

GEOGRAPHY

The Solar System

- It is the name given to the group of the Sun and its major planets, i.e., Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune and their satellites, asteroids etc. They are kept in their position due to their respective gravities.

❖ STAR AND PLANET

- Planet is the name given to a heavenly body which revolves around the sun in elliptical orbit. A planet has no light of its own but reflects the light of the sun. Star is the name given to a fixed heavenly body which has its own light. The sun is a star and not a planet.
- The life of a star is spread over billions of years. It begins to form by compression of galactic gas and dust. Compression generates heat which in turn causes hydrogen to be converted into helium in nuclear fusion, thereby emitting large amount of heat and light.
- Continued nuclear fusion over a period of time starts depletion of hydrogen and the helium core becomes increasingly heavy, resulting into swelling and reddening of outer regions. Such stars of gigantic dimensions are termed as Red Giants.
- If the star is of sun's size, it becomes a White Dwarf. Their central density can reach up to 10^9 grams per cubic cm.
- If the star is bigger than the sun but not more than twice as big, it will turn into a Neutron Star or Pulsar. Their central density is 10^{14} grams per cubic cm. They are formed due to Novae or Super novae explosion.
- Stars having mass greater than three times that of the sun, because of their greater gravitational power, have contracted so much that they have developed super density of about 10^{16} grams per cubic cm. It is so dense that nothing, not even light, can escape from its gravity and hence called 'Black Hole'.
- Brightest star outside our Solar System is Sirius, also called Dog Star.
- Closest star of Solar System is Proxima Centauri (4.2 light years away). Then come Alpha Centauri (4.3 light years away) and Barnard's Star (5.9 light years away).

❖ SUN : SOME IMPORTANT FACTS

Distance from the earth*	149.8 million km
Absolute Visual Magnitude	4.75
Diameter	1384000 kilometre
Core Temperature	5770 K
Rotation as seen from the earth	25.38 days (at the equator) 33 days (near the poles) 30 days (at latitude 60°)

Chemical composition (by volume)	Hydrogen 81.76% Helium 18.17%, Oxygen 0.03%, Magnesium 0.02%, Nitrogen 0.01%, other Elements 0.01%
Age	About 5 billion years
Expected lifetime of a normal star	About 10 billion years
Linear velocity (at equator	2 km per second

❖ PLANETS : SOME IMPOTANT FACTS

➤ MERCURY

Diameter	4846.6 km
Moons	None
Average distance of the sun	57.6 million km
Time to orbit the sun	88 days

- Tiny Mercury slightly larger than earth's moon, races along its elliptical orbit at 176000 kilometre (110000 miles) per hour. This speed keeps it from being drawn into the sun's gravity field.
- The created planet has no atmosphere: Days are scorching hot and nights, frigid.

➤ Venus

Diameter	12032 kim
Moons	None
Average distances to the sun	107.52 million km
Time to orbit the sun	225 days

- Earth's twin in size and mass, scaringly hot. Venus in perpetually yield behind reflective sulphuric acid clouds.
 - Probes and radar mapping have pierced the clouds and carbon dioxide environment to revel flat, rocky plains and signs of volcanic activity.
 - Its surface temperature rises as high as 500* Celsius.
 - It rotates about its axis in opposite direction to that of the other planets.
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➤ **Mars**

Diameter	6755.2 km
Moons	2
Average distance to the sun	225.6 million km

- The Viking probes failed to find any sign of life.
- Beneath its thin atmosphere, it is barren covered with pink soil and boulders.
- Long ago, it was more active. The surface is marked with dormant volcanoes and deep chasms where water once freely flowed.
- Time to orbit about the sun once in 687 Earth-days (or 668 Mars-days).
- Mars is 1.5 times farther away from the sun than earth, and it receives about half as much heat from it than the earth.
- In the warmest season, the temperature reaches 15°-20° Celsius, but by the sunset, it drops to freezing temperatures and at night it falls to -100° Celsius or lower.

➤ **Jupiter**

Diameter	141968 km
Moons	14
Average distance to the sun	772.8 million km
Time to orbit the sun	11.9 years

- Jupiter is 300 times more massive than the earth.
- The lightest gases, hydrogen and helium, account for up to 40 per cent of Jupiter's mass.
- The temperature in the planet's centre may be as high as 100,000° Celsius. (estimated).
- At the same time, on the outside, due to heat losses, Jupiter may be as cold as we observe it from the earth-about minus 140° Celsius.
- Jupiter's rotation period is 9 hours 50 minutes.
- Jupiter radiates 2.5 more heat than it receives from the sun.

➤ **Saturn**

Diameter	119296 km
Moons	20 or more
Average distance to the sun	1417.6 million km
Time to orbit the sun	29.5 years

- Specific gravity less than 1.0 (If a large ocean were available, Saturn would float in it).
- The celebrate rings of the golden giant Saturn is composed of thousands of rippling, spiraling bands just 100 feet thick.
- All the bright Saturnian moons, with the exception of Titan, revolve around it, facing it with the same side.
- The most interesting saturn's moon and PHOEBE, which moves in a retrograde sense, and TITAN, the only moon in the solar system with an atmosphere of its own-it consists of methane with, perhaps, some ammonia.

➤ **Uranus**

Diameter	52096 km
Moons	15
Average distance to the sun	2852.8 million km
Time to orbit the sun	84 years

- Watery Uranus is the only planet that lies on its side, one pole, than the other, faces the sun as it orbits.
- Voyager-2 found nine dark compact rings around the planet and corkscrew shape magnetic field that stretches for millions of kilometers.
- Observation of its radio emission at a wavelength of 1.9 centimetres yielded an average temperature of -100°C and -170°C at 11 centimetres.
- Uranus's axis is inclined at 98° to its orbital plane, and so it rotates, as it were lying on its side.
- The rotation period of Uranus is 10 hours 50 minutes.

➤ **Neptune**

Diameter	9,000 km
Moons	8
Average distance to the sun	4497 million km
Time to orbit the sun	165 years

- Neptune's atmosphere appears blue in colour.
 - It has no air and is very cold, dark and desolate.
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➤ **Earth**

Equatorial Circumference	39,843.00 km
Polar circumference	39,746.00 km
Polar Diameter	12,639.84 km
Equatorial Diameter	12,754.00 km
Equatorial Radius	6,377.00 km
Flattening	0.003367
Volume	1.83×10^{27} cu cm
Mass (weight)	598×10^{27} g
Mean Density	5.52 g per cu m
Sun to Earth Ratio	333,432 : 1
Earth to Moon Ratio	81.45 : 1
Superficial Area	510,100,500 sq.km
Land (Excluding Antarctica)	136,675,997.4 sq.km.
Total Land Surface	148,950,800 sq. km.
Total Water surface	361,149,700 sq.km.
Time of rotation on its own axis	23 h. 56 m. 4.09 sec.
Period of revolution round the sun	365 days 5 hours 48 min 45.51 sec.
Inclination of the axis to the plane of the ecliptic	23° 27'
Orbital Velocity	29.87 km per sec.
Escape Velocity	11 km per second
(that is, speed necessary to break away from the earth into outer space)	
Speed of Rockets	8 km per sec. approx.
(that is, velocity required to counter earth's gravity and to rise up into the	

atmosphere)	
Distance from the sun	
Aphalial (Maximum)	152 million km
Perihelion (Maximum)	147 million km
Mean*	149.8 million km

- The mean distance from the earth to the sun (150 million kilometer) translated into flying hours means that a jet air craft capable of 1000 km per hour would need more than 17 years of non stop flying to reach the sun.

❖ **MOON**

- Circumference: 11,000 km. Diameter: 3475 km. Gravitational pull: 1/6th of Earth.
- Its orbit around earth is elliptical. The maximum distance (Perigee) is 364,000 km. the average distance is 3,82,200 km.
- All other satellites (except Charon) have sizes below below 1/8th the size of mother planets. But moon is about 1/4th the size of earth.
- Takes 27 days, 7 hrs, 43 min and 11.47 sec to complete one revolution around earth.
- Rotates on its axis in exactly the same time as it takes to complete one revolution.
That is why we see only one side of the moon (only 59% of its surface).
- To our unaided vision, moon seems to be made-up of bright and dark patches. The bright parts are the mountains and highlands, while the darker patches are low-lying planes.
- The highest mountains on moon are Liebnitz Mountains, which are 10,660 m high.
They are situated at moon's South Pole.
- Moon has no atmosphere, no twilight and no sound.
- Moonlight takes 1.3 sec to reach earth.
- It has a low albedo (amount of sunlight reflected). It reflects only 7% and the rest is absorbed (Earth: 30%, Venus: 70%)
- Neil Armstrong and Buzz Aldrin reached moon on July 20, 1969 on Apollo XI and set the foot on July 21, 1969 (landing spot is called Sea of tranquility).

➤ **The Earth**

- Also called Blue Planet. It is the densest of all planets.
 - Circumference: 40,232 km. Area: 510 million sq. km. Average distance from sun: 149 million-km.
 - Perihelion: Nearest position of earth to sun. The earth reaches its perihelion on January 3 every year at a distance of about 147 million-km.
 - Aphelion: Farthest position of earth from sun. The earth reaches its aphelion on July 4, when the earth is at a distance of 152 million km.
 - The shape of the earth is oblate spheroid or ablate ellipsoid (i.e. almost spherical, flat tended a little at the poles with a slight bulge at the centre).
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❖ THE EARTH AND ITS MOTIONS

- The earth has two motions:

➤ Rotation of the Earth

- It turns around its own axis once in 24 Hrs. 56 Min and 4.09 S(24 hours) from West to East.

➤ Revolution of the Earth

- It revolves around the sun in about 365 days, 5 Hrs., 48 min and 45.51 s($365\frac{1}{4}$ days)
- **Effect of Rotation:** Days and nights are caused. The sun, the moon and other heavenly bodies appear to revolve round the earth from East to West direction of winds and currents is changed.
- **Effect of Revolution:** It causes seasons, day and nights are of unequal length at the same place.

❖ THE BOUNDARIES OF THE ZONES

The earth can be divided roughly into three zones:

- **The Torrid Zone:** It lies between the Tropic of Cancer and the Tropic of Capricorn, i.e., $23\frac{1}{2}^{\circ}$ North and South on either side of the Equator. It is the hottest zone, where vertical rays of the sun are received.
- **The Temperature zone:** It is between the Torrid and the Frigid zone $66\frac{1}{2}^{\circ}$ North and South on either side of the equator. It never receives vertical rays.
- **The Frigid Zone:** It lies between $66\frac{1}{2}^{\circ}$ and the poles in the Northern and Southern Hemispheres. It is the coldest zone from which the sun's rays are excluded entirely atleast for one whole day in a year.

❖ IMPORTANT IMAGINARY LINES

- **Equator:** The Equator is an imaginary line on the surface of the earth midway between the poles.
 - **Latitude:** It is the angular distance of North and South of the Equator.
 - **Longitude:** Longitude of a place is its distance East or West of a fixed meridian.
 - **Prime Meridian:** It is the 180° meridian which passes through Greenwich, a place near London It is the zero degree longitude.
 - **International Date Line:** It is the 180° meridian running over the Pacific Ocean, deviating at Aleutian Islands, Fiji, Samoa and Gilbert Islands.
 - Travellers crossing the Date Line from West to East (i.e., from Japan to USA) repeat a day and travelers crossing it from east to west (i.e., from USA to Japan) lose a day.
 - **Parallels of Latitude:** These are lines drawn on a Map or Globe showing the latitude of a place.
 - **Meridians (or lines of longitude):** These are lines drawn on a map or globe showing the longitude of a place. These lines join the North and South poles cutting the Equator at right angles.
 - By knowing these parallels and lines we can find out the exact location of a place.
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- **The poles:** These are the ends of the axis of the earth. One is called the North pole and other the South pole.

❖ **SOLAR ECLIPSE AND LUNAR ECLIPSE**

- **Solar Eclipse:** It is complete or partial obscuration of the sun when the moon comes in between the sun and the earth.
- **Lunar Eclipse:** It is the partial or complete obscuration of the moon's surface when the earth comes in between the sun and the moon.

❖ **TIDES AND THEIR CAUSES**

- Tide is the periodical rise and fall of sea water.
- The interval between two tides is 12 hrs and 26 minutes.
- Through both sun and moon exert gravitational force on earth, resulting in the production of tides, the moon, by nature of its closeness to the earth, has greater control over the timings of the tidal rises and falls.
- **Causes:** (1) The moon's attraction (2) The centrifugal force. Tide is caused by the difference in these two forces.

➤ **Spring tide**

- When the rise and fall of the water are the highest. It is known as the spring tide. It is caused when the sun and the moon are in a straight line. It takes place on new moon and full moon days.

➤ **Neap tide**

- When the rise and fall of the water are the lowest. It takes as the spring tide. It is caused when the sun and the moon are in a right angle. It takes place on new moon and full moon days.

➤ **ROCKS**

- Three types of rocks-(1) Igneous (2) Sedimentary and (3) Metamorphic.

(1) Igneous: The rocks which are formed by the cooling of molten matter (Magma or lava) which comes out from the interior of the earth.

(2) Sedimentary: The rocks which have been formed by the layers of beds (strata) of the material deposited by wind, glacier, running water or the sea.

(3) Metamorphic: The Sedimentary or igneous rocks which have changed their form in course of time due to intense heat and pressure in the interior of the earth and known as metamorphic rocks, e.g., marble, slate etc.

➤ **Weathering**

- It implies breaking up and decay of rocks by the action of the sun, rain, wind, water etc.

➤ **Denudation**

- It implies the wearing down of rocks or surface. It includes two processes-(1) the breaking of rocks material (2) the carrying away of that material, thereby laying the rocks base for further attack.
 - Denuding factors: (1) Wind (2) Water (3) Temperature (4) Glacier (5) Sea (6) Regelation (7) Animals (8) Gravity (9) Man etc.
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➤ **Erosion**

- When the uppermost surface of the earth is worn out by the action of water, wind, storms; it is called soil erosion.

❖ **VOLCANOES**

- Volcanoes are conical hills with a funnel-shaped hollow from which eruption of hot material (Lava) takes place. There are three types of volcanoes-(1) Active volcanoes from which smoke, lava etc. always come out e.g., Mt. Etna in Sicily (2) Dormant volcanoes which suddenly become active after having remained inactive for a long time, with a possibility of its eruption in future, e.g., Mt. Vesuvius in Sicily, (3) Extinct Volcanoes which have not shown any activity for thousands of years, e.g., Mt. Popa in Myanmar.
- Volcanic Mountains are formed as a result of volcanic eruption & the outflow of lava (through crater, the opening). Also called Mountains of Accumulation. Have a gentle slope. Eg: Cotopaxi in Andes, Vesuvius and Etna in Italy, Fujiyama in Japan, Mauna Loa and Kilauea (Most active volcano) in Hawaii, Ojos del Salado in Argentina / Chile (Highest active volcano), Popocatepeti in Mexico, Rainier of Washington, Stromboli in Mediterranean (called Lighthouse of the Mediterranean), Merapi and Krakatau in Indonesia, etc.

❖ **EARTHQUAKE**

- It is sudden shake-up of the earth's surface due to disturbance beneath the surface.
- The point of origin of earthquake is called Seismic focus. Most of the earthquakes originate at the depth of 50-100 km inside the earth.
- The point on the earth's surface vertically above the earth's surface is called Epicentre.
- The passage of earthquake waves is recorded by Seismograph.
- The magnitude of waves is measured on Richter's scale.
- **Types of Waves:** 1. Primary Waves (P-Waves), 2. Secondary Waves (S-Waves), 3. Surface Waves or Long Waves (L-Waves)
- The principal earthquake regions are-(1) Circum Pacific Belt (2) Mid World Belt (3) Volcanic zone.

❖ **ATMOSPHERE**

- The atmosphere is a mixture of a layer of gases enveloping the earth, held by gravitational force. Almost all the atmosphere (97 per cent) lies within 29 km of the earth's surface.

➤ **LAYERS OF ATMOSPHERE**

- **Troposphere:** Layer nearest to earth's surface. Thickness varies from 8 km at the poles to 16 km at the equator.
 - All weather phenomenon occur here.
 - **Stratosphere:** Extends from 16 km to 50 km ht. The temperature ceases to fall with the increase of height in this layer.
 - Stratosphere provides ideal conditions for flying large airplanes.
 - Contains ozone (25-30 km from earth's surface), region being called Ozonosphere
 - **Mesosphere:** Upto a height of about 80 km.
 - **Ionosphere:** Extends to about 500-600 km.
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- Protects earth from harmful radiation. It also protects earth from falling meteorites, as most of them burn out in this region.

- **Exosphere:** Here the earth's gravity is extremely weak.

- Upper limit quite uncertain.

❖ **WINDS**

- **Westerlies:** These are winds which blow from about 40° North to the Arctic circle and from about 35° South to the Antarctic of the direction in which they blow. In the Southern hemisphere, they blow in a North westerly direction. In the Northern hemisphere, they blow in the South westerly direction.

- **Polar Winds:** These are easterly winds which blow from the polar regions towards the Equator.

- **Trade Winds:** The rays of the sun fall vertically on the Equator with the result that the atmospheric pressure there becomes low due to the air becoming hot. The pressure is high near 30° N and 30°S. Since winds blow from high pressure to low pressure, winds from these latitudes blow towards the equator and trade winds are caused.

❖ **BREEZE**

- **Land breeze:** At night land masses cool more quickly than sea, therefore, an air stream passes from the land to the sea. It is called land breeze.

- **Sea breeze:** In the day time, the land is hotter than the sea. The air over land rises and is replaced by a cool breeze from the sea. It is called sea breeze.

❖ **CYCLONES**

- It is a system of very low pressure in the centre surrounded by increasingly high pressure outwards. In this, the winds blow in a circular manner in

1. Anticlockwise direction in Northern Hemisphere.

2. Clockwise direction in Southern Hemisphere.

- These are known as : Cyclones in the Indian Ocean; Hurricanes in the Caribbean Islands; Typhoons in the China Sea; Willy-Willies in the North West Australia; Tornadoes in coastal US.

➤ **WEATHER AND CLIMATE**

- **Weather:** Weather is the name given to the atmospheric condition, e.g., temperature, rainfall, winds humidity, sun shine and cloudiness of a particular place on a particular day.

- **Climate:** Climate on the land is the average condition of weather obtaining in a country or a place for a considerably long period.

➤ **Factors Determining the Climate of a Place**

(1) Distance from the equator (2) High above sea level (3) Distance from the sea (4)

Direction of winds (5) Mountains (6) Ocean currents (7) Slope of land (8) Nature of the soil

(9) Forests.

➤ **Conditions of Rainfall**

- (1) There should be moisture-laden air (2) There should be some means by which air is cooled and condensation takes place.
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❖ NATURAL REGIONS OF THE WORLD

- (i) Equatorial region (ii) The Monsoon region (iii) Hot grassland region (Savana) (iv) Hot desert region (v) Mediterranean region (vi) Stepper region (vii) West European type region (viii) China type region (ix) St. Lawrence type region (x) Taiga region (xi) Tundra region.

India

- India lies entirely in the Northern hemisphere, extending between latitudes $8^{\circ}4'$ and $37^{\circ}6'N$, longitudes $68^{\circ}7'$ and $97^{\circ}25'E$ and measures about 3,214 km from North to South between the extreme latitudes and about 2,933 km from East to west between the extreme longitudes.
- India has tropical monsoon type of climate. It is greatly influenced by the presence of the Himalayas in the north, as they block the cold air masses from Central Asia. It is because of them only that the monsoons have a watershed in India.
- The Tropic of Cancer divides India into two almost equal climatic zones, namely, the northern zone and the southern zone. The warm temperate or the subtropical climate of the northern zone gives it cold winter seasons and the hot summer seasons. The southern tropical climatic zone is warmer than the north and does not have a clear cut winter season.
- The northern zone does not have the midday sun vertically overhead during any part of the year; the southern zone has the midday sun almost vertically overhead at least twice every year.
- India has a land frontier of about 15,200 km. The total length of the coastline of the mainland, Lakshadweep and Andaman and Nicobar Islands is 7,616.6 km.
- Countries having a common border with India in the order border length are Bangladesh, China, Pakistan, Nepal, Myanmar, Bhutan and Afghanistan.

The length of India's Borders

Country	Length
Bangladesh	4096 km
China	3439 km
Pakistan	3325 km
Nepal	1751 km
Myanmar	1643 km
Bhutan	699 km
Afghanistan	106 km

- Sri Lanka is separated from India by a narrow channel of sea formed by the Palk Strait and the Gulf of Mannar.
 - Madhya Pradesh has the largest area under forests followed by Maharashtra, Andhra Pradesh, Orissa and Arunachal Pradesh.
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- As per percentage of forest area to total area, first is Andaman and Nicobar Islands, followed by Mizoram, Manipur, Himachal Pradesh, Arunachal Pradesh, Tripura and Nagaland. They are in a very comfortable position as more than half of their area is under forests.
- Arunachal Pradesh has the highest per capita forest area.
- In Mangrove forests, West Bengal holds the first position, followed by Gujarat and Andaman and Nicobar Islands.
- The lowest forest percentage is in Haryana and Punjab, because of the extensive agriculture.
- There are 96 National Parks and 510 Wildlife Sanctuaries in India.
- Madhya Pradesh and Andaman and Nicobar Islands have the maximum number of National Parks (9 each) while Andaman and Nicobar Islands has 96 and Maharashtra has 36 Wildlife Sanctuaries (maximum in India).
- In India, the first biosphere reserve-Nilgiri biosphere reserve- came into being in 1986. So far, 14 biosphere reserves have been set up in the country.
- Out of these 14, Nilgiri, Sunderbans, Manas and Gulf of Mannar have been recognized on world Network of Biosphere Reserves by UNESCO.

MOUNTAIN PASSES OF INDIA

- Banthhal Pass: Doda and Anantnag districts, J & K.
- Shipki La: River Sutljej enters India from Tibet, H.P.
- Bara Lacha La: Kyelang and Leh, H.P.
- Rohtang: Kullu and Kyelang, H.P.
- Bombi La: Tezpur and Tawang, Arunachal Pradesh.
- Thaga La and Niti La: Uttarakhand
- Lipu: Leh, Indo-Nepal-China, Uttarakhand
- Jelep La: India and China (Gangtok-Lhasa Road), Sikkim
- Nathu La: India and China (Entry to Chumbi Valley), Sikkim.
- Karakoram Pass and Aghil Pass: J & K.
- Palghat: Palakkad and Coimbatore.
- Shenhotta: Kollam and Madurai.
- Thalghat: Mumbai and Pune
- Bhorghat: Mumbai and Nasik.

❖ **PHYSICAL GEOGRAPHY OF INDIA**

- India can be divided into four natural regions-(i) The Himalays, (ii) The plains of Ganga and Jamuna (iii) Thar Desert (iv) The Deccan Plateau.

In India, of the total land mass:

Plains: 43.3%

Plateaus: 27.7%

Hills: 18.6%

Mountains: 10.7%

- The geological region broadly grouped into three regions: the Himalayas and their associated group of mountains, the Indo-Ganga Plain and the Peninsular shield.
 - The Himalayan mountain belt to the North and the Naga-Lushai Mountain in the east, are the region of mountain-building movement were under marine conditions about 60 crore years ago. The Indo-Ganga plains are a great alluvial tract that separates the Himalayas in the North from the Peninsula in the South.
 - The peninsula is a region of relative stability and occasional seismic disturbances. Highly metamorphosed rocks of the earliest periods, dating back as far as 380 crore years, occur in this Peninsular area.
 - Himalayas mean 'Abode of Snow'. They are one of the youngest fold mountain ranges in the world and comprise mainly sedimentary rocks.
 - They stretch from the Indus river in the west to the Brahmaputra river in the east. Total length is about 5000 km. The width of the Himalayas varies from 500 km in Kashmir to 200 km in Arunachal Pradesh. Their average height is 2000m.
 - In the Himalayan region, the Kashmir and Kullu Valleys are fertile regions.
 - Jelep La and Nathu La passes are the main trade routes in the Indo-Tibet region through Chumbi Valley.
 - North-East of Darjeeling and Shipki La is the Sutlej valley and North East of Kalpa are other high attitude passes.
 - The mountain wall extends over a distance of about 2,400 km with a varying depth of 240 to 320 km.
 - In the East between India and Myanmar and India Bangladesh hill ranges are much lower.
 - Garo, Khasi, Jaintia and Naga Hills, running almost East-West, join the chain to Mizo and Rkhime Hills running North South.
 - The Pamir, popularly known as the Roof of the World, is the connecting link between the Himalayas and the high ranges of Central Asia.
 - Trans-Himalayan Zone range lies to the north of the Great Himalayas. It has some important ranges like Karakoram, Laddakh, Zanskar, etc. the highest peak in this region is K₂ or Godwin Austin (8611 m, in Pak occupied Kashmir). Other high peaks are hidden Peak (8068 m), Broad Peak (8047 m) and Gasherbrum II (8035 m).
 - The longest glacier is Siachin in the Nubra valley, which is more than 72 km long (biggest glacier in the world). Biafo, Baltaro, Batura, Hispar are the other important glaciers in the region.
 - This area is the largest snow-field outside the Polar Regions.
 - The plains of the Ganga and the Indus are about 2,400 km long and 240-320 km broad. These are one of the world's greatest plains formed by basins of three distinct river systems.
 - The Aravalli mountains (Rajasthan) are world's oldest mountains. Guru Shikhar is the highest peak on which Mount Abu (1,722 m) is situated.
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- The Indus, the Ganga and the Brahmaputra rivers are the greatest stretches of flat alluvium and the most densely populated areas.
- In the desert region, the great desert extends from the edge of the Rann of Kutch to beyond Luni river Northward, comprises Rajasthan Sind frontiers. The little desert extends from the Luni and present between Jaisalmer and Jodhpur. Between the great and the little desert lies a zone of absolutely sterile country, consisting of Rocky land cut up by lime-stone ridges.
- The Peninsular region is flanked by Eastern Ghats with an average elevation of 610 m & Western Ghats with an average elevation of 915 to 1,220 m. Between Eastern Ghats and Bay of Bengal, there is a broader coastal area between the Western Ghats and Arabian Sea.
- The Southern point of plateau is formed by the Nilgiri Hills where the eastern and the western ghats meet. The Cardamom hills lying are regarded as a continuation of the Western Ghats.
- Himalayan rivers are formed by the melting snow and glaciers, therefore, they are perennial and prone to floods during the monsoon months.
- The largest man-made lake in India is Indira Sagar Lake, which is the reservoir of Sardar Sarovar Project, Onkareshwar Project and Maheshwar Project in Gujarat-MP.
- Chilka Lake (Orissa) is the largest brackish water lake of India. It is also, the largest lake of India.
- Wular Lake (J & K) is the largest fresh water lake of India. Dal Lake is also there in J & K.
- From Sambhar and Didwana Lake (Rajasthan), salt is produced.
- Other important lakes are Vembanad in Kerala and Kolleru & Pulicat in AP.

❖ METHODS OF IRRIGATION IN INDIA

- There are four major means of irrigation in India.

(1) Canals: The states where canals are found mostly are : Punjab, U.P., Rajasthan and Tamil Nadu.

- Canals are of three types-(1) Inundation with supply water in times of flood (ii) Storage-water is stored and then diverted (iii) Perennial-which flow throughout the year.

(2) Wells: Punjab, U.P. etc.

(3) Tubewells: Punjab, U.P., Tamil Nadu.

World at a Glance

Area and Depths of Oceans

Ocean (With Seas communicating with it)	Area (Thousand square kilometer)	% age (of the depth Entire area of World Ocean		(in metre)	Location of Maximum Depth
		Depth	Mean	Maxi	
1	2	3	4	5	6
Pacific	179679	50	4028	11776	Mariana Trench

Ocean					
Atlantic Ocean	92544	25	3926	9460	Puerto Rico Trench
Indian Ocean	74917	21	3897	7725*	Java Trench
Arctic Ocean	13919	04	1205	5449	Nansen's Trough
World Ocean	361059	100	3795	1176	-

- There is available information on the existence of a depth of 8047 metre West of Australia at the point of 32* South Latitude.

Principal Seas

Sea	Area (in sq. km.)	Average Depth (in metre)
South China Sea	2974600	1200
Caribbean Sea	2753000	2400
Mediterranean Sea	2503000	1485
Bering Sea	2268180	1400
Gulf of Mexico	1542985	1500
East China Sea	1249450	180
Sea of Japan	1007500	1370
Black Sea	461980	1100
Red Sea	437700	490
Baltic Sea	422160	55

Important Straits

Straits	Water Bodies Joined	Area
Bab-al-Mandeb	Red Sea & Arabian Sea	Alaska & Africa
Bering	Arctic Ocean & Bering Sea	Alaska & Asia
Bosphorus	Black Sea & Marmara Sea	Turkey
Dover	North Sea & Atlantic Ocean	England & Europe
Florida	Gulf of Mexico & Atlantic Ocean	Florida & Bahamas Islands
Gibraltar	Mediterranean Sea & Atlantic Ocean	Spain & Africa
Malacca	Java Sea & Bay of Bengal	India & Indonesia
Palk	Bay of Bengal & Indian Ocean	Indian & Sri Lanka
Gellan	South Pacific & South Atlantic Ocean	Chile

Biggest and Smallest Countries

Biggest Nations (Area-Wise)	Biggest Nations (Population-Wise)	Smallest Nations (Area-Wise)	Smallest Nations (Population-Wise)
Russia	China	Vatican City	Vatican City
Canada	India	Monaca	Tuvalu
China	USA	Nauru	Nauru
USA	Indonesia	Tuvalu	Palau
Brazil	Brazil	San Marino	San Marino
Australia	Pakistan	Liechtenstein	Monaco
India	Bangladesh	Marshall Islands	Liechtenstein
Argentina	Nigeria	Saint Kitts & Nevis	Saint Kitts & Nevis
Kazakhstan	Russia	Maldives	Antigua & Barbados
Sudan	Japan	Malta	Dominica

Great Deserts

Desert	Country	Area in thousand Sq.km
Sahara	North Africa	8400
Australian	Australia	1550
Arabian	Arabia	1300
Gobi	Mongolia, China	1040
Kalahari	Botswana	520
Takla-Makan	China	320
Kara Kum	Turkmenistan	272
Thar	North-West India	260
Sonoran	USA, Mexico	310
Atacama	North Chile	180

Principal Mountain Peaks

Name	Country	Height (in Metre)
Mt. Everest*	Nepal-Tibet	8850
Mt. Godwin Austin (K2)	India (POK)	8611
Kanchanjunga	India	8597
Nanaga Parbat	India	8124
Annapurna	Nepal	8078
Nanda Devi	India	7817
Mt. Kamet	India	7756
Saltoro Kangri	India	7742
Gurla Mandhata	Tibet	7728
Tirich Mir	Pakistan	7700

- Mt. Everest is known as Mi-ti-gu-ti-cha-pu-long-na in Tibetan, Sagarmatha in Nepalese and Qomolangma-feng in Chinese.

Highest Water Falls

Water Fall	Location	River	
Angel	Venezuela	Tributary of Caroni	1,000
Tugela	Natal, South Africa	Tugela	914
Cuquenán	Venezuela	Cuquenán	610
Sutherland	South Island, Nz	Arthur	580
Takkakaw	British Columbia	Tributary of Yoho	503
Ribbon (Yosemite)	California	Greek flowing into Yosemite	491
Upper Yosemite	California	Yosemite Greek tributary of Merced	436
Gavarnie	South-West France	Gave de pau	422
Vettisfoss	Norway	Morkedola	366
Windows Tears (Yosemite)	California	Tributary of Merced	357

Longest Rivers

River	Source	Outflow	
Nile	Tributories of Lake Victoria, Africa	Mediterranean Sea	6,670
Amazon	Glacier-fed lakes, Paru	Atlantic Ocean	6,4487/ 6750
Mississippi Missouri Red Rock	Source of Red Rock, Monta		6,240
Yang-tse-kiang	Tibetan Plateau,	China Sea	5,797

	China		
Ob	Altai Mts. USSR (now CIS)	Gulf of Ob	5,567
Yellow (Huango Ho)	Eastern part of Kunian Mts., West China	Gulf of Ob	4,667
Yenisei	Tannu-ola Mts. Western Tuva, USSR (now CIS)	Arctic Ocean	4,506
Parana	Confluence of Paranaiba and Grande rivers	Riode la Plata	4,498
Irish	Altai Mts. USSR (now CIS)	Ob River	4,438
Congo	Confluence of Lualaba and Luapula rivers, Zaire	Atlantic Ocean	4,371

Major Riverside Cities

City	River	Country
Alexandria	Nile	Egypt
Amsterdam	Amsel	Netherlands
Antwerp	Scheldt	Belgium
Baghdad	Tigris	Iraq
Bangkok	Menam	Thailand
Belgrade	Danube	Yugoslavia
Berlin	Spree	Germany
Born	Rhine	Germany
Bristol	Avon	England
Budapest	Danube	Hungary
Cairo	Nile	Egypt

Canton	Canton	China
Chittagong	Kanapkuli	Bangladesh
Chung king	Yang-tse-kiang	China
Cologne	Rhine	Germany
Glasgow	Clyde	Scotland
Hull	Humber	England
Hamburg	Eibe	Germany
Karachi	Indus	Pakistan
Khartoum	Blue and White Nile	Sudan
Lahore	Ravi	Pakistan
Lisbon	Tagus	Portugal
Liverpool	Mersey	England
London	Thames	England
Montreal	Ottawa	Canada
Moscow	Moskava	Russia
Nanking	Yang-tse-kiang	China
New Oriens	Mississippi	USA
New York	Hudson	USA
Paris	Seine	France
Philadelphia	Delaware	USA
Quebec	St. Lawrence	Canada
Rangoon	Irrawady	Burma
Rome	Tiber	Italy
Shanghai	Yang-tse-kiang	China
Tokyo	Sumida	Japan

Vienna	Danube	Austria
Warsaw	Vistula	Poland
Washington	Potamac	USA

Geographical Surnames

Surname	Actual Name	Surname	Actual Name
Bengal's Sorrow	Damodar River	Key to the Mediterranean	Gibraltar
Blue Mountains	Nilgiri Hills	Land of Cakes	Scotland
City of Sky-scrapers	New York	Land of Golden Fieece	Australia
City of Seven Hills	Rome	Land of Maple Leaf	Canada
City of Dreaming Spires	Oxford	Land of Morning Calm	Korea
City of Palaces	Kolkata	Land of Midnight Sun	Norway
City of Golden Gate	San Francisco	Land of the Thousand Lakes	Finland
City of Magnificent Buildings	Washington D.C.	Land of the Thunderbolt	Bhutan
City of Eternal Springs	Quito (S. America)	Land of the White Elephant	Thailand
China's Sorrow	Hwang Ho	Land of Five Rivers	Punjab
Cockpit of Europe	Belgium	Land of Thousand Elephants	Laos
Dark Continent	Africa	Land of Rising Sun	Japan
Emerald Isle	Ireland	Loneliest Island	Tristan De Gunha (Mid-Atlantic)
Eternal City	Rome	Manchester of	Osaka

		Japan	
Empire City	New York	Pillars of Hercules	Strait of Gibraltar
Forbidden City	Lhasa (Tibet)	Pearl of the Antilles	Cuba
Garden City	Chicago	Playground of Europe	Switzerland
Gate of Tears	Strait of Bab-ei-Mandeb	Quaker City	Philadelphia
Gateway of India	Mumbai	Queen of the Adriatic	Venice
Gift of the Nile	Egypt	Roof of the World	The Pamirs, Central Asia
Granite City	Aberdeen	Rose Pink City	Jaipur
Hermit Kingdom	Korea	Sugar bowl of the world	Cuba
Herring Pond	Atlantic Ocean	Venice of the North	Stockholm
Holy Land	Jerusalem	Windy City	Chicago
Island Continent	Australia	Whiteman's grave	Guinea Coast of Africa
Island of Cloves	Zanzibar	Yellow River	Huang Ho (China)
Isle of Pearls	Bahrein		

Superlative of the World

Tallest Animal	Giraffe
Largest Archipelago	Indonesia
Fastest Bird	Swift
Largest Bird	Ostrich
Smallest Bird	Humming Bird
Longest Railway Bridge	Huey P.Long Bridge, Louisiana (U.S.A)
Tallest Building	Buri Dubai, UAE

Longest Irrigational Canal	The Kalakumsky canal
Longest canal	Suez canal
Highest Capital	La Paz (Bolivia)
Biggest City (Area)	Mount Isa (Australia)
Largest City (Population)	Tokyo
Costliest City	Tokyo
Highest City	Van Chuan (China)
Largest Continent	Asia
Smallest Continent	Australia
Biggest Country (Area)	Russia
Largest Country (Population)	China
Largest Country (Electrorate)	India
Largest Creature	Blue whale
Largest Delta	Sunderban (Bangladesh & India)
Largest Desert (World)	Sahara (Africa)
Largest Desert (Asia)	Gobi
Largest Dam	Grand Coulee Dam (U.S.A.)
Highest Dam	Hoover Dam (U.S.A.)
Largest Diamond	The Cullinan
Largest Dome	Astrodome, in Houston (U.S.A.)
Largest Epic	Mahabharat
Largest Irrigation Scheme	Lloyd Barrage, Sukkhur (Pakistan)
Largest Island	Greenland
Largest Sea	Mediterranean sea
Deepest Lake	Bikal (Siberia)

Largest Lake (Artificial)	Lake Mead (Boulder Dam)
Highest Lake	Titicaca (Bolivia)
Largest Lake (Fresh Water)	Superior
Largest Lake (Salt water)	Caspian
Largest Library	United States Library of Congress, Washington D.c.
Highest Mountain Peak	Everest (Nepal)
Longest Mountain Range	Andes (S.America)
Largest Museum	British Museum, London
Largest Ocean	Pacific
Biggest Palace	Vatican (Italy)
Largest Park	Yellow Stone National Park (U.S.A.)
Largest peninsula	Arabia
Coldest Place (Habitated)	Verkhoyansk (Siberia)
Dryest place	Iquique (in Atacama Desert, Chile)
Hottest Place	Azizia (Libya, Africa)
Rainiest Place	Mausinram (Meghalaya, India)
Biggest Planet	Jupiter
Brightest Planet	Venus
Smallest Planet	Mercury
Highest Plateau	Pamir (Tibet)
Longest Platform	Kharagpur (India)
Longest Railway	Trans-Siberian railway
Largest Railway Station	Grand Central Terminal, Chicago (U.S.A.)
Longest River	Nile (Africa)

Largest River	Amazon (S.America)
Largest Sea-bird	Albatross
Brightest Star	Sirius
Tallest Statue	Statue of Motherland, Volgograd (Russia)
Largest Radio Telescope	New Mexico (U.S.A.)
World's first Tramway	New York
Longest Tunnel (Railway)	Tanna (Japan)
Longest Tunnel (road)	Mont Blanc Tunnel between France and Italy
Highest Volcano	Ojos del Salado (Andes, Ecuador).
Most Active Volcano	Maunaloa (Hawaii-U.S.A.)
Longest Wall	Great Wall of China
Highest Waterfall	Angel (Venezuela)
Lowest Water body	Dead Sea
Largest Zoo	Kruger National Park, South Africa

India at a Glance

Mountain Peaks

S.No	Peak	Height
1.	K2	8611 in Pak-occupied territory
2.	Kanchanjangha	8598
3.	Nanga Parvat	8126
4.	Gasher Brum	8068 in Pak-occupied territory
5.	Broad peak	8047 in Pak-occupied territory
6.	Disteghilsar	7885 in Pak-occupied territory
7.	Masher Brum E	7821

8.	Nanda Devi	7817
9.	Masher Brum W	7806 in Pak-occupied territory
10.	Rakapsohi	7788 in Pak-occupied territory

Important Rivers

S.No	Rivers	Length
1.	Indus	2,900
2.	Brahmaputra	2,900
3.	Ganga	2,510
4.	Godavari	1,450
5.	Narmada	1,290
6.	Krishna	1,290
7.	Mahanadi	890
8.	Kaveri	760

Major Riverside Cities

City	River	State
Agra	Yamuna	U.P.
Ahmedabad	Sabarmati	Gujarat
Ayodhya	Saryu	U.P.
Badrinath	Ganges	Uttarakhand
Kolkata	Hooghly	West Bengal
Cuttak	Mahanadi	Orissa
Delhi	Yamuna	Delhi
Dilrughrah	Bramhaputra	Assam
Ferozpur	Sutlej	Punjab
Guwahati	Bramhaputra	Assam

Hardwar	Ganges	Uttrakhand
Hyderabad	Musi	Andhra Pradesh
Jabalpur	Narmada	M.P.
Kanpur	Ganges	U.P.
Kota	Chambal	Rajasthan
Lucknow	Gomti	U.P.
Ludhiana	Sutlej	Punjab
Nasik	Godawari	Maharashtra
Pandharpur	Bhima	Maharashtra
Patna	Ganga	Bihar
Sambalpur	Mahanadi	Orissa
Srinagar	Jhelum	J & K.
Surat	Tapti	Gujarat
Tiruchirapalli	Kaveri	Tamil Nadu
Varanasi	Ganges	U.P.
Vijaywada	Krishna	Andhra Pradesh

Tiger Reserves

Tiger Reserve	State
Bandipur	Karnataka
Corbett	Uttarakhand
Kanha	Madhya Pradesh
Manas	Assam
Melghat	Maharashtra
Palamau	Jharkhand
Ranthambhore	Rajasthan

Similipal	Orissa
Sunderbans	West Bengal
Periyar	Kerala
Sariska	Rajasthan
Buxa	West Bengal
Indravati	Chattisgarh
Nagarjunsagar	Andhra Pradesh
Namadapha	Arunachal Pradesh
Dudhwa	Uttar Pradesh
Kalakad-Mundanthurai	Tamil Nadu
Valmiki	Bihar
Pench	Madhya Pradesh
Todaba-Andhari	Maharashtra
Bandhavgarh	Madhya Pradesh
Panna	Madhya Pradesh
Dampha	Mizoram
Bhadra	Karnataka
Pench	Maharashtra
Pakhui-Nameri	Arunachal Pradesh-Assam
Bori, Satpura, Pachmari	Madhya Pradesh
Nagarhole	Karnataka
Katarniaghat	Uttar Pradesh
Nameri	Assam
Kaziranga	Assam

Wild Life Sancturries and National Parks

S.No	Name	State
1.	Achanakmar Sanctuary, Bilaspur	Chhattisgarh
2.	Bandhipur National Park, Mysore	Karnataka
3.	Bhimbandh Wild Life Sanctuary, Mongher	Bihar
4.	Borivilli National Park, Mumbai	Maharashtra
5.	Chandraprabha Sanctuary, Varanasi	U.P.
6.	Corbett National Park, Nainital	Uttarakhand
7.	Cottigao Game Sanctuary, Varanasi	Goa
8.	Dachigam Sanctuary, Srinagar	J & K.
9.	Darrah Wild Life Sanctuary, Kota	Rajasthan
10.	Dndeli Sanctuary, Dharwar	Karnataka
11.	Dudhwa National Park, Lkhimpur Khiri	U.P.
12.	Ghana Bird Sanctuary, Bharatpur	Rajasthan
13.	Gandhi Sagar Sanctuary, Mandsaur	Madhya Pradesh
14.	Gir National Park, Junagarh	Gujarat
15.	Hazaribagh Sanctuary, Hazaribagh	Jharkhand

16.	Intangki Sanctuary, Kohima	Nagaland
17.	Jaldapara Sanctuary, Jalpaiguri	W. Bengal
18.	Kanha National Park, Mandla and Balaghat	Madhya Pradesh
19.	Kaziranga National Park, Jorhat	Assam
20.	Khang Chanzanda National Park, Gangtok	Sikkim
21.	Manas Sanctuary, Barpeta	Assam
22.	Mudumali Sanctuary, Nilgiris	Tamil Nadu
23.	Mukambika Sanctuary, South Canara	Karnatka
24.	Nagerhole National Park, Coorg	Karnataka
25.	Nawegaon National Park, Bhandare	Maharashtra
26.	Parambikulam Sanctuary, Palaghat	Kerala
27.	Pench National Park, Nagpur	Maharashtra
28.	Periyar Sanctuary, Idukki	Kerala
29.	Ranthambore Tiger Project, Sawai Madhopur	Rajasthan
30.	Rohina National Park, Kulu	Himachal Pradesh
31.	Sariska Sanctuary, Alwar	Rajasthan
32.	Shivpuri National Park, Shivpuri	Madhya Pradesh
33.	Similipal Sanctuary,	Orissa

	Mayurbhanj	
34.	Sunderbans Tiger Reserve, 24 pargana	W. Bengal
35.	Tadoba National Park, Chandrapur	Maharashtra
36.	Tungbhadra Sanctuary, Bellary	Karnataka
37.	Valvadar National Park, Bhavnagar	Gujarat
38.	Wayned Sanctuary, Cannanore, Kozhikode	Kerala

Major Hill Stations

Hill Station	State
Almora	Uttarakhand
Coonoor	Tamil Nadu
Darjeeling	West Bengal
Kalimpong	West Bengal
Kodai Kanal	Tamil Nadu
Lansdowne	Uttarakhand
Mt. Abu	Rajasthan
Mussoorie	Uttarakhand
Ootacamund	Tamil Nadu
Ranchi	Jharkhand
Shimla	Himachal Pradesh
Shillong	Meghalaya
Cherrapunji	Meghalaya
Dalhousie	Himachal Pradesh
Gulmarg	Kashmir

Kasauli	Himachal Pradesh
Kulu Valley	Himachal Pradesh
Mahabaleswar	Maharashtra
Mukteshwar	U.P.
Nainital	Uttarakhand
Panchmarhi	M.P.
Srinagar	Kashmir

Major Hydroelectric Projects

Project	State and River
Bhakra Nangal Project	On Satluj in Punjab. Highest in India. Ht 226 m. Reservoir is called Gobind Sagar Lake.
Mandi Project	On Beas in HP.
Chambai Valley Project	On Chambal in MP & Rajasthan. 3 dams are there: Gandhi Sagar Dam, Rana Pratap sagar Dam and Jawahar Sagar dam.
Damodar Valley Project	On Damodar in Bihar. Based on Tennessee Valley Project, USA.
Hirakund	On Mahanadi in Orissa. World's longest dam: 4801m
Rihand	On Son in Mirzapur. Reservoir is called Govind Vallabh Pant reservoir.
Kosi Project	On Kosi in N.Bihar.
Mayurkashi Project	On Mayurkashi in WB.
Kakrapara Project	On Tapi in Gujarat.
Nizamsagar Project	On Manjra in AP.
Nagarjuna Sagar Project	On Krishna in AP
Tungabhadra	On Tungabhadra in AP & Karnataka.

Shivasamudram Project	On Cauvery in Karnataka
Tata Hydel Scheme	On Bhima in Maharashtra
Sharavathi Hydel Project	On Jog Falls in Karnataka.
Kundah & Periyar Project	In TN.
Farakka Project	On Ganga in WB. Apart from power and irrigation it helps to remove silt for easy navigation.
Ukai Project	On Tapti in Gujarat.
Mahi Project	On Mahi in Gujarat.
Salal Project	On Chenab in J&K.
Mata Tila Multipurpose Project	On Betwa in UP & MP.
Thein Project	On Ravi, Punjab.
Pong Dam	On Beas, Punjab.

Principal Ports

Port	State
Alleppey	Kerala
Bhavnagar	Gujarat
Kolkata	W. Bengal
Cochin	Kerala
Dhanushkodi	Tamil Nadu
Chennai	Tamil Nadu
Paradeep	Orissa
Surat	Gujarat
Vishakhapatnam	Andhra Pradesh
Porbandar	Gujarat
Haldia	W. Bengal

Bhatkal	Karnataka
Mumbai	Maharashtra
Culicut	Kerala
Cuddalur	Tamil Nadu
Kandla	Gujarat
Manglore	Karnataka
Quilon	Kerala
Tuticorin	Tamil Nadu
Marmagoa	Goa
Kozhikode	Kerala
Nhava Sheva	Maharashtra
Ennore	Tamil Nadu

Superlatives of India

Longest river	Ganges
Longest tributary river of India	Yamuna
Longest river of the south	Godavari
Highest mountain peak	Godwin Austin (K ₃)
Largest Lake (Fresh water)	Wular lake (Kashmir)
Highest Dam	Bhakra Dam (Punjab)
Largest Mosque	Jama Masjid, Delhi
Longest Road	Grand Trunk Road
State with longest coastline	Gujarat
Longest railway route	From Jammu to Kanya Kumari
Longest tunnel	Jawahar tunnel (Jammu & Kashmir)
Longest national highway	NH-7 from Varanasi to

	Kanyakumari
Longest Dam	Hirakud Dam (Orissa)
Longest River Bridge	Mahatma Gandhi Setu, Patna
Largest populated City	Mumbai (1.60 crore)
Largest Museum	National Museum, Kolkata
Largest Delta	Sunderban Delta, W. Bengal
Largest Dome	Gol Gumbaz, Bijapur (Karnataka)
Largest Zoo	Zoological Gardens, Alipur, Kolkata
Largest man-made Lake	Govind Vallabh Pant Sagar (Rihand Dam)
Largest Desert	Thar (Rajasthan)
Highest Tower	Pitampura Tower, Delhi
Smallest State (Area)	Goa
Smallest State (Population)	Sikkim
Highest Waterfall	Gersoppa waterfall (Karnataka)
Longest Electric railway line	From Delhi to Kolkata via Patna
Densest populated State	West Bengal
Largest cave temple	Kailash temple, Ellora (Maharashtra)
Largest animal Fair	Sonepur (Bihar)
Highest Gateway	Buland Darwaza, Fatehpur Sikri (Agra)
Biggest Hotel	Oberai-Sheraton (Mumbai)
Largest State (Area)	Rajasthan
Largest State (Population)	Uttar Pradesh
Place of heaviest rainfall	Mausinram (Meghalaya)
Largest corridor	Rameshwaram temple corridor

	(TN)
Largest cantilever span bridge	Howrah Bridge (Kolkata)
Largest Forest state	M.P.
Highest straight gravity Dam	Bhakra Dam
Longest Railway Platform	Kharagpur (W. Bengal)
Largest Stadium	Salt lake (Yuva Bharti), Kolkata
Largest Port	Mumbai
Highest Lake	Devatal (Garhwal)
Largest Lake (Saline water)	Chilka lake, Orissa
Highest Award	Bharat Ratna
Highest Gallantry Award	Paramveer Chakra
Largest Gurudwara	Golden Temple, Amritsar
Deepest river valley	Bhagirathi & Alaknanda
State with longest coastline of South India	Andhra Pradesh
Longest river which forms estuary	Narmada
Largest Church	Saint Cathedral (Goa)
Longest Beach	Marina Beach, Chennai
Highest Battle field	Siachin Glacier
Highest Airport	Leh (Laddakh)
Largest river island	Majuli (Brahmaputra river, Asom)
Largest Planetarium	Birla Planetarium (Kolkata)

Famous Sites

Site	Location
Ajanta	Aurangabad
Amarnath Cave	Kashmir
Ambar Palace	Jaipur (Raj.)
Anand Bhawan	Allahabad
Birla Planetarium	Kolkata
Black Pagoda	Konark (Orissa)
Bodhisatva	Ajanta Caves
Brihadeshwar Temple	Tanjore
Brindaban Gardens	Mysore
Buland Darwaza	Fatehpur Sikri
Chenna Kesava Temple	Belur
Char Minar	Hyderabad
Chilka Lake	E. Coast of India near Bhubaneshwar
Dal Lake	Srinagar
Dilwara Temples	Mt. Abu (Raj.)
Elephanta Caves	Mumbai
Ellora Caves	Aurangabad
Gateway of India	Mumbai
Golden Temple	Amritsar
Hanging Gardens	Mumbai
Gol Gumbaz	Bijapur
Howrah Bridge	Kolkata
Hawa Mahal	Jalpur

Jagannath Temple	Puri
Jai Stambha (Tower of Victory)	Chittorgarh
Jahaz Mahal	Mandu
Jantar Mantar	New Delhi
Jog (Gersoppa) Falls	Karnataka
Kailash Temple	Ellora
Kanya Kumari Temple	Cape Comorin
Khajuraho	Chhatarpur
Konark	Puri
Lingaraj Temple	Bhubaneswar
Laxmi Vilas Palace	Baroeda
Mahakaleshwar	Ujjain
Lal Bagh Garden	Bengaluru
Marble Rock	Jabalpur
Malabar Hills	Mumbai
Mt. Girnar	Jungarah
Minakshi Temple	Nadurai
Nishat Bagh	Srinagar
Natraja	Chennai
Pichola Lake	Udaipur
Panch Mahal	Fatehpur Sikri
Raj Ghat	Delhi
Qutub Minar	Delhi
Sanchi Stupa	Sanchi (Bhopal)
Red Fort	Delhi

Shalimar Bagh	Srinagar
Sarnath	Varanasi
Stae of Gomateshwar	Karnataka
Shantivan	Delhi
Sun Temple	Konark
Taj Mahal	Agra
Tirupati Temple	Andra Pradesh
Tower of Silence	Mumbai
Veer Bhumi	Delhi
Victoria Garden	Mumbai
Victoria Memorial	Kolkata
Shakti Sthal	Delhi
Vijai Ghat	Delhi

Popular Folk Dances of Different States

States	Folk Dances
Andhra Pradesh	Ghanta Mardala, Vedehi Natakam, Burrakattrra
Bihar	Jatan-Jatin, Gadur Chhau, Katha-Putti, Karma, Natna, Gatna Bakho, Samochkwa, Ghijhiya
Chhattisgarh	Suadana, Karma, Danda or Rahas, Raut, Sarhul, Bar, Naacha, Gharia-Baja, anthi.
Gujarat	Raslila, Garba, Dandiya, Ganpati
Goa	Talagadi, Golf, Shigmo, Corridin-bo, Tongamel, Masalkhel, Dhakto.
Haryana	Jhoomer, Daph, Loor, Phag, Dhamal
Himachal Pradesh	Rasleela, Bhangda, Nati, Gurkholi

Jharkhand	Jadur, Gaima Magh, Sarhoot, Ahandi Kola, Yakshgana, Suggi Kunita
Maharashtra	Mauni, Lavani, Lezim, Dahikala, Dasaratar, Tanassa, Gafa, Katha Keertan.
Orissa	Chadye, Chhah Ghumar, Sandur, Davdanata
Poducherry	Poorakalli, Kolkalli, Kollattum, Mascarda
Rajasthan	Ghumar, Panihari, Ghapaal, Dandiya, Tera Tali, Shankarai, Ruf, Gopikaleela
Uttar Pradesh	Karan, Kajli, Rasleela, Jatta, Thali, Jaita, Chhapeli, Nautanki
Uttarakhand	Thadya, Jagor, Chchri, Jhumilo, Chauphula
Jammu & Kashmir	Rauf, Chakri, Bhakhageet, Hikar
Mizoram	Cherokan, Phakulia
Meghalaya	Bangla
Kerala	Padyani, Thulal, Bhadrakali, Tampatrikali, Kudiattam, Mohiniattam, Kaliattam, kekutti, Kalali
Nagaland	Kumi Naga, Chong, Khaiva, Nooralim, Lim, Rengmanag
Lakshdweep	Parichkoli
Asom	Rakhel, Bihu, Dhol, Maharaas, Boisaju, Jhumura
Arunachal Pradesh	Mukhauta, Yudhyratya
West Bengal	Laya, Ghambheera, Baul, Kathi

Popular Temples of Different States

States	Names of temples
Andhra Pradesh	1. Sri Ram Temple, Bhadrachalam; 2. Narsingh Temple, Ahobalam; 3. Shiv Temple, Lopakshi; 4. Mallikarjun Temple, Srisailam; 5. Kala Hastishwar Temple, Kalahasti
Asom	1. Harjagriv Madhav Temple, Hajo; 2. Uma Nand Temple, Guqahati; 3. Navgarh Temple, Guwahati; 4. Janardhan Temple, Guwahati
Bihar	1. Kolgenda's Temple, Bhagalpur; 2. Jal Mandir, Pavapidi; 3. Harmindir, Patna; 4. Mahabodhi Temple, Bodhgaya; 5. Vishnupad Temple, Gaya; 6. Jain Temple, Vaishali
Delhi	1. Laxmi Narayan Temple
Goa	1. Shri Shanta Durga Temple; 2. Saptakoteshwar Temple; 3. Sri Mangesh Temple
Gujarat	1. Kirti Temple, Porbandar; 2. Sudama Temple, Porbandar; 3. Sun Temple, Modhara; 4. Hathi Singh Temple, Ahmedabad; 5. Jain Temple, Junagarh, Girnar Parvat; 6. Simnath Temple, Prabhash; 7. Kirti Temple, Vadodara; 8. Dwarikadheesh Temple, Dwarika; 9. Rukmani Temple, Dwarka
Haryana	1. Laxminarayan Temple, Kurukshetra; 2. Sita Temple, Kurukshetra
Jammu-Kashmir	1. Raghunath Mandir, Jammu; 2. Ship Khori, Jammu; 3. Amarnath Temple, Kashmir
Karnataka	1. Ganga Dhareshwar Temple, Bangaluru; 2. Nandi bell Temple, Bangaluru; 3. Hajarnama Temple, Hampi; 4. Pattaviram Temple, Hample; 5. Gomateshwar Temple, Shravanbelgola; 6. Hoyaleshwar Temple, Helbid; 7. Kedareshwar Temple, Helbid; 8. Chennakeshav Temple, Bellur; 9. Nandi Temple, Mysore; 10. Sri Rangnath Temple, Sri Rangpattanam
Kerala	1. Guhanath Temple, Travancore; 2. Schindram Temple, Travancore; 3. Chandranath Jain Temple, Mudhravidi; 4. Sri Koel Temple, Trikathimanam; 5. Padmanabh Swami Temple, Trivandrum
Madhya Pradesh	1. Gopal Temple, Ujjain; 2. Mahakaleshwar Temple, Ujjain; 3. Laxminarayan Temple, Bhopal; 4. Kanch Temple, Indore; 5. Geeta Temple, Indore; 6. Neelkanth

	Mahadev Temple, Mandu; 7. Chausathyogi Temple, Khajuraho; 8. Kandriya Mahadev Temple, Khajuraho; 9. Vishvanath & Nandi Temple, Khajuraho; 10. Parshav Temple, Khajuraho; 11. Ghantri Temple, Khajuraho; 12. Brahma Temple, Khajuraho; 13. Matangeswar and Varah Temple, Khajuraho; 14. Jagdamba Temple, Khajuraho
Maharashtra	1.Kailash Temple, Ajanta; 2. Mahalaxmi Temple, Mumbai; 3. Sai Baba Temple, Sirdi; 4. Ate Baleshwar Temple, Mahabaleshwar; 5. Sundar Narayan Temple, Nasik; 6. Triyambak Temple, Nasi; 7. Amba Temple, Kolhapur
Manipur	1.Shri Govind Temple, Koina;
Orissa	1.Sun Temple, Konarke; 2. Sakshi Temple, Puri; 3. Jagannath Temple, Puri; 4. Lingraj Temple, Bhuvneshwar; 5. Brahmeshwar Temple, Bhuvneshwar; 6. Parshurameshwar Temple, Bhuvneshwar
Punjab	1.Dera Baba Nanak Temple, Amritsar; 2. Dasmtal Temple, Pathankot; 3. Swarn Temple, Amritsar; 4. Durgiyana Temple, Amritsar
Rajasthan	1.Charmukh Temple, Udaipur; 2. Govinddevji Temple, Jaipur; 3. Jagdish Mandir, Udaipur; 4. Achleswar Temple, Mt. Abu; 5. Jain Temple, Jaisalmer; 6. Rangvadi Temple, Kota; 7. Brahma Temple, Pushkar (Ajmer); 8. Kaila Devi Temple, Karauli; 9. Dilwara's Jain Mandir, Mt. Abu
Tamil Nadu	1.Taj Temple, Mahabalipuram; 2. Parthsarathi Temple, Chennai; 3. Natraj Temple, Chidambaram; 4. Meenakshi Temple, Madurai; 5. Vrihadeshwar Temple, Tanjaur; 6. Kanya Kumari Temple, Kanyakumari; 7. Sri Vardrajan Temple, Kanchipuram
Uttar Pradesh	1.Bhitergoan's Temple, Kanpur; 2. Dasawatar Tampil, Jhansi; 3. Geeta Temple, Mathura; 4. Tulsi Manas Temple, Varanasi; 5. Rishabhdev Temple, Ayodhya; 6. Dwarika dheesh Temple, Mathura; 7. Sri Ram Janam Bhumi, Ayodhya; 8. Banke Bihari
Uttarakhand	1.Kesar Devi Temple, Almora; 2. Kalika Temple, Ranikhet