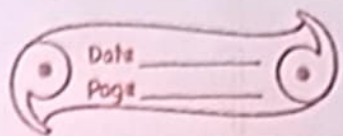


H.W
29/9/21



① Answer the following questions briefly :-

a) What is the true shape of the Earth?

Ans - The Earth continuously rotates around its own axis. Due to this rotation, the area at the equator elongates or bulges out and the poles ~~are~~ ^{become} flattened. Hence, the true shape of the Earth is a spheroid, as it looks like an orange.

b) What is a globe?

Ans - Globe a true representation and the miniature model of the Earth. It is more convenient to use than maps, as they show countries and continents, and direction and distances without any distortion.

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

Ans - Tropic of Cancer is one of the important parallels. It is located in the Northern Hemisphere of the Earth. The latitudinal value of the Tropic of Cancer is $23 \frac{1}{2}^{\circ} N$.

Q. What are the three hot heat zones of the Earth?

Ans- The three heat zones of the Earth are -

→ **Torrid Zone:**

It lies between 0° to $23\frac{1}{2}^\circ$ N

Tropic of Cancer and $23\frac{1}{2}^\circ$ S

Tropic of Capricorn.

This zone gets the direct rays of the Sun and hence, experiences very hot weather season.

→ **The Temperate Zones:**

It lies between $23\frac{1}{2}^\circ$ N Tropic of Cancer and $66\frac{1}{2}^\circ$ N Arctic Circle in

Northern Hemisphere, and $23\frac{1}{2}^\circ$ S

Tropic of Capricorn and $66\frac{1}{2}^\circ$ S

Antarctic Circle.

This zone gets experienced moderate and comfortable combination of seasons.

→ The Frigid Zones:

It lies between $66\frac{1}{2}^{\circ}$ N Arctic Circle and 90° N North Pole in Northern Hemisphere, and $66\frac{1}{2}^{\circ}$ S Antarctic Circle and 90° S South Pole in Southern Hemisphere.

This zone experiences extremely cold weather season.

e) what are the parallels of latitude and meridians of longitudes?

Ans - Parallels of latitude -

The horizontal imaginary lines that run horizontally across the surface of the Earth are called parallels of latitude.

The 5 important parallels are -

→ Equator or 0° latitude.

→ Tropic of Cancer ($23\frac{1}{2}^{\circ}$ N) in Northern Hemisphere.

→ Tropic of Capricorn ($23\frac{1}{2}^{\circ}$ S) in Southern Hemisphere.

→ Arctic Circle ($66\frac{1}{2}^{\circ}$ N) in Northern Hemisphere.

→ Antarctic Circle ($66\frac{1}{2}^{\circ}$ S) in Southern Hemisphere.

Parallels of longitude -

The imaginary lines that run vertically over the surface of the Earth, from the North Pole to the South Pole, are called lines of longitude or meridians. There are 180° of longitude in total.

Q) Why does the Torrid Zone receive the maximum amount of heat.

Ans- The Torrid Zone lies between 23½°N Tropic of Cancer and 23½°S Tropic of Capricorn. It is the only temperature zone which receives the direct rays of the Sun. This makes the Torrid Zone the hottest among all the temperature zones.

Q) Why is it 5:30 PM in India and 12 noon in London?

Ans- The places east to Greenwich are ahead of Greenwich Time, whereas places west to Greenwich are behind it. Similarly, the places east to India are ahead of IST, whereas the places west to India are behind it.

London is to the west of ~~the~~ India.

India's Standard Meridian = $82\frac{1}{2}^{\circ} E$

London's Standard Meridian = 0°

Difference between the meridians = $82\frac{1}{2}^{\circ} - 0^{\circ}$
= $82\frac{1}{2}^{\circ}$

Time taken by Earth to rotate 1 degree = 4 mins

Time taken by Earth to rotate $82\frac{1}{2}^{\circ}$ = $82\frac{1}{2}^{\circ} \times 4 \text{ mins}$
= 330 mins
= $\frac{330}{60}$ hrs

= 5 hr 30 min

This calculation proves that it is 5:30 PM in India when it is 12 noon in London.