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Class 9th Subject Geography

Chapter Climate

Read the following question and answer throughly and try to understand and Write down in your H.W.Copy.

Extra Questions Long Answer Type Questions

Question 1.

What are the major controls of the climate? Explain them.

Answer:

The six major controls of the climate are latitude, altitude, pressure and wind system, distance from the sea, ocean currents and relief features.

Due to the shape of the earth, the amount of solar energy received varies according to latitude. As a result, air temperature generally decreases from the equator towards the poles, as one goes from the surface of the earth to higher altitudes.

On going from the earth's surface to higher altitudes, the atmosphere becomes less dense and temperature decreases. The hills are, therefore, cooler during summers.

The pressure and wind system of any area depends on the latitude and altitude of the place. Thus, it influences the temperature and rainfall pattern. 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 (i.e., very hot during summers and very cold during winters).

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.

Relief too plays a major role in determining the climate of the place. High mountains act as barriers for cold or hot winds; they may also cause precipitation it they are high enough and lie in the path of rain-bearing winds. The leeward side of mountains remains relatively dry. (Any four points)

Question 2.

Give a brief account of the hot weather season in India.

Answer:

The period between March to May is the hot weather season or summer in India.

The characteristic features of the hot weather season are as follows :

Due to the apparent northward movement of the sun, the global heat belt shifts northwards.

The influence of the shifting of the heat belt can be seen clearly from temperature recordings taken during March-May at different latitudes. In March, the highest temperature is about 38° Celsius, recorded on the Deccan plateau.
In April, temperatures in Madhya Pradesh and Gujarat are around 42°C. In May, temperature of 45°C is common in northwestern parts of the country. In temperature remain lower due to the Peninsular India, has moderating to influence of the oceans.
The summer months experience rising temperature and falling air pressure in the northern part of the country. Towards the end of May, an elongated low-pressure area develops in the region extending from the Thar Desert in the northwest to Patna and Chotanagpur plateau in the east and southeast. Circulation of air begins to set in around this trough.
Strong, gusty, hot, dry winds, locally called ‘loo’, blow during the day over the north and northwestern India. They may continue until late in the evening.
Dust storms are common during the month of May in Punjab, Haryana, Delhi, Eastern Rajasthan and Western Uttar Pradesh. Sometimes, they bring light rain and pleasant cool breeze that provide temporary relief from the heat.
High temperature during the day causes violent, localised thunderstorms by the evening. These thunderstorms are associated with violent winds, torrential downpours, often accompanied by hail. These storms are known as ‘Kaal Baisakhi’ or calamity of the month of Baisakh in West Bengal. (Any flue)

Question 3.
What are the variations in precipitation in India?
Answer:
(a) There are variations not only in the form and types of precipitation but also in its amount and the seasonal distribution.
(b) The rest of the country receives moderate rainfall. Snowfall is restricted to the Himalayan region.
(c) The annual precipitation varies from over 400 cm in Meghalaya to less than 10 cm in Ladakh and western Rajasthan.
(d) Owing to the nature of monsoons, the annual rainfall is highly variable from year to year. Variability is high in the regions of low rainfall, such as parts of Rajasthan, Gujarat and the leeward side of the Western Ghats.
(e) Most parts of the country receive rainfall from June to September but some parts like the Tamil Nadu coast gets most of its rains during October and November.

Question 4.
Describe the effect of western cyclonic disturbances on the Indian climate?
Answer:
The western cyclonic disturbances are weather phenomena of the winter months brought in by the westerly flow from the Mediterranean region.
They affect the climate of India in the following ways :

By causing cyclonic rainfall in the month of winter, which is otherwise dry, the region of western

cyclonic disturbances influence the weather of the north and north-western India.
These low-pressure systems originate over the Mediterranean Sea and Western Asia and move into India, alongwith easterly flow.
They cause the much-needed winter rains over the plains and snowfall in the mountains.
Although the total amount of winter rainfall, locally known as ‘Mahawat’ is small, it is very useful for rabi crops. These winds are called western cyclonic disturbances since they came from the western part of India.

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