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CLASS: VII	SUB: SOCIAL SCIENCE	TOPIC: GEOGRAPHY	CH-3 (Theme A)
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CLIMATIC REGIONS OF INDIA

A. Tick (✓) the correct option.

1. Which term describes the condition of the atmosphere at a specific time or in the immediate future? **Weather**
2. The word 'monsoon' comes from an Arabic word that means: **Season.**
3. Which climate is characterised by extremely hot days and very little rain, like in the Thar Desert ? **Arid**
4. The 'eye of the cyclone' is a region that is: **the centre of the storm, clear of clouds.**
5. The winter monsoon brings dry conditions to most of Asia because the winds blow from the: **land towards the ocean.**
6. What is the main cause of seasons on Earth? **Earth's tilt and orbit around the Sun**
7. Which of the following describes the climate of a high-altitude region like the Himalayas? **Alpine**

B. Fill in the blanks:

1. The climate of the Thar Desert is arid because it gets very little.
2. The higher you go in altitude, the cooler it gets.
3. The India Meteorological Department (IMD) was set up in 1875.
4. A microclimate is a very small area that can have its own special climate.
5. The Himalayas act like a natural wall, causing their western slopes to get a lot of rain.
6. Climate is the usual weather pattern of a place over a very long time, you leave 30 years or more.

7. The **monsoon** is a seasonal wind system that brings heavy rainfall to India.

C. Write 'T' for true and 'F' for false statements:

1. The troposphere is the layer of the atmosphere where almost all weather happens. **True**
2. Land heats up and cools down faster than water. **True**
3. A temperate climate has very hot summers and very cold winters. **False**
4. Deforestation is one of the human activities that causes climate change. **True**
5. Floods can happen in cities because concrete surfaces do not let water soak into the ground. **True**
6. Weather and climate are the same thing. **False**
7. The higher the altitude, the cooler the air becomes. **True**

D. Answer the following questions in brief.

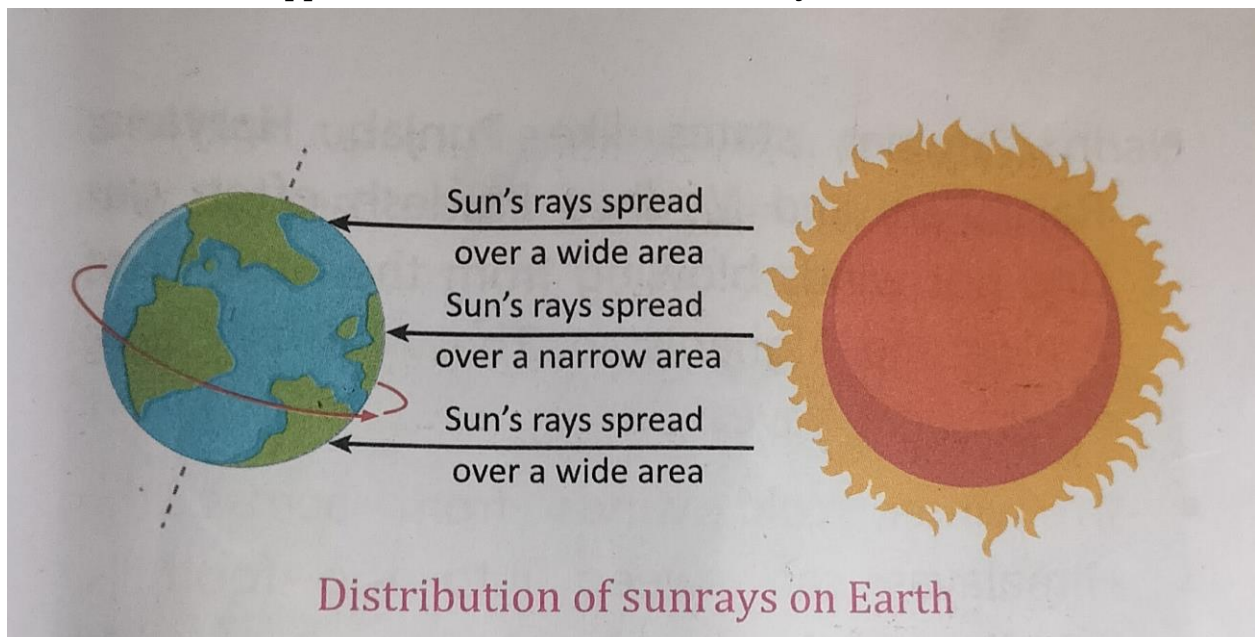
1. Briefly explain the difference between climate and weather.

Weather - The condition of the atmosphere at a specific time or in the immediate future which can change hourly or daily.

Climate - The usual pattern of weather that a place origin experience is over and very long time, typically 30 years or more.

2. How does latitude affect the temperature of a place?

Places closer to the equator are generally warmer, while those further away are colder. This happens because of how the Sun's ray hit the Earth.



3. Why does a place's altitude affect its climate?

A place's altitude affects its climate because

1. As you go higher, the pressure drops, and the air becomes thinner. Thin air holds less heat, so it feels cooler.
2. The Sun mostly heats the Earth's surface. So the farther away from the surface you are, the less heat the air gets.

4. What is a glacial burst, and what can cause it?

In Himalayan regions, floods can also happen when glacier lakes overflow. These lakes hold water from melting glaciers. If glaciers melt too fast or if there's too much rain, the water can break through the natural barriers of rock and ice. This is called a glacial burst or Glacial Lake Outburst Flood (GLOF), and it can cause terrible damage to people and property.

5. How does the sea act as a moderator of weather?

The sea heats and cools more slowly than land. It therefore reduces extreme temperatures in coastal areas, making their climate neither very hot nor very cold.

6. Name few Indian festivals that are connected to seasons or harvests.

Few Indian festivals that are connected to seasons or harvests are Pongal, Bihu, Onam, Lohri.

E. Answer the following questions in detail:

1. Why is the summer monsoon so important for India?

The summer monsoon is extremely important because:

1. It provides most of India's annual rainfall.
2. It supplies water for drinking, agriculture and irrigation.
3. It fills rivers, lakes, reservoirs and groundwater.
4. It supports the production of crops such as rice, pulses and cotton.
5. Good monsoon rainfall supports India's economy, while a weak or irregular monsoon can cause droughts and crop losses.

2. Discuss the different types of climates found across India. Choose at least three examples and describe their characteristics.

The following are the different types of climates that are found across India :-

1. **Alpine Climate** - It is found at very high altitudes. It is extremely cold, with snowfall in winter. Examples - Ladakh, high Himalayas, Himachal Pradesh.

2. **Temperate Climate** - It has moderate temperatures, with cool winters and pleasant summers. Examples - Kashmir, parts of Himachal Pradesh, Uttarakhand.
3. **Subtropical Climate** - It has hot summers and cool winters. Rainfall occurs mainly during the monsoon. Examples - Punjab, Haryana, Uttar Pradesh.
4. **Arid Climate** - It is very hot and dry, with very little rainfall. Days can be extremely hot and nights cooler. Examples - Western Rajasthan, Thar Desert, Kutch.
5. **Tropical Wet Climate** - It is Warm throughout the year and receives heavy rainfall. Examples - Kerala, Assam, Andaman and Nicobar Islands.
6. **Semi-Arid Climate** - It is hot and relatively dry, with low to moderate rainfall. Examples - Parts of Rajasthan, Gujarat, Maharashtra.
7. **Tropical Climate** - It is generally hot throughout the year, with seasonal rainfall and a clear wet and dry season. Examples - Karnataka, Telangana, Tamil Nadu.

3. Explain the concepts of global warming and climate change. What are the major human activities that contribute to these phenomena?

The greenhouse gases trap extra heat, intensifying the natural greenhouse effect and causing the Earth to warm rapidly. This is known as global warming.

Climate change means important, long term changes in the earth's climate. These can be changes in temperature, rainfall, and weather events.

The major human activities that contribute to these phenomena are

- Burning of fossil fuels.
- Deforestation.
- Harmful industrial practices.
- Too much for wasteful buying and producing of goods.

4. Describe the different factors that cause the varied climates across India.

The factors that cause the varied climates across the India are as follows:-

1. Latitude – Places closer to the Equator are generally hotter, while places farther away are cooler.
2. Altitude – As we go higher, the temperature becomes lower. So, mountains are cooler than plains.

3. Proximity to the Sea – Places near the sea have moderate temperatures, while places far from the sea have extreme temperatures.
4. Winds – Winds affect the temperature and rainfall of a place. Monsoon winds bring most of the rainfall to India.
5. Topography – Mountains, plains and other landforms affect the temperature and rainfall of a place.