

NCERT SOLUTIONS

CLASS - 11th



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Subject : Geography

Chapter : 3

Chapter Name : Latitude, Longitude and Time

Q1 Answer the following questions in about 30 words :

- i) Which are the two natural points of references on the earth?
- ii) What is a great circle ?
- iii) What are coordinates ?
- iv) Why does the sun appear to be moving from east to west?
- v) What is meant by local time ?

Answer.

- i) The two natural points of references on earth are North Pole and South Pole. These two natural points are provided by the spinning of the earth on its axis from West to East.
- ii) The line that divides the earth into two equal halves is called the equator. This line is horizontal and runs east-west and is drawn midway between the North Pole and South Pole.
- iii) The latitudes and longitudes are referred to as geographical coordinates because they provide systematic network of lines upon which the position of various surface features of the earth, can be represented.
- iv) The rotation of the earth from West to East over its axis makes the sun appear to be moving in the opposite direction i.e east to west.
- v) The sun transverses 15° of longitude per hour or one degree of longitude in every four minutes of time ($60 \text{ minutes} \div 15^\circ = 4 \text{ minutes}$). So, local time is the time as per the meridian at which that specific place is located.

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Q2 Distinguish between latitudes and longitudes.

Answer.

LATITUDES	LONGITUDES
1. It is the angular distance of a point north or south of the equator as measured in degrees.	1. It is the angular distance along the equator measured in degrees.
2. All latitudes are parallel to the equator.	2. All meridians of longitude converge at the poles.
3. On a globe, parallels of latitudes appear as circles.	3. They appear as circles running through the poles.
4. The distance between two latitudes is approximately 111 km.	4. The distance between two longitudes is maximum at the equator (111.3 km) and minimum at the poles (0 km). Midway, at 45° of latitude, it is 79 km.
5. The 0° latitude is referred to as the equator and the 90° as the poles.	5. There are 360° of longitude. 180° each in the east and west of the Prime Meridian.
6. The latitudes from the equator to the poles are used to demarcate temperature zones, i.e. 0° to 23 ½ ° south as the torrid zone, 23 ½ ° to 66 ½ ° as the temperate zone and 66 ½ ° to 90° as the frigid zone.	6. The longitudes are used to determine the local time with reference to the time at Prime Meridian.