

Climate

Source Based Questions

Source 1

Read the sources given below and answer the questions that follow by choosing the most appropriate option:

The pressure and wind conditions over India are unique. During winter, there is a high-pressure area North of the Himalayas. Cold dry winds blow from this region to the low-pressure areas over the oceans to the South. In summer, a low-pressure area develops over interior Asia, as well as, over North-western India. This causes a complete reversal of the direction of winds during summer. Air moves from the high-pressure area over the Southern Indian Ocean, in a South-easterly direction, crosses the equator, and turns right towards the low-pressure areas over the Indian subcontinent. These are known as the South-West Monsoon winds. These winds blow over the warm oceans, gather moisture and bring widespread rainfall over the mainland of India. The upper air circulation in this region is dominated by a westerly flow. An important component of this flow is the jet stream.

Q1. Where does high-pressure area exist during winter in India?

- a. South-easterly direction
- b. North of the Himalayas
- c. North-western India
- d. Coastal regions of India

Ans. (b)

Q2. What causes a complete reversal of the direction of winds during summer?

- a. A low pressure area over interior Asia
- b. A low pressure area over North-western India
- c. A high pressure area over North of Himalayas
- d. Both a. and b.

Ans. (d)

Q3.....blow over the warm oceans, gather moisture and bring widespread rainfall over the mainland of India.



- a. Easterlies
- b. Westerlies
- c. South-West monsoon winds
- d. Western cyclonic winds

Ans. (c)

Q4. In which season does the heat belt shift Northwards?

- a. Summer season
- b. Winter season
- c. Rainy season
- d. Spring season

Ans. (a)

Q5. Which winds dominate the upper air circulation in the South-West regions of India?

- a. Easterly flow
- b. Westerly flow
- c. Monsoon winds
- d. Western disturbances

Ans. (b)

Q6. Name the component of westerly flow that dominates the upper air circulation in the mainland of India.

- a. Jet-stream
- b. Ocean current
- c. Southern oscillations
- d. ITCZ

Ans. (a)

Source 2

Read the source given below and answer the questions that follow:

The cold weather season begins from mid- November in Northern India and stays till February. December and January are the coldest months in the Northern part of India. The temperature decreases from South to the North. The average temperature of



Chennai, on the Eastern coast, is between 24°-25° Celsius, while in the Northern plains, it ranges between 10°C and 15° Celsius. Days are warm and nights are cold. Frost is common in the North and the higher slopes of the Himalayas experience snowfall. During this season, the North-East trade winds prevail over the country. They blow from land to sea and hence, for most part of the country, it is a dry season. Some amount of rainfall occurs on the Tamil Nadu coast from these winds as, here they blow from sea to land. In the Northern part of the country, a feeble high-pressure region develops, with light winds moving outwards from this area. Influenced by the relief, these winds blow through the Ganga valley from the West and the North-West. The weather is normally marked by clear sky, low temperatures and low humidity and feeble, variable winds.

Q1. When does cold weather season begin in India?

Ans. Cold weather season begins from mid-November in Northern India and stays till February.

Q2. Name the winds that prevail over the country during winter season.

Ans. During winter season, North-East trade winds prevail over the country. They blow from land to sea and so it is a dry season in most parts of the country.

Q3. What type of weather is seen in this season?

Ans. The weather in this season is normally marked by clear sky, low temperatures, low humidity and feeble, variable winds.

