

Ch: CLIMATE. Important Question

Question 1.

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 2.

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 3.

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 4.

What do you know about rainfall distribution in India?

Answer:

Rainfall distribution is unequal in our country. Parts of western coast and north-eastern 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 5.

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 6.

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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