🌐 Latitudes & Longitudes – SSC Notes

1. Definition

- **Latitude: Imaginary horizontal lines around Earth, parallel to Equator, measure north or south of Equator in degrees (0°–90° N/S)**
- **Longitude: Imaginary vertical lines from North Pole to South Pole, measure east or west of Prime Meridian in degrees (0°–180° E/W)**

2. Important Latitudes

Latitude	Degree	Significance
Equator	0°	Divides Earth into Northern & Southern Hemispheres
Tropic of Cancer	23.5° N	Northernmost point where Sun is overhead → Summer solstice
Tropic of Capricorn	23.5° S	Southernmost point where Sun is overhead → Winter solstice
Arctic Circle	66.5° N	Region of midnight sun & polar night
Antarctic Circle	66.5° S	Region of midnight sun & polar night
Poles	90° N / S	North Pole & South Pole

Special Indian Latitudes

- **Tropic of Cancer → Passes through Gujarat, Rajasthan, Chhattisgarh, Jharkhand, West Bengal, Tripura, Mizoram**

3. Important Longitudes

Longitude	Degree	Significance
Prime Meridian	0°	Passes through Greenwich, UK → Reference for GMT
Indian Standard Meridian	82.5° E	Passes through Allahabad → IST (UTC+5:30)
International Date Line	180°	Marks change of calendar date

Facts about Longitudes

- **Longitude lines / Meridians → Meet at poles**
- **Longitude → Determines time zones → 15° longitude = 1 hour**

4. Latitude & Longitude – Key Points for SSC

- **Latitude → Horizontal, N/S, Equator = 0°**
- **Longitude → Vertical, E/W, Prime Meridian = 0°**
- **Tropic of Cancer → India → Summer solstice**
- **Indian Standard Time → 82.5° E → 5:30 hours ahead of GMT**
- **Polar circles → Arctic (66.5° N), Antarctic (66.5° S) → Midnight sun & polar night**
- **Longitude → Determines time, calculation of local & standard time**

5. Uses of Latitudes & Longitudes

- **Navigation (Ships, Aircraft)**
- **Map reading & location determination**
- **Time calculation & time zones**
- **Climate study → Latitudes influence temperature & seasons**
- **Political & geographical boundary marking**