

Geography
Class VI
Weather and Climate

Synopsis

- **Weather-** The state of atmosphere at a given place and at a given time.
- **Climate** - It is the average weather conditions along with variations and extremes which characterize a place.
- The study of weather and its elements is known as **Meteorology**.
- **Temperature, atmosphere pressure humidity, precipitation, winds, clouds** etc are some of the important elements of weather.
- **Atmospheric pressure** - The force exerted by the vertical columns of air per unit of area is called Atmospheric Pressure.
- **Factors affecting atmospheric pressure are**
 - **Altitude**
 - **Temperature**
- **World Pressure Belts** - They are following permanent pressure belts:
 - **Equatorial low pressure belts (Doldrums)**
 - **Sub-Tropical high pressure belt**
 - **Sub- Polar low pressure belt**
 - **Polar high pressure belt**
- **Humidity** - The amount of water vapour present in the air is called humidity.
- Humidity is measured and expressed in two ways :
 - **Absolute humidity and Relative humidity**
- **Precipitation** - The process through which water from the atmosphere falls down on the earth is called Precipitation.
 - **Types of Precipitation are rain, dew, hail and snow.**
- **Winds** - Air moves from high pressure area to low pressure area such a horizontal movement of air is called the wind.
- **Clouds** are a large collections of very tiny droplets of ice-crystals.
- **Classification of Clouds** -
 - Clouds are classified on the basis of the shape and the height at which they are formed. Basically there are three types of Clouds **high clouds, middle cloud and low clouds**.
- **Weather Instruments**
 - **Thermometer**
 - **Rain gauge**
 - **Hygrometer**
 - **Anemometer and wind vane**
 - **Barometer**
- **Isohytes** or **isohyetal** is a line on a map which connects points that have the same amount of precipitation in a given period or for a particular storm.
- **Isotherms** are lines of constant or equal temperature. they are often used on weather maps by meteorologists to give a large scale view of temperature across the region.

Q1. Define :

- a) weather
- b) meteorology
- c) insolation
- d) humidity

Q2. Answer the following questions :

- a) What are periodic winds ?
- b) What are planetary winds ?
- c) What are clouds ?
- d) What is a hyetograph ?
- e) Explain 'Absolute Humidity'

Q3. Do the following exercises from the textbook :

- a) Exercise A question numbers 2, 5, 9, 10 on page 38
- b) Exercise B question 1 on page 38