



Social Studies

Class 9th (Geography)

Chapter 4: CLIMATE



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Exercise

Que 1: Choose the correct answer from the four alternatives given below.

(i) Which one of the following places receives the highest rainfall in the world?

(a) Silchar. (b) Cherrapunji
(c) Mawsynram. (d) Guwahati

Ans: (c) Mawsynram

(ii) The wind blowing in the northern plains in summers is known as:

(a) Kaal Baisakhi. (b) Trade Winds
(c) Loo. (d) None of the above

Ans: (c) Loo

(iii) Monsoon arrives in India approximately in:

(a) Early May. (b) Early June
(c) Early July. (d) Early August

Ans: (b) Early June

(iv) Which one of the following characterises the cold weather season in India?

(a) Warm days and warm nights
(b) Warm days and cold nights
(c) Cool days and cold nights
(d) Cold days and warm nights

Ans: (c) Cool days and cold nights

Que 2: Answer the following questions briefly.



(i) What are the controls affecting the climate of India?

Ans: latitude, altitude, pressure and wind system, distance from the sea (continentality), ocean currents and relief features.

(ii) Why does India have a monsoon type of climate?

Ans: The monsoon type of climate in India is due to the following reasons:

1. In the monsoon climate, the direction of the winds changes according to the season.
2. Even in the climate of India, the winds move from sea to land in summer and from land to sea in winter.
3. More than 80 percent of the country's rainfall comes from the monsoon winds.

(iii) Which part of India does experience the highest diurnal range of temperature and why?

Ans: Northwestern desert part of India experiences the highest diurnal range of temperature. In summer the temperature reaches up to 50°. Because this region has sandy land and it gets hot quickly.

(iv) Which winds account for rainfall along the Malabar coast?

Ans: South-western Monsoon winds

(v) Define monsoons. What do you understand by "break" in monsoon?

Ans: Monsoon is derived from the Arabic word "Mausim" which means season. The change in the direction of winds according to the seasons during the year is called monsoon.

Monsoon break:- There is a rainless interval in the monsoon rains, when there is a break in the rains. When the axis of the monsoon trough moves near the Himalayas, the plains remain dry for some time. This is called "break" in monsoon.

(vi) Why is the monsoon considered a unifying bond?

Ans: The entire Indian landscape, its fauna and flora, its agricultural cycle, human life and their festivals, all revolve around this monsoon rhythm. From north to south and from east to west, the entire Indian waits for the arrival of the monsoon every year. These monsoon winds accelerate the process of agriculture by providing us with water and bind the whole country in one thread.

Que 3: Why does the rainfall decrease from the east to the west in Northern India?

Ans: The amount of rainfall decreases from east to west in Northern India because the monsoon enters India first in the North East. The high Himalayan mountains do not allow them to go further. Due to high humidity, this branch of winds causes a lot of rain in this part. As these winds move towards the west, their humidity decreases.

Que 4: Give reasons as to why.

(i) Seasonal reversal of wind direction takes place over the Indian subcontinent?

Ans: In the winter season, a high-pressure area is formed in the north of the Himalayas, cold dry winds blow from north to south. Whereas in summer, an area of high air pressure is formed in the Indian Ocean. In this way the winds start blowing from the area of high pressure to the area of low pressure in the north. This is the reason that the direction of the wind reverses.

(ii) The bulk of rainfall in India is concentrated over a few months.

Ans:

1. More than 80% of the rainfall in India comes from the monsoon winds.
2. These winds blow only for a few months of the year from June to September.
3. In these months the winds blow from sea to land.
4. These winds bring with them a lot of water vapor and moisture which causes rain.
5. There is no rain in the rest of the months because the winds blow from land to sea.

(iii) The Tamil Nadu coast receives winter rainfall.

Ans: North-East trade winds blow in India in winter. They flow from land to sea. That's why most part of the country has a dry season. Due to these winds, some amount of rainfall occurs on the coast of Tamil Nadu, because these winds flow from sea to land.

(iv) The delta region of the eastern coast is frequently struck by cyclones.

Ans: This happens because the cyclonic pressure arising over the ocean near Andaman is transferred towards the coastal parts of the country by the tropical jet currents.

(v) Parts of Rajasthan, Gujarat and the leeward side of the Western Ghats are drought-prone.

Ans: Some parts of Rajasthan, Gujarat and the rain shadow area of the Western Ghats do not block the monsoon winds, so there is no rain in these places.

Que 5: Describe the regional variations in the climatic conditions of India with the help of suitable examples.

Ans: Some examples of regional variations in the climatic conditions of India are as follows:

1. In summer, the temperature in some places in the desert of Rajasthan reaches about 50°C, while Pahalgam in Jammu and Kashmir has a temperature of about 20°C.
2. On winter nights, the temperature in Leh-Ladakh can go up to -45°C, while it can be as low as 22°C in Thiruvananthapuram.
3. The rainfall in Meghalaya is more than 400 cm while in Ladakh and western Rajasthan it is less than 10 cm.
4. Most parts of the country receive rainfall from June to September, but in some areas such as the Tamil Nadu coast, most of the rainfall occurs in October and November.

Que 6: Give an account of weather conditions and characteristics of the cold season.

Ans:

1. The winter season in northern India starts from mid-November and lasts till February.
2. December and January are the coldest months in the northern part of India.
3. The temperature decreases from south to north. The average temperature of Chennai on the east coast ranges from 24°C to 25°C, while it ranges from 10°C to 15°C in the northern plains.
4. The days are hot and the nights are cold in this season. Frost is common in the north and snowfall occurs on the upper slopes of the Himalayas.
5. In this season, the north-east trade winds blow in the country. They flow from the land to the sea and hence there is a dry season in most parts of the country.

Que 7: Give the characteristics and effects of the monsoon rainfall in India.

Ans: The characteristics of monsoon rains in India are:

1. Monsoon starts in India in the month of June.
2. Monsoon winds carrying moisture from the ocean bring rain to almost the whole of India.
3. Monsoon winds 30 km moves at an average speed of 1 hour.
4. Monsoon ends in the month of October.