



Geography

By

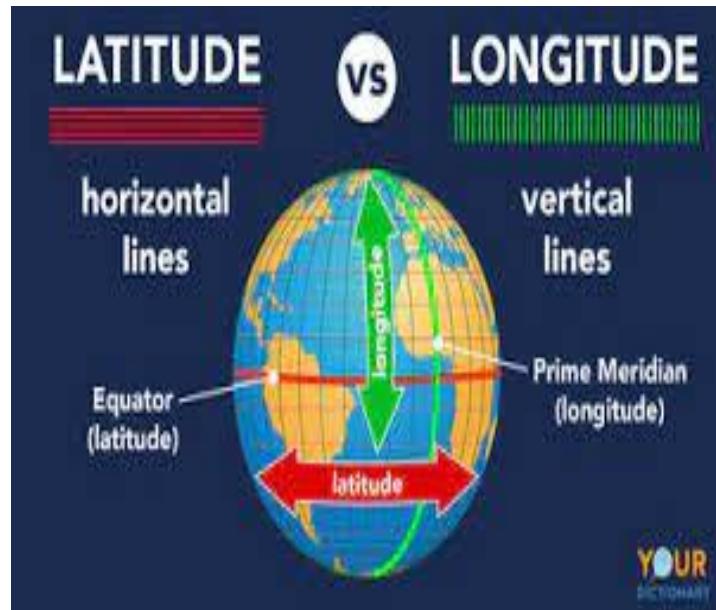


About Me

- NAME-
- ACADEMIC QUALIFICATION-
- JOB EXPERIENCE-
- HOBBIES-

Today's Topic- Latitude & Longitude

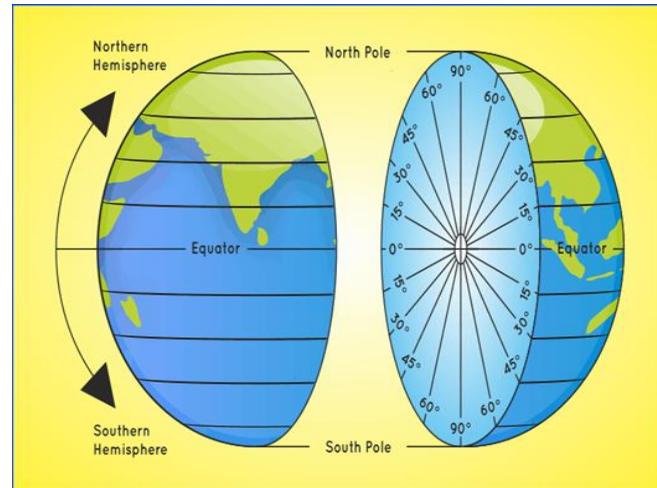
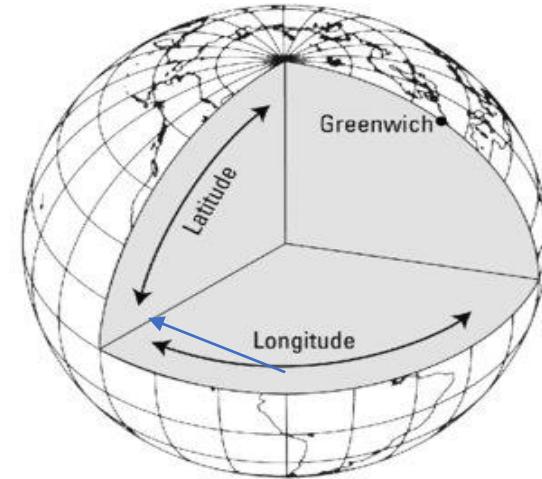
1. Basic information about Latitude
2. Basic information about Longitude
3. Antipodes
4. International Dateline
5. Latitude & Longitude extension of India



About Latitude

- What is latitude-** (reference book, page-21)
- Some important latitude-** (reference book, page-22)
- Other important facts-**

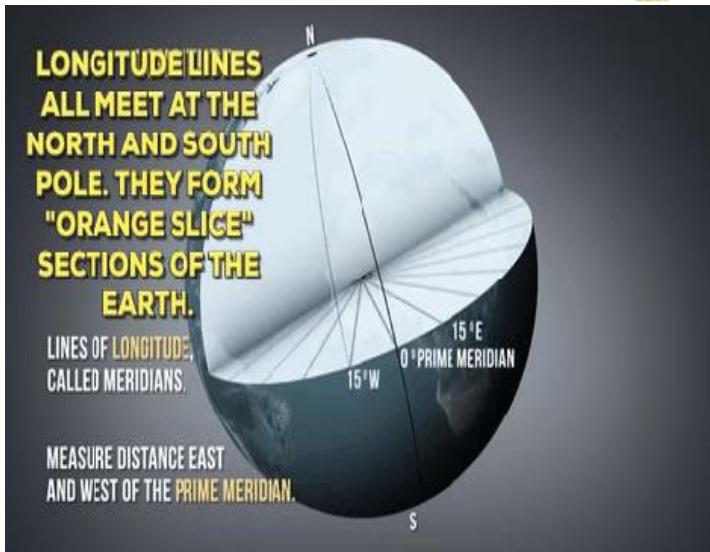
- Everything north of the equator is known as the Northern Hemisphere and everything south of the equator is known as the Southern Hemisphere.
- The distance between each degree of latitude is about 69 miles (111 kilometers).
- Generally temperature decreases with the increase of latitude.
- Torrid Zone- 0° - $23^{\circ} 30' N/S$
- Temperate Zone- $23^{\circ} 30'$ - $66^{\circ} 30' N/S$
- Frigid Zone- $66^{\circ} 30'$ - $90^{\circ} N/S$
- Summer Solstice- 21st June
- Winter Solstice- 22nd December
- Spring Equinox- 21st March
- Autumnal Equinox- 23rd September



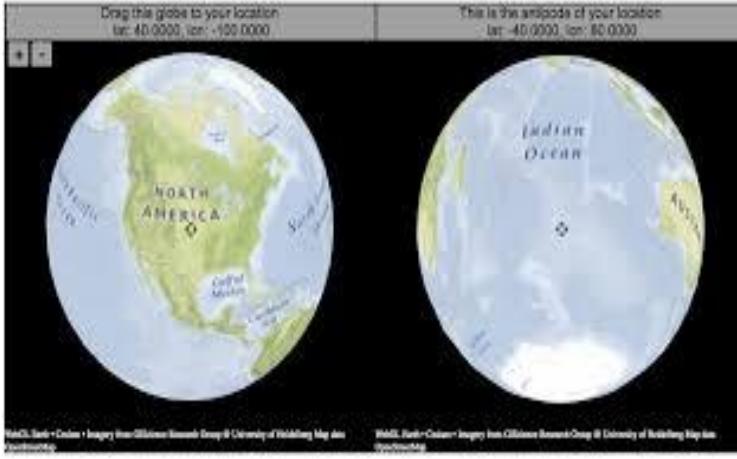
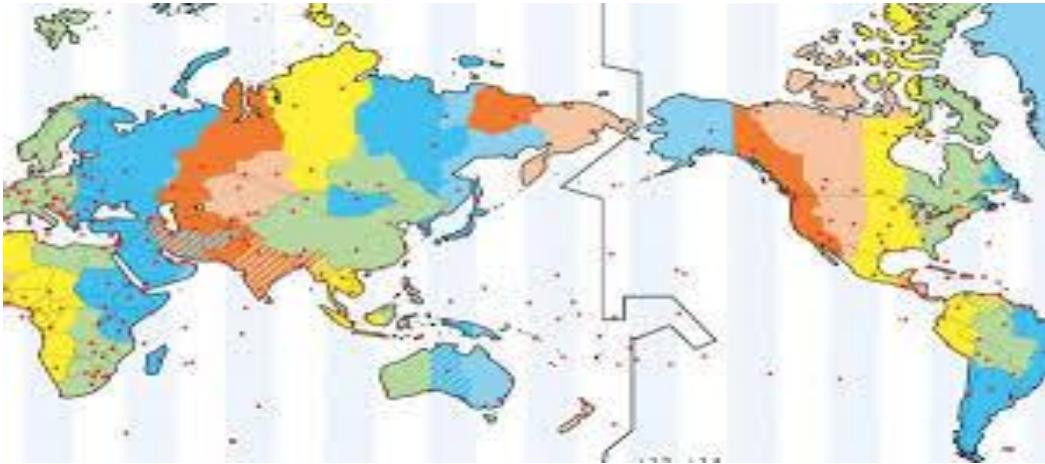
About Longitude



- Lines of Longitude-** (reference book, page- 23)
- Local Time-** (reference book, page- 23)
- Standard Time-** (reference book, page- 23)
- GMT-** (reference book, page- 24)
- Other Important Facts.**
 - The distance between longitudes at the equator is the same as latitude, roughly 69 miles. At 45 degrees north or south, the distance between is about 49 miles (79 km).
 - The distance between longitudes reaches zero at the poles as the lines of meridian converge at that point.
 - The line of longitude where the degree is zero is known as the Prime Meridian. Passing through the Royal Observatory, Greenwich, England, it is also known as the Greenwich Meridian and divides Earth into two equal halves known as the Eastern Hemisphere and the Western Hemisphere.
 - The time difference between consecutive meridians is- 4 minute.



Antipodes & IDL

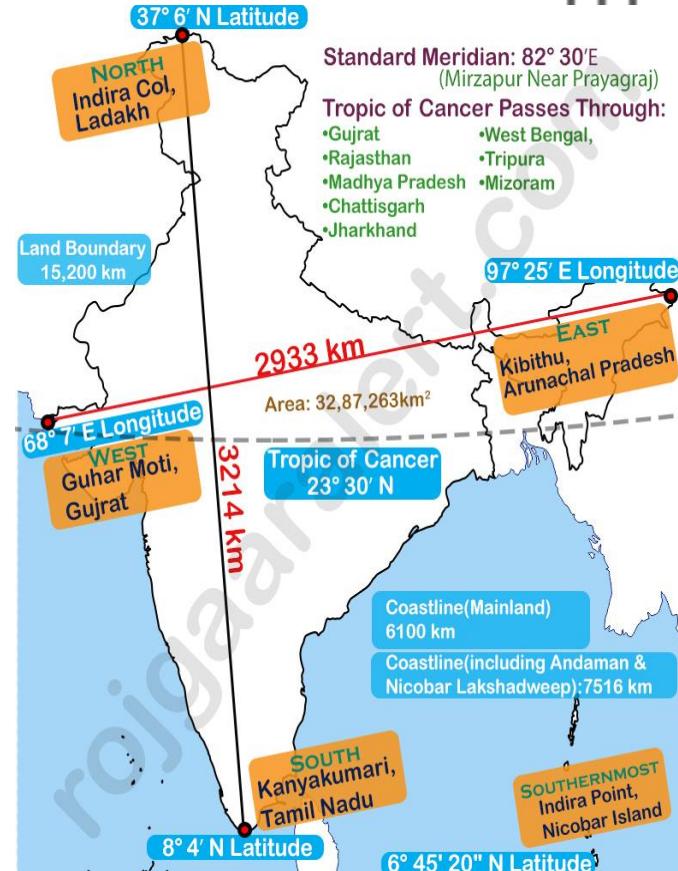


- Antipodes**- In geography, the antipodes of a point on Earth are the point on the opposite side of the Earth that is diametrically opposite to it. A straight line drawn between the two points would pass through the center of the Earth.
- International Date Line**- (reference book, page-24)
- For extra information**- MagBook-Arihant (India & World Geography)

Latitudinal & Longitudinal Extension Of India



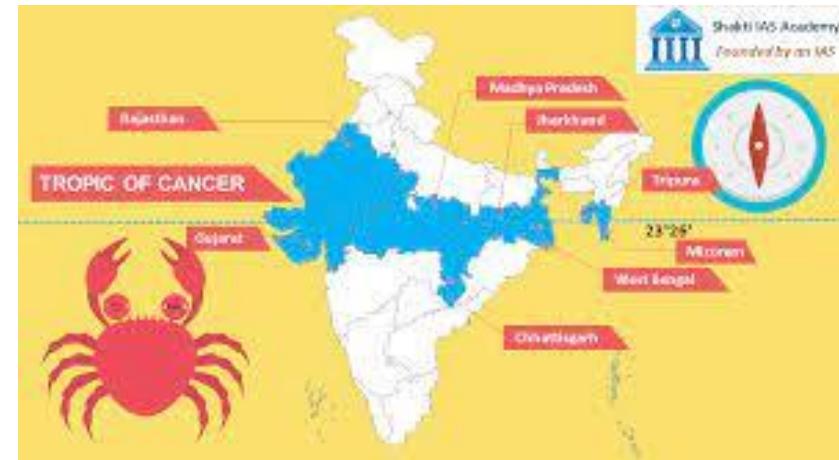
- The latitudinal extent of India from the north end Kashmir to south end Kanyakumari is $37^{\circ}6'N$ to $8^{\circ}4'N$
- The longitudinal extent of India from west end Gujarat to east end Arunachal Pradesh is $68^{\circ}7'E$ to $97^{\circ}25'E$.
- On calculating both of these extents we get to that these are approximately of 30°
- India is located in the northern hemisphere of the world.
- The Tropic of Cancer ($23^{\circ}30'N$) passes almost halfway through the country India. It is North from the Equator, that passes through the middle of India. The Tropic of Cancer passes through eight states in India
- From the extends south to north, the mainland of India extends between $8^{\circ}4'N$ and $37^{\circ}6'N$ latitudes.
- From the other extends west to east, India extends between $68^{\circ}7'E$ and $97^{\circ}25'E$ longitudes.
- The distance between latitudes remain the same throughout but the distance between the two longitudes reduces as moved towards poles
The distance between two latitudes is constant that is 111 km but the distance between two longitudes is 111 km at the equator and reduces to 0 at the poles.
- Due to the great longitudinal extent and difference of about 29° , there are wide differences in local time of places located at two extreme points of the country.
- The difference between these two points would be approximate of about two hours.



Latitudinal & Longitudinal Extension Of India



- **The Tropic Of Cancer (23°30'N)** Passes through- Gujarat, Rajasthan, Madhya Pradesh, Chhattisgarh, Jharkhand, West Bengal, Tripura, Mizoram .
- **The Indian Standard Time Longitude (82°30'E)** Passes through- Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Odisha & Andhra Pradesh.





Thank You

See you next day