

## 14. Climate of India

### Multiple Choice Questions

#### 1. Question

The monsoon word is a conversion of-

- A. Mausim
- B. Monish
- C. Manas
- D. All of these

#### Answer

Option (a) is correct because the monsoon word is a conversion of Mausim. Mausim is an Arabic word which means weather or season.

Option (b) is not correct because Monish is the other name of lord Krishna.

Option (c) is not correct because Manas is a Sanskrit term which means sensory or processing mind.

Option (d) is not correct because monsoon word is conversion of Mausim not the conversion of Monish and Manas so all of these will not be correct answer.

#### 2. Question

Maavath rain occur in-

- A. Spring rain
- B. winter rain
- C. Summer rain
- D. ordinary rain

#### Answer

Option (b) is correct because Maavath rain occur in winter rain. It is caused by the winds along with Mediterranean cyclones.

Option (a) is not correct. Spring is the rainiest season of the year. Spring rain falls in the month from June to September.

Option (c) is not correct because summer rain is due to the reason as land mass heated up, warm air rises up and pulls up moisture from the water bodies on earth surface and as a result of precipitation rain occur.

Option (d) is not correct because ordinary rain is a major component of water cycle and responsible for depositing most of the fresh water on the earth.

### **3. Question**

According to Indian culture number of season are-

- A. two
- B. four
- C. three
- D. Six

### **Answer**

Option (d) is correct because according to Indian culture numbers of seasons are six. The six seasons are spring, summer, monsoon, autumn, pre-winter and winter.

Option (a) is not correct because two seasons is only for some tropical region. Two seasons are rainy season and dry season.

Option (b) is not correct because according to US English numbers of seasons are four. Four seasons are spring, summer, autumn and winter.

Option (c) is not correct because some places have only three seasons. Three seasons are cool, mild and harmattan.

### **Very Short Answer**

#### **1. Question**

The word Mausim is taken from which language?

#### **Answer**

The word "Mausim" is taken from Arabian language. The word Mausim means weather or season. Monsoon word is the conversion of Mausim. Monsoon is the seasonal change in the pattern of wind flow or the pattern of rainfall. It is a wind system which influences very large climatic region. This wind comes from the southwest or the south and brings heavy rainfall to southern Asia in the summer.

#### **2. Question**

Where is high pressure area created due to perpendicular position of sun on tropic of Cancer?

**Answer**

A high pressure area is a region where the atmospheric pressure at the surface of planet is greater than its surrounding environment. Area close to Indian Ocean, Australia and south of Japan in Pacific Ocean are high pressure area created due to perpendicular position of sun on tropic of Cancer.

**3. Question**

Where is low pressure of sun on tropic Cancer?

**Answer**

Tropic of Cancer is also referred to as the Northern latitude on the earth where the sun can appear overhead. The tropic of Cancer is currently positioned at 23.4 degrees north of the Equator.

North of the Arctic Circle and Greenland is the low pressure area of sun on tropic of Cancer.

**4. Question**

Where is low pressure area created due to perpendicular position of sun on tropic of Capricorn?

**Answer**

Low pressure area is a region on the topographic map where the atmospheric pressure is lower than that of surrounding location. Low pressure area is created on Indian Ocean sea shore due to perpendicular position of sun on tropic of Capricorn. Low pressure can be enhanced by the air column over it being warmed by condensation of water vapour in large rain or snow systems.

**5. Question**

Where is low air pressure area created in summer in Rajasthan?

**Answer**

Air pressure determines wind and weather patterns across the globe. Low air pressure area is usually associated with high winds, warm air and atmospheric lifting. Western Rajasthan is the area where low air pressure is created in summer in Rajasthan.

**Short Answer****1. Question**

Write the factors which affect the Indian climate.

**Answer**

Climate is defined as the average state of everyday's weather condition. India climate is controlled by many factors. The factors which affect the Indian climate are:

\***Monsoon Winds:** It is the most dominating factor of Indian climate. It brings a sudden change in the seasons.

\***Influence of water bodies:** The water bodies surrounding India exert moderating influence on the climatic conditions. Climate of the coastal areas is always moderate throughout the year.

\***Latitudinal extent:** The latitudinal extent is an important factor which influences the climatic condition. Northern hemisphere and Southern hemisphere experience different climatic conditions due to their latitudinal extent.

\***Altitude:** The temperature decreases with increase in height. The towns and cities in the plains experience warm climate in comparison to hill stations.

The other factors which affect the Indian climate are upper air circulation, El-Nino effect, La Nina effect and Physiography.

## **2. Question**

Write the names and periods of the winter season period and the summer season periods.

### **Answer**

The names of winter season period are:

\***Winter Season:** This season is from December to February. During this season temperature ranges from 4 degree Celsius to 28 degree Celsius.

\***Summer Season:** This season is from March to mid- June. The temperature ranges from 32 degree Celsius to 46 degree Celsius.

The names of summer season period are:

\***Rainy Season:** This season is from mid June to mid September. Temperature varies from 18 degree Celsius to 30 degree Celsius.

\***Autumn Season:** This season is from mid September to mid December. During this season temperature increases up to 38 degree Celsius.

## **3. Question**

Describe the Arabian monsoon.

### **Answer**

Monsoon is a seasonal shift in the prevailing wind direction that usually brings different kind of weather. Monsoon is also known as rainy season and lasting from July to September.

Arabian Sea is located in the north-western part of the Indian Ocean. Arabian Sea is stronger than the Bay of Bengal. Inner plateau receives very low rainfall from Arabian Sea. Arabian Sea monsoon is one of the branches of South-West monsoon.

Arabian Sea Monsoon branch strikes Western Ghat. It sheds about 250-300 cm of rainfall. Rajasthan is parallel to the Aravalli ranges and receives very little rainfall. Wind blowing from the Bay of Bengal and Arabian Sea in the southwest brings heavy rainfall to the area.

#### **4. Question**

Explain the relation between rainfall and Aravalli mountain range in Rajasthan.

#### **Answer**

Aravalli Range is a range of mountains running approximately 692 km in a south west direction. The Aravalli range runs parallel to the moisture laden south west monsoon winds. It divides Rajasthan on the basis of rainfall. Eastern part receives more rainfall while western part receives less rainfall. In the southern Aravalli the mountains have slight east-west span thus receiving good rains in this region. The southern Aravalli are much greener than northern part. Precipitation is minimal through this branch. Moisture which is left by Bay of Bengal is stopped by Aravalli and making the western part of Rajasthan a desert.

#### **Essay Type**

##### **1. Question**

Describe the temperature, air-pressure, condition of rain and winds of south-western monsoon in details.

#### **Answer**

South western monsoon seasons occur in June to mid September. It is also known as hot-wet season. The important feature of south west monsoon is sudden onset.

\*Temperature: Sudden onset of south western monsoons leads to significant fall in temperature and it starts rising in September. Temperature remains less uniform throughout the rainy season. It ranges around 32-40 degree Celsius in monsoon.

\*Air Pressure: High pressure and low pressure both are seen during south west monsoon. Low pressure area is Thar Desert of Rajasthan and high pressure area develops over the Indian Ocean in South.

\*Conditions of Rain: South west monsoon flows from sea to land; it carries more moisture and therefore causes more rain. The Arabian Sea branch of the south west monsoon hits the western ghats of the coastal state of Kerala and

making this area the first state in India to receive rain from Southwest Monsoon.

\*Winds: The winds move from the South-West Ocean towards the North east plains and are called south west or monsoon winds. South west monsoon winds blow over the warm oceans and thus bear moisture bringing abundant rainfall in India.

## **2. Question**

Describe the distribution of rainfall in India in details.

### **Answer**

In India rainfall is not even. It is highly uneven over a period of time in a year. It varies from season to season. The Western coasts and North East India receive rainfall of over 400 cm. It is less than 60 cm in Western Rajasthan. The average rainfall in India is 125 cm. The South- west monsoon constituted 75% of the total rainfall, 13% of it by north-east monsoon, 10% of it by pre monsoon rainfall.

As we move from Meghalaya to Haryana or Punjab in Northern plains, rainfall decreases. In North-East India, the rainfall increases with altitude.

Rainfall in India can be divided into four parts:

\*Areas of Heavy Rainfall: This region receives more than 200 cm rainfall. These areas are Jaintia hills of Meghalaya, Assam, Uttar Pradesh etc. Due to heavy rainfall tropical evergreen forests are found.

\*Areas of Moderate Rainfall: These areas receive rainfall around 100-200 cm. These areas are West Bengal, Eastern Tamil Nadu, Bihar and many states.

\*Areas of low Rainfall: These areas receives 60-100cm. These areas are Southern Peninsula, Madhya Pradesh, Rajasthan and interior Deccan plateau.

\*Areas of Inadequate Rainfall: These areas receive less than 50 cm. These areas are western part of Rajasthan and Gujarat etc.

## **3. Question**

Explain the climate related conditions of Rajasthan.

### **Answer**

Rajasthan is located in the north western part of India. It is the driest region in India. Climate of Rajasthan keeps varying because of its topography. In the desert areas, it is usually hot and dry in summer and cold during winters.

On the basis of Monsoon period, the climate of Rajasthan is divided into:

\*Winter Monsoon Period

\*Summer Monsoon Period

Winter Monsoon Period is classified as:

\*Winter Season: This period is from December to February. The temperature ranges from 4 degree Celsius to 28 degree Celsius. During this season, light winds blow from the north and north east. Temperature falls gradually, sometimes the minimum temperature falls below the freezing point in some places.

\*Summer Season: This period is from March to mid June. It is hottest of all seasons. The temperature in Rajasthan is very high and it ranges between 32 degree Celsius and 46 degree Celsius. The average temperature exceeds 38 degree Celsius. Hot, dusty wind blows known as 'Loo' during this season.

Summer Monsoon Period is classified as:

\*Rainy Season: This period is from mid June to mid September. Most of the rainfall is received from the south west monsoon in this period. There are some parts in western Rajasthan which receives very little rain. Temperature varies from 18 degree Celsius to 30 degree Celsius.

\*Autumn Season: This period is from mid September to December. During this season temperature increases up to 38 degree Celsius. Winds are calm at this time. Rainfall does not occur during this season.

## **Locat on Map**

### **1. Question**

Show the states of south-west monsoon winds on the map of India.

**Answer**



## 2. Question

Show the distribution of annual rainfall of Rajasthan on the map of Rajasthan.

**Answer**



