



#### Question-1

What are the controls affecting the climate of India?

Solution:

There are six major controls of the climate of any place. They are:

1. Latitude
2. Altitude
3. Pressure and wind system
4. Distance from the sea (continentality)
5. Ocean currents
6. Relief features

#### Question-2

Why does India have a monsoon type of climate?

Solution:

The monsoon type of climate is characterised by a distinct seasonal pattern. The weather conditions greatly change from one season to the other. These changes are particularly noticeable in the interior parts of the country. The coastal areas do not experience much variation in temperature though there is variation in rainfall pattern. Four main seasons can be identified in India – the cold weather season, the hot weather season, the advancing monsoon and the retreating monsoon with some regional variations.

#### Question-3

Which winds account for rainfall along the Malabar coast?

Solution:

Surface winds account for rainfall along the Malabar coast.

#### Question-4

What are Jet streams and how do they affect the climate of India?

Solution:

Jet streams are a narrow belt of high altitude (above 12,000 m) westerly winds in the troposphere. Their speed varies from about 110 km/h in summer to about 184 km/h in winter. A number of separate jet streams have been identified. The most constant are the mid-latitude and the sub tropical jet stream.

Over India, these jet streams blow south of the Himalayas, all through the year except in summer. The western cyclonic disturbances experienced in the north and northwestern parts of the country are brought in by this westerly flow. In summer, the subtropical westerly jet stream moves north of the Himalayas with the apparent movement of the sun. An easterly jet stream, called the tropical easterly jet stream blows over peninsular India, approximately over 14°N during the summer months.

#### Question-5

Define monsoons. What do you understand by "breaks" in monsoon?

Solution:

The seasonal reversal in wind direction during a year is called monsoon. Monsoon tends to have 'breaks' in rainfall; which means that there are wet and dry spells in between. The monsoon rains take place only for a few days at a time and then come the rainless intervals.

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