'E$

Ans. The eastern-most longitude is  $97^{\circ} 25'$

(iii) Uttarakhand, Uttar Pradesh, Bihar, West Bengal and Sikkim have common frontiers with :

- (a) China (b) Bhutan (c) Nepal (d) Myanmar

Ans. Uttarakhand, Uttar Pradesh, Bihar, West Bengal and Sikkim have common borders with Nepal.

(iv) If you intend to visit the island Kavaratti during your summer vacations, which one of the following Union Territory of India you will be going to?

- (a) Pondicherry (b) Andaman and Nicobar (c) Lakshadweep (d) Diu and Daman?

Ans. Lakshadweep.

(vi) My friend hails from a country which does not share land boundary with India.

Identify the country.

- (a) Bhutan (b) Tajikistan (c) Myanmar (d) Nepal

Ans. Tajikistan.

2. Answer the following questions briefly.

(i) Name the group of islands lying in the Arabian Sea.

Ans. Lakshadweep.

(ii) Name the countries which are larger than India?

Ans. The countries larger than India are Russia, China, Canada, USA, Brazil and Australia.

(iii) Which island group of India lies to its south-east?

Ans. Andaman and Nicobar Islands.

(iv) Which island countries are our southern neighbours?

Ans. Maldives and Sri Lanka.

3. The sun rises two hours earlier in Arunachal Pradesh as compared to Gujarat in the west but the watches show the same time. How does this happen?

Ans. The local time difference arises because the sunrise is earlier in the east than in the west. However, the watches show the same time because Indian Standard Time is reckoned from a single meridian  $82^{\circ}30'$  that passes through Mirzapur in Uttar Pradesh.

4. The central location of India at the head of the Indian Ocean is considered of great significance. Why?

Ans. The location of India at the head of the Indian Ocean has helped India in establishing close contacts with West Asia, Africa and Europe from the western coast and with South-east and East Asia from the eastern coast.

## MAP SKILLS

1. Identify the following with the help of map reading -

- (i) The island groups of India lying in the Arabian Sea and the Bay of Bengal.
- (ii) The countries constituting Indian subcontinent.
- (iii) The states through which the Tropic of Cancer passes.
- (iv) The northernmost latitude in degrees.
- (v) The southernmost latitude of the Indian mainland in degrees.
- (vi) The eastern and the western most longitude in degrees.
- (vii) The place situated on the three seas.
- (viii) The strait separating Sri Lanka from India.
- (ix) The Union Territories of India.

Ans.

