# NTSE

NCERT Solutions for Class 9 Social Science GEOGRAPHY – Climate



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#### 1. Explain the term Weather and Climate.

**Ans.** Weather refers to the condition of the atmosphere like, temperature, atmospheric pressure, wind, humidity and precipitation over an area at any point of time. Climate refers to the sum total of weather conditions and variations over a large area for a long period of time (more than thirty years).

#### 2. Describe the climate of India.

Ans. (1) The climate of India is described as the 'monsoon' type. This type of climate is found mainly in the south and the southeast Asia. We get ample rainfall during the months of June- July to September – October

(2) The Tropic of Cancer passes through the middle of the country from the Rann of Kachchh in the west to Mizoram in the east. Almost half of the country, lying south of the Tropic of Cancer, belongs to the tropical area. All the remaining area, north of the Tropic, lies in the sub-tropics. Therefore, India's climate has characteristics of tropical as well as subtropical climates.

#### 3. What are the vagaries of Indian Monsoon?

Ans. The monsoon is known for its uncertainties.

These are untimely, irregular, unpredictable and unevenly distributed. The alternation of dry and wet spells vary in intensity, frequency and duration. While it causes heavy floods in one part, it may be responsible for droughts in the other. It is often irregular in its arrival and its retreat.

Hence, it sometimes disturbs the farming schedule of millions of farmers all over the country.



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4. Why are the deltas of the Godawari and the Krishna and the Kaveri frequently struck by cyclones? Ans. The low-pressure conditions, over northwestern India, get transferred to the Bay of Bengal by early November. This shift is associated with the occurrence of cyclonic depressions, which originate over the Andaman Sea. These cyclones generally cross the eastern coasts of India, including the deltas of the Godawari and the Krishna and the Kaveri, cause heavy and widespread rain. These tropical cyclones are often very destructive. The thickly populated deltas of the Godavari, the Krishna and the Kaveri are frequently struck by cyclones, which cause great damage to life and property. Sometimes, these cyclones arrive at the coast of Orissa, West Bengal and Bangladesh. The bulk of the rainfall of the Coromandel Coast is derived from depressions and cyclones.







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#### 5. Explain the climatic control of a place. (or the factors affecting the climate of a place)

Ans. (1) Latitude: Due to the curvature of the earth, the amount of solar energy received varies according to latitude. As a result, air temperature decreases from the equator towards the poles.

(2) Altitude: As one goes from the surface of the earth to higher altitudes, the atmosphere becomes less dense and temperature decreases. The hills are therefore cooler during summers.

(3) **The pressure and wind system:** The pressure and wind system of any area depend on the latitude and altitude of the place. Thus, it influences the temperature and rainfall pattern.

(4) **The distance from the sea:** The sea exerts a moderating influence on climate: As the distance from the sea increases, its moderating influence decreases and the people experience extreme weather conditions. **This condition is known as continentality**.

(5) **Ocean currents:** Ocean currents along with onshore winds affect the climate of the coastal areas. For example, any coastal area with warm or cold currents flowing past it, will be warmed or cooled if the winds are onshore.

(6) **Relief:** Relief too plays a major role in determining the climate of a place. High mountains act as barriers for cold or hot winds; they may also cause precipitation if they are high enough and lie in the path of rain-bearing winds.

#### 6. What are the elements of weather and climate?

Ans. The elements of weather and climate are the same, i.e temperature, atmospheric pressure, wind, humidity and precipitation

#### 7. What is meant by seasons?

**Ans.** There is some common pattern of the atmospheric conditions over a few weeks or months, i.e. days are cool or hot, windy or calm, cloudy or bright, and wet or dry. On the basis of the generalised monthly atmospheric conditions, the year is divided into seasons such as winter, summer or rainy seasons.

#### 8. What is meant by Coriolis force?

**Ans.** An apparent force caused by the earth's rotation. The Coriolis force is responsible for deflecting winds towards the right in the northern hemisphere and towards the left in the southern hemisphere. This is also known as **'Ferrel's Law'**.

#### 9. What is meant by Southern Oscillation?

Ans. Normally the tropical eastern South Pacific Ocean experiences high pressure, the tropical eastern Indian Ocean experiences low pressure. But in certain years, there is a reversal in the pressure conditions and the eastern Pacific has lower pressure in comparison to the eastern Indian Ocean. This periodic change in pressure conditions is known as the Southern Oscillation.

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#### 10. Explain the features of Advancing Monsoon or the Rainy Season.

**Ans.** (1) The monsoon rains take place only for a few days at a time. They are interspersed with rainless intervals. The breaks in monsoon are related to the movement of the monsoon trough. When the axis of the monsoon trough lies over the plains, rainfall is good in these parts.

(2) On the other hand, whenever the axis shifts closer to the Himalayas, there are longer dry spells in the plains, and widespread rain occur in the mountainous catchment areas of the Himalayan rivers. These heavy rains brings, devastating floods causing damage to life and property in the plains. The frequency and intensity of tropical depressions too, determine the amount and duration of monsoon rains.

(3) The monsoon is known for its uncertainties. These are untimely, irregular, unpredictable and unevenly distributed. The alternation of dry and wet spells vary in intensity, frequency and duration. While it causes heavy floods one part, it may be responsible for droughts in the other. It is often irregular in its arrival and its retreat. Hence, it sometimes disturbs the farming schedule of millions of farmers all over the country.

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