

Chapter 2: Globe Latitudes and Longitudes

Question 1. Answer the following questions briefly.

a. What is the true shape of the earth?

Answer: Our Earth is slightly flattened at the North and South poles and bulges in the middle. It is not a perfect sphere.

b. What is a globe?

Answer: Globe is a true model or miniature form of the earth.

c. What is the latitudinal value of the Tropic of Cancer?

Answer: The latitudinal value of the tropic of Cancer is 23 and a half degrees north.

d. What are the three heat zones of the Earth?

Answer: The three heat zones of the earth are :

1. **Torrid zone:** This occurs when the mid-day sun gets exactly overhead on all latitudes in between the Tropic of Cancer and the Tropic of Capricorn at least once a year. This area, therefore, receives the maximum heat and is called the Torrid Zone.
2. **Temperate zone:** The Sun ray's does not fall on any latitude beyond the Tropic of Cancer and the Tropic of Capricorn. The angle of the sun's rays goes on decreasing towards the poles. Therefore, the areas bounded by the Tropic of Cancer and the Arctic Circle in the Northern Hemisphere, and the Tropic of Capricorn and the Antarctic Circle in the Southern Hemisphere, have moderate temperatures. These are, therefore, called Temperate zone.
3. **Frigid zone:** The sun does not rise much above the horizon. Therefore, its rays are always slanting and provide less heat to the areas lying between the Arctic Circle and the North Pole in the Northern Hemisphere and the Antarctic Circle and the South Pole in the Southern Hemisphere.

e. What are parallels of latitude and meridians of longitude?

Answer: **Parallels of latitude-** All parallel circles from the equator up to the poles are called parallels of latitude.

Meridian of longitudes- The imaginary lines of references that are running from the north pole to the South pole are called meridians of longitude.

f. Why does the torrid zone receive the maximum amount of heat?

Answer: The torrid zone receives the maximum amount of heat because the mid-day sun gets overhead at least once a year on all latitudes in between the Tropic of Cancer and Tropic of Capricorn.

g. Why is it 5.30 p.m. in India and 12.00 noon in London?

Answer: India is located at the east of Greenwich at 82°30'E and is 5 hours and 30 minutes ahead of GMT. That is why it is 5:30 p.m. in India and 12 noon in London.

Question 2. Tick the correct answer.

a. The value of the prime meridian is

- i. 90°
- ii. 0°
- iii. 60°

b. The frigid zone lies near

- i. the Poles
- ii. the Equator
- iii. the Tropic of Cancer

c. The total number of longitudes are

- i. 360
- ii. 180
- iii. 90

d. The Antarctic circle is located in

- i. the Northern hemisphere

- ii. the Southern hemisphere
- iii. the Eastern hemisphere

e. **Grid is a network of**

- i. parallels of latitudes and meridians of longitudes
- ii. the Tropic of Cancer and the Tropic of Capricorn
- iii. the North Pole and the South Pole

Answer:

1. (ii) 0°
2. (i) the poles
3. (ii) 360
4. (ii) the Southern hemisphere
5. (i) parallels of latitudes and meridians of longitudes

Question 3. Fill in the blanks.

- a. The Tropic of Capricorn is located at _____ .
- b. The Standard Meridian of India is _____ .
- c. The 0° Meridian is also known as _____ .
- d. The distance between the longitudes decreases towards _____ .
- e. The Arctic Circle is located in the _____ hemisphere.

Answer:

- a. The Tropic of Capricorn is located at 23 half degrees south.
- b. The standard meridian of India is $82^\circ 30'E$.
- c. The 0° meridian is also known as prime meridian.
- d. The distance between the longitudes decreases towards the poles.
- e. The Arctic circle is located in the Northern hemisphere.

Things to do:

Question: Draw a diagram of the globe showing the earth's axis, the Equator, Tropics of Cancer and Capricorn, Arctic Circle and Antarctic Circle.

Answer:

