



**Lesson 2**

**Globe : Latitudes and Longitudes**

**Solutions**

**Exercises**

1. Answer each question in a word or a sentence :

a) What is meant by latitude?

Ans. Latitude is the angular distance of a place north or south of the equator.

b) What is the angle of inclination of the earth's axis to its orbital plane?

Ans. The axis of the earth is inclined at an angle of  $66\frac{1}{2}^{\circ}$  to its orbital plane.

c) On which day is the sun overhead at the tropic of cancer ?

Ans. On 21<sup>st</sup> June the sun is overhead at the tropic of cancer.

2. Answer the following question in about 40 word each :

a) How is globe useful to us ?

Ans. A globe gives us a clear vision of the shape of the earth. It shows the north and the south poles, latitudes and longitudes, oceans and continents etc.. Globe also shows relief features like mountains, plateaus and plains.

b) What is a great circle ?

Ans. When we rotate the globe slowly and draw a line midway between the north pole and the south pole till it becomes a full circle. This is the largest circle we can draw on a globe. Such a circle is called a great circle. The equator itself is a great circle.

c) Name the three heat zones of the earth.

Ans. The three heat zones of the earth are: Torrid zone, Temperate Zone, and Frigid zone

d) What is the difference between local time and standard time?

Ans. When the sun is overhead at the longitude where we are, we call it noon or midday. This is our local time whereas standard time refers to the time that is officially used in a country. Standard time is recorded as per the Greenwich Time.

**3. Choose the correct answer :**

- i) **The areas between the tropic of cancer and the arctic circle is known as**  
A) Torrid Zone                      **B) North Temperate Zone**  
C) South Temperate Zone      D) Frigid Zone

Ans: B. North Temperate Zone

- ii) **The value of the prime meridian is**  
A)  $30^\circ$       **B)  $0^\circ$**       C)  $90^\circ$       D)  $180^\circ$

Ans: B

- iii) **Which one of the following is a great circle ?**  
A) Antarctic Circle      B) Tropic of Capricorn  
**C) Equator**                      D) Longitude

Ans: C) Equator

**4. Fill in the blanks :**

- a) The standard meridian of India is  $82^\circ 30'$  E.  
b)  $23^\circ 30'$  N latitude is known as the Tropic of Capricorn.  
c) All meridians of longitude are equal in length.  
d) The value of the Arctic Circle is  $66^\circ 30'$  N.



DEPARTMENT OF EDUCATION (S)  
Government of Manipur