Multiple choice questions

Q1 Choose the correct answer from the four alternatives given below.

(i) Which one of the following places receives the highest rainfall in the world?

(a) Silchar
(c) Cherrapunji
(b) Mawsynram
(d) Guwahati

(ii) The wind blowing in the northern plains in summers is known as:

(a) Kaal Baisakhi
(c) Trade Winds
(b) Loo
(d) None of the above

(iii) Which one of the following causes rainfall during winters in north-western part of India?

(a) Cyclonic depression
(c) Western disturbances
(b) Retreating monsoon
(d) Southwest monsoon

(iv) Monsoon arrives in India approximately in:

(a) Early May
(b) Early July
(c) Early June
(d) Early August

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(v) Which one of the following characterizes the cold weather season in India?

(a) Warm days and warm nights
(b) Warm days and cold nights
(c) Cool days and cold nights
(d) Cold days and warm nights

Answer. (i) (b) *Mawsynram*
(ii) (b) *Loo*
(iii) (a) *Cyclonic depression*
(iv) (c) *Early June*
(v) (b) *Warm days and cold nights*

Q2 Answer the following questions briefly.

(i) What are the controls affecting the climate of India?

Answer:- *There are six major controls of the climate of any place. They are latitude, altitude, pressure and wind system, distance from the sea (continentality), ocean currents and relief features.*

(ii) Why does India have a monsoon type of climate?

Answer:- *The monsoon winds play an important role in the climate of India. Therefore, it is called the monsoon type of climate.*

(iii) Which part of India does experience the highest diurnal range of temperature and why?

Answer:- *The north-western part of India experiences the highest diurnal range of temperature. In the Thar desert, the day temperature may rise to 50 °e and drop down to near 15°e the same night. On the other hand, there is hardly any difference in day and night temperatures in the Andaman and Nicobar Islands or in Kerala .*

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(iv) Which winds account for rainfall along the Malabar coast?

Answer:- *The south west monsoon winds are responsible for the rainfall along the Malabar coast.*

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

Answer:- *(a) Their speed varies from about 110 km/h in summer to about 184 km/h in winter.*

(b) A number of separate jet streams have been identified.

(c) The most constant are the mid latitude and subtropical jet streams.

(d) Jet streams over the Indian peninsula during the summer affect the monsoon.

(e) The subtropical westerly jet stream blow south of the Himalayas and is responsible for the western cyclonic disturbances experienced in the north and north western parts of the country.

(f) An easterly jet stream blows over peninsular India. It affects the coastal regions of the country and is responsible for tropical cyclones during the monsoon as well as during the October to November period.

(vi) Define monsoons. What do you understand by "break" in monsoon?

Answer:- *The monsoons are moisture laden winds from the southwest which bring heavy rainfall to southern Asia, in summer. 'Break' in monsoon means that the monsoon has alternate wet and dry spells. This means that the monsoon rains take place for a few days at a time. These wet spells are interspersed with dry spells related to the movement of the monsoon trough.*

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(vii) Why is the monsoon considered a unifying bond?

Answer:-

The seasonal alteration of the wind systems and the associated weather conditions provide a rhythmic cycle of seasons.

Monsoon rains are unevenly distributed and typically uncertain. The Indian landscape, plant and animal life, agriculture, the people and their festivities, all revolve around the monsoon.

All the Indian people eagerly await the arrival of the monsoon. It binds the whole country by providing water which sets all agricultural activities in motion. That is why the monsoon is considered a unifying bond.

Q3 . Why does the rainfall decrease from the east to the west in Northern India.

Answer. Rainfall decreases from the east to the west in Northern India because there is a decrease in the moisture of the winds. As the moisture bearing winds of the Bay of Bengal branch of the south west monsoon move further and further inland, the moisture gradually decreases and results in low rainfall when moving westwards. Consequently, states like Gujarat and Rajasthan in western India get very little rainfall.

Q4 Give reasons as to why.

(i) Seasonal reversal of wind direction takes place over the Indian subcontinent?

Answer:- *During winter, there is a high pressure area north of the Himalayas. Cold winds blow from this region to the low pressure areas over the oceans to the south.*

(a) *In summer, a low pressure area develops over interior Asia as well as over north western India.*

(b) *This causes a complete reversal of the direction of winds during summer.*

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(ii) The bulk of rainfall in India is concentrated over a few months.

Answer:- *In summer, a low pressure area develops over interior Asia as well as over north western India.*

(a) *This causes a complete reversal of the direction of winds during summer. Air moves from the high pressure area over the southern Indian ocean, crosses the equator and turns right towards the low pressure areas over the Indian subcontinent.*

(b) *These are known as the south-west monsoon winds.*

(c) *These winds blow over warm oceans, gather moisture and bring widespread rainfall over the mainland of India.*

(d) *The duration of the monsoon is between 100-120 days from early June to mid September. Thus, we can say that rainfall in India is concentrated over a few months.*

(iii) The Tamil Nadu coast receives winter rainfall.

Answer:- *During the winter season, -the north-west 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.*

(iv) The delta region of the eastern coast is frequently struck by cyclones.

Answer:- *The delta region of the eastern coast is frequently struck by cyclones because the cyclonic depressions which originate over the Andaman Sea generally cross the Eastern coasts of India and cause heavy and widespread rain.*

(a) *These 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.*

(b) *Sometimes these cyclones arrive at the coasts of Odisha, West Bangal and Bangladesh.*

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(v) Parts of Rajasthan, Gujarat and the leeward side of the Western Ghats are drought prone.

Answer:- *Parts of Rajasthan, Gujarat and the leeward side of the Western Ghats are drought prone because they receive scanty rainfall. Even during the monsoon months the monsoon winds when rising over the Western Ghats give rain to that area. By the time they reach Rajasthan and Gujarat there is very less moisture left in these winds and so these areas are drought prone.*

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