

Climate Class 9 Extra Questions Short Answer Type Questions

Question 1.

What does the word “monsoon” imply?

Answer:

The word, monsoon is derived from the Arabic word, Mausim. It means season. Hence, the word, monsoon implies the seasonal reversal in the wind direction during a year. It conveys the rhythm of seasons and changes in direction of winds and in the distribution pattern of rainfall and temperature with the change of seasons. The monsoon winds move six months from sea to land and another six months from land to sea.

Question 2.

What are three important factors which influence the mechanism of Indian weather?

Answer:

Following are the three main factors which influence the mechanism of Indian weather :

- Surface distribution of pressure and winds.
- Upper air circulation of Jet stream.
- Inflow of western disturbances in winter and tropical depressions in summer. They create variation in the local weather conditions.

Question 3.

“India’s climate has characteristics of tropical as well as sub-tropical climates”

Discuss.

Answer:

The Tropic of Cancer passes through the middle of the country from the Rann of Kuchchh 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. 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.

Question 4.

How does the westerly jet stream help in bringing the western disturbances to the Indian subcontinent during the winter?

Answer:

The western disturbances originate near the Mediterranean sea in the winter. They move eastwards. The westerly jet stream prevails over the northern plains of India in winter. Hence, these disturbances come under the influence of the westerly jet

stream— which brings them to the Indian subcontinent. They cause widespread rainfall in this region. This winter rainfall is very useful and effective for rabi-crops.

Question 5.

State three dominant characteristics of the Indian monsoon.

Answer:

The Indian monsoon is characterised by the following three dominant features :

- Seasonal reversal of direction in wind system : The monsoon winds blow from land to sea in winter and from sea to land in summer.
- Seasonal heavy rainfall and drought are common features of the Indian monsoon.
- In spite of local variations in climatic conditions, it unites the whole country in a single climatic thread of monsoon.

Question 6.

What do you mean by Southern Oscillation?

Answer:

Normally when 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.

A feature connected with the SO is the El Nino phenomenon in which a warm ocean current that flows past the Peruvian Coast, in place of the cold Peruvian current, every 2 to 5 years. The changes in pressure conditions are connected to the El Nino. Hence, the phenomenon is referred to as ENSO (El Nino Southern Oscillations).

Question 7.

Write a short note on the trade winds.

Answer:

The winds blowing from the subtropical high-pressure belt to the equatorial low pressure belt are termed as Trade Winds'.

They blow southwards, get deflected to the right due to the Coriolis force, and move towards the equatorial low-pressure area. Generally, these winds carry little moisture as they originate and blow over land.

Therefore, they bring little or no rain. The trade winds are the most permanent and regular of all planetary winds. They blow with great force in a constant direction.

Question 8.

What do you know about rainfall distribution in India?

Answer:

Rainfall distribution is unequal in our country. Parts of western coast and northeastern India receive over about 400 cm of rainfall annually. However, it is less

than 60 cm in western Rajasthan and adjoining parts of Gujarat, Haryana and Punjab. Rainfall is equally low in the interior of the Deccan plateau, and east of the Sahyadris.

A third area of low precipitation is around Leh in Jammu and Kashmir. The rest of the country receives moderate rainfall. Snowfall is restricted to the Himalayan region.

Question 9.

Why do the Western Ghats receive more rainfall than the Eastern Ghats?

Answer:

In terms of relief, the Western Ghats are much higher in comparison to the Eastern Ghats. The Western Ghats are continuous stretches of high mountains.

Therefore, when the moisture-laden Arabian Sea branch of Southwest Monsoon first strikes the Western Ghats, it brings heavy rainfall along the windward side of the Western Ghats. In Eastern Ghats, rain, bearing winds of Southwest Monsoon do not face such orographic barrier and hence receive much lower amount of rainfall.

Question 10.

The coastal areas of India do not register any significant change in temperature even during the winter and summer. Why?

Answer:

The coastal areas of India do not register any significant seasonal changes in temperature due to the following reasons :

(a) The influence of surrounding sea keep them with equable temperature conditions such as the mean monthly temperature of Thiruvananthapuram and Mumbai fluctuates very slightly.

(b) As we know the sea waters are reservoirs of the warmth and they get heated and cooled down slowly due to conventional processes of heating and cooling and, hence, they remain warmer in winter and cooler in summer, keeping the coastal areas equable in temperature.

(c) The warm ocean currents, too, keep the coastal areas with almost equable temperature throughout the year.

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