Question-6
Why is the monsoon considered a unifying bond?
Solution:
Despite great moderating influences on the climate of India, there are great variations in the temperature conditions. Nevertheless, the unifying influence of the monsoon on the Indian subcontinent is quite perceptible. The seasonal alteration of the wind systems and the associated weather conditions provide a rhythmic cycle of seasons.
Question-7
Why does the rainfall decrease from the east to the west in Northern India.
Solution:
The 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. 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. As such, while areas of high rainfall are liable to be affected by floods, areas of low rainfall are drought-prone.
Question-8
Give reasons as to why.
(i) The bulk of rainfall in India is concentrated over a few months.
(ii) The Tamil Nadu coast receives winter rainfall.
(iii) The delta region of the eastern coast is frequently struck by cyclones.
(iv) Parts of Rajasthan, Gujarat and the leeward side of the Western Ghats are drought-prone.
Solution:
(i)The bulk of rainfall in India is concentrated over a few months
The inflow of the south-west monsoon into India brings about a total change in the weather. Early in the season, the windward side of the Western Ghats receives very heavy rainfall, more than 250 cm. The Deccan Plateau and parts of Madhya Pradesh also receive some amount of rain in spite of lying in the rain shadow area. The maximum rainfall of this season is received in the north-eastern part of the country. Mawsynram in the southern ranges of the Khasi Hills receives the highest average rainfall in the world. Rainfall in the Ganga valley decreases from the east to the west. Rajasthan and parts of Gujarat get scanty rainfall.
(ii) The Tamil Nadu coast receives winter rainfall
A characteristic feature of the cold weather season over the northern plains is the inflow of cyclonic disturbances from the west and the northwest. These low-pressure systems, originate over the Mediterranean Sea and western Asia and move into India, along with the westerly 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, they are of immense importance for the cultivation of ‘rabi’ crops. The

peninsular region does not have a welldefined cold season. There is hardly any noticeable seasonal change in temperature pattern during winters due to the moderating influence of the sea.
(iii) The delta region of the eastern coast is frequently struck by cyclones
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 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 coasts of Orissa, West Bengal and Bangladesh.
(iv) Parts of Rajasthan, Gujarat and the leeward side of the Western Ghats are drought-prone
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. As such, while areas of high rainfall are liable to be affected by floods, areas of low rainfall are drought-prone.
Question-9
Describe the regional variations in the climatic conditions of India with the help of suitable examples.
Solution:
Despite an overall unity in the general pattern, there are perceptible regional variations in climatic conditions within the country. The two important elements, which cause these variations, are – temperature and precipitation.
For example, in summer, the mercury occasionally touches 50°C in some parts of the Rajasthan desert, whereas it may be around 20°C in Pahalgam in Jammu and Kashmir. On a winter night, temperature at Drass in Jammu and Kashmir may be as low as minus 45°C. Tiruvananthapuram, on the other hand, may have a temperature of 20°C.

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