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 $\left(23\frac{1}{3}^{\circ}\ S\right)$ in the Southern Hemisphere, Arctic Circle at $66\frac{1}{2}^{\circ}$ north of the Equator and Antartic Circle at $66\frac{1}{2}^{\circ}$ south of the Equator.
- **Heart 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 parallesl 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 regularlgy 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 0'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.