

Chapter – 2 Geography

Globe: Latitudes and Longitudes

- A globe is a true model of the earth.
- The globes are of varying sizes and types.
- Globe can be rotated in the same way as a top spin or potter's wheel is rotated.
- **Axis**-The imaginary line passing through the centre of the earth and joining the two points.
- A needle is fixed through the globe in a titled manner, which is called its axis.
- Another imaginary circular line running on the globe divides it the earth into two equal parts. This line is called as **Equator**.
- The northern half of the earth is known as the Northern Hemisphere and the southern half is called the Southern Hemisphere.
- All parallel circles from the equator up to the poles are called parallels of latitudes.
- The equator represents the zero degree latitude.
- Besides the equator (0 degree celcius), the North Pole 90 degree North), the South Pole (90 degree South), there are four important parallels of latitude - Tropic of Cancer $\left(23\frac{1}{3}^{\circ} N\right)$ in the Northern Hemisphere, Arctic Circle at $66\frac{2}{3}^{\circ} N$ north of the Equator and Antarctic Circle at $66\frac{2}{3}^{\circ} S$ south of the Equator.
- **Heat Zones of the Earth**
 - (i) The area which receives the maximum heat is called the Torrid zone.
 - (ii) The areas around Antarctic Circle in the Southern Hemisphere, have medium temperature. These are called Temperature Zones.
 - (iii) These are certain cold areas in the hemisphere. They are called Frigid Zones.
- **What are Longitudes:**
 - (i) Unlike parallels of latitude, all meridians are of equal length.
 - (ii) Hence, all countries decided that the count should begin from the meridian which passed through Greenwich, where the British Royal Observatory is located. This meridian is called the Prime Meridian.
- **Longitude and Time:**
 - (i) The best means of measuring time is by the movement of the earth, the moon and the planets.
 - (ii) The sun regularly rises and sets every day, and naturally. It is the best time-keeper throughout the world.
 - (iii) Local time can be reckoned by the shadow cast by the sun, which is the shortest at noon and longest at sunrise and sunset.

- (iv) When the prime meridian of Greenwich has the sun at the highest point in the sky, all the places along this meridian will have mid-day or noon.
- (v) As the earth rotates from west to east, those places east of Greenwich will be ahead of Greenwich time and those to the west will be behind it.
- (vi) At any place a watch can be adjusted to read 12 O'clock when the sun is at the highest point in the sky, when it is mid-day.

• **Why do we have Standard Time?**

- (i) The local time of places which are on different meridians are bound to differ.
- (ii) For example, in India there will be a difference of of about 1 hour and 45 minutes in the local times of Dwarka in Gujarat and Dibrugarh in Assam.
- (iii) In India, the longitude of $\left(23\frac{1}{3}^{\circ} S\right)$ is treated as the standard meridian. The local time at this meridian is taken as the standard time for the whole country. It is called Indian Standard Time.

