▪ WORLD GEOGRAPHY

- **Cosmology:** The study of the universe is known as cosmology. It involves the examination of the origin, evolution, and eventual fate of the universe.

- **Universe Definition:** The universe is commonly defined as the totality of everything that exists, including all physical matter and energy, planets, stars, galaxies, and the contents of intergalactic space.

- **Galaxy:** A galaxy is a vast system of billions of stars, dust, and light gases bound together by their own gravity. There are approximately 100 billion galaxies in the universe, with an average of 100 billion stars in each galaxy.

- **Milky Way Galaxy:** Our galaxy is the Milky Way Galaxy, also known as Akash Ganga. It formed after the Big Bang.

- **Andromeda Galaxy:** Andromeda is the nearest galaxy to the Milky Way.

- **Big Bang Theory:** The Big Bang Theory describes an explosion of concentrated matter in the universe that occurred approximately 15 billion years ago. This event led to the formation of galaxies, stars, and other celestial bodies.

- **Cosmic Microwave Background**: It is believed that the universe should be filled with radiation known as the "cosmic microwave background." NASA launched missions like the Cosmic Background Explorer (COBE) and the Wilkinson Microwave Anisotropy Probe (WMAP) to study this radiation.

- **Stars:** Stars are heavenly bodies composed of hot burning gases, and they shine by emitting their own light.

- **Black Holes:** Stars with a mass greater than three times that of the Sun can become black holes. Black holes have extremely high gravitational power, so strong that not even light can escape from their gravity. They effectively trap light and other forms of electromagnetic radiation.

- **Comets:**
  - Made up of frozen gases.
  - Move around the Sun in elongated elliptical orbits.
  - Tails always point away from the Sun.

- **Constellations:**
  - Sky divided into units for astronomers to identify star positions.
  - There are 88 known constellations.

- **Satellites:**
  - Heavenly bodies that revolve around planets.
  - The Moon is Earth's natural satellite.

- **Moon Facts:**

- Diameter: 3476 km
- Average distance from Earth: 384,365 km
- Rotation Speed: 27 days, 7 h, 43 min, and 11.47 sec
- Revolution Speed: 27 days, 7 h, 43 min, and 11.47 sec
- Time taken by moonlight to reach Earth: 1.3 sec

Solar System:

- Consists of the Sun, eight planets, their satellites (moons), and other smaller bodies like asteroids, comets, and meteors.

Celestial Body	Attribute	Value/Fact
Sun	Average distance from Earth	149,598,900 km
	Diameter	1,391,980 km
	Temperature of the Core	15,000,000°C
	Rotation Speed (Equator)	25.38 days
	Rotation Speed (Poles)	33 days
	Time taken by Sunlight to reach Earth	8 min and 16.6 sec
Universe	Biggest Planet	Jupiter
	Biggest Satellite	Ganymede (Jupiter)
	Blue Planet	Earth
	Green Planet	Uranus
	Brightest Planet	Venus
	Brightest Planet outside Solar System	Sirius (Dog Star)
	Closest Star of Solar System	Proxima Centauri
	Coldest Planet	Neptune
	Evening Star	Venus
	Farthest Planet from Sun	Neptune
	Planet with maximum number of satellites	Saturn (Overtaking Jupiter)
	Fastest revolution in Solar System	Mercury
	Hottest Planet	Venus
	Densest Planet	Earth
	Fastest rotation in Solar System	Jupiter
	Morning Star	Venus
	Nearest Planet to Earth	Venus
	Nearest Planet to Sun	Mercury
	Red Planet	Mars
	Slowest Revolution in Solar System	Neptune
	Slowest Rotation in Solar System	Venus
	Smallest Planet	Mercury
	Smallest Satellite	Deimos (Mars)
	Earth's Twin	Venus
	Only Satellite with an atmosphere like Earth	Titan

- **Asteroids (Planetoids):** Small planetary bodies.
  - Revolve around the Sun.
  - Found between the orbits of Mars and Jupiter.
  - Also known as minor planets.

- **Meteors and Meteorites:**
  - Meteors, or shooting stars, are fragments of rocks approaching Earth.
  - Formed due to collisions among asteroids.
  - Meteors that survive atmospheric entry and land on Earth are called meteorites.
  - Meteorites composed of nickel-iron alloy (10% nickel, 90% iron) and silicate minerals.

- **Classification of Planets:**

  - **Inner Planets (Terrestrial/Rocky Planets):**
    - Include Mercury, Venus, Earth, and Mars.
    - Nearer to the Sun.

  - **Outer Planets (Jovian/Gaseous Planets):**
    - Include Jupiter, Saturn, Uranus, and Neptune.
    - Farther away from the Sun.

- **Dwarf Planet:**
  - According to the International Astronomical Union (IAU).
  - Celestial body in direct orbit of the Sun.
  - Massive enough for gravitational shape control but hasn't cleared its neighborhood.
  - Examples: Pluto, Ceres, Eris, Makemake, and Haumea.

- **Units of Measurement:**

  - **Light Year:** Distance light travels in one year at the speed of 3×1083×108 m/s.

  - **Astronomical Unit (AU):** Mean distance between Earth and the Sun.

- **Earth:** Earth is an oblate spheroid, almost spherical with a slight flattening at the poles and a bulge at the equator.

  - **Perihelion:** Nearest position of Earth to the Sun.
  - **Aphelion:** Farthest position of Earth from the Sun.
  - Earth's interior composed of three layers: crust, mantle, and core.

- **Eduard Suess's Earth Composition:**
  - SIAL (Silicon-Aluminium): Upper crust.
  - SIMA (Silicon-Magnesium): Lower crust.
  - NIFE (Nickel-Iron): Outer core.

- **Rotation of the Earth:**
  - Earth spins on its axis from West to East.
  - One complete rotation in one day.
  - Causes day and night, as well as tides.

- **Revolution of the Earth:**
  - Earth's motion in an elliptical orbit around the Sun.
  - One complete orbit takes one year.
  - Results in the change of seasons.

Statistic Data of the Earth	Value/Fact
Age	4550 million years
Mass	5.976×10245.976×1024 kg
Volume	1.083×10121.083×1012 km³
Mean Density	5.513 g/cm³
Total Surface Area	510 million sq km
Land Area	29.2% of the total surface area
Water Area	70.8% of the total surface area
Rotation Speed	23 hr, 56 min, and 4.100 sec
Revolution Speed	365 days, 5 hr, and 45.51 sec
Dates when days and nights are equal	March 21 (Vernal Equinox); 23rd September (Autumnal Equinox)
Longest day	21st June (Summer Solstice), Sun is vertically overhead at Tropic of Cancer
Shortest night	22nd December (Winter Solstice), Sun is vertically overhead at Tropic of Capricorn
Escape velocity	11.2 km/sec
Mean surface temperature	14°C

- **Latitudes:**
  - Imaginary lines parallel to the equator on Earth's surface.
  - Equator (0°) divides Earth into North and South hemispheres.
  - Tropic of Cancer: 23.5°N.
  - Tropic of Capricorn: 23.5°S.
  - Arctic Circle: 66.5°N.
  - Antarctic Circle: 66.5°S.
  - Each degree of latitude equals 111 km.

- **Longitudes (Meridians):**
  - Semicircles from pole to pole passing through the equator.
  - Prime Meridian (0°) passes through Greenwich, London.
  - Determines local time in relation to Greenwich Mean Time (GMT).
  - 1° change in longitude corresponds to 4 minutes difference in time.

- **International Date Line (IDL):**
  - Longitude where the date changes by one day when crossed.
  - 180° East and 180° West meridians coincide, forming the IDL.
  - Crossing from West to East adds 1 day, and from East to West subtracts 1 day.
  - Samoa island recently shifted to the west side of the IDL.

- **Indian Standard Time (IST):**
  - Calculated based on 82.5°E longitude passing through Uttar Pradesh, Madhya Pradesh, Odisha, Chhattisgarh, and Andhra Pradesh.
  - IST is 5 hr 30 min ahead of GMT.

- **Eclipses:** Solar Eclipse:

- Moon comes between Earth and the Sun, making part or all of the Sun invisible.
- Can be partial or complete.

- Lunar Eclipse:
  - Earth comes between the Moon and the Sun.
  - Earth's shadow on the Moon causes a lunar eclipse.

Rocks:

- Made up of individual substances known as minerals.
- Exist mostly in a solid state.
- Classified into three major types.

- **Igneous Rocks:**
  - Formed by the solidification of molten magma.
  - Examples include Mica and Granite.

- **Sedimentary Rocks:**
  - Formed due to the accumulation of rock particles and organic matter in layers.
  - Formation occurs under tremendous pressure.
  - Examples include Gravel, Peat, and Gypsum.

- **Metamorphic Rocks:**
  - Originally igneous or sedimentary rocks.
  - Later changed due to pressure, heat, or the action of water.
  - Examples include Gneiss, Marble, and Quartzite.

Weathering: Process causing rocks to chemically or physically disintegrate.

Earthquakes:

- Sudden disturbances below Earth's surface causing vibrations.
- Magnitude measured by Richter Scale.
- Intensity recorded by Seismograph and measured on the modified Mercalli Scale.
- Focus is the point beneath Earth where the earthquake originates.
- Epicentre is the point just above the focus on Earth's surface.

Volcanism:

- Sudden eruption of hot magma, gases, ash, and other material from inside Earth to its surface.

- **Types of Volcanoes:**
  - **Active:** Erupts frequently, e.g., Mauna Loa (Hawaii), Etna (Sicily), Vesuvius (Italy).
  - **Dormant:** Not erupted for a while, e.g., Fujiyama (Japan), Krakatoa (Indonesia), Barren Island (India).
  - **Extinct:** Not erupted for centuries, e.g., Arthur's Seat, Edinburgh, Scotland.
  - **Ring of Fire:** Hundreds of active volcanoes near the edges of the Pacific Ocean.

Tsunami:

- Large ocean wave caused by sudden motion on the ocean floor (earthquake, volcanic eruption, or underwater landslide).

Landforms:

- **Mountains:**
  - Uplifted portion of Earth's surface.
  - Classified into Fold Mountains (e.g., Himalayas), Block Mountains (e.g., Vosges, Black Forest), Volcanic Mountains (e.g., Mauna Loa, Mt. Popa), Residual/Dissected Mountains (e.g., Nilgiris, Girnar).

- **Plateaus:** Elevated flat areas.

- **Plains:** Flat, low-lying areas

Plateaus:

- Flat, table-like upland areas.
- Characterized by a rough top surface and steep side walls.

Major Mountain Ranges

Major Mountain Ranges	Location	Length (km)
Andes	South America	7200
Himalayas, Karakoram, and Hindukush	South Central Asia	5000
Rockies	North America	4800
Great Dividing Range	East Australia	3600
Atlas	North-West Africa	1930
Western Ghats	Western India	1610
Caucasus	Europe	1200
Alaska	USA	1130
Alps	Europe	1050

Major Mountain Peaks

Major Mountain Peaks	Location
Mt Everest (Highest in the world)	Nepal-Tibet
K2 (Godwin Austin)	India (PoK)
Dhaulagiri	Nepal
Annapurna	Nepal
Gurla Mandhata	Tibet
Tirich Mir	Pakistan
Aconcagua	Argentina
Cotopaxi	Ecuador
Kilimanjaro	Tanzania

Famous Plateaus of the World

Famous Plateaus of the World	Situation
Tibetan Plateau	Between Himalayas and Kunlun Mountains
Deccan Plateau	Southern India
Arabian Plateau	South-West Asia
Plateau of Brazil	Central-Eastern South America
Plateau of Mexico	Mexico
Plateau of Columbia	USA
Plateau of Madagascar	Madagascar
Plateau of Alaska	North-West North America
Plateau of Bolivia	Andes Mountains
Great Basin Plateau	South of Columbia Plateau, USA
Colorado Plateau	South of Great Basin Plateau, USA

Atmosphere:

- Vast expanse of air surrounding the Earth.
- Extends to thousands of kilometers.
- Protects Earth's surface from harmful ultraviolet rays.

- **Regulation of Temperature:** Atmosphere regulates the Earth's temperature, preventing extremes of heat and cold.

- **Major Constituents of Air:**
  - Nitrogen: 78%
  - Oxygen: 21%
  - Argon: 0.93%
  - Carbon Dioxide: 0.03%

- **Other Components in Air:**
  - Water Vapor
  - Dust Particles
  - Smoke
  - Salts

Layer	Height (km)	Feature
Troposphere	0-18	Contains 75% of the gases in the atmosphere. As height increases, temperature decreases (about 6.5°C/km ascent).
Stratosphere	18-50	Contains the ozone layer. The temperature remains fairly constant in the lower part but increases slowly with an increase in height due to the presence of ozone gas. At the upper layer, the temperature is almost 0°C.
Mesosphere	50-80	The coldest region of the atmosphere. The temperature drops to about –100°C.
Ionosphere	80-600	Radio waves are bounced off the ions and reflect waves back to Earth.

Layer	Height (km)	Feature
		This generally helps radio communication.
Exosphere	600	The upper part of the exosphere is called Magnetosphere. The temperature keeps rising constantly at a high rate.

Effect and Global Greenhouse Warming:

- Greenhouse gases (GHGs) in the atmosphere absorb and emit thermal infrared radiation, causing the greenhouse effect.
- Primary greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxide, and ozone.
- Global warming is the rise in Earth's average surface temperature due to the greenhouse effect, driven by factors like carbon dioxide emissions from fossil fuels and deforestation.

Pressure System of Earth:

- Atmospheric pressure is the weight of the atmosphere above a unit area of the Earth's surface.
- Measured by a Mercury Barometer.
- Major pressure belts include equatorial low, sub-tropical high, sub-polar low, and polar high.

- **Winds:** Horizontal movement of air from areas of high pressure to low pressure.
  - **Types of winds:**
  - **Planetary Winds:**
  - Trade Winds: Blow from the Sub-tropical High Pressure Belt to the Equatorial Low Pressure Belt in the tropics.
  - Westerlies: Blow from Sub-tropical High Pressure Belt to the Sub-Polar Low Pressure Belt in temperate latitudes.
  - Polar Winds: Blow from the Polar High Pressure Belt to the Sub-Polar Low Pressure Belt.
- **Periodic Winds:** Change direction periodically with pressure and temperature changes, e.g., Monsoon, Land, and Sea Breeze.
- **Local Winds:** Develop due to local temperature and pressure differences, e.g., Fohn, Chinook, Loo.
- **Cyclones:** Rapid inward circulation of air masses with low pressure at the center. Anticlockwise in the Northern Hemisphere, clockwise in the Southern Hemisphere.
- **Anticyclones:** Rapid outward movement of air masses with high pressure at the center.
- **Hurricane:** Also known as a tropical cyclone or tropical storm. A large disturbance spinning around a central area of very low pressure, with wind speeds above 140 km/h.

Cyclones of the World

Cyclone	Location
Typhoons	China Sea
Tropical Cyclones	Indian Ocean
Hurricanes	Caribbean Sea
Tornadoes	USA
Willy Willies	Northern Australia

Local Winds

Name	Nature of Wind
Chinook	Hot, dry wind in Rockies; also called 'Snow Eater'
Fohn	Hot, dry wind in the Alps
Khamsin	Hot, dry wind in Egypt
Sirocco	Hot, moist wind from Sahara to Mediterranean; also known as 'Blood rain'
Solano	Hot, moist wind from Sahara towards Iberian Peninsula
Harmattan	Hot, dry wind blowing from Western Africa; also called Guinea Doctor
Bora	Cold, dry wind from Hungary to North Italy (near Adriatic Sea)
Mistral	Very cold wind from the Alps over France
Punas	Cold, dry wind down towards Western side of Andes
Blizzard	Very cold winds in Tundra region
Purga	Cold wind in Russian Tundra
Levanter	Cold wind in Spain
Norwester	Hot wind in New Zealand
Santa Ana	Hot wind in South California, USA

Major Rivers of the World

River	Origin
Nile	Victoria Lake
Amazon	Andes (Peru)
Yangtze	Tibetan Kiang Plateau
Mississippi	Itaska Lake (USA)
Yenisei	Tannu-Ola Mountains
Huang Ho	Kunlun Mountains
Ob	Altai Mountains, Russia
Congo	Lualaba and Luapula rivers
Amur	North East China
Lena	Baikal Mountains
Mekong	Tibetan Highlands

River	Origin
Niger	Guinea

Important Canals of the World

Canal	Water Bodies Joined
Panama	Pacific Ocean and Caribbean Sea
Suez	Mediterranean Sea to Red Sea
Erie	Atlantic Ocean to Great Lakes
Kiel	North Sea to Baltic Sea

Deepest Point of Oceans

Oceans	Deepest Point
Pacific	Mariana Trench
Atlantic	Puerto Rico Trench
Indian	Java Trench
Arctic	Eurasian Basin

Important Straits of the World

Strait	Water Bodies Joined	Area
Bab-el-Mandeb	Red Sea and Arabian Sea	Arabia and Africa
Bering	Arctic Ocean and Bering Sea	Alaska and Asia
Bosphorus	Black Sea and Marmara Sea	Turkey
Dover	North Sea and Atlantic Ocean	England and Europe
Florida	Gulf of Mexico and Atlantic Ocean	Florida and Bahamas
Gibraltar	Mediterranean Sea and Atlantic Ocean	Spain and Africa (Morocco)
Malacca	Java Sea and Bay of Bengal	India and Indonesia
Palk	Bay of Bengal and Indian Ocean	India and Sri Lanka
Magellan	South Pacific and South Atlantic Ocean	Chile
Sunda	Java Sea and Indian Ocean	Indonesia

Waterfalls

Waterfall	Location
Angel Falls	Venezuela
Tugela Falls	South Africa
Monge	Norway
Yosemite	United States
Catarata Yumbilla	Peru

Important Lakes of the World

Lake	Location
Caspian Sea	Asia
Superior	Canada and USA
Victoria	Africa
Huron	Canada and USA
Michigan	USA
Tanganyika	Africa
Baikal	Russia
Great Bear	Canada
Aral	Kazakhstan
Great Slave	Canada

Riverside Cities

Town	River
Akyab (Myanmar)	Irrawaddy
Baghdad (Iraq)	Tigris
Basara (Iraq)	Tigris and Euphrates
Belgrade	Danube
Berlin (Germany)	Spree
Bristol (UK)	Avon
Budapest (Hungary)	Danube
Cairo (Egypt)	Nile
Canton	Si-Kiang
Glasgow (Scotland)	Clyde
Hamburg (Germany)	Elbe
Jamshedpur	Subarnarekha
Kabul	Kabul
Karachi	Indus
Khartoum (Sudan)	Nile
Lahore	Ravi
Lisbon (Portugal)	Tangus
London (UK)	Thames
Lucknow	Gomti
Montreal (Canada)	Ottawa
New Castle (UK)	Tyre
New Orleans (USA)	Mississippi
New York (USA)	Hudson
Paris (France)	Seine

Town	River
Philadelphia (USA)	Delaware
Rome (Italy)	Tiber
Shanghai	Yang-tse-Kiang
Srinagar	Jhelum
Warsaw (Poland)	Vistula
Washington DC	Potomac
Yangon (Myanmar)	Irawady

Great Deserts of the World

Name	Country/Region
Sahara (Libyan, Nubian)	North Africa
Australian (Gibson, Simpson, Victorian, Great Sandy)	Australia
Arabian (Rub al Khali, An-Nafud)	Arabia
Dasht-e-Lut (Barren Desert)	Iran
Dasht-e-Kavir (Salt Desert)	Iran
Desierto de Sechura	Peru
Atacama	North Chile
Patagonia	Argentina
Kalahari	Botswana
Namib	Namibia

Major Islands of the World

Rank	Name	Area (km²)	Country/Area
1	Greenland	2,175,600	Denmark
2	New Guinea	785,753	Melanesia
3	Borneo	748,168	Indonesia, Malaysia
4	Madagascar	587,713	Madagascar
5	Baffin Island	503,944	Canada
6	Sumatra	443,066	Indonesia

Minerals of the World

Mineral	Leading Producer

Mineral	Leading Producer
Gold	China
Bauxite	Australia
Copper	Chile
Platinum	South Africa
Chromium	South Africa
Vanadium	China
Antimony	China
Tungsten	China
Phosphate	China
Manganese	China
Diamond	Russia (Botswana, in terms of value)
Iron ore	China
Petroleum	USA

Famous Grasslands of the World

Grassland	Country
Steppe	Eurasia
Pustaz	Hungary
Prairie	USA
Pampas	Argentina and Uruguay (South America)
Veld	South Africa
Downs	Australia
Canterbury	New Zealand

Agriculture - Leading Producers

Agricultural Produce	Leading Producer
Coffee	Brazil
Rubber	Thailand
Tea	China
Oil Palm	Indonesia
Cocoa	Ghana
Coconut	Indonesia
Date Palm	Egypt
Cotton	China
Wheat	China
Maize	USA
Fruits and Vegetables	China
Wool	Australia
Rice	China

Agricultural Produce	Leading Producer
Cloves	Zanzibar

Important International Boundary Lines

Name	In Between
Radcliffe Line (1947)	India and Pakistan (Indo-Pak)
McMahon Line (1914)	India and China (Indo-China)
Durand Line (1893)	Pakistan and Afghanistan
Hindenburg Line	Germany and Poland
Maginot Line	France and Germany
Oder Neisse Line	Germany and Poland
Siegfried Line	Fortification between Germany and France
38th Parallel Line	North and South Korea
49th Parallel Line	USA and Canada
24th Parallel Line	Pakistan claims that it is the boundary between India and Pakistan in Rann of Kachchh
17th Parallel Line	North Vietnam and South Vietnam

Highest and Lowest Points of the Continent

Continent	Highest (m)	Lowest (m)
Asia	Mt Everest (8850)	Dead Sea (−396)
Africa	Mt Kilimanjaro (5895)	Lake Assal (−151)
North America	Mt Mckinley (6190)	Death Valley (−87)
South America	Mt Aconcagua (6962)	Valdes Peninsula (−40)
Antarctica	Vinson Massif (4897)	Bentley Subglacial Trench (−2538)
Europe	Mt El'brus (5642)	Caspian Sea (−28)
Australia	Mt Kosciuszko (2228)	Lake Eyre (−16)

Important Industrial Cities

City	Industry
Anshan (China)	Iron and Steel
Baku (Azerbaijan)	Petroleum
Belfast (Ireland)	Ship-building

City	Industry
Birmingham (UK)	Iron and Steel
Chicago (USA)	Meat Packing
Detroit (USA)	Automobile
Havana (Cuba)	Cigars
Hollywood (USA)	Films
Johannesburg (South Africa)	Gold Mining
Kansas City (USA)	Meat Packing
Kawasaki (Japan)	Iron and Steel
Kimberley (South Africa)	Diamond Mining
Krivoi Rog (Ukraine)	Iron and Steel
Leeds (UK)	Woollen Textiles
Leningard (Russia)	Ship-building
Los Angeles (USA)	Petroleum
Lyon (France)	Silk Textiles
Magnitogorsk (Russia)	Iron and Steel
Manchester (UK)	Cotton Textile
Milan (Italy)	Silk Textile
Multan (Pakistan)	Pottery
Munich (Germany)	Lenses
Nagoya (Japan)	Automobiles
Philadelphia (USA)	Locomotives
Pittsburgh (USA)	Iron and Steel
Plymouth (USA)	Ship-building
Rourkela (India)	Iron and Steel
Sheffield (UK)	Cutlery
Vladivostok (Russia)	Ship-building
Wellington (New Zealand)	Dairy Products

Important Facts:

- **Area of India:** 3,287,263 sq km (2.42% of the world's area).
- **Population:** 1.21 billion (17.44% of the world).
- **Geographical Location:** Northern and Eastern Hemisphere.
- **Longest Boundaries:** Bangladesh (4,096 km), China (3,488 km), Pakistan (3,323 km), Nepal (1,751 km), Myanmar (1,643 km), Bhutan (699 km), Afghanistan (106 km).
- **Tropic of Cancer:** Passes through 8 states (Gujarat, Rajasthan, Madhya Pradesh, Chhattisgarh, Jharkhand, West Bengal, Tripura, and Mizoram).

- **Islands:** Andaman and Nicobar (Bay of Bengal); Lakshadweep, Amindivi, and Minicoy (Arabian Sea).
- **Oceans:** Surrounded by Arabian Sea (Southwest) and Bay of Bengal (Southeast).
- **Strategic Location:** Midway between the Far East and Middle East.

Indian States and Union Territories Situated on the Border

Country	Bordering Indian States/UTs
Pakistan (4)	Gujarat, Rajasthan, Punjab, Jammu and Kashmir
Afghanistan (1)	Ladakh
China (5)	Ladakh, Uttarakhand, Himachal Pradesh, Sikkim, Arunachal Pradesh
Nepal (5)	Uttar Pradesh, Uttarakhand, Bihar, West Bengal, Sikkim
Bhutan (4)	Sikkim, West Bengal, Assam, Arunachal Pradesh
Bangladesh (5)	West Bengal, Assam, Meghalaya, Tripura, Mizoram

Highest Peaks of India

Highest Peak	Height (m)	State/UTs
Mt K2	8,611	PoK (India)
Kanchenjunga	8,598	Sikkim
Nanda Devi	7,817	Uttarakhand
Saltoro Kangri	7,742	Jammu and Kashmir
Kangto	7,090	Arunachal Pradesh
Reo Purgyil	6,816	Himachal Pradesh
Saramati	3,841	Nagaland
Sandakphu	3,636	West Bengal
Khayang	3,114	Manipur
Anaimudi	2,695	Kerala
Dodda Betta	2,636	Tamil Nadu

Important Geographic Facts:

- **Latitudinal Extent:** 8°4' N to 37° 6' N.
- **Longitudinal Extent:** 68°7' E to 97° 25' E.
- **North-South Extent:** 3,214 km.
- **East-West Extent:** 2,933 km.
- **Land Frontiers:** 15,200 km.

- **Total Coastline:** 7,516.6 km.
- **Number of States:** 28.
- **Union Territories:** 8 (Post bifurcation and merger).
- **Land Neighbours:** Pakistan, Afghanistan, China, Nepal, Bhutan, Bangladesh, and Myanmar.
- **Longest Coastline:** Gujarat.
- **Active Volcano:** Barren Island in Andaman and Nicobar Islands.
- **Southernmost Point:** Indira Point or Pygmalion Point in Great Nicobar
- **Southernmost Tip:** Kanyakumari.
- **Northernmost Point:** Indira Col.
- **Westernmost Point:** West of Ghaur Mota in Gujarat.
- **Easternmost Point:** Kibithu (Arunachal Pradesh).

Important Waterfalls of India

Waterfall	Height (m)	River	State
Kunchikal	455	Varahi	Karnataka
Jog/Gersoppa	260	Sharavati	Karnataka
Rakim Kund	168	Gaighat	Bihar
Chachai	127	Bihad	Madhya Pradesh
Kevti	98	Mahana	Madhya Pradesh
Sivasamudram	90	Cauveri	Karnataka

Important Lakes of India

Lake	State/UTs	Important Fact
Chilka Lake	Odisha	Largest brackish water lake of India.
Kolleru Lake	Andhra Pradesh	Freshwater lake.
Loktak Lake	Manipur	Freshwater lake with inland drainage in Manipur.
Lonar Lake	Maharashtra	Meteorite crater lake in Buldhana, highly charged with Sodium carbonates and Sodium chloride.
Pangong Lake	Jammu and Kashmir	Salty lake.
Pulicat Lake	Tamil Nadu & Andhra Pradesh border	Saline and lagoon lake.
Sambhar Lake	Rajasthan	Shallow, saline lake located near Jaipur.

Lake	State/UTs	Important Fact
Tso Moriri Lake	Jammu & Kashmir	Salty lake.
Vembanad Lake	Kerala	Lagoon lake, largest lake by surface area.
Wular & Dal Lakes	Jammu and Kashmir	Wular lake created due to tectonic activities, largest freshwater lake of India.

Important Rivers of India

River	Originates from	Falls into
Ganges	Gangotri Glacier	Bay of Bengal
Sutlej	Mansarovar Rakas Lakes	Chenab
Indus	Near Mansarovar Lake	Arabian Sea
Ravi	Kullu Hills near Rohtang Pass	Chenab
Beas	Near Rohtang Pass	Sutlej
Jhelum	Verinag in Kashmir	Chenab
Yamuna	Yamunotri	Ganga
Chambal	Singar Chouri Peak, Vindhyan escarpment	Yamuna
Ghaghara	Matsatung Glacier	Ganga
Kosi	Near Gosain Dham Peak	Ganga
Betwa	Vindhyanchal	Yamuna
Son	Amarkantak	Ganga
Brahmaputra	Near Mansarovar Lake	Bay of Bengal
Narmada	Amarkantak	Gulf of Khambat
Tapti	Betul District in Madhya Pradesh	Gulf of Khambat
Mahanadi	Raipur District in Chhattisgarh	Bay of Bengal
Luni	Aravallis	Rann of Kachchh
Ghaggar	Himalayas	Near Fatehabad
Sabarmati	Mewar hill, Aravallis	Gulf of Khambat
Krishna	Western Ghats	Bay of Bengal
Godavari	Nasik district in Maharashtra	Bay of Bengal
Cauveri	Brahmagir Range of Western Ghats	Bay of Bengal

Important River Projects and Beneficiary States

Project	River	Purpose	Beneficiary States
Bhakra Nangal Project	Sutlej	Power and irrigation	Punjab, Himachal Pradesh, Haryana, Rajasthan
Damodar Valley	Damodar	Power, irrigation, and flood control	Jharkhand, West Bengal (shared by Madhya Pradesh)

Project	River	Purpose	Beneficiary States
Hirakud	Mahanadi	Power and irrigation	Odisha
Tungabhadra Project	Tungabhadra	Power and irrigation	Andhra Pradesh, Karnataka
Nagarjunasagar Project	Krishna	Power and irrigation	Andhra Pradesh, Telangana
Gandak River Project	Gandak	Power and irrigation	Bihar, Uttar Pradesh, Nepal (joint venture of India and Nepal)
Kosi Project	Kosi	Flood control, Power, and irrigation	Bihar
Farakka Project	Ganga, Bhagirathi	Power, irrigation, navigation improvement	West Bengal
Beas Project	Beas	Irrigation and power	Rajasthan, Haryana, Punjab, Himachal Pradesh
Indira Gandhi Canal Project	Sutlej, Beas, Ravi	Irrigation	Rajasthan, Punjab, Haryana
Chambal Project	Chambal	Power and irrigation	Madhya Pradesh, Rajasthan
Kakrapara Project	Tapti	Irrigation	Gujarat
Ukai Project	Tapti	Power and irrigation	Gujarat
Tawa Project	Tawa (Narmada)	Irrigation	Madhya Pradesh
Poochampad Project	Godavari	Irrigation	Telangana
Malaprabha Project	Malaprabha	Irrigation	Karnataka
Durgapur Barrage	Damodar	Irrigation and navigation	West Bengal, Jharkhand
Mahanadi Delta Project	Mahanadi	Irrigation	Odisha
Iddukki Project	Periyar	Hydroelectricity	Kerala
Koyna Project	Koyna	Hydroelectricity	Maharashtra
Ramganga Multipurpose Project	Chisot stream near Kala	Power and irrigation	Uttar Pradesh, Uttarakhand
Matatila Project	Betwa	Multipurpose power and irrigation	Uttar Pradesh, Madhya Pradesh
Tehri Dam Project	Bhilangana, Bhagirathi	Hydroelectricity	Uttarakhand
Rihand Scheme	Rihand	Hydroelectricity	Uttar Pradesh
Kundah Project	Kundah/Bhavani	Hydroelectricity and irrigation	Tamil Nadu

Natural Vegetation of India

Natural Vegetation Type	Description	Regions
Tropical Rainforests	- Dense, evergreen forests with a high annual rainfall and high biodiversity.	Western Ghats, Eastern Ghats, Andaman and Nicobar Islands.
Tropical Deciduous Forests	- Shed their leaves during the dry season; rich in biodiversity.	Northern Plains, Central India, Western Ghats, Eastern Ghats, parts of Rajasthan and Maharashtra.
Tropical Thorny Forests	- Dominated by thorny shrubs and small trees, adapted to arid conditions.	Arid and Semi-arid regions, including Rajasthan, Gujarat, and parts of Deccan Plateau.
Montane Forests	- Found in mountainous regions, varying with altitude; includes both temperate and alpine forests.	Himalayan region, including Western Himalayas, Eastern Himalayas, and Southern Peninsular region.
Littoral and Swamp Forests	- Coastal vegetation; includes mangrove forests in saline water areas.	Sunderbans in West Bengal, coastal areas of Gujarat, Maharashtra, Andhra Pradesh, and parts of Tamil Nadu.
Subtropical Broadleaf Hill Forests	- Found in the sub-Himalayan regions; includes oak and rhododendron forests.	Shivalik Hills and foothills of the Western Himalayas.
Alpine Meadows and Scrubs	- Found at high altitudes, beyond the tree line; includes grasslands and shrubs.	Alpine regions of the Himalayas.

Soils in India

Soil Type	Characteristics	Regions
Alluvial Soil	- Rich in fertility, well-drained, suitable for diverse crops.	Northern Plains, Coastal Plains.
Black (Regur) Soil	- Rich in iron, magnesium, and aluminum; moisture-retentive; suitable for cotton and oilseeds.	Deccan Plateau, parts of Gujarat, Maharashtra, Chhattisgarh, Madhya Pradesh.
Red Soil	- Rich in iron; well-drained; suitable for crops like millets, pulses, and tobacco.	Southern Deccan Plateau, parts of Odisha, Chhattisgarh, Karnataka, Tamil Nadu.
Laterite Soil	- Rich in iron and aluminum; leached and acidic; not suitable for agriculture without proper treatment.	Western Ghats, Eastern Ghats, parts of Odisha, Karnataka, Kerala, Maharashtra.
Arid (Desert) Soil	- Sandy and saline; lacks fertility; low moisture-holding capacity; unsuitable for most crops.	Thar Desert in Rajasthan, parts of Gujarat, Haryana.

Soil Type	Characteristics	Regions
Mountain (Forest) Soil	- Found in hilly and forested areas; varies with altitude; rich in organic matter.	Himalayan region, Western Ghats, Eastern Ghats.
Peat Soil	- Rich in organic matter; found in waterlogged conditions; acidic; suitable for cultivation after drainage.	Kerala's Kuttanad region, Sundarbans in West Bengal.
Saline and Alkaline Soil	- High salt content; unsuitable for most crops; needs reclamation for agriculture.	Coastal areas, especially in Gujarat, Maharashtra, Andhra Pradesh, West Bengal
Forest and Mountain Soil	- Found in forested regions; varies with altitude; rich in organic matter.	Hilly areas, especially in the Western Ghats Eastern Ghats, and the Himalayan region.

Forests of India

Forest Type	Description	Regions
Tropical Evergreen Forests	- Dense, lush green forests with a wide variety of flora and fauna.	Western Ghats, Eastern Ghats, Andaman and Nicobar Islands, parts of Northeast India.
Tropical Deciduous Forests	- Shed their leaves during the dry season; rich in biodiversity.	Northern Plains, Central India, Western Ghats, Eastern Ghats, parts of Rajasthan and Maharashtra.
Thorny Scrub Forests	- Dominated by thorny bushes and shrubs, adapted to arid conditions.	Arid and Semi-arid regions, including Rajasthan, Gujarat, and parts of the Deccan Plateau.
Mangrove Forests	- Salt-tolerant trees and shrubs adapted to coastal saline water.	Sunderbans in West Bengal, Delta areas, and coastal regions of Gujarat, Maharashtra, and Andhra Pradesh.
Montane Forests	- Found in mountainous regions, varying with altitude. Includes both temperate and alpine forests.	Himalayan region, including Western Himalayas, Eastern Himalayas, and Southern Peninsular region.
Alpine Forests	- Found at high altitudes, beyond the tree line. Includes alpine meadows and scrubs.	Alpine regions of the Himalayas.

Agriculture in India:

- India is predominantly an agricultural country.
- Two-thirds of the population is engaged in agriculture, which encompasses farming, animal rearing, and fishing.

- **Agricultural Seasons:** Three major crop seasons are observed in India.
  - **Kharif Season:**
    - Sown in June/July and harvested in September/October.
    - Crops include rice, jowar, bajra, ragi, maize, cotton, and jute.
  - **Rabi Season:**
    - Sown in October/December and harvested in April/May.
    - Crops include wheat, barley, peas, rapeseed, mustard, and sesame.

- **Zaid Season:**
  - Sown in February/March and harvested in May/June.
  - Crops include urad, moong, melons, etc.

- **Green Revolution:** Phrase describing a significant increase in foodgrain production since 1968 in India.

- Components of the Green Revolution include:
  - High Yield Variety Seeds.
  - Irrigation.
  - Use of Fertilisers.
  - Use of Insecticide and Pesticide.

Climatic Regions of India

Concept	Description
Monsoon	Wind system with a complete reversal of prevailing wind direction.
Monsoon Types	1. South West Monsoon (June and July) 2. North East Monsoon (Sept. to Dec.)
Seasons of India	- Winter Season: Mid December to Mid March - Summer Season: Mid March to May - Rainy Season: June to September - Season of Retreating Monsoon: October to Mid December
Agriculture in India	- Two-thirds of the population is engaged in agriculture, including farming, animal rearing, and fishing.
Agricultural Seasons	1. Kharif: Sown in June/July, harvested in September/October (e.g., rice, jowar, cotton) 2. Rabi: Sown in October/December, harvested in April/May (e.g., wheat, barley) 3. Zaid: Sown in February/March, harvested in May/June (e.g., urad, moong, melons)
Green Revolution	- A significant increase in foodgrain production since 1968, with components like high-yield variety seeds, irrigation, fertilizers, insecticides, pesticides, and land development.
Climatic Regions of India	- Tropical Rain Forests: High temperature, heavy seasonal rainfall (e.g., Western Ghats, Assam) - Tropical Savana Climate: Dry winters, varying rainfall (e.g., Peninsular region) - Tropical Semi-Arid-Steppe Climate: Low rainfall, rainshadow belt (e.g., Maharashtra to Tamil Nadu) - Tropical and Sub-tropical Steppes: Moderate temperature (e.g., Punjab, Haryana) - Tropical Desert: Scanty rainfall, high temperature (e.g., parts of Rajasthan, Kachchh) - Humid Subtropical Climate with Dry Winters: Mild winters, extremely hot summers (e.g., South of Himalayas) - Mountain Climate: Rainfall varies, mostly during South-West Monsoon (e.g., Mountainous regions)

Chief crops and Producing States

Type	Name	Major Producers
Cereals	Wheat	Uttar Pradesh, Punjab, Madhya Pradesh
	Rice	West Bengal, Uttar Pradesh
	Gram	Madhya Pradesh, Maharashtra, Rajasthan
	Barley	Maharashtra, Uttar Pradesh, Rajasthan
	Bajra	Rajasthan, Maharashtra, Gujarat

Type	Name	Major Producers
Cash Crops	Sugarcane	Uttar Pradesh, Maharashtra
	Poppy	Uttar Pradesh, Himachal Pradesh
Oil Seeds	Coconut	Kerala, Tamil Nadu
	Linseed	Rajasthan, Madhya Pradesh, Haryana
	Groundnut	Gujarat, Andhra Pradesh, Tamil Nadu
	Rape seed and mustard	Rajasthan, Madhya Pradesh, Haryana
	Sesame	Gujarat, West Bengal, Karnataka
	Sunflower	Karnataka, Andhra Pradesh, Maharashtra
Fibre Crops	Cotton	Maharashtra, Gujarat
	Jute	West Bengal, Bihar
	Silk	Karnataka, Kerala
	Hemp	Madhya Pradesh, Uttar Pradesh
Plantations	Coffee	Karnataka, Kerala
	Rubber	Kerala, Karnataka
	Tea	Assam, Kerala
	Tobacco	Gujarat, Maharashtra, Madhya Pradesh
Spices	Pepper	Kerala, Karnataka, Tamil Nadu
	Cashewnuts	Kerala, Tamil Nadu, Andhra Pradesh
	Ginger	Kerala, Uttar Pradesh
	Turmeric	Andhra Pradesh, Odisha

MINERAL RESOURCES:

- **Types of Minerals:**
  - **Metallic:** Iron ore, copper, aluminium, tin, lead, gold, and silver.
  - **Non-metallic:** Coal, mica, manganese, petroleum, and sulphur.
  - **Radioactive:** Uranium and thorium.
- **Gondwana Rocks:** Richest mineral deposits in India, located in the Chhotanagpur Plateau.

Mineral Resources of India

Mineral	States
Coal	West Bengal, Jharkhand, Odisha, MP, Chhattisgarh
Copper	MP, Rajasthan, Jharkhand, Karnataka
Gold	Karnataka, Andhra Pradesh
Iron	Karnataka, Chhattisgarh, Jharkhand
Bauxite	Odisha, Jharkhand, Gujarat, MP
Mica	Jharkhand, AP, Rajasthan
Petroleum	Assam, Gujarat, Mumbai High, Bassein
Uranium	Jharkhand, Rajasthan, AP, Karnataka

Mineral	States
Thorium	Kerala Coast, Rocks of Aravalli in Rajasthan
Silver, Zinc, Lead	Rajasthan, AP, Karnataka (Kolar mines)
Diamond	Panna (MP), Banda (UP)

Railways:

- **Overview:**
  - Second-largest in Asia, fourth-largest in the world.
  - Longest platform: Gorakhpur (1.3 km).

Railway Zones and Headquarters:

Zone	Headquarters
Central	Mumbai (CST)
Eastern	Kolkata
Northern	New Delhi
North-Eastern	Gorakhpur
North-East Frontier	Maligaon-Guwahati
Southern	Chennai
South Central	Secunderabad
South-Eastern	Kolkata
Western	Mumbai Churchgate
East Coast	Bhubaneshwar
East Central	Hajipur
North Central	Prayagraj
North-Western	Jaipur
South-Western	Hubli
West Central	Jabalpur
South-East Central	Bilaspur
Kolkata Metro	Kolkata
South Coast Railway	Visakhapatnam

- **Historical Milestones:**
  - First train: Bombay to Thane (16th April, 1853).
  - First electric train: Deccan Queen (1929).
  - Longest train route: 'Vivek Express' (Dibrugarh to Kanyakumari, 4273 km).

- **Metro Systems:**
  - First Metro: Kolkata (24th October, 1984).
  - Konkan Railway started in 1990.
  - Delhi Metro started in 2002.
  - Rapid metro in Gurgaon (14th November 2013).
  - Newest: Nagpur Metro (8th March, 2019).

- **Other Highlights:**
  - Vande Bharat Express (Train 18): India's fastest.
  - Delhi-Meerut Regional Rapid Transit System (82.15 km).
  - Lucknow-New Delhi Tejas Express: Operated by IRCTC.
  - 13 operational metro systems in India, with Delhi Metro being the largest.

- **Railway Gauges:**
  - Broad Gauge: 1.676 m.
  - Metre Gauge: 1.00 m.
  - Narrow Gauge: 0.762 or 0.610 m.

Road Transport:

- **Road Network:**
  - One of the world's largest road networks (48 lakh km).
  - Categories: National highways, State highways, major/other district roads, and rural roads.

- **National Highways:**
  - Longest: NH 44 (3745 km, Srinagar to Kanyakumari).
  - Shortest: NH 548 (5 km).

- **Expressway Projects:**
  - North-South and East-West Corridor (NS-EW): 7300 km six-lane expressway.
  - Eastern Peripheral Expressway: Kundli-Ghaziabad-Palwal (6-lane).

- **State with Maximum Surfaced Roads:** Maharashtra.

- **Other Highlights:** Agra-Lucknow Expressway: India's longest greenfield 6-lane expressway.

Important National Highways

NH	Connects
NH 1	Uri-Baramula-Srinagar-Kargil-Leh
NH 4	Mayabandar-Port Blair-Chiriyatapu
NH 7	Fazilka-Patiala-Rudraprayag-Mana
NH 10	Siliguri-Gangtok
NH 21	Jaipur-Agra-Bareilly
NH 32	Chennai-Puducherry-Nagapatinam
NH 40	Kurnool-Chittoor-Ranipet
NH 44	Srinagar-Ludhiana-Agra-Sagar-Hyderabad-Kanyakumari

Water Transport

National Waterways	Route	Length
NW1	Allahabad to Haldia on Ganga river	1620 km
NW2	Sadia to Dhubri on Brahmaputra river	891 km
NW3	Kollam to Kottapuram (Champakara and Udyogmandal Canal)	168 km
NW4	Kakinada to Marak-kanam along Godavari and Krishna river	1095 km
NW5	Mangalgarhi to Paradeep and Talcher to Dhamara along Mahanadi and Brahmini	623 km
NW6	Lakhipur to Bhanga on Barak river	121 km

Major Ports in India

Major Ports in India	Location	State/UT
Kandla	Gujarat	Gujarat
Paradip	Odisha	Odisha
Mumbai	Maharashtra	Maharashtra
Vishakhapatnam	Andhra Pradesh	Andhra Pradesh
JL Nehru	Maharashtra	Maharashtra
Chennai	Tamil Nadu	Tamil Nadu
Marmugao	Goa	Goa
Ennore	Tamil Nadu	Tamil Nadu
Mangalore	Karnataka	Karnataka
Tuticorin	Tamil Nadu	Tamil Nadu
Cochin	Kerala	Kerala
Port Blair	Andaman and Nicobar Islands	Andaman and Nicobar Islands
Enayam Port	Tamil Nadu	Tamil Nadu

International Airports in India

International Airports in India	City
Rajiv Gandhi International Airport	Hyderabad
Calicut International Airport	Calicut
Chhatrapati Shivaji International Airport	Mumbai
Kempe Gowda International Airport	Bengaluru
Goa Airport in Vasco di Gama City	Goa
Netaji Subhash Chandra Bose International Airport	Kolkata
Thiruvananthapuram International Airport	Thiruvananthapuram
Lokpriya Gopinath Bordoloi International Airport	Guwahati

International Airports in India	City
Sardar Vallabhbhai Patel International Airport	Ahmedabad
Indira Gandhi International Airport	Delhi
Chennai International Airport	Chennai
Shri Guru Ram Dass Jee International Airport	Amritsar
Pakyong Airport (First greenfield airport in Northeast region)	Sikkim

ENVIRONMENT AND ECOLOGY

- **Environment:** All external conditions, factors, matter, and energy, living and non-living, that affect any living organism or other specified systems.
- **Ecology:** Biological science that studies the relationships between living organisms and their environment; the study of the structure and functions of nature.
- **Ecosystem:** A unit that includes all organisms in a given area interacting with the environment, leading to a defined trophic structure, biotic diversity, and material cycles.
- **Wetland:** Land covered all or part of the time with saltwater or freshwater, excluding streams, lakes, and the open ocean.
- **Biodiversity:** Variety of different species, genetic variability, variety of ecosystems, and functions essential for the survival of species and biological communities.
- **Biosphere:** The zone of the Earth where life is found, including parts of the atmosphere, hydrosphere, and lithosphere.
- **Wildlife:** All free, undomesticated species; sometimes used to describe animals only.
- **Threatened Species:** Wild species that is still abundant in its natural range but is likely to become endangered due to a decline in numbers.
- **Ozone (O_3):** A colorless and highly reactive gas, a major component of photochemical smog, and found in the ozone layer in the stratosphere protecting us from ultraviolet rays.
- **Smog:** Originally a combination of smoke and fog, now used to describe other mixtures of pollutants in the atmosphere.
- **Acid Rain:** Occurs when oxides of sulphur and nitrogen, formed during the combustion of fossil fuels, dissolve in water, causing rain to become acidic.
- **Global Warming:** The warming of the Earth's lower atmosphere due to increases in greenhouse gas concentrations, leading to irreversible climate change.
- **Ecomarks:** A scheme by the Ministry of Environment, Forest, and Climate Change in India that provides accreditation and labeling for products meeting specific environmental criteria.

- **Coral Bleaching:** Occurs when the relationship between coral and zooxanthellae breaks down, causing the coral to lose color and reveal its white skeleton.

- **Sustainability:** The ability of Earth's systems, including human cultural systems and economies, to survive and adapt to changing environmental conditions indefinitely.

Important Sanctuaries and National Parks

Name	Location	Reserve For
Kaziranga National Park	Assam	One-horned rhinoceros, gaur, elephant, leopard, and wild buffalo
Sonai Rupai Wildlife Sanctuary	Assam	Elephant, sambhar, wild boar, and one-horned rhinoceros
Namdapha National Park	Arunachal Pradesh	Elephant, panther, sambhar, tiger, cheetal, and king cobra
Gautam Buddha Sanctuary	Bihar	Tiger, leopard, sambhar, cheetal, and barking deer (Indian Muntjac)
Achanakmar Sanctuary	Chhattisgarh	Tiger, boar, cheetal, sambhar, and bison
Velavadar National Park	Gujarat	Wolf and blackbuck
Wild Ass Sanctuary	Gujarat	Wild ass, wolf, nilgai, and chinkara
Gir Forest	Gujarat	India's biggest wildlife sanctuary famous for Gir lions
Dachigam National Park	Jammu and Kashmir	Kashmiri stag, long-tailed marmot, Himalayan serow
Bannerghatta National Park	Karnataka	Elephant, cheetal, deer, grey partridge, and green pigeon
Bhadra Sanctuary	Karnataka	Elephant, cheetal, panther, sambhar, and wild boar
Bandipur National Park	Karnataka and Tamil Nadu	Elephant, tiger, panther, sambhar, deer, and birds
Tungabhadra Sanctuary	Karnataka	Tiger, panther, elephant, cheetal, sambhar, and wild boar
Nagarhole National Park	Karnataka	Panther, cheetal, sloth bear, and four-horned antelope
Pachmarhi Sanctuary	Madhya Pradesh	Tiger, leopard, wild bear, cheetal, sambhar, and rhesus macaque
Gandhi Sagar Sanctuary	Madhya Pradesh	Tiger, panther, boar, sambar, nilgai, and barking deer
Bandhavgarh National Park	Madhya Pradesh	Cheetal, sambhar, chinkara, and wild birds
Simlipal Sanctuary	Odisha	Tiger, panther, cheetal, nilgai, and wild boar
Ghana Bird Sanctuary	Rajasthan	Water birds, blackbuck, cheetal, and sambar
Khangchendzonga National Park	Sikkim	Snow leopard, musk deer, and Himalayan boar
Vedanthangal Bird Sanctuary	Tamil Nadu	Important bird sanctuary

Biosphere Reserves of India

Biosphere Reserves of India	States	Type	Area (km²)
Manas	Assam	East Himalayas	2837
Dibru-Saikhowa	Assam	East Himalayas	765
Seshchalam Hills	Andhra Pradesh	Eastern Ghats	4755.997
Great Nicobar (UNESCO)	Andaman and Nicobar Islands	Islands	885
Dihang-Dibang	Arunachal Pradesh	East Himalayas	5112
Great Rann of Kachchh	Gujarat	Desert	12454
Cold Desert	Himachal Pradesh	Western Himalayas	7770
Agasthyamalai (UNESCO)	Kerala, Tamil Nadu	Western Ghats	1828
Pachmarhi (UNESCO)	Madhya Pradesh	Semi-Arid	4926
Achanakamar- Amarkantak (UNESCO)	Madhya Pradesh, Chhattisgarh	Maikala Range	3835
Nokrek (UNESCO)	Meghalaya	East Himalayas	820
Simlipal (UNESCO)	Odisha	Deccan Peninsula	4374
Khangchendzonga (UNESCO)	Sikkim	East Himalayas	2620
Nilgiri (UNESCO)	Tamil Nadu, Kerala and Karnataka	Western Ghats	5520
Gulf of Mannar (UNESCO)	Tamil Nadu	Coasts	10500
Nanda Devi (UNESCO)	Uttarakhand	West Himalayas	5860
Sunderbans (UNESCO)	West Bengal	Gangetic Delta	9630
Panna (UNESCO)	Madhya Pradesh	Semi-Arid	2998

Wildlife Conservation in India

Wildlife Conservation in India	Project Year
Project Hangul	1970
Project Gir	1972
Project Tiger	1973
Project Olive Ridley Turtles	1975
Crocodile Breeding Scheme	1975
Project Manipur Thamin	1977
Project Rhino	1987
Project Elephant	1992
Project Red Panda	1996
Project Sea Turtle	1999
Project Vulture	2006
Project Snow Leopard	2009

Environment Related Important International Agreement/Conference

Environment Related Important International Agreement/Conference	Location	Year
UN Conference on the Human Environment	Stockholm	1972
Convention on Migratory Species	Bonn	1979
Convention for the Protection of the Ozone Layer	Vienna	1985
Protocol on Substances that Deplete the Ozone Layer	Montreal	1987
Convention on the Transboundary Movement of Hazardous Wastes	Basel	1989
Earth Summit (UN Conference on Environment and Development)	Rio-de-Janeiro	1992
Convention on Prior Informed Consent	Rotterdam	1998
UN Conference on Sustainable Development	Rio-de-Janeiro	2012
Nagoya Protocol on Genetic Resources (Nagoya Protocol)	Nagoya	2010
Convention on Biological Diversity (CBD-CoP-11)	Hyderabad	2012
Lima Climate Change Conference (CoP-20)	Lima	2014
Paris Agreement (CoP-21)	Paris	2015
Marrakech Conference (CoP-22)	Marrakech	2016
Bonn Conference (CoP-23)	Bonn	2017
Katowice Conference (CoP-24)	Katowice	2018
Madrid Conference (CoP-25)	Madrid	2019
CoP-26 Scheduled in Glasgow	Glasgow	2021

Endangered Species of India

Endangered Species of India	Category
Great Indian Bustard	Birds
Forest Owlet	Birds
Vulture	Birds
Bengal Florican	Birds
Himalayan Quail	Birds
Siberian Crane	Birds
Flying Squirrel	Mammals
Red Panda	Mammals
Pygmy Hog	Mammals
Kondana Rat	Mammals
Snow Leopard	Mammals
Asiatic Lion	Mammals
One-Horned Rhinoceros	Mammals
Gharial	Reptiles

MCQ

1. What is the study of the universe known as?
A) Astrology
B) Astronomy
C) Geology
D) Cosmology

2. Which celestial body is the nearest to the Earth?
A) Venus
B) Mars
C) Andromeda Galaxy
D) Moon

3. The Big Bang Theory describes an explosion that occurred approximately how many years ago?
A) 5 billion years
B) 10 billion years
C) 15 billion years
D) 20 billion years

4. What are comets primarily made of?
A) Rock
B) Ice
C) Metal
D) Gas

5. Which planet is known as the "Red Planet"?
A) Mars
B) Jupiter
C) Venus
D) Mercury

6. How many known constellations are there in the sky?
A) 50
B) 88
C) 100
D) 120

7. What is the average distance between the Earth and the Sun?
A) 100 million km
B) 149.6 million km
C) 200 million km
D) 250 million km

8. Which planet is the hottest in our solar system?
A) Venus

B) Mercury
C) Earth
D) Mars

9. What is the main composition of meteorites?
A) Rock
B) Ice
C) Nickel-Iron alloy and silicate minerals
D) Gas

10. Which unit measures the distance light travels in one year?
A) Light Unit
B) Solar Unit
C) Astronomical Unit
D) Light Year

11. What is the mean density of the Earth?
A) 3.0 g/cm³
B) 5.0 g/cm³
C) 5.513 g/cm³
D) 7.0 g/cm³

12. When is the longest day of the year, known as the Summer Solstice, observed?
A) 21st December
B) 21st March
C) 21st June
D) 21st September

13. What is the Tropic of Cancer's latitude?
A) 23.5°S
B) 23.5°N
C) 66.5°N
D) 66.5°S

14. Which imaginary lines run from pole to pole passing through the equator?
A) Latitude
B) Longitude
C) Meridians
D) Equator

15. What does 1° change in longitude correspond to in terms of time?
A) 2 minutes
B) 3 minutes
C) 4 minutes
D) 5 minutes

16. Which region is calculated for Indian Standard Time (IST)?
A) 60.5°E
B) 72.5°E
C) 82.5°E
D) 90°E

17. What causes a solar eclipse?
A) Earth comes between the Sun and the Moon.
B) Moon comes between Earth and the Sun.
C) Sun comes between Earth and the Moon.
D) Earth's shadow on the Moon.

18. Which type of rock is formed by the solidification of molten magma?
A) Sedimentary
B) Igneous
C) Metamorphic
D) Gneiss

19. What is the primary constituent of air in the atmosphere?
A) Carbon Dioxide

B) Oxygen
C) Nitrogen
D) Argon

20. Which layer of the atmosphere contains the ozone layer?
A) Troposphere
B) Stratosphere
C) Mesosphere
D) Ionosphere

21. What is the primary cause of the greenhouse effect?
A) Carbon Dioxide emissions
B) Water vapor
C) Methane
D) Ozone depletion

22. What is the average distance between each degree of latitude?
A) 111 km
B) 100 km
C) 90 km
D) 75 km

23. Which Mountain range is located in South America?
A) Himalayas
B) Rockies
C) Andes
D) Alps

24. Which latitude divides the Earth into North and South hemispheres?
A) Equator
B) Tropic of Cancer
C) Tropic of Capricorn
D) Arctic Circle

25. What is the primary function of the International Date Line (IDL)?
A) Divides the Earth into time zones.
B) Determines local time in relation to GMT.
C) Changes the date by exactly one day.
D) Divides the Earth into hemispheres.

26. Which layer of the atmosphere is the coldest region?
A) Troposphere
B) Stratosphere
C) Mesosphere
D) Ionosphere

27. What is the primary greenhouse gas in the Earth's atmosphere?
A) Methane
B) Water vapor
C) Carbon Dioxide
D) Nitrous Oxide

28. What is the main function of the Prime Meridian?
A) Determines the Equator.
B) Divides the Earth into hemispheres.
C) Determines local time.
D) Passes through Greenwich.

29. Which type of volcano erupts frequently?
A) Dormant
B) Active
C) Extinct
D) Volcanic

30. Which type of wind blows from the Sub-tropical High Pressure Belt to the Equatorial Low Pressure Belt?

A) Westerlies
B) Polar Winds
C) Trade Winds
D) Monsoon

31. What is the primary cause of a tsunami?

A) Cyclone
B) Earthquake
C) Underwater landslide
D) Hurricane

32. Which rock type is formed by the accumulation of rock particles and organic matter in layers?

A) Igneous
B) Metamorphic
C) Sedimentary
D) Granite

33. Which rock type is formed by the accumulation of rock particles and organic matter in layers?

A) Igneous
B) Metamorphic
C) Sedimentary
D) Granite

34. What is the latitude of the Antarctic Circle?

A) 23.5°N
B) 66.5°S
C) 23.5°S
D) 66.5°N

35. Which type of earthquake wave records its intensity on the Mercalli Scale?

A) Primary waves
B) Secondary waves
C) Tertiary waves
D) Love waves

36. Which plateau is situated between the Himalayas and Kunlun Mountains?

A) Tibetan Plateau
B) Deccan Plateau
C) Plateau of Brazil
D) Arabian Plateau

37. What is the primary constituent of rocks?

A) Minerals
B) Gases
C) Water
D) Dust

38. Which Mountain peak is the highest in the world?

A) K2
B) Mt Everest
C) Dhaulagiri
D) Annapurna

39. What is the primary function of the ozone layer in the stratosphere?

A) Blocks ultraviolet rays
B) Increases temperature
C) Produces greenhouse gases
D) Regulates pressure

40. Which atmospheric layer contains 75% of the gases and experiences a decrease in temperature with ascent?

A) Stratosphere
B) Troposphere
C) Mesosphere
D) Ionosphere

41. What is the primary function of the International Date Line (IDL)?

A) Divides the Earth into time zones.
B) Determines local time in relation to GMT.
C) Changes the date by exactly one day.
D) Divides the Earth into hemispheres.

42. What is the primary function of the Equator?

A) Divides the Earth into time zones.
B) Determines local time.
C) Divides the Earth into North and South hemispheres.
D) Changes the date by exactly one day.

43. Which type of rock was originally igneous or sedimentary but later changed due to pressure, heat, or action of water?

A) Igneous
B) Metamorphic
C) Sedimentary
D) Granite

44. What is the primary constituent of the Earth's atmosphere?

A) Argon
B) Oxygen
C) Carbon Dioxide
D) Nitrogen

45. In which layer of the atmosphere does the temperature remain fairly constant in the lower part but increases slowly with an increase in height due to the presence of ozone gas?

A) Troposphere
B) Stratosphere
C) Mesosphere
D) Ionosphere

46. What is the primary cause of a lunar eclipse?

A) Earth comes between the Sun and the Moon.
B) Moon comes between Earth and the Sun.
C) Sun comes between Earth and the Moon.
D) Earth's shadow on the Sun.

47. Which type of wind changes its direction periodically with the change in pressure and temperature?

A) Planetary Winds
B) Cyclones
C) Local Winds
D) Periodic Winds

48. Which Mountain range is located in Europe?

A) Andes
B) Himalayas
C) Alps
D) Rockies

49. What is the primary gas responsible for the greenhouse effect?

A) Water vapor
B) Carbon Dioxide

C) Methane
D) Nitrous Oxide

50. What does atmospheric pressure measure?

A) Temperature
B) Weight of the atmosphere
C) Wind speed
D) Humidity

51. What is the primary cause of horizontal movement of air, known as winds?

A) Solar radiation
B) Earth's rotation
C) Ocean currents
D) Volcanic activity

52. In which direction do Trade Winds blow?

A) East to West
B) West to East
C) North to South
D) South to North

53. Which wind blows from the Sub-tropical High Pressure Belt to the Sub-Polar Low Pressure Belt in temperate latitudes?

A) Trade Winds
B) Westerlies
C) Polar Winds
D) Monsoons

54. What type of winds change direction periodically with pressure and temperature changes?

A) Planetary Winds
B) Trade Winds
C) Monsoons
D) Local Winds

55. What is the direction of cyclonic circulation in the Northern Hemisphere?

A) Clockwise
B) Anticlockwise
C) Upward
D) Downward

56. What is the primary characteristic of an anticyclone?

A) Inward circulation
B) Low pressure at the center

C) Outward movement
D) Clockwise rotation

57. What is another name for a hurricane?

A) Typhoon
B) Tornado
C) Monsoon
D) Blizzard

58. Which of the following countries is landlocked and does not have a coastline?

A) Brazil
B) Japan
C) Mongolia
D) Australia

59. Which region experiences typhoons?

A) Caribbean Sea
B) Indian Ocean
C) China Sea
D) Gulf of Mexico

60. Where do hurricanes occur?

A) Caribbean Sea
B) Indian Ocean
C) Arctic Ocean
D) South Pacific Ocean

61. Tornadoes are commonly observed in which country?

A) China
B) USA
C) Australia
D) India

62. Which wind is a hot, dry wind in the Rockies and is also known as the 'Snow Eater'?

A) Fohn
B) Chinook
C) Sirocco
D) Mistral

63. The hot, dry wind in the Alps is called:

A) Bora
B) Fohn
C) Khamsin

D) Solano

64. Which hot, moist wind blows from the Sahara to the Mediterranean and is known as 'Blood rain'?

A) Sirocco
B) Solano
C) Harmattan
D) Khamsin

65. Which River originates from Victoria Lake?

A) Nile
B) Amazon
C) Yangtze
D) Mississippi

66. The Itaska Lake is the origin of which river?

A) Amazon
B) Mississippi
C) Yangtze
D) Nile

67. Which river is associated with the Tibetan Kiang Plateau?

A) Amazon
B) Mississippi
C) Yangtze
D) Congo

68. The Suez Canal connects which two water bodies?

A) Mediterranean Sea and Red Sea
B) Pacific Ocean and Caribbean Sea
C) Atlantic Ocean and Great Lakes
D) North Sea and Baltic Sea

69. Which canal connects the Atlantic Ocean to the Great Lakes?

A) Panama Canal
B) Suez Canal
C) Erie Canal
D) Kiel Canal

70. The Panama Canal connects which two water bodies?

A) Mediterranean Sea and Red Sea
B) Pacific Ocean and Caribbean Sea
C) Atlantic Ocean and Great Lakes
D) North Sea and Baltic Sea

71. Which ocean has the Mariana Trench as its deepest point?

A) Pacific Ocean

B) Atlantic Ocean
C) Indian Ocean
D) Arctic Ocean

72. The Puerto Rico Trench is the deepest point in which ocean?

A) Atlantic Ocean
B) Pacific Ocean
C) Indian Ocean
D) Arctic Ocean

73. Which trench is associated with the Indian Ocean?

A) Mariana Trench
B) Puerto Rico Trench
C) Java Trench
D) Eurasian Basin

74. The Bab-el-Mandeb strait connects which two water bodies?

A) Red Sea and Arabian Sea
B) Arctic Ocean and Bering Sea
C) Black Sea and Marmara Sea
D) North Sea and Atlantic Ocean

75. Which strait separates Turkey and connects the Black Sea with the Marmara Sea?

A) Bering Strait
B) Bosphorus Strait
C) Dover Strait
D) Florida Strait

76. The Malacca Strait connects which two water bodies?

A) Java Sea and Bay of Bengal
B) South Pacific and South Atlantic Ocean
C) Arctic Ocean and Bering Sea
D) Mediterranean Sea and Atlantic Ocean

77. Which waterfall is located in Venezuela?

A) Tugela Falls
B) Monge
C) Yosemite
D) Angel Falls

78. Where is Tugela Falls located?

A) Norway
B) South Africa
C) United States
D) Peru

79. Which country is associated with the Steppe grassland?

A) Hungary
B) Argentina
C) South Africa
D) Eurasia

80. The Pustaz grassland is located in which country?

A) USA
B) New Zealand
C) Hungary
D) Australia

81. The Prairie grassland is predominantly found in which country?

A) Argentina
B) South Africa
C) USA
D) Australia

82. Which country is the leading producer of coffee?

A) China
B) Brazil
C) Thailand
D) Indonesia

83. Thailand is a major producer of which agricultural product?

A) Wheat
B) Rubber
C) Tea
D) Cotton

84. China is the leading producer of which agricultural product?

A) Coffee
B) Cocoa
C) Tea
D) Rubber

85. The Radcliffe Line demarcates the boundary between which two countries?

A) India and China
B) India and Pakistan
C) Germany and Poland
D) North and South Korea

86. Which international boundary line separates India and China?

A) Radcliffe Line
B) Oder Neisse Line
C) McMahon Line
D) 38th Parallel Line

87. The Durand Line is the boundary between which two countries?

A) India and Pakistan
B) Germany and Poland
C) Pakistan and Afghanistan
D) France and Germany

88. Which continent has the Vinson Massif as its highest point?

A) Antarctica
B) Africa
C) Europe
D) Asia

89. The Dead Sea, located at the lowest point, is associated with which continent?

A) Africa
B) Europe
C) Asia
D) Antarctica

90. Which South American country has the Valdes Peninsula, the lowest point on the continent?

A) Argentina
B) Brazil
C) Uruguay
D) Chile

91. Which city is known for ship-building in Ireland?

A) Anshan
B) Baku
C) Belfast
D) Birmingham

92. Automobile industry is a significant presence in which city of the USA?

A) Detroit
B) Chicago
C) Los Angeles
D) Pittsburgh

93. Which city in India is recognized for diamond mining?

A) Kimberley
B) Rourkela
C) Multan
D) Anshan

94. What percentage of the world's area does India cover?

A) 2.42%
B) 5.67%
C) 10.21%
D) 17.44%

95. Which ocean surrounds India to the southwest?

A) Pacific Ocean
B) Atlantic Ocean
C) Arabian Sea
D) Bay of Bengal

96. Through how many states does the Tropic of Cancer pass in India?

A) 5
B) 7
C) 8
D) 10

97. Which Indian state shares its border with Pakistan, Afghanistan, and China?

A) Gujarat
B) Jammu and Kashmir
C) Arunachal Pradesh
D) Sikkim

98. How many Indian states share their borders with Bangladesh?

A) 3
B) 4
C) 5
D) 6

99. Which Indian Union Territory shares its border with Afghanistan?

A) Ladakh
B) Andaman and Nicobar Islands
C) Puducherry
D) Chandigarh

100. Which peak in India is the highest and is located in PoK (Pakistan-occupied Kashmir)?

A) Kanchenjunga
B) Mt K2
C) Nanda Devi
D) Mt McKinley

101. In which state is the Saltoro Kangri, one of the highest peaks in India?

A) Jammu and Kashmir
B) Sikkim
C) Arunachal Pradesh
D) Uttarakhand

102. Which peak is the highest in Sikkim?

A) Kanchenjunga
B) Kangto
C) Reo Purgyil

D) Saltoro Kangri

103. Which waterfall in Karnataka is the highest in India?

A) Jog/Gersoppa
B) Rakim Kund
C) Chachai
D) Kevti

104. Where is the Jog/Gersoppa waterfall located?

A) Madhya Pradesh
B) Karnataka
C) Bihar
D) Kerala

105. The Chachai waterfall is situated in which state?

A) Maharashtra
B) Karnataka
C) Madhya Pradesh
D) Bihar

106. Which lake in Odisha is the largest brackish water lake in India?

A) Kolleru Lake
B) Loktak Lake
C) Chilka Lake
D) Pangong Lake

107. Where is the Pangong Lake, a salty lake, located in India?

A) Jammu and Kashmir
B) Himachal Pradesh
C) Rajasthan
D) Kerala

108. The Lonar Lake in Maharashtra is known for being a meteorite crater lake. What is it highly charged with?

A) Sodium chloride
B) Sodium carbonates
C) Calcium carbonate
D) Potassium nitrate

109. Which river falls into the Bay of Bengal and originates from the Gangotri Glacier?

A) Yamuna
B) Sutlej
C) Ganges
D) Brahmaputra

110. The Beas River originates near which pass?

A) Rohtang Pass

B) Nathu La Pass
C) Zoji La Pass
D) Bomdi La Pass

111. Which river is associated with the Nasik district in Maharashtra and falls into the Bay of Bengal?

A) Krishna
B) Godavari
C) Cauveri
D) Narmada

112. What is the longitudinal extent of India?

A) 68°7' E to 97° 25' E
B) 8°4' N to 37° 6' N
C) 3,214 km
D) 2,933 km

113. Which Indian state has the longest coastline?

A) Maharashtra
B) Gujarat
C) Tamil Nadu
D) Odisha

114. Which ocean is situated to the southwest of India?

A) Pacific Ocean
B) Atlantic Ocean
C) Indian Ocean
D) Arctic Ocean

115. How many Indian states share their borders with China?

A) 3
B) 4
C) 5
D) 6

116. Which Indian state shares its border with Nepal, West Bengal, and Sikkim?

A) Uttar Pradesh
B) Uttarakhand
C) Bihar
D) Arunachal Pradesh

117. The Andaman and Nicobar Islands are surrounded by which water bodies?

A) Arabian Sea
B) Bay of Bengal
C) Pacific Ocean
D) Indian Ocean

118. Where is the southernmost point of India located?

A) Kanyakumari

B) Indira Point
C) Rameswaram
D) Cape Comorin

119. Which river is associated with the Bhakra Nangal Project?

A) Ganges
B) Yamuna
C) Sutlej
D) Krishna

120. The Damodar Valley Project primarily benefits which Indian states?

A) Rajasthan, Madhya Pradesh
B) Jharkhand, West Bengal
C) Gujarat, Maharashtra
D) Telangana, Andhra Pradesh

121. Hirakud Project is located on which river and benefits which state?

A) Godavari, Telangana
B) Mahanadi, Odisha
C) Krishna, Andhra Pradesh
D) Yamuna, Haryana

122. Which river is associated with the Tungabhadra Project, benefiting Andhra Pradesh and Karnataka?

A) Ganges
B) Yamuna
C) Godavari
D) Tungbhadra

123. Nagarjunasagar Project provides power and irrigation to which Indian states?

A) Maharashtra, Gujarat
B) Andhra Pradesh, Telangana
C) Punjab, Haryana
D) Odisha, West Bengal

124. Where are Tropical Rainforests found in India?

A) Western Ghats, Eastern Ghats
B) Thar Desert
C) Indo-Gangetic Plains
D) Deccan Plateau

125. Which region in India is characterized by Tropical Thorny Forests?

A) Western Himalayas
B) Deccan Plateau
C) Gangetic Plains
D) Eastern Coastal Plains

126. Littoral and Swamp Forests are found in which areas of India?

A) Northern Plains
B) Thar Desert
C) Coastal areas of West Bengal, Gujarat, Maharashtra
D) Eastern Himalayas

127. Which soil type is known for its fertility and is well-suited for diverse crops?

A) Laterite Soil
B) Black (Regur) Soil
C) Red Soil
D) Arid (Desert) Soil

128. Where is Laterite Soil predominantly found in India?

A) Western Ghats
B) Thar Desert
C) Gangetic Plains
D) Eastern Ghats

129. Arid (Desert) Soil, sandy and saline, is mostly found in which Indian region?

A) Deccan Plateau
B) Thar Desert
C) Eastern Himalayas
D) Coastal areas of Kerala

130. In which region are Tropical Evergreen Forests located in India?

A) Thar Desert
B) Gangetic Plains
C) Deccan Plateau
D) Western Ghats, Eastern Ghats

131. Which type of forest dominates the Himalayan region, including Western Himalayas and Eastern Himalayas?

A) Mangrove Forests
B) Montane Forests
C) Alpine Forests
D) Tropical Deciduous Forests

132. Mangrove Forests, salt-tolerant, are predominantly found in which area of India?

A) Western Ghats
B) Sundarbans in West Bengal, coastal areas of Gujarat, Maharashtra, Andhra Pradesh
C) Deccan Plateau
D) Gangetic Plains

133. Which river is associated with the Kosi Project, benefiting Bihar?

A) Ganges
B) Yamuna
C) Kosi
D) Brahmaputra

134. The Ukai Project, providing power and irrigation, is located on which river in India?

A) Ganges
B) Tapti
C) Godavari
D) Yamuna

135. Where is the Iddukki Project, focusing on hydroelectricity, located in India?

A) Kerala
B) Maharashtra
C) Karnataka
D) Telangana

136. Which soil type is rich in iron, magnesium, and aluminum and is suitable for cotton and oilseeds?

A) Alluvial Soil
B) Black (Regur) Soil
C) Red Soil
D) Laterite Soil

137. Red Soil, suitable for crops like millets and pulses, is found in which regions of India?

A) Gangetic Plains
B) Thar Desert
C) Southern Deccan Plateau, parts of Odisha, Karnataka, Tamil Nadu
D) Coastal Plains

138. Which soil type is acidic, leached, and not suitable for agriculture without proper treatment?

A) Laterite Soil
B) Black (Regur) Soil
C) Arid (Desert) Soil
D) Alluvial Soil

139. The Kakrapara Project, focusing on irrigation, is associated with which river in India?

A) Tapti
B) Godavari
C) Narmada
D) Yamuna

140. Which river is linked to the Farakka Project, contributing to power, irrigation, and navigation improvement?

A) Godavari
B) Yamuna
C) Brahmaputra
D) Ganga

141. The Kundah Project, providing hydroelectricity and irrigation, is located near which river?

A) Ganges
B) Krishna
C) Kundah/Bhavani
D) Yamuna

142. What is the strategic location of India, mentioned in the provided information?

A) Far East
B) Middle East
C) Midway between Far East and Middle East
D) Western Hemisphere

143. How many Indian states share their borders with China, as per the information?

A) 3
B) 4
C) 6
D) 5

144. What characterizes the monsoon wind system in India?

A) Steady westerly winds
B) Unpredictable winds
C) Complete reversal of prevailing wind direction
D) Northerly winds

145. During which months does the South West Monsoon occur in India?

A) January and February
B) June and July
C) September to December
D) March to May

146. Which agricultural season in India includes crops like rice, jowar, cotton, and is harvested in September/October?

A) Rabi
B) Zaid
C) Kharif
D) Summer

147. What components contributed to the Green Revolution in India since 1968?

A) Animal rearing and fishing
B) High-yield variety seeds, irrigation, fertilizers, insecticides, and land development
C) Monsoon and retreating monsoon
D) Tropical and subtropical steppes

148. Which international airport is located in Kolkata?

A) Chhatrapati Shivaji International Airport
B) Kempe Gowda International Airport

C) Netaji Subhash Chandra Bose International Airport
D) Rajiv Gandhi International Airport

149. Which climatic region in India is characterized by high temperature and heavy seasonal rainfall, as found in the Western Ghats and Assam?

A) Tropical Desert
B) Tropical Rain Forests
C) Tropical Semi-Arid-Steppe Climate
D) Mountain Climate

150. Which state is a major producer of wheat in India?

A) Maharashtra
B) Uttar Pradesh
C) Karnataka
D) Rajasthan

151. Where are the major coal reserves in India, according to the provided information?

A) West Bengal, Jharkhand, Odisha, MP, Chhattisgarh
B) Rajasthan, AP, Karnataka
C) Kerala, Tamil Nadu
D) Bihar, Jharkhand

152. Which is the longest platform in the Indian Railways network?

A) Kolkata
B) Mumbai (CST)
C) Gorakhpur
D) Delhi

153. What is the longest road network category in India?

A) National Highways
B) State highways
C) Major/other district roads
D) Rural roads

154. Which state hosts the Enayam Port in India?

A) Karnataka
B) Tamil Nadu
C) Kerala
D) Gujarat

155. Which city is served by the Rajiv Gandhi International Airport?

A) Mumbai
B) Hyderabad
C) Kolkata
D) Delhi

156. What is the primary focus of the Biosphere Reserve in Manas, Assam?

A) Desert ecosystem

B) Islands
C) East Himalayas
D) Coastal region

157. When was the Earth Summit (UN Conference on Environment and Development) held in Rio-de-Janeiro?

A) 1972
B) 1992
C) 2010
D) 2015

158. Which project aims to conserve the Olive Ridley Turtles in India?

A) Project Hangul
B) Project Gir
C) Project Olive Ridley Turtles
D) Project Sea Turtle

159. Which category includes the Bengal Florican as an endangered species?

A) Birds
B) Mammals
C) Reptiles
D) Amphibians

160. What is the primary characteristic of the South West Monsoon in India?

A) Dry winds
B) Winter season
C) Heavy rainfall
D) Cold temperatures

161. Which agricultural season in India is associated with crops like rice, jowar, and cotton?

A) Rabi
B) Kharif
C) Zaid
D) None of the above

162. Which component is NOT associated with the Green Revolution in India?

A) High-yield variety seeds
B) Hand plowing
C) Use of fertilizers
D) Land development

163. In which climatic region of India would you find the Tropical Desert?

A) Western Ghats
B) Punjab
C) Rajasthan
D) Assam

164. Which state is NOT a major producer of wheat in India?

A) Uttar Pradesh
B) Punjab

C) Maharashtra
D) Madhya Pradesh

165. What is the length of NH 44, the longest national highway in India?
A) 5 km
B) 3745 km
C) 7300 km
D) 1.3 km

166. Which railway zone has its headquarters in Chennai?
A) Southern
B) South Central
C) South-Eastern
D) South Coast Railway

167. What was the first metro system introduced in India?
A) Delhi Metro
B) Konkan Railway
C) Kolkata Metro
D) Rapid metro in Gurgaon

168. Which River is covered by National Waterway 1 (NW1)?
A) Godavari
B) Brahmaputra
C) Ganga
D) Mahanadi

169. Which National Waterway connects Allahabad to Haldia on the Ganga River?
A) NW2
B) NW1
C) NW3
D) NW4

170. What is the length of National Waterway 2 (NW2)?
A) 623 km
B) 1095 km
C) 891 km
D) 121 km

171. In which state is Kandla Port located?
A) Goa
B) Gujarat
C) Odisha
D) Maharashtra

172. Which International Airport is located in Hyderabad?
A) Rajiv Gandhi International Airport
B) Netaji Subhash Chandra Bose International Airport
C) Indira Gandhi International Airport
D) Chhatrapati Shivaji International Airport

173. What term is used to describe all external conditions, factors, matter, and energy that affect any living organism or other specified systems?
A) Ecology
B) Environment
C) Ecosystem
D) Biomedical

174. Which Biosphere Reserve is located in the state of Himachal Pradesh?
A) Dihang-Dibang
B) Cold Desert
C) Nokrek
D) Simlipal

175. In which year was Project Tiger launched in India?
A) 1970

B) 1972
C) 1973
D) 1992

176. What is the primary purpose of National Highways in India?

A) Local transportation
B) International trade
C)Inter -state connectivity
D)Agricultural development

177. In which state is Vedanthangal Bird Sanctuary located?

A) Kerala
B) Karnataka
C) Tamil Nadu
D) Andhra Pradesh

178. Which of the following is NOT a major port in India?

A) Paradip
B) Marmugao
C) Kandla
D) Enayam Port

179. In which state is the Sardar Vallabhbhai Patel International Airport located?

A) Gujarat
B) Maharashtra
C) Karnataka
D) Tamil Nadu

180. What is the primary purpose of National Waterways in India?

A) Drinking water supply
B) Irrigation
C) Inland navigation
D) Hydroelectric power generation

181. Which term refers to all external conditions, factors, matter, and energy that affect any living organism or other specified systems?

A) Ecology
B) Environment
C) Ecosystem
D) Biodiversity

182. Which Biosphere Reserve is located in the Western Himalayas?

A) Nokrek
B) Dihang-Dibang
C) Cold Desert
D) Manas

183. What is the primary reserve for Project Sea Turtle?

A) Coastal Areas
B) Mangrove Forests
C) High Altitude Mountains
D) Desert

184. Which state is home to the Vedanthangal Bird Sanctuary?

A) Kerala
B) Karnataka
C) Tamil Nadu
D) Andhra Pradesh

185. In which state is the Kaziranga National Park located?

A) Assam
B) Karnataka
C) Odisha
D) Madhya Pradesh

186. What does the term "Biodiversity" encompass?

A) Variety of different species
B) Genetic variability
C) Variety of ecosystems
D) All of the above

187. Which International Airport is situated in Hyderabad?

A) Rajiv Gandhi International Airport
B) Chhatrapati Shivaji International Airport
C) Netaji Subhash Chandra Bose International Airport
D) Indira Gandhi International Airport

188. What is the primary purpose of the Convention on the Transboundary Movement of Hazardous Wastes?

A) Biodiversity conservation
B) Protection of the Ozone Layer
C) Management of hazardous wastes
D) Sustainable development

189. Which of the following is an endangered species of India?

A) Bengal Florican
B) Wolf
C) Great Indian Bustard
D) Flying Squirrel

190. In which year was Project Tiger launched in India?

A) 1970
B) 1972
C) 1992
D) 1973

191. What is the primary reserve for Project Olive Ridley Turtles?

A) Coastal Areas
B) Mangrove Forests
C) High Altitude Mountains
D) Desert

192.Which state is the major producer of rubber in India?

A) Gujarat
B) Karnataka
C) Tamil Nadu
D) Kerala

193. Which major port is situated in Gujarat and plays a crucial role in the country's trade with the Middle East?

A) Kandla
B) Paradip
C) Chennai
D) Ennore

194. What is the primary purpose of the National Waterway 3 (NW3) in India?

A) Inland navigation
B) Hydroelectric power generation
C) Drinking water supply
D) Irrigation

195. Which biosphere reserve in India is known for its desert ecosystem and is the largest in terms of area?

A) Manas
B) Great Rann of Kachchh

C) Nilgiri
D) Seshchalam Hills

196. The Chennai International Airport is located in which Indian state?

A) Karnataka
B) Tamil Nadu
C) Maharashtra
D) Kerala

197. What is the primary objective of Project Vulture in India?

A) Conservation of vulture species
B) Protection of coastal areas
C) Management of hazardous wastes
D) Conservation of olive ridley turtles

198. The Enayam Port, though proposed, is not a major port in India. In which state was it planned to be developed?

A) Maharashtra
B) Tamil Nadu
C) Gujarat
D) Odisha

199. Which convention aims to regulate international trade in endangered species of wild fauna and flora to ensure their survival?

A) Basel Convention
B) Ramsar Convention
C) CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora)
D) Montreal Protocol

200. Which major port is located in Goa?

A) Tuticorin
B) Marmugao
C) Paradip
D) Mangalore

ANSWER KEY

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	B	11	C	21	A	31	B	41	C
2	D	12	C	22	A	32	C	42	C
3	C	13	B	23	C	33	C	43	B
4	B.	14	C	24	A	34	B	44	D
5	A	15	A	25	C	35	A	45	B
6	B	16	B	26	C	36	A	46	A
7	B	17	B	27	C	37	A	47	C
8	A	18	B	28	C	38	B	48	C
9	C	19	C	29	B	39	A	49	B
10	D	20	B	30	C	40	B	50	B

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
51	A	61	B	71	A	81	C	91	C
52	A	62	B	72	C	82	B	92	A
53	B	63	B	73	C	83	B	93	A
54	D	64	A	74	A	84	C	94	A
55	B	65	A	75	B	85	B	95	C
56	C	66	B	76	A	86	C	96	C
57	A	67	C	77	D	87	C	97	B
58	C	68	A	78	B	88	A	98	C
59	A	69	C	79	D	89	C	99	A
60	B	70	B	80	C	90	A	100	B

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
101	A	111	B	121	B	131	B	141	C
102	B	112	A	122	D	132	B	142	C
103	A	113	B	123	B	133	C	143	C
104	B	114	C	124	A	134	B	144	C
105	C	115	C	125	B	135	A	145	B
106	C	116	D	126	C	136	D	146	C
107	A	117	B	127	B	137	C	147	B
108	C	118	A	128	A	138	D	148	C
109	C	119	C	129	B	139	C	149	B
110	A	120	B	130	D	140	C	150	B

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
151	A	161	B	171	B	181	B	191	A
152	C	162	B	172	A	182	C	192	D

153	**A**	**163**	**C**	**173**	**B**	**183**	**D**	**193**	**A**
154	**B**	**164**	**C**	**174**	**B**	**184**	**C**	**194**	**A**
155	**B**	**165**	**B**	**175**	**B**	**185**	**A**	**195**	**B**
156	**C**	**166**	**A**	**176**	**C**	**186**	**D**	**196**	**B**
157	**B**	**167**	**C**	**177**	**C**	**187**	**A**	**197**	**A**
158	**D**	**168**	**C**	**178**	**D**	**188**	**C**	**198**	**B**
159	**A**	**169**	**B**	**179**	**A**	**189**	**A**	**199**	**C**
160	**C**	**170**	**A**	**180**	**C**	**190**	**B**	**200**	**A**