

INDIAN HISTORY

ANCIENT INDIA

PRE-HISTORIC PERIOD INDUS VALLEY CIVILISATION

Palaeolithic Period

- **Homo sapiens** first appeared towards the end of this phase.
- In this period, man barely managed to gather his food and subsisted on **hunting**.
- Distinguished by the development of the first stone tools made up of **Quartzite**.
- Palaeolithic period is divided into **three phases**. *They are*
 1. Lower Palaeolithic
 2. Middle Palaeolithic
 3. Upper Palaeolithic

Mesolithic Period

- Domestication of animals (particularly, dogs) began and characteristic tools were used, called as **microliths**.
- **Bhimbetka** in Madhya Pradesh, is known for ancient caves depicting pictures of birds, animals and humans.

Neolithic Period

- Neolithic people knew about **fire** and **wheel**.
- An important site of this age is **Burzahom**, which means 'the place of birch'.

Chalcolithic Period

- Use of Copper and Stone made tools.
- They practised agriculture, venerated Mother Goddess and worshipped the bull.

- Indus Valley Civilisation is one of the four earliest civilisations of the world.
- According to radiocarbon dating, initiation of Indus Valley Civilisation can be dated around 2500-1750 BC.
- **Systematic town planning** was based on grid system; burnt bricks were used to construct houses; well-managed drainage system; fortified Citadel; highly urbanised; absence of iron implements.
- The **Great Bath** (Mohenjodaro) was used for religious bathing. There were changing rooms alongside.
- Six **granaries** in a row were found in the Citadel at Harappa.
- The towns were divided into 2 parts: the Upper Part or **Citadel** and the **Lower Part**. Harappans were ruled by a class of merchants, as no evidence of weapons are found there.
- Indus people sowed seeds in November and reaped their harvest in April, because of the danger of flood.
- Produced wheat, barley, *rai*, peas, seasm, rice and mustard.
- Indus people were the first to produce cotton, which the Greeks termed as *Sindon* (derived from Sindh).
- **Animals** known were oxen, sheep, buffaloes, goats, pigs, elephants, dogs, cats, asses and camels.

- Well-knit external and internal trade. **Barter** system was prevalent.
- A very interesting feature of this civilisation was that iron was not known to the people.
- The Indus people used weights and measures in the multiples of 16.
- Harappans looked on Earth as fertility Goddess and phallic (*lingam*) and *yoni* worship was prevalent.
- **Unicorn** was the most worshipped animal. Many trees (pippal), animals (bull), birds (dove, pigeon) and stones too were worshipped though no evidence of temple has been found.
- **Dead bodies** were placed in North-South orientation.
- The Seal of **Pashupati** depicts elephant, tiger, rhinoceros and buffalo. Two deers appear at the feet of Pashupati.
- The Indus people believed in ghosts and evil forces evident by their use of amulets for protection against them. **Fire altars** are found at Lothal and Kalibangan.
- The greatest artistic creation of the Harappan culture were the seals, made of steatite. **Harappan script** is pictographic and hasn't been deciphered yet.
- The script was written from right to left in the first line and left to right in the second line. This style is called **Boustrophedon**.
- **Occupations** practiced were spinning, weaving, boat-making, goldsmiths, making pottery and seal-making.
- The possible causes of the decline of the civilisation may be invasion of the Aryans, recurrent floods, social break-up of Harappans and earthquakes, etc.
- **Boundaries** North-Mandu (J&K); South-Daimabad (Maharashtra); East- Alamgirpur; West-Sutkagendor.

Indus Valley Sites

Site	Discovery/Finding(s)
Harappa	Situated on river Ravi in Montgomery district of Punjab (Pakistan). It was excavated by Daya Ram Sahni in 1921-23. The Indus Civilisation is named after it as the Harappan Civilisation. Stone dancing Natraja and Cemetery-37 have been found here.
Mohenjodaro (Mound of Dead)	Situated on river Indus in Larkana district of Sind (Pak). It was excavated by RD Bannerji in 1922. The main building includes the Great Bath, the Great Granary, the Collegiate Building and the Assembly Hall. The dancing girl made of bronze has been found here. Pashupati Mahadeva/proto Shiva seal; fragment of woven cotton, etc are other findings.
Chanhudaro (Sindh, Pakistan)	On river Indus; discovered by NG Majumdar (1931); only Indus site without citadel; bronze figurines of bullock cart and <i>ekkas</i> ; a small pot suggesting an ink pot.
Lothal (Gujarat)	Discovered by SR Rao (1954); situated on river Bhogava. A part of the town was divided into citadel and the lower town and dockyard. Evidence of rice has been found here.
Kalibangan (meaning, <i>Black Bangles</i>) (Rajasthan)	Discovered by BB Lal (1961); situated on Ghaggar river, a ploughed field; a wooden furrow; seven fire-altars; bones of camel; and evidence of two types of burials namely—circular grave and rectangular grave.
Dholavira	It was found on river Luni of Kachchh district in Gujarat discovered by JP Joshi (1967-68). It has a <i>unique water management system</i> ; only site to be divided into 3 parts; largest Harappan inscription and a stadium.
Surkotada (Gujarat)	Discovered by JP Joshi in 1972; evidence of horse found; oval grave; pit burials and seemingly a port city.
Banawali (Haryana)	On river Saraswati; discovered by RS Bisht (1973); evidence of both pre-Harappan and Harappan culture; lacked systematic drainage system; evidence of good quality barley.
Rakhigarhi (Haryana)	Largest Indus valley site.

VEDIC PERIOD

Rig Vedic Period (1500-1000 BC)

- Vedic civilisation started with the migration of Aryan people in North-Western part of India.
- The Aryans were semi-nomadic pastoral people and originally believed to have lived somewhere in the **Steppes**, stretching from Southern Russia to Central Asia.
- The whole region in which the Aryans were first settled in India was called **the Land of 7 Rivers** or **Sapta Sindhawa**. (the Indus and its five tributaries and the Saraswati).
- **The Dasrajan War** Battle of 10 kings against Sudas (Bharata king of Tritsus) on the bank of river Parushni. Sudas emerged victorious.

Political Organisation

- It was mainly a tribal system of government in which the military element was strong.
- Tribe was known as **Jana** and its king as **Rajan**.
- Although king's post was hereditary, we have also some traces of election by the tribal assembly called **Samitis**.
- Other tribal assemblies that were mentioned in Rigveda were **Sabha**, **Vidatha** and **Gana**.
- Villages were headed by **Gramani**.
- In day-to-day administration, the King was assisted by the **Purohita** (most important), a **Senani** and **Gramani**.

Society

People were loyal to the tribe, called **Jana** (mentioned 275 times in the Rigveda) as kingdom/territory was not yet established. Women enjoyed freedom and respect.

Religion

- Worshipped Nature, Indra (also called Purandara-breaker of forts) was the most important divinity.
- **Soma** was considered to be the God of plants.
- People worshipped the divinities mainly for **Praja** (children), **Pashu** (cattle), food, health and wealth. No temple or idol worship was noted.

Economy

No regular revenue system, kingdom maintained by voluntary tribute called **bali** and booty won in battles.

- Aryan's main occupation was mainly pastoral. Agriculture was a secondary occupation.
- Cow was a standard unit of exchange. Gold coins—**Nishka**, **Krishnal** and **Satmana**.
- The staple crop was **Yava** (barley).

Rigvedic Terms

Term	Meaning
Dasyus	Original inhabitant of India
Ayas	Copper/bronze
Vajrapati/ Kalapas	Officer enjoying authority over large tract of land
Gramini	Head of the village
Gavisthi	Fighting hordes, Search for cows/war for cows

Rigvedic Rivers

River	Name in Rigveda
Indus	Sindhu
Kurram	Krumu
Jhelum	Vitasta
Chenab	Asikni
Ravi	Parushini
Beas	Vipas
Sutlej	Sutudri
Gomati	Gomal
Saraswati	Sarasvati
Ghaggar	Drishadavati

Later Vedic Period (1000-500 BC)

- In this period, Aryans expanded from Punjab over the whole of Western Uttar Pradesh covered by the Ganga-Yamuna Doab.

Political Organisation

- King (**Samrat**) became more powerful and tribal authority tended to become territorial.
- King's position strengthened by rituals like **Ashwamedha** and **Vajapeya Yajnas**.

Society

- Society was clearly divided into four varnas—Brahmana, Kshatriya, Vaishya and Shudra. Position of women deteriorated. The institution of Gotra (descent from common ancestors) appeared for the first time.

Economy

- Beginning of town and settled life.
- Agriculture was the main livelihood.
- Wheat and rice (called **vrihi** in later Vedic texts) became the staple crop.
- New occupation like those of ironsmith, coppersmith and jewel work emerged. Weaving were reserved for women.

Religion

- **Prajapati** became the supreme God, followed by **Rudra** (animal God) and **Lord Vishnu** (preserver and protector of people).
- Idolatry began in this period.
- Pushana, who looked after the cattles was 'God of Shudras'.
- Sacrifices, rather than prayers, became more important.

Vedic Literature

The Vedas

- **Rigveda** The oldest Indo-European language text is a collection of hymns. Contains 1028 hymns divided into 10 mandalas. The 10th Mandala contains **Purushasukta hymn** that explain about four varnas, whereas 3rd Mandala contains Gayatri mantra, which was compiled in the praise of Sun God.
- **Samaveda** Collection of melodies, contains Dhrupad raga. It is a book of chants.
- **Yajurveda** Contains hymns and rituals/sacrifices.
- **Atharvaveda** Charms and spells to ward-off evils and diseases.

The Brahmanas

- They explain the hymns of Vedas. Contains ritualistic formulae and explains the social and religious meaning of rituals. Each veda has several Brahmanas attached to it.
Rigveda : *Kaushitaki* and *Aitareya*
Yajurveda : *Taittiriya* and *Satapatha*
Samaveda : *Panchvish* and *Jemineya*
Atharvaveda : *Gopatha*

The Aranyakas

The word *Aranya* means the forest. These texts were called Aranyakas, because they were written mainly for the hermits and students living in the jungle.

The Upanishadas

- Philosophical texts emphasising value of right belief and knowledge; criticising rituals/sacrifices; and 108 in number. **Brihadaranyaka** is the oldest upanishada.
- Also known as 'Vedanta'.

Smritis

Explains rules and regulations in Vedic life. These are Manusmriti (the first law book); Naradasmriti, Yajnavalkya-smriti and Parasharasmriti.

Vedangas

These are Limbs of Vedas and are six in number.

- Shiksha (Pronunciation)
- Kalpa (Rituals)
- Vyakaran (Grammar)
- Nikrukta (Etymology)
- Chhanda (Metrics)
- Jyotish (Astrology)

Puranas

Deals with world creation, the geneologies of Gods and Rishis and the Royal dynasties. There are 18 famous 'Puranas'. The 'Matsya Purana' is the oldest puranic text.

Darshana

There are six schools of Indian philosophy, called Shada-darshana.

These are

Nyaya Darshana	<i>Gautam</i>
Vaishesika Darshana	<i>Kanada Rishi</i>
Sankhya Darshana	<i>Kapila</i>
Yoga Darshana	<i>Patanjali</i>
Purva Mimansa	<i>Jaimini</i>
Uttara Mimansa	<i>Bradrayna or Vyasa</i>

Upavedas

There are four Upavedas

<i>Upaveda</i>	<i>Deals with</i>	<i>Upaveda of</i>
Dhanurveda	Art of warfare	Yajurveda
Gandharva-veda	Art and music	Samaveda
Shilpaveda	Architecture	Atharvaveda
Ayurveda	Medicine	Rigveda

Epics

Mahabharata by Vyasa, also called *Jaya Samhita* and *Satasahasri Samhita* has 100000 verses and are older than *Ramayana*, written by **Valmiki**, and has 29000 verses.

GENERAL KNOWLEDGE

The Mahajanapadas

Mahajanapada (Locations) Capital (s)

Gandhara (Between Kabul and Rawalpindi)	Taxila
Anga (Bhagalpur and Munger in Bihar)	Champa
Magadha (Patna and Gaya district, Bihar)	Girivraj, Rajagriha (Bimbisara); Patliputra (Udayin); Vaishali (Shishunaga); Patliputra (Ashoka)
Kashi (Varanasi district, UP)	Varanasi
Vajji (Vaishali district, UP)	Vaishali
Malla (South of Vaishali district, UP)	Kusinagara and Pava
Chedi (River Ken Bundelkhand area)	Sothivati-nagar or Shuktimati
Vatsa (River Yamuna, Allahabad and Mirzapur district in UP)	Kaushambi
Kosala (Eastern UP)	Sravasti and Ayodhya (Saket)
Kuru (Ganga-Yamuna doab. Delhi-Meerut region)	Hastinapur and Indraprastha
Panchala (Ganga-Yamuna doab, Rohilkhand)	Ahichhatra and Kampilya
Matsya (Jaipur-Bharatpur-Alwar district)	Viratnagar/Bairath
Surasenas (Mathura region)	Mathura
Asmaka (River Godavari) (Near Paithan in Maharashtra)	Patna or Patali
Avanti (Malwa)	Ujjain (Northern capital), Mahismati (Southern capital)
Kamboja (Hazara district of Pakistan)	Rajapur or Hataka

JAINISM AND BUDDHISM

- Came into existence around 600 BC.
- The main causes being the reaction against domination of Brahmanas and spread of agricultural economy in the North-East.

Jainism

- Founded by Rishabhadeva (Emblem : Bull) born in Ayodhya.
- There were 24 tirthankaras (great teachers), the 23rd being Parshvanatha and the 24th being the Vardhamana Mahavira.
- Mahavira was born in 540 BC in **Kundagram** near Vaishali.
- Father **Siddhartha** of Jnatrik Kshatriya Clan.
- Mother Trishala—sister of Lichchhavi Chief Chetaka, married to **Yashoda** and

had a daughter named Priyadarshini, whose husband Jamali became his first disciple. Mahavira became an ascetic at the age of 30, attained **Kaivalya** (Jina) outside the town of Jimbhikgrama at the age of 42 and died at the age of 72 in 468 BC in **Pavapuri**.

- Five Doctrines of Jainism
 1. Do not commit violence (Ahimsa)
 2. Do not steal (Asteya)
 3. Do not acquire property (Aparigraha)
 4. Do not speak lie (Satya)
 5. Observe continence (Brahmacharya)
- **Triratnas of Jainism** are right knowledge, right faith and right conduct.
- Jainism says salvation is possible only by abandoning all possessions, a long course of fasting, self mortification, study and meditation.
- Jainism recognised existence of God, but lower than **Jina**. It didn't condemn *varna* system unlike Buddhism.
- Jainism could not delink clearly from brahmanical religion, hence failed to attract masses; admitted both men and women. Jain monastic establishments were called **basadis**.
- Jainism was patronised by *Kharavela*—the king of Kalinga; Chandragupta Maurya *became the disciple of Bhadrabahu and spread Jainism in the South*.
- Jainism was divided into two sects during the reign of Chandragupta Maurya, mainly due to famine in Magadha named. **Svetambaras** (wearing white dresses) under Stulbhadra and **Digambaras** (*naked*) under Bhadrabahu.
- Jaina texts were written in **Prakrit language**.

Councils

First Council (300 BC) At Pataliputra Under Stulbhadra (Pataliputra) Jaina Canons compiled.

Second Council At Vallabhi (AD 5th Century). Under Kshamasramana (*Vallabhi*) 12 *Angas* and 12 *Upangas* were compiled in **Ardh Magadhi language**.

Buddhism

Founded by Gautama Buddha, also known as **Siddhartha** or *Sakyamuni* or *Tathagata*.

- Born in 563 BC in Lumbini in Nepal in Shakya Kshatriya Clan.
- His father Suddhodana was a Shakya ruler and his mother Mahamaya of Kosalan dynasty died early. Brought up by step mother Gautami.
- Married to Yashodhara and had a son Rahul.
- **Triratnas** in Buddhism stand for 3 pillars
 - **Buddha** Its founder
 - **Dhamma** His teachings
 - **Sangha** Order of Buddhist monks and nuns

Buddhism was also divided in two main sects namely **Hinayana** and **Mahayana**.

<i>Phases of Buddha's Life</i>	<i>Symbols</i>
Birth	Lotus and Bull
Mahabhinishkraman (Renunciation)	Horse
Nirvana (Enlightenment)	Bodhi Tree
Dharmachakra Pravartana (First Sermon)	Wheel
Mahaparinirvana (Death)	Stupa

The Dhamma

The Four Great Truths

- The world is full of sorrow and misery.
- The cause of all pain and misery is desire.

Buddhist Councils

<i>Buddhist Councils</i>	<i>Period</i>	<i>Place</i>	<i>Chairman</i>	<i>Patron</i>
First	483 BC	Rajagriha	Mahakashyapa	Ajatashatru
Second	383 BC	Vaishali	Sabakami	Kalashoka
Third	250 BC	Patliputra	Mogaliputta Tissa	Ashoka
Fourth	AD 72	Kundalvana	Vasumitra, Ashwaghosa	Kanishka

- Pain and misery can be ended by killing or controlling desire.
- Desire can be controlled by following the Eight-Fold Path.

The Eight-Fold Path

1. Right Understanding
2. Right Thought
3. Right Action
4. Right Livelihood
5. Right Efforts
6. Right Speech
7. Right Mindfulness
8. Right Concentration

Madhya Marga (The Middle Path)

Man should avoid both extremes, i.e. life of comforts and luxury and a life of severe asceticism.

Buddhist Literature

In **Pali language** commonly referred to as **Tripitakas**, i.e., 'three fold basket'.

Vinaya Pitaka

Rules of discipline in Buddhist monasteries.

Sutta Pitaka

It contains collection of Buddha's sermons and teachings. It is largest among all three pitakas.

Abhidhamma Pitaka

Explanation of the philosophical principles of the Buddhist religion. **Mahavamsa** and **Dipavamsa** are the other Buddhist texts of Sri Lanka.

Causes of Decline of Buddhism

Use of Sanskrit, the language of intellectuals, in place of Pali, the language of the common people. Revival of Hinduism.

DYNASTIES OF ANCIENT INDIA

Haryanka Dynasty

- **Bimbisara** was the founder, who expanded the Magadha kingdom by annexing Anga, and entering into matrimonial alliances with Kosala and Vaishali. He was contemporary of Buddha. Capital-**Rajgir** (Girivraja).
- **Ajatashatru** came to power by killing his father. Annexed Vaishali, Kosala and Lichchhavi kingdom.
- **Udayin** founded the new capital, **Pataliputra**.

Shishunaga Dynasty

Founded by Shishunaga; Kalashoka or Kakavarin of this dynasty convened the Second Buddhist Council. Their greatest achievement was the destruction of Avanti.

Nanda Dynasty

- Considered **non-Kshatriyan** dynasty, founded by **Mahapadma Nanda**. Alexander attacked during Dhana Nanda's reign. **Cyrus** was the first foreign invader of India.
- **Alexander**, the king of Macedonia, invaded India in 326 BC and fought the Battle of Hydaspes (Jhelum) with **Porus** (Purushottam) of **Paurava dynasty**.

Mauryan Dynasty

Important rulers of Mauryan Dynasty are

Chandragupta Maurya (321-298BC)

The first ruler who overthrew the Nanda dynasty with the help of **Chanakya**.

- He has been called **Sandrocottus** by Greek scholars.
- Chandragupta defeated **Seleucus Nikator**, the general of Alexander (304 BC), who later sent **Megasthenese** the author of **Indica** to Chandragupta's court.
- His mother was **Mura**—a Shudra woman in Nanda's court.
- **Mudrarakshasa** was written by Vishakhadatta and describes about mechanisation of Chanakya against Chandragupta's enemy. Chandragupta maintained six wings of armed forces.
- He adopted Jainism and went to **Sravanabelgola** with **Bhadrabahu**.

Bindusara (298-273 BC)

He was called **Amitraghat** (*i.e.*, slayer of foes) by Greek writers; Greek ambassador, **Deimachos** visited his court; said to conquer the **land between the two seas**—The Arabian Sea and Bay of Bengal.

Bindusara appointed his eldest son Sumana as his viceroy at Taxila and Ashoka at Ujjain.

Ashoka (293-273 BC)

- For the first eight years Ashoka ruled like a cruel king and maintained discipline.
- He was called **Devanamapriya**, Dear to Gods in some of his inscriptions.

- The name **Ashoka** occurs only in copies of Minor Rock Edict I.
- Three languages were used for Ashokan inscription that is Prakrit, Greek and Aramic.
- Most of the Ashokan edicts were written in Brahmi script. It was James Prinsep who deciphered first the Brahmi script of Ashokan edicts in AD 1837.
- Ashoka was the first king to maintain direct contact with people through inscriptions.
- **Kalinga War** (261 BC) mentioned in 13th Major Rock Edict converted Ashoka to Buddhism under **Upagupta**.
- **Sanchi Stupa** was built by Ashoka.
- The last Mauryan king **Brihadratha**, was killed by Pushyamitra Sunga in 185 BC, who established the Sunga dynasty.
- The **Punch-marked coins** carrying the symbol of the peacock and the hill and crescent, famed the imperial currency of Mauryas.
- The Mauryan artisans started the practice of carving caves of monks to live in. **Barabar Caves** near Gaya is earliest example of such cave.
- **Ringwells** for domestic use of water appeared first under the Mauryas.
- Sri Lanka is called **Tamrapani** in the Ashokan inscription.

The Sunga Dynasty (185-73 BC)

- The Sunga Dynasty was established by **Pushyamitra Sunga**. (who killed last Mauryan King Brihadratha)
- They were basically Brahmins. This period saw the revival of Bhagvatism.
- **Patanjali** wrote 'Mahabhasya' at this time.
- In arts, the **Bharhut stupa** is the most famous monument of the Sunga period.

The Kanva Dynasty (73-28 BC)

- In 73 BC, **Devabhuti**, the last ruler of the Sunga dynasty, was murdered by his minister **Vasudeva**, who usurped the throne and founded the Kanva dynasty which was later replaced by the Satavahanas.

The Indo-Greeks

- The most famous king among the Indo-Greeks was **Menander** (165-145 BC) also called **Milinda**, his capital was **Sakala** (modern Sialkot) in Punjab.
- Converted to Buddhism by Nagasena as per the **Milindapanho**—a Pali text.
- The Greeks were the first to issue coins attributable to the king and also the first to issue gold coins in India; introduced Hellenistic art.

The Shakas

- The most famous ruler was **Rudradaman I** (AD 130-150), who repaired Sudarshana lake in Kathiawar region, issued first ever inscription in Chaste Sanskrit (Junagarh inscription). He defeated the Satavahanas twice.
- **Vikramaditya**, the king of Ujjain, was the only one who defeated the Shakas. To commemorate the victory, he started the **Vikram Samvat** in 57 BC.
- **The Parthians** The most famous king was **Gondophernes** (AD 19-45), in whose reign St Thomas visited India to propagate Christianity.

The Kushanas

- Also called **Yechi** or **Tocharians**, were nomadic people from the Steppes.
- **Kanishka** was the greatest of the Kushanas, who started the **Saka Era** in AD 78.
- Kushanas were the first rulers to issue **gold coins** on a wide scale known for metallic purity.
- In the royal court of **Kanishka**, a host of scholars found patronage, like Parsva, Vasumitra, Asvaghosha, Nagarjuna, Charak (Physician) and Mathara. He also patronised the Greek engineer Agesilaus.

The Satavahanas (or Andhras)

- **Simuka** (60-37 BC) was the founder of the Satavahana dynasty.
- Satavahanas were finally succeeded by the **Ikshvakus** in AD 3rd century.
- Under the Satavahanas, many chaityas (worship halls) and viharas (monasteries) were cut out from rocks mainly in North-West Deccan or Maharashtra the famous examples were **Nasik**, **Kanheri** and **Karle**.

- The official language of the Satavahanas was **Prakrit**.
- The Satavahanas issued **coins** of lead (mainly), copper, bronze and potin.
- Gautamiputra Satakarni was a famous king.

Sangam Age

- Sangam Age corresponds to the post-Mauryan and pre-Gupta periods.
- South India, during the Sangam Age, was ruled by three dynasties- the cheras, cholas and pandyas.

The Pandyas

- Their capital was **Madurai** famous for pearls. The Pandyas were first mentioned by Megasthenese.
- Traded with Roman empire, sent embassies to emperor Augustus.

The Cholas

- The Chola kingdom, also called as Cholamandalam was situated to the North-East of Pandya Kingdom between Pennar and Vellar rivers.
- Their Capital was Kaveripattanam/ Puhar.

The Cheras

- Their capital was **Vanji** (also called Kerala country). It had important trade relations with the Romans.

Sangam Literature

- Sangam was a college or an assembly of Tamil poets, held under **Royal Patronage**. *Three Sangams were held*
 - (i) at Madurai chaired by Agastya.
 - (ii) at Kapatpuram, chaired by Tolkappiyar.
 - (iii) at Madurai, chaired by Nakkirar.
- Kural by Tiruvalluvar is called the '**Fifth Veda**' or **the Bible of Tamil Land.**'

Gupta Period

The important rulers of Gupta period are

Chandragupta I (AD 319-334)

Married a Lichchavi princess, who strengthened his position and enhanced the prestige of the Guptas.

- He was the first Gupta ruler to acquire the title of **Maharajadhiraja**.
- Chandragupta I was able to establish his authority over Magadha, Prayaga and Saketa.

Samudragupta (AD 335-380)

- He is called the **Napoleon of India** (by VA Smith) on account of his conquests.
- **Meghavarman** the ruler of Sri Lanka, sent a missionary to his court for permission to build a Buddhist temple at Gaya.
- The Allahabad pillar inscription gives detailed information about Samudragupta, it was composed by his court poet **Harisena**.
- He assumed the titles of **Kaviraj** and **Vikrama**.

Chandragupta II (AD 380-414)

- Mehrauli inscription on Iron Pillar near Qutub Minar is related to him.
- His court was adorned by **Navratnas**, the chief being **Kalidasa** and **Amarsimha**.
- **Fa-hien**, Chinese Pilgrim (AD 399-414) visited during his reign.
- Defeated Saka Kshatrapa Rudrasimha III
- Chandragupta II also succeeded in killing Ramagupta, and not only seized his kingdom, but also married his widow Dhruvadevi.
- He was the first Gupta ruler to issue the silver coins in the memory of victory over **Sakas** and to have adopted the titles **Sakari** and **Vikramaditya**.
- The Gupta age is called **golden age** of Indian history and saw the issuance of the largest number of gold coins.

Kumaragupta I (AD 415-455)

- Chandragupta II was succeeded by his son Kumaragupta I.
- Kumaragupta was the worshipper of God **Kartikeya**.
- He founded the '**Nalanda Mahavihara**' which developed into a great centre of learning.

Skandagupta (AD 455-467)

- Skandagupta was the last great ruler of the Gupta dynasty.
- During his reign the Gupta empire was invaded by the Hunas.
- Success in repelling the Hunas seems to have been celebrated by the assumption of the title 'Vikramaditya' (Bhitari Pillar Inscription).

Pushyabhuti Dynasty (AD 606-647)

- The greatest king was **Harshavardhana**, son of Prabhakar Vardhana of Thaneshwar. He shifted the capital to **Kannauj**.
- **Hieun Tsang** visited during his reign.
- He established a large monastery at Nalanda. **Banabhata** adorned his court, wrote Harshacharita and Kadambari. Harsha himself wrote three plays—Priyadarshika, Ratnawali and Nagananda.

Rashtrakutas

- Founded by Dantidurg; Krishna I built the Kailasha temple at **Ellora**. Amoghavarsha, who is compared to Vikramaditya, wrote the first Kannada poetry **Kaviraj Marg**. Rashtrakutas are credited for building cave shrine **Elephanta**, dedicated to **Shiva**.

Gangas

Ruled Orissa; Narsimhadeva constructed the Sun Temple at Konark; Anantvarman built the **Jagannath Temple** at Puri; and Kesaris, who used to rule before Gangas built the **Lingaraja Temple** at Bhubaneswar.

Pallavas

Founder—**Simhavishnu**; Capital—Kanchi; greatest king **Narsimhavarman**, who founded the town of Mamallapuram (Mahabalipuram) and built rock-cut rathas and even pagodas.

- **Palas**, with their capital at Monghyr is known for Dharmapala, their second king, who founded the Vikramashila University and revived the Nalanda University.
- The greatest ruler of **Pratiharas** was **Bhoja** (also known as Mihir, Adivraha).
- Khajuraho temples were built during the reign of **Chandellas** of Bundelkhand.
- **Chalukyas** of Vatapi—founded by Jayasimha were contemporary to Harshavardhan.
- **Rajputs** divided into four clans: Pratiharas (S Rajasthan), Chauhans (E Rajasthan), Chalukyas/Solankis (Kathiawar), Parmaras (Malwa).

The Cholas

- Founder **Vijayalaya**, Capital **Tanjore**.
- **Aditya I** wiped out the Pallavas and weakened the Pandyas.
- **Purantaka I** captured Madurai, but was defeated by the Rashtrakuta ruler **Krishna III** at the **Battle of Takkolam**.
- **Rajaraja I** (AD 985-1014) led a naval expedition against Shailendra empire (Malaya Peninsula) and conquered

Northern **Sri Lanka**; constructed Rajarajeshwari (or Brihadeshvara) Shiva temple at **Tanjore**.

- **Rajendra I** (AD 1014-1044) annexed the whole of Sri Lanka; took the title of **Gangaikonda** and founded **Gangaikonda Cholapuram**.
- **Dancing Figure of Shiva** (Nataraja) belongs to the Chola period. Local self government existed.

MEDIEVAL INDIA

- **Mohammad bin Qasim** invaded India in AD 712 and conquered Sindh.
- Sultan **Mahmud of Ghazni** led about 17 expeditions of India.
- In 1025, he attacked and raided the most celebrated Hindu temple of **Somnath**, situated on the sea coast of Kathiawar.

Ilutmish (AD 1210-1236)

- Attack of Mongols; formed **Turkan-e-Chahalgani** or Chalisa (a group of 40 powerful Turkish nobles).
- Divided his empire into **Iqtas** (assignment of land in lieu of salary).
- Introduced 2 types of coins-silver tanka and copper jital.

FOUNDATION OF THE DELHI SULTANATE

- **Mohammad Ghori** invaded India and was defeated by Prithviraj Chauhan in **First Battle of Tarain** (1191).
- Ghori defeated the Rajput king in Second Battle of Tarain (1192) and laid the foundation of the Muslim dominion in India. He may be considered the **'founder of Muslim rule' in India**.

Razia Sultan (AD 1236-1240)

- First and last Muslim woman ruler of Medieval India.
- She disregarded Purdah, married Altunia, the Governor of Bhatinda.
- Bahram Shah, son of Ilutmish, killed her.

Ilbari Dynasty (AD 1206-1290)

Qutub-ud-in-Aibak

- Capital **Lahore** (initial); **Delhi** (later)
- The founder of the Slave dynasty. Also called **Lakh Baksh** because of his generosity.
- Qutub-ud-din Aibak laid the foundation of **Qutub Minar**, after the name of the famous Sufi saint Khwaja Qutubuddin Bakhtiyar Kaki; built Quwwat-ul-Islam (first mosque in India) and **Adhai Din ka Jhokra** (Ajmer).
- Died while playing Chaugan (polo) at Lahore.

Balban (AD 1266-1286)

- Separated Military Department (*Diwan-e-Ariz*) and Finance Department (*Diwan-e-Wazarat*).
- He declared that king was the deputy of God (Niyabat-e-Khudai) and shadow of God (Zil-e-Illahi) and introduced the practices of **Sijdah** and **Paibos**.

Khalji Dynasty (AD 1290-1320)

- **Jalaluddin Firuz Khalji** was the first ruler, who reviewed that India cannot be a totally Islamic state.
- **Alauddin Khalji** His conquests were that of Gujarat ruled by Vaghela king; Ranthambhor, Chittor and Malwa and later to the South (mainly by Malik Kafur).
- He abolished Zamindari in *Khalisa* land. No iqta was allotted in Doab area.

- Alauddin adopted the policy of **Blood and Iron** in tackling the Mongols.
- He built Khizrabad, **Alai Darwaja** and his capital city **Siri**.
- Also built **Hauz Khas** in Delhi and added entrance door to **Qutub Minar**, introduced market reforms.
- Adopted the title of **Sikandar-i-Sani**.
- Built a permanent army, introduced Chehra and Dagh System.
- First Turkish Sultan' who separated religion from politics.
- His court poets were **Amir Khusrau** and **Mir Hassan Dehlvi**.
- He introduced the following coins—Aadha, Bhikh, Shashgani and Hasthragani.
- **Timur** Mongol leader of Central Asia, ordered general massacre in Delhi (AD 1398) at the time of Nasiruddin Mahmud (last Tughlaq king).

Sayyids and Lodhis

- **Sayyids** dynasty was founded by Khizr Khan : Successors-Mubarak Shah, Muhammad Shah and Alauddin Alam Shah.
- The **Lodhis** were the first Afghans to rule India.
- **Bahlol Lodhi** (AD 1451-1481) founded the dynasty.
- **Sikander Lodhi** (AD 1418-1517) introduced **Gaz-i-Sikandari**. (unit for measuring cultivated field). He founded Agra in 1504. He wrote the Persian verse 'Gulrukhi'.
- He was succeeded by **Ibrahim Lodhi** (1517-1526), who was defeated by **Rana Sanga** of Mewar in the Battle of Khatoli. Ibrahim Lodhi was also defeated by **Babur** in April, 1526 which led to the establishment of the Mughal rule in India.

Tughlaq Dynasty (AD 1320-1413)

- Founded by **Ghiyasuddin Tughlaq**, who built the fortified city of **Tughlaqabad** and made it his capital.
- He was the first sultan to start irrigation works.
- **Muhammad-bin-Tughlaq** also called the **wise fool king** on account of five experiments, namely (a) Transfer of capital to Daulatabad (b) Taxation in Doab (c) Qarachil expedition (d) Khurasan expedition (e) Token currency.
- The Sultan set-up a separate department for agriculture, *Diwan-i-kohi*. He gave *Sondhar* loans to farmers.
- South Indian states of the Vijayanagara empire, the Bahmani kingdom and the Sultanate of Madura were founded.
- The famous traveller of Morocco, **Ibn-Batuta** visited his court.
- **Firoz Shah Tughlaq** built new towns of Hissar, Firozpur, Fatehabad, Jaunpur and Firozabad (his capital). During his reign two Ashokan pillars, one from Topara in Ambala and the other from Meerut were brought. Built canals was fond of slaves and wrote a book **Fatuhah-e-Firozshahi**.
- He repaired Qutub Minar when it was struck by lightning.
- Firoz Shah Tughlaq also made **Iqtadari system** hereditary and imposed new taxes like **Kharaj** (land tax equal to one-tenth of the producer) and **Zakat** and **Khams** (one-tenth of the booty captured in war).
- He made **Jizya** a separate tax and he imposed this tax upon the **Brahmans** for the first time in the history of Sultanate.

PROVINCIAL KINGDOMS

Gujarat

- Broke away from Delhi in AD 1397 under **Zafar Khan**, who assumed the title of **Sultan Muzaffar Shah**.
- His grandson Ahmed Shah I built a new city **Ahmedabad**.
- The next prominent ruler was **Mahmud Beghra**. During his rule, the Portuguese set-up a factory at Diu.

Kashmir

Kashmir was ruled by Hindu rulers until **Shamsuddin Shah** asserted himself in AD 1339. The greatest ruler was **Zain-ul-Abidin** (AD 1420-70), who is called the **Akbar of Kashmir**, built Zaina lank, artificial island in **Wular lake**.

Mewar

- Rajput rule restored by **Rana Hamir** after Alauddin Khilji captured Chittor in AD 1303.
- The greatest was **Rana Kumbha** who built the **Vijay Stambh** at Chittor to commemorate his victory over Mahmud Khalji of Malwa.

Vijayanagara Kingdom

(AD 1336-1565)

- Founded by Harihara I and Bukka I.
- Four dynasties ruled over Vijayanagar—Sangam, Saluva, Tuluva and Aravidu.
- **Devaraya I** built a dam across Tungabhadra river and Italian traveller **Nicolo de Conti** visited his court followed by the Russian merchant **Nikitin**.
- **Devaraya II**, the greatest ruler, who was seen as incarnation of Indra by Commoners; He was also called 'Gajabetekara' and wrote **Mahanataka Sudhanidhi** and commentary on the **Brahma Sutras** in Sanskrit; Persian Ambassador **Abdur Razzaq** visited his court. Krishnadeva Raya (AD 1509-29) was the greatest ruler.
- Krishnadeva Raya was known as **Abhinava Bhoja**, **Andhra Pitamah** and **Andhra Bhoja** because of being a great patron of literature. Eight great poets of Telugu (Ashta Diggaja) adorned his court like Pedanna and Tenalirama.
- Portuguese **Dominigo Paes** and **Barbosa** visited his court.
- **Battle of Talikota** (AD 1565) **Sadasiva**, the last ruler of the Tuluva dynasty was defeated by an alliance of Ahmadnagar, Bijapur, Golconda and Bidar.

Bahmani Kingdom

- **Alauddin Hasan Bahman Shah** (AD 1347-58), also known as **Hasan Gangu**, founded it with capital at **Gulbarg**.
- **Ahmad Shah Wali** transferred the capital from **Gulbarg** to **Bidar**.
- Bahmani kingdom broke up into :
 - **Nizamsahis of Ahmadnagar**
Founder *Malik Ahmad Bahri*
 - **Adilsahis of Bijapur**
Founder *Yusuf Adil Shah*
 - **Imadsahis of Berar**
Founder *Fatullah Khan Imad-ul-Mulk*
 - **Qutubsahis of Golconda**
Founder *Quli Qutub Shah*
 - **Baridsahis of Bidar**
Founder *Ali Barid*
- The **Gol Gumbaz** (a tomb with World's second largest dome) was built by Muhammad Adil Shah at **Bijapur**.
- Muhammad Quli Qutubshah founded **Hyderabad** and built **Charminar**.

Mughal Empire

(AD 1526-1707)

Babur (AD 1526-1530)

- Founder of Mughal empire, who introduced gunpowder in India; defeated Ibrahim Lodhi in the **First Battle of Panipat** (AD 1526); Rana Sanga (Sangram Singh) at **Battle of Khanwa** (AD 1527); Medini Rai of Chanderi at **Battle of Chanderi** (AD 1528) and Mahmud Lodi at **Battle of Ghagra** (AD 1529); he wrote **Tuzuk-i-Baburi** in Turkish language.
- Babur declared **Jehad** and adopted the title Ghazi.
- Died in 1530 and was buried at Aram Bagh (Agra). Later his body was taken to Bagh-e Babun (Kabul).

Humayun (AD 1530-1556)

- Built **Dinpanah** at Delhi as his second capital.
- Sher Shah Suri gradually gained power. He fought two battles with Humayun—**Battle of Chausa** (AD 1539) and another **Battle of Kannauj** (AD 1540) culminating into Humayun's defeat.
- Humayun passed 15 years in exile; again invaded India in 1555 with the help of his officer Bairam Khan.
- Died in AD 1556 due to a fall from his library building's stairs; **Gulbadan Begum**, Humayun's half-sister wrote **Humayun-nama**.

Akbar (AD 1556-1605)

- Coronated at the young age of 14 by Bairam Khan; defeated Hemu at the **Second Battle of Panipat** (AD 1556) with the help of Bairam Khan; conquered Malwa (AD 1561) defeating Baz Bahadur followed by Garh-Katanga (ruled by Rani Durgawati), Chittor (AD 1568), Ranthambhor and Kalinjar (AD 1569), Gujarat (AD 1572), Mewar (Battle of Haldighati, AD 1576 Akbar and Rana Pratap), Kashmir (AD 1586), Sindh (AD 1593) and Asirgarh (AD 1603) were also conquered.

- **Buland Darwaza** was constructed at Fatehpur Sikri after victory over Gujarat in AD 1572.
- Married to **Harkha Bai**, daughter of Rajput ruler Bharmal
- **Ralph Fitch** (in AD 1585) was the first Englishman to visit Akbar's court.
- Abolished **Jaziyah** (AD 1564); believed in **Sulh-i-Kul** (peace to all), built Ibadat Khana (Hall of prayer) at Fatehpur Sikri; issued 'Degree of Infallibility' (AD 1579); formulated religious order **Din-i-Ilahi** (AD 1582). Birbal was the first to embrace it.
- Land revenue system was called Todar Mal **Bandobast** or **Zabti System** measurement of land, classification of land and fixation of rent; and introduced **Mansabdari System** (holder of rank) to organise nobility and army.
- The Navratnas included Todar Mal, Abul Fazal, Faizi, Birbal, Tansen, Abdur Rahim Khana-i-Khana, Mullah-do-Pyaza, Raja Man Singh and Fakir Aziao-Din

Jahangir (AD 1605-1627)

- Executed the fifth Sikh guru, **Guru Arjan Dev**.
- Greatest failure was loss of Kandahar to Persia in AD 1622.
- Married Mehr-un-Nisa in AD 1611 and conferred the title of **Nurjahan** on her; He established **Zanjir-i-Adal** at Agra Fort for the seekers of royal justice.
- **Captain Hawkins** and **Sir Thomas Roe** visited his court.
- Famous painters in his court-Abdul Hassan, Ustad Mansur and Bishandas.

Shahjahan (AD 1628-1658)

- Annexed Ahmadnagar while **Bijapur** and **Golconda** accepted his overlordship.
- Secured **Kandahar** (AD 1639).
- Two Frenchmen, **Bernier** and **Tavernier** and an Italian adventurer **Manucci** visited his court.
- Built **Moti Masjid** and **Taj Mahal** at Agra, **Jama Masjid** and **Red Fort** at Delhi. His reign is considered the **Golden Age** of the **Mughal architecture**.

Aurangzeb (Alamgir) (AD 1658-1707)

- Aurangzeb became victorious after the brutal war of succession among his brother Dara, Shuja and Murad.
- Rebellions during his rule—**Jat Peasantry** at Mathura, **Satnami peasantry** in Punjab and **Bundelas** in Bundelkhand.
- The annexation of Marwar in AD 1658 led to a serious rift between Rajput and Mughals after the death of Raja Jaswant Singh.
- Ninth Sikh Guru, **Guru Tegh Bahadur** was executed by him in AD 1675.
- Mughal conquests reached territorial climax during his reign.
- It stretched from Kashmir in North to Jinji in South, from the Hindukush in West to Chittagong in East.
- He was called **Darvesh** or a **Zinda Pir**. He forbade **Sati**. Conquered Bijapur (AD 1686) and Golconda (AD 1687) and reimposed Jaziya in AD 1679.
- He built **Biwi ka Makbara** on the tomb of his queen **Rabaud-Durani** at Aurangabad; **Moti Masjid** within Red Fort, Delhi; and the Jami or Badshahi Mosque at Lahore.

Causes behind the fall of Mughal Empire

- Weak and incompetent successors
- Wars of succession
- Aurangzeb's Deccan, religious and Rajput policies
- Jagirdari crisis
- Growth of Marathas and other regional powers
- Foreign invasions of Nadir Shah (1739) and Abdali

Sur Dynasty

- The founder of Sur dynasty was **Farid**.
- Afghan ruler of Bihar, Bahar Khan Lohani gave the title of **Sher Shah** to Farid. Introduced Silver coin called **Rupaya** and Copper coin **Dam**.
- Built his tomb at **Sasaram** and built a new city on the bank of Yamuna river in Delhi (present day **Purana Qila**).

LATER MUGHALS

- **Bahadur Shah I** (1707-12) Original name was Muazzam; Title-Shah Alam I.
- **Jahandar Shah** (1712-13) He ascended the throne with the help of Zulfikar Khan; abolished Jizya.
- **Farrukhsiyar** (1713-19) He lacked the ability and knowledge to rule independently. His reign saw the emergence of the Sayyid Brothers.
- **Muhammad Shah** (1719-48) Nadir Shah invaded India and took away Peacock throne and Kohinoor diamond.
- **Ahmed Shah** (1748-54) Ahmed Shah Abdali (General of Nadir Shah) marched towards Delhi and the Mughals ceded Punjab and Multan.
- **Alamgir** (1754-59) Ahmed Shah occupied Delhi. Later, Delhi was plundered by Marathas.
- **Shah Alam II** (1759-1806) could not enter Delhi for 12 years.
- **Akbar II** (1806-37) pensioner of East India Company. He gave the title 'Raja' to Ram Mohan Roy.
- **Bahadur Shah II** (1837-57) Last Mughal Emperor who was made premier during the 1857 Revolt.

Literature of Mughal Period

Author	Work
Babur	Tuzuk-i-Babari
Abul Fazal	Ain-i-Akbari, Akbarnamah
Jahangir	Tuzuk-i-Jahangir
Hamid Lahori	Padshahnama
Darashikoh	Majma-ul-Bahrain
Mirza Md Qasim	Alamgirnama

MARATHAS (AD 1674-1818)

Shivaji (AD 1627-80)

- Born at Shivner to **Shahji Bhonsle** and **Jijabai**. His religious teacher was **Samarth Ramdas** and guardian was **Dadaji Kondadev**.
- **Treaty of Purandar** (AD 1665) between Shivaji and Mughals.
- Coronation at Raigarh (AD 1674) and assumed the title of **Haindava Dharmadharak** (Protector of Hinduism).

- **Ashtapradhan** (eight ministers) helped in administration. These were **Peshwas**, **Sar-i-Naubat** (Military), **Mazumdar** or **Amatya** (Accounts); **Waqenavis** (Intelligence); **Surunavis** (Correspondence); **Dabir** or **Sumanta** (Ceremonies); **Nyayadhish** (Justice); and **Panditrao** (Charity).
- Successors of Shivaji were Shambhaji, Rajaram and **Shahu** (fought at Battle of Khed in AD 1708).

Peshwas (AD 1719-18)

- **Balaji Vishwanath** was the first Peshwas, who concluded an agreement with the Sayyid Brothers (the king makers in history) by which Mughal emperor Farukh Siyyar recognised Shahu as the king of Swarajya.
- **Baji Rao** considered as the "greatest exponent of guerilla tactics after Shivaji"; Maratha power reached its zenith and system of confederacy began; defeated Siddis of Janjira; Conquest of Bassein and Salsette from Portuguese.
- **Balaji Baji Rao** known as Nana Sahib; **Third Battle of Panipat** (AD 1761) between Marathas and Ahmed Shah Abdali gave a big jolt to the Maratha empire.

SIKH GURUS

- **Guru Nanak Ji** (1469-39) founded Sikh religion.
- **Guru Angad** (1539-52) invented Gurmukhi.
- **Guru Amardas** (1552-74) struggled against sati system, and purdah system and established 22 **Gadiyans** to propagate religion.
- **Guru Ramdas** (1574-81) founded Amritsar in 1577. Akbar granted the land.
- **Guru Arjan Dev** (1581-1606) founded **Swarn Mandir** (Golden Temple) and composed **Adi Granth** later expanded into the Guru Granth Sahib.
- **Guru Hargobind Singh** (1606-44) established **Akal Takht**, and fortified Amritsar.
- **Guru Har Rai** (1644-61) provided care to Dara Shikoh.
- **Guru Harkishan** (1661-64)
- **Guru Tegh Bahadur** (1664-75)
- **Guru Gobind Singh** (1675-1708) was the last Guru who founded the Khalsa. After him Sikh guruship ended.

MODERN INDIA

ADVENT OF THE EUROPEANS

Portuguese

- **Vasco-da-Gama** reached the port of Calicut in 1498 during the reign of king Zamorin. (Hindu ruler of Calicut).
- **Settlements** Daman, Salsette, Chaul and Bombay (West coast), San Thome (near Madras) and at Hooghly.
- **Alfonso de Albuquerque**, the second Governor of India (first being Francisco de Almeida) arrived in 1509 and captured Goa in AD 1510.

Dutch

- Dutch East India Company was formed in AD 1602.
- Dutch were defeated by English at the **Battle of Bedara** in AD 1759 and as per agreement, the Dutch gained the control over Indonesia and the British over India, Sri Lanka and Malaya.
- **Settlements** They set-up their first factory at Masulipatnam in 1605. Their other factories were at Pulicat, Chinsura, Patna, Balasore, Naga pattanam, Cochin, Surat, Karaikal and Kasimbazar.

English

- The English East India Company was formed in 1599 under a charter granted by Queen Elizabeth in 1600. Jahangir granted a farman to **Captain William Hawkins** permitting the English to erect a factory at Surat (1613).
- In 1615, **Sir Thomas Roe** succeeded in getting an imperial farman to trade and establish factory in all parts of the Mughal Empire by ruler Jahangir.
- In 1690, a factory was established at Suttanati by **Job Charnock**. In 1698, following the acquisition of zamindari of three villages of **Suttanati, Kalikata** and **Govindpur**, the city of Calcutta was founded. Fort William was set-up in 1700.
- In 1717, John Surman obtained a farman from Farrukhsiyar, which gave

large concessions to the company. This farman has been called the Magna Carta of the Company.

- **Battle of Plassey** (1757) English defeated Sirajuddaula, the nawab of Bengal.
- **Battle of Buxar** (1764) Captain Munro defeated joint forces of Mir Qasim (Bengal), Shujauddaula (Awadh) and Shah Alam II (Mughal).

Danes

- **The Danish East India Company** was formed in 1616.
- The Danish colony 'Tranquebar' was established on Southern Coromandel coast of India.
- **Settlements** Serampur (Bengal) and Tranquebar (Tamil Nadu) sold their settlements to the English in 1845.

French

- **The French East India Company** was formed by Colbert under state patronage in 1664. The First **French factory** was established at Surat by Francois Caron in 1668. A factory at Masulipatnam was set-up in 1669.
- French were defeated by English in **Battle of Wandiwash** (1760).

GOVERNOR-GENERALS OF BENGAL

Warren Hastings (AD 1774-85)

- Brought the **dual government** to an end by the **Regulating Act**, 1773.
- The Act of 1781 made clear demarcation between the jurisdiction of the Governor General-in-Council and Supreme Court at Calcutta.
- **Pitt's India Act** (1784), Rohilla War (1774), First Maratha War (1775-1782) and Treaty of Salbai with Marathas (1782) and Second Mysore War (1780-84). Foundation of Asiatic Society of Bengal (1784) in Calcutta by **Sir William Jones**.
- English translations of **Bhagavad Gita** by Charles Wilkins in 1785.

Lord Cornwallis (AD 1786-93)

- **Third Mysore War** (1790-92) and **Treaty of Seringapatnam** (1792).
- Introduced Permanent Settlement in Bengal and Bihar (1793).
- He is called the **Father of Civil Services** in India, introduced judicial reforms by separating revenue administration from judicial administration and established a system of circles (*thanas*, headed by a *Daroga* (an Indian)).
- Translation of *Abhigyan Shakuntalam* in English by **William Jones** in 1789.

Sir John Shore (AD 1793-98)

- Played an important role in the introduction of Permanent Settlement.
- **Battle of Khanda** between the Nizams and the Marathas (1795).

Lord Wellesley (AD 1798-1805)

- Introduction of the **Subsidiary Alliance** (1798), first alliance with Nizam of Hyderabad followed by Mysore, Tanjore, Awadh, the Peshwa, the Bhonsle and the Scindia.
- **Treaty of Bassein** (1802) and the Second Maratha War.

George Barlow (1805-07)

- Vellore Mutiny (1806)

Lord Minto I (AD 1807-13)

- Concluded the **Treaty of Amritsar** with Maharaja Ranjit Singh (1809). **Charter Act of 1813** was passed.

Lord Hasting (AD 1813-23)

- **Anglo Nepal War** (1814-1816) and Treaty of Sagauli (1816).
- **Third Maratha War** (1817-18) dissolution of Maratha confederacy and creation of Bombay Presidency.
- Pindari War and establishment of **Ryotwari System** by Thomas Munro (1820).

Lord Amherst (AD 1823-28)

- **First Burmese War** (1824-26), **Treaty of Yandaboo** (1826) and capture of Bharatpur (1826).

GOVERNOR-GENERALS OF INDIA**Lord William Bentinck (AD 1828-35)**

- **Charter Act of 1833** was passed and he was made the **first Governor General of India**. Before him, the designation given was **Governor General of Bengal**.
- Carried out social reforms like prohibition of sati (1829) and elimination of thugs (1830). On Macaulay's recommendations, English was made the medium of higher education. Suppressed female infanticide and child sacrifice.

Lord Metcalfe (AD 1835-36)

Known as **liberator of the press** in India.

Lord Auckland (AD 1836-42)

First Afghan War (1838-42), a disaster for the English.

Lord Ellenborough (AD 1842-44)

Brought an end to the Afghan war. War with Gwalior (1843), **Annexation of Sind** by Charles Napier (1843).

Lord Hardinge (AD 1844-48)

First Anglo-Sikh War (1845-46) and Treaty of Lahore (1846). Gave preference to English educated persons in employment.

Lord Dalhousie (AD 1848-56)

- Introduction of **Doctrine of Lapse** and annexation of Satara (1848), Jaitpur and Sambhalpur (1849), Baghat (1850), Udaipur (1852), Jhansi (1853), Nagpur (1854) and Awadh (annexed in 1856 on account of maladministration).
- Laid down the **first railway line** between Bombay and Thane (1853), Telegraph line between Calcutta and Agra and **Postal reforms** (first issue of the Indian stamp in Karachi in 1854) with the Post Office Act.
- **Widow Remarriage Act**, 1856 (the main force being Ishwar Chand Vidyasagar).
- Started **Public Works Department**, Grand Trunk Road work and harbour of Karachi, Bombay and Calcutta developed.
- Charter Act, 1853-Selection to Civil Service through competitive examination.
- Started Engineering College at Roorkee; made Shimla, the summer capital of India.

VICEROYS OF INDIA

Lord Canning (AD 1856-62)

- The **last Governor General** and the **first Viceroy**. Withdrew Doctrine of Lapse.
- Revolt of 1857, Mutiny took place. Indian Penal Code 1860 was passed.
- Passed the Act, 1858, which ended the rule of the East India Company. The Universities of Calcutta, Bombay and Madras were established in 1857.

Lord Elgin (AD 1862)

- Wahabi Movement

Lord John Lawrence (AD 1864-69)

- Established the **High Courts** at Calcutta, Bombay and Madras in 1865.
- Telegraphic communication was opened with Europe. Created the Indian Forest Department.

Lord Mayo (AD 1869-72)

- Organised the Statistical Survey of India and for the **first time** in Indian history, a **census** was held in 1871.
- Started the process of financial decentralisation in India. Established the Department of Agriculture and Commerce.
- Established the Rajkot College at Kathiawar and Mayo College at Ajmer for the Indian princes.
- He was the only viceroy to be murdered in office by a Pathan convict in the Andamans in 1872.

Lord Northbrooke (AD 1872-76)

Kuka Rebellion in Punjab, Famine in Bihar.

Lord Lytton (AD 1876-80)

- Known as the '*Viceroy of Reverse Character*'.
- **Royal Titles Act of 1876** and the assumption of the title of 'Empress of India' by Queen Victoria, the Delhi Durbar in January 1877.
- **Vernacular Press Act** (also called the 'Gagging Act' to restrain the circulation of printed matter) and the **Arms Act** (made it mandatory for Indians to acquire license in arms) of 1878.

Lord Ripon (AD 1880-84)

- **First Factory Act** of 1881 prohibited Child Labour under the age of 7. **Local Self-Government** was introduced in 1882.
- Repealed the **Vernacular Press Act** in 1882. Finances of the centre were divided.
- Lord Ripon is regarded as '**the founding father of local self governance**' in India.
- An Education Commission was appointed under **Sir William Hunter** in 1882 to improve primary and secondary education.
- The **Ilbert Bill Controversy** (1883) enabled Indian district magistrates to try European criminals.

Lord Dufferin (AD 1884-88)

Third Burmese War (AD 1885-86). Establishment of the **Indian National Congress** in 1885.

Lord Lansdowne (AD 1888-94)

- **Factory Act of 1891** granted weekly holiday and stipulated working hours for women and children.
- Civil services were divided into Imperial, Provincial and Subordinate Services.
- **Indian Councils Act** of 1892.
- The **Durand Commission** defined the Durand Line between British India and Afghanistan (now between Pakistan and Afghanistan) in 1893.

Lord Elgin II (AD 1894-99)

- Southern uprisings of 1899. **Great famine** of 1896-1897 and **Lyal Commission** on famine was established.

Lord Curzon (AD 1899-1905)

- A Commission was appointed under **Sir Thomas Raleigh** in 1902 to suggest reforms regarding universities, the **Indian Universities Act of 1904** was passed on the basis of its recommendations.
- **Ancient Monuments Preservation Act** of 1904. Thus, Archaeological Survey of India was established.
- **Agricultural Research Institute** was established at Pusa in Delhi. Partitioned Bengal in 1905.

Lord Minto (AD 1905-10)

Swadeshi Movement (1905-08); foundation of Muslim League (1906); Surat Session and split in the Congress (1907). Morley-Minto Reforms (1909).

Lord Hardinge (AD 1910-16)

Capital shifted from Calcutta to Delhi (1911); Delhi Durbar; Partition of Bengal was cancelled. The **Hindu Mahasabha** was founded in 1915 by Pandit Madan Mohan Malaviya.

Lord Chelmsford (AD 1916-21)

- Gandhi returned to India (1915) and founded the **Sabarmati Ashram** (1916), Champaran Satyagraha (1917), Satyagraha at Ahmedabad (1918), Kheda Satyagraha (1918).
- **August Declaration** (1917) by Montague, the then Secretary of State, and Montford reforms or the Government of India Act of 1919.
- **Rowlatt Act** (March, 1919) and the **Jallianwala Bagh Massacre** (13th April, 1919).
- **Khilafat Committee** was formed and Khilafat Movement started (1919-20).
- **Non-Cooperation Movement** started (1920-22). Women's University was founded at Poona (1916).

Lord Reading (AD 1921-26)

- Repeal of Rowlatt Act. Chauri-Chaura incident. RSS founded in 1925. Suppressed Non-Cooperation Movement. Formation of Swaraj Party.
- Moplah Rebellion (1921) took place. **Kakori Train Robbery** on 1st August, 1925. **Communal Riots** of 1923-25 in Multan, Amritsar, Delhi etc.

Lord Irwin (AD 1926-31)

- **Simon Commission** visited India in 1927. Congress passed the Indian Resolution in 1929.
- Dandi March (12th March, 1930). Civil Disobedience Movement (1930).
- **First Round Table Conference** was held in England in 1930. Gandhi-Irwin Pact.
- Lahore Session of Congress and **Poorna Swaraj Declaration** (1925).

Lord Willingdon (AD 1931-36)

- **Second Round Table Conference** in London in 1931 and **third** in 1932.
- **Government of India Act** (1935) was passed. Communal Awards (16th August, 1932) assigned separate electorate for Gandhiji went on a **epic fast** to protest against this division.

Lord Linlithgow (AD 1936-43)

- Congress Ministries resignation celebrated as '**Deliverance Day**' by the Muslim League (1939), the **Lahore Resolution** (23rd March, 1940) of the Muslim League demanding separate state for the Muslims. (It was at this session that Jinnah propounded his **Two-Nation Theory**). Outbreak of World War II in 1939. **Cripps Mission** in 1942. **Quit India Movement** (8th August, 1942).

Lord Wavell (AD 1943-47)

- **Cabinet Mission Plan** (16th May, 1946).
- First meeting of the Constituent Assembly was held on 9th December, 1946.
- Arranged the **Shimla Conference** on 25th June, 1945 with the failure of talks between the Indian National Congress and Muslim League.
- Election to the Constituent Assembly were held and an interim government was appointed under Nehru.

Lord Mountbatten (March to August, 1947)

- **Last Viceroy of British India** and the **first Governor-General of free India**.
- Partition of India decided by the 3rd June Plan or **Mountbatten Plan**.
- Retired in June, 1948 and was succeeded by **C Rajagopalachari**, the first and the last Indian Governor-General of Free India.
- **Indian Independence Act** was passed by the British Parliament on 4th July, 1947, by which India became independent on 15th August, 1947.

THE REVOLT OF 1857

- Started at Meerut on 10th May, 1857.
- **Political Causes** The policy of Doctrine of Lapse.
- **Economic Causes** Heavy taxation, evictions, Discriminatory Tariff Policy against Indian products and destruction of traditional handicrafts that hit peasants, artisans and small zamindars.
- **Military Discrimination** as Indian soldiers were paid low salaries, they could not rise above the rank of subedar and were racially insulted.
- **Grievances of Sepoys** The introduction of Enfield rifle, and its cartridge of which was greased with animal fat, provided the spark.
- A rebellion broke out among Sepoys of Meerut on 10th May, 1857 which later spread to other parts of the country.
- British social reforms (widow remarriage, abolition of sati, education for girls, Christian missionaries).

Centres of Revolt and the Leaders

Centre of Revolt	Leader	British Suppressor
Delhi	Bahadur Shah II, Bakht Khan	John Nicholson, Hudson
Banaras	Liaquat Ali	James Neill
Kanpur	Nana Saheb, Tantia Tope, Azimullah Khan	Campbell, Havelock
Lucknow	Hazrat Mahal (Begum of Awadh)	Havelock, James Neill, Campbell
Jhansi	Rani Laxmi Bai	Sir Hugh Rose
Bareilly	Khan Bahadur Khan	Sir Colin Campbell
Awadh (Bihar)	Veer Kunwar Singh	William Taylor and Vincent Eyer

Causes of Failure

- The Nizam of Hyderabad, the Raja of Jodhpur, Scindia of Gwalior, the Holkar of Indore, the rulers of Patiala, Sindh and Kashmir and the Rana of Nepal provided active support to the British.
- Comparative lack of efficient leadership.

Impact of the Revolt

- The control of Indian administration was passed on to the **British Crown** by the Government of India Act, 1858.
- Reorganisation of the army.
- After the revolt, the British pursued the Policy of **Divide and Rule**.

CHIEF NATIONAL ACTIVITIES

The Indian National Congress

- It was formed in 1885 by **AO Hume** a retired Civil Servant.
- The first session was held in Bombay under Presidentship of WC Bannerjee in 1885, attended by 72 delegates from all over India.
- The first two decades of INC are described in history as those of moderate demands and a sense of confidence in British justice and generosity.
- **Moderate leaders** Dada Bhai Naoroji, Badruddin Tayabji, Gopal Krishna Gokhale, Surendranath Bannerjee and Anand Mohan Bose.

Partition of Bengal (1905)

- The partition was announced by **Lord Curzon** on 16th October, 1905 through a royal proclamation, reducing the old province of Bengal in size by creating East Bengal and Assam out of the rest of Bengal.

Swadeshi Movement (1905)

This movement had its origin in the anti-partition movement of Bengal. Lal, Bal, Pal and Aurobindo Ghosh played an important role. INC took the Swadeshi call first at the Banaras Session, 1905 presided over by GK Gokhale.

Muslim League (1906)

- It was set-up in 1906 by Aga Khan, Nawab Salimullah of Dhaka and Nawab Mohsin-ul- Mulik.
- The league supported the **Partition of Bengal** and opposed the **Swadeshi Movement**, demanded special safeguards to its community and a separate electorate for Muslims.

- This led to communal differences between the Hindus and the Muslims.

Demand for Swaraj

(Calcutta Session in Dec, 1906)

- The INC, under the leadership of Dadabhai Naoroji, adopted 'Swaraj' (Self-government) as the goal of Indian People.

Surat Session (1907)

- The INC split into two groups: the **Extremists** and the **Moderates**, due to the debate on nature of **Swadeshi Movement**.
- Extremists were led by Lal, Bal, Pal while the Moderates by GK Gokhale.

Morley-Minto Reforms (1909)

- The reforms envisaged a separate electorate for Muslims, besides other constitutional measures.
- Lord Minto came to be known as the Father of Communal Electorate.

Ghadar Party (1913)

- Formed by Lala Hardayal, Taraknath Das and Sohan Singh Bhakna. Headquarter—San Francisco.
- The name was taken from a weekly paper, **Ghadar**, which had been started on 1st November, 1913 to commemorate the 1857 Revolt.

Home Rule Movement (1916)

- Started by BG Tilak (April, 1916) at Poona and Annie Besant and S Subramania Iyer at Adyar, near Madras (September, 1916).
- **Objective** Self-government for India in the British Empire.
- During this movement, Tilak raised the slogan **Swaraj is my Birth Right and I shall have it**.

Lucknow Pact (1916)

Pact between INC and Muslim League following a war between Britain and Turkey leading to anti-British feelings among Muslims. Both organisations jointly demand dominion status for the country congress accepted separate electorate for Muslims.

August Declaration (1917)

- After the Lucknow Pact, the British policy was announced which aimed at "increasing association of Indians in every branch of the administration for progressive realisation of responsible government in India as an integral part of the British empire". This came to be called the August Declaration.
- **The Montague—Chelmsford reforms or the Act of 1919** was based on this declaration.

Rowlatt Act (18th March, 1919)

- This gave unbridled powers to the government to arrest and imprison suspects without trail. This law enabled the government to suspend the right of **Habeas Corpus**, which had been the foundation of civil liberties in Britain.
- **Rowlatt Satyagraha** was started against the act. This was the first countrywide agitation by Gandhiji.

Jallianwala Bagh Massacre

(13th April, 1919)

- People were agitated over the arrest of **Dr Saifuddin Kitchlew** and **Dr Satya Pal** on 10th April, 1919.
- **General Dyer** fired at people who assembled in the Jallianwala Bagh, Amritsar. Michael O' Dwyer was Lt. Governor of Punjab that time. The Hunter Commission was appointed to enquire into it.
- Rabindra Nath Tagore returned his knighthood in protest.
- Sardar **Udham Singh** killed Michael O' Dwyer in Caxton Hall, London on March 13, 1940.

Khilafat Movement (1920)

- Muslims were agitated by the treatment done with Turkey by the British in the treaty that followed the **First World War**.
- Ali brothers, **Mohd Ali** and **Shaukat Ali** started this movement. It was jointly led by the Khilafat leaders and the Congress.

Non-Cooperation Movement (1920)

- Congress passed the resolution in its Calcutta Session in September, 1920.
- It was the first mass-based political movement under Gandhiji.
- The movement envisaged resignation from nominated offices and posts in the local bodies.

- Refusal to attend government *durbars* and boycott of British courts by the lawyers.
- Refusal of general public to offer themselves for military and other government jobs and boycott of foreign goods.

Chauri-Chaura Incident (1922)

- The Congress Session at Allahabad in December 1921, decided to launch a **Civil Disobedience Programme**. Gandhiji was appointed its leader.
- But before it could be launched, a mob of people at Chauri-Chaura (near Gorakhpur) clashed with the police and burnt 22 policemen on 5th February, 1922. This compelled Gandhiji to withdraw the Non-Cooperation Movement on 12th February, 1922.

Swaraj Party (1923)

- Motilal Nehru, CR Das and NC Kelkar (called Pro-changers) demanded that the nationalist should end the boycott of the Legislative Councils, enter them and expose them.
- They formed Swaraj Party for this purpose with CR Das as the President.

Simon Commission (1927)

- It was constituted by John Simon, to review the political situation in India and to introduce further reforms and extension of parliamentary democracy.
- Indian leaders opposed the commission, as there were no Indians in it, they cried **Simon Go Back**.
- The government used brutal repression and at Lahore, **Lala Lajpat Rai** was severely beaten in lathi-charge and later succumbed to death.

The Nehru Report (1928)

- After boycotting the Simon Commission, all political parties constituted a committee under the chairmanship of **Motilal Nehru** to evolve and determine the principles for the Constitution of India.

Lahore Session (1929)

- On 19th December, 1929, under the presidentship of **JL Nehru**, the INC, at its Lahore Session, declared **Poorna Swaraj** (complete independence) as its ultimate goal.
- The tri-coloured flag adopted on 31st December, 1929, was unfurled and 26th January, 1930 was fixed as the **First Independence Day**, to be celebrated every year. Later, this day was chosen as the **Republic Day of India**.

Dandi March (1930)

- Also called the **Salt Satyagraha**.
- Gandhiji started his march from Sabarmati Ashram on 12th March, 1930 for the small village Dandi to break the Salt Law.
- He picked a handful of salt and inaugurated the **Civil Disobedience Movement**.

Civil Disobedience Movement

- Countrywide mass participation by women.
- The Garhwal soldiers refused to fire on the people at Peshawar.

First Round Table Conference (1931)

- It was the first conference arranged between the British and Indians as equals. It was held on 12th November, 1930 in London to discuss Simon Commission.
- Hindu Mahasabha and Muslim League participated in it. The conference failed due to absence of the Indian National Congress.

Gandhi Irwin Pact (1931)

- The government represented by Lord Irwin, and INC led by Gandhiji signed a pact on 5th March, 1931.
- In this, the INC called off the Civil Disobedience Movement and agreed to join the Second Round Table Conference.

- The government allowed the villagers on the coast to make salt for consumption and released the political prisoners. The **Karachi Session of 1931** of Congress endorsed the Gandhi Irwin Pact.

Second Round Table Conference (1931)

- Gandhiji represented the INC and went to London to meet British Prime Minister Ramsay McDonald.
- The conference however failed as Gandhiji could not agree with British Prime Minister on his policy of Communal Representation and refusal of the British Government on the basic Indian demand for freedom.

The Communal Award

(16th August, 1932)

- Announced by **Ramsay McDonald**. It showed **divide** and **rule policy of the British**.
- It envisaged communal representation of depressed classes, Sikhs and Muslims.
- Gandhiji opposed it, and started fast unto death in Yervada jail Pune (Maharashtra).

Poona Pact/ Gandhi- Ambedkar Pact (25th September, 1932)

- The idea of separate electorate for the depressed classes was abandoned, but seats reserved for them in the Provincial Legislature were increased.
- Thus, Poona Pact agreed upon a joint electorate for upper and lower castes.

Third Round Table Conference (1932)

- Proved fruitless as most of the national leaders were in prison.

Demand for Pakistan

- In 1930, **Iqbal** suggested that the North-West provinces and Kashmir should be made Muslim states within the federation.

- **Chaudhary Rehmat Ali** gave the term **Pakistan** in 1933.
- Muslim League first passed the proposal of separate Pakistan in its Lahore Session in 1940 (called **Jinnah's Two-Nation Theory**). It was drafted by **Sikandar Hayat Khan**, moved by Fazlul Haq and seconded by Khaliquzzamah.
- In December 1943, the Karachi Session of the Muslim League adopted the slogan **Divide and Quit**.

August Offer (8th August, 1940)

- It offered (i) Dominion status in the unspecified future, (ii) A post-war body to enact the Constitution (iii) To expand the Governor-General's Executive Council to give full weightage to minority opinion.
- This was rejected by the INC, but was accepted by the Muslim League.

The Cripps Mission (1942)

- The British Government with a view to get cooperation from Indians in the Second World War, sent **Sir Stafford Cripps** to settle terms with Indian leaders.
- He offered dominion status to be granted after war.
- Congress rejected it. Gandhiji termed it as '*a post - dated cheque on a crashing bank*'.

The Revolt of 1942 and the Quit India Movement

- Also called the **Wardha Proposal**, a Leaderless Revolt.
- The resolution was passed on 8th August, 1942, at Bombay. Gandhiji gave the slogan **Do or Die**.
- On 9th August, the Congress was banned and its important leaders were arrested. Gandhiji was kept at the **Aga Khan Palace**, Pune.
- The people became violent. The movement was, however, crushed by the government.

Indian National Army (INA)

- **Subhash Chandra Bose** escaped to Berlin in 1941 and set-up the Indian League there. In July 1943, he joined the INA at Singapore. Ras Bihari Bose handed over the leadership to him.
- INA had three fighting brigades, named after Gandhi, Azad and Nehru. **Rani of Jhansi Brigade** was an exclusive women force. INA had its headquarters at Rangoon and Singapore.

The Cabinet Mission Plan (1946)

- Members were Pethick Lawrence, Stafford Cripps and AV Alexander. Lord Wavell was the Viceroy of India that time.
- *Main proposals*
 1. Rejection of demand for a full-fledged Pakistan.
 2. Loose union under a Centre with Centre's control over defence and foreign affairs.
 3. Provinces were to have full autonomy and residual powers.
 4. Provincial legislatures would elect a Constituent Assembly.

The Muslim League accepted it on 6th June, 1946. The Congress also partially accepted this plan.

Formation of Interim Government

(2nd September, 1946)

- It came into existence on 2nd September, 1946 in accordance with Cabinet Mission's proposals and was headed by **JL Nehru**. Muslim League refused to join it initially.
- **Prime Minister Attlee** on 20th February, 1947 announced that British would withdraw from India by 30th June, 1948.

Formation of Constituent Assembly (December, 1946)

- The Constituent Assembly met on 9th December, 1946 and Dr Rajendra Prasad was elected as its President.

Jinnah's Direct Action Resolution (16th August, 1946)

- Provoked by the success of the Congress in the voting for Constituent Assembly Jinnah withdrew his acceptance to the Cabinet Mission Plan.
- Muslim League passed a Direct Action Resolution, which condemned both the British Government and the Congress (16th August, 1946). It resulted in heavy communal riots.
- Jinnah celebrated **Pakistan Day** on 27th March, 1947.

Mountbatten Plan (also called 3rd June Plans) (3rd June, 1947)

The plan formulated by Lord Mountbatten outlined that

- India was to be further divided into India and Pakistan.
- There would be a separate Constitutional Assembly for Pakistan to frame its Constitution.
- The princely states would enjoy the liberty to either join India or Pakistan, or could even remain independent.
- Bengal and Punjab will be partitioned and a referendum in NWFP and Sylhet district of Assam would be held. A separate state of Pakistan would be created. **Boundary Commission** was to be headed by Radcliffe.

Partition and Independence (August, 1947)

- **Indian Independence Act**, 1947 implemented on 15th August 1947, abolished the sovereignty of British Parliament. Dominions of **India** and **Pakistan** were created. Each dominion was to have a Governor-General. Pakistan was to comprise Sind, British Baluchistan, NWFP, West Punjab and East Bengal.
- **Sardar Vallabhbhai Patel**, the first Home Minister, integrated all the states by 15th August, 1947. Kashmir, Hyderabad, Junagarh, Goa (with Portuguese) and Pondichery (with French) later acceded to Indian Federation.

Socio-Religious Reform Movements

<i>Religious Institution</i>	<i>Founder</i>	<i>Ideas</i>
Brahmo Samaj was founded in Calcutta (1828)	<i>Raja Ram Mohan Roy Author of Gift to Monotheists and Percepts of Jesus and the Journals Sambad Kaumudi and Mirat-ul Akbar</i>	Propagated monotheism, opposed sacrifices, idolatory, superstition and sati.
Young Bengal Movement (1826-31)	<i>Henry Louis Vivian Derozio, probably the first modern nationalist poet brought out journal 'Jananresan'</i>	Opposed the vices in society and believed in truth, freedom and right.
Tattavabodhini Sabha (1839)	<i>Debendranath Tagore brought out the journal Tattavabodhini Patrika</i>	Propagated Brahmo Samaj idea, eventually founding Adi Brahmo Samaj (1866).
Dharma Sabha (1820), Rohilkhand	<i>Radhakant Deb</i>	Emerged to counter Brahmo Samaj and propagated orthodoxy.
Wahabi Movement (1820), Rohilkhand	<i>Syed Ahmed of Rai Bareilly</i>	Popularised the teachings of Waliullah, stressed the role of individual conscience in religion.
Namdhari or Kuka Movement (1841-71)	<i>Bhai Balak Singh and Baba Ram Singh</i>	For political and social reforms among Sikhs.
Paramhans Mandali (1849)	<i>Dadoba Pandurang</i>	Emphasised the unity of God, against caste rules.
Rahnunai Mazdayasanan Sabha (1851)	<i>SS Bengali, Dadabhai Naoroji and others</i>	To improve the social condition of Parsis and restore the purity of Zoroastrianism. Their journal was Rast Gotar.
Prarthana Samaj (1867), Bombay	<i>Atmaram Pandurang</i>	Monotheism, upliftment of women, abolition of caste discrimination.
Indian Reform Association (1870), Calcutta	<i>Keshab Chandra Sen</i>	Opposed child marriage, advocated widow remarriage and inter-caste marriages.
Arya Samaj (1875), Bombay	<i>Dayanand Saraswati (original name Mulshankar)</i>	Gave the slogan Go Back to the Vedas and within a revivalist framework denounced rites, idolatory, Brahmins's supremacy etc.
Aligarh Movement (1875) grew into Mohammedan Anglo-Oriental College (1875) and later Aligarh Muslim University	<i>Syed Ahmed Khan, his journal Tahzib-al-Akhlaq</i>	Religious reform through emphasis on principle of equality in religion, favoured scientific and national outlook.
The Theosophical Society (1875), New York (later shifted to Adyar)	<i>Madam HP Blavatsky and Col HS Olcott</i>	Drew inspiration from Upanishads, philosophy of the <i>Vedanta</i> and transmigration of the souls.
Deccan Education Society (1884), Pune	<i>MG Ranade, VG Chiplinkar and GG Agarkar</i>	To contribute to education and culture in Western India established Fergusson College, Pune (1885).
Seva Sadan (1885), Bombay	<i>Behramji M Malabari</i>	Against child marriages, and forced widowhood.
Deva Samaj (1887), Lahore	<i>Shiv Narain Agnihotri</i>	Favoured a code of conduct against bribe-taking, gambling, etc.
Madras Hindu Association (1892)	<i>Veresalingam Pantulu</i>	Social Purity Movement and against Devadasi system.
Ramkrishna Mission (1897), Belur	<i>Vivekananda (original name Narendranath Dutta)</i>	Revive Hinduism, against caste restrictions, superstition in Hinduism and overhaul of education system.

<i>Religious Institution</i>	<i>Founder</i>	<i>Ideas</i>
Servants of Indian Society (1905), Bombay	<i>Gopal Krishna Gokhale</i>	Famine relief and improving tribal conditions, in particular.
Bharat Stri Mahamandal (1910), Calcutta	<i>Sarlabai Devi Chaudhrani</i>	Women's education and emancipation.
Social Service League (1911)	<i>NM Joshi</i>	Improving the condition of the masses.
Women's Indian Association (1917), Madras	<i>Annie Besant</i>	Upliftment of Indian women.

Popular Names of Personalities

<i>Popular Name</i>	<i>Personality</i>	<i>Popular Name</i>	<i>Personality</i>
Andhra Kesari	T Prakasam	JP	Jayaprakash Narayan
Babuji	Jagjivan Ram	Lady with the Lamp	Florence Nightingale
Bapu	Mahatma Gandhi	Lion of the Punjab	Lala Lajpat Rai
CR	C Rajagopalachari	Little Corporal	Napoleon
Desh Bandhu	Chitranjan Das	Lokmanya	Bal Gangadhar Tilak
Grand Old man	Dadabhai Naoroji	Jawan	Indian soldier
Lal, Bal, Pal	Lala Lajpat Rai, Bal Gangadhar Tilak, Bipin Chandra Pal	Mahamanya	Pandit Madan Mohan Malaviya
		Man of Blood	Bismarck
Guru ji	MS Golwalkar	Netaji	Subhash Chandra Bose
Gurudev	Rabindranath Tagore	Nightingale of India	Sarojini Naidu
Iron Man	Vallabhbhai Patel	Pandit ji	Jawaharlal Nehru
Sparrow	Major Rajender Singh	Shastri ji	Lal Bahadur Shastri

Crematoriums of Famous Persons

<i>Crematorium</i>	<i>Famous Person(s)</i>	<i>Crematorium</i>	<i>Famous Person (s)</i>
Raj Ghat	Mahatma Gandhi	Shanti Van	Jawaharlal Nehru
Vijay Ghat	Lal Bahadur Shastri	Shakti Sthal	Indira Gandhi
Kisan Ghat	Ch Charan Singh	Abhay Ghat	Morarji Desai
Veer Bhumi	Rajiv Gandhi	Samata Sthal	Jagjivan Ram
Ekta Sthal	Giani Zail Singh, Chandra Shekhar	Karma Bhumi	Dr Shankar Dayal Sharma
Uday Bhoomi	KR Narayana	Mahaprayan Ghat	Dr Rajendra Prasad

Newspapers and Journals

<i>Name</i>	<i>Published by</i>
Bengal Gazette	JA Hickey
Kesari	BG Tilak
Maratha	BG Tilak
Amrita Bazar Patrika	Sisir Kumar Ghosh and Motilal Ghosh
Vande Mataram	Aurobindo Ghosh
Yugantar	Bhupendranath Dutta and Barinder Kumar Ghosh
Bombay Chronicle	Firoz Shah Mehta

Books and Authors

<i>Book</i>	<i>Author</i>
Ghulam Giri	Jyotiba Phule
Pather Panchali	B.Bhushan Bannerji
Satyarth Prakash	Swami Dayanand
Anand Math	Bankim Chandra Chatterji
Unhappy India	Lala Lajpat Rai
India Divided	Rajendra Prasad
The Discovery of India	Jawaharlal Nehru

ART AND CULTURE

Classical Dancers of India

<i>Dance</i>	<i>Dancer</i>
▪ Bharatanatyam	Bala Saraswati, CV Chandrasekhar, Leela Samson, Mrinalini Sarabhai, Padma Subramanyam, Rukmini Devi, Sanyukta Panigrahi, Sonal Mansingh, Yamini Krishnamurti
▪ Kathak	Bharti Gupta, Birju Maharaj, Damayanti Joshi, Durga Das, Gopi Krishna, Kumudini Lakhia, Sambhu Maharaj, Sitara Devi
▪ Kuchipudi	Josyula Seetharamaiah, Vempathi Chinna Sathyam
▪ Manipuri	Guru Bipin Sinha, Jhaveri Sisters, Nayana Jhaveri, Nirmala Mehta, Savita Mehta
▪ Odissi	Debaprasad Das, Dharendra Nath Patnaik, Indrani Rahman, Kelucharan Mahapatra, Priyambada Mohanty
▪ Kathakali	Mrinalini Sarabhai, Guru Shankaran, Namboodripad, Thottam Shankaran, Kutti Nayyar, Shankar Kurup, KC Pannikar, TT Ram Kulti
▪ Mohiniattam	Protima Devi, Sanyukta Panigrahi, Sonal Mansingh, Pankaj Charan Das, Kelucharan Mahapatra, Madhvi Mudgal, etc

State and Folk Dances

▪ Andhra Pradesh	Kuchipudi, Ghantamardala, Ottam Thedal, Veedhi Natakam
▪ Assam	Bihu, Bichhua, Natpuja, Maharas, Kaligopal, Bagurumba, Khel Gopal, Canoe, Jhumura Hobjana
▪ Bihar	Jata-Jatin, Bakho-Bakhain, Panwariya, Sama-Chakwa, Bidesia
▪ Gujarat	Garba, Dandiya Ras, Tippani Juriun, Bhavai
▪ Haryana	Jhumar, Phag, Daph, Dhamal, Loor, Gugga, Khor, Gagor
▪ Himachal Pradesh	Jhora, Jhali, Chharhi, Dhaman, Chhapeli, Mahasu, Nati, Dangi
▪ Jammu and Kashmir	Rauf, Hikar, Mandjas, Kud Dandi Nach, Damali
▪ Karnataka	Yakshagan, Huttari, Suggi, Kuniitha, Karga, Lambi
▪ Kerala	Kathakali (Classical), Ottam Thulal, Mohiniattam, Kaikottikali
▪ Maharashtra	Lavani, Nakata, Koli, Lezim, Gafa, Dahikala Dasavtar or Powada
▪ Odisha	Odissi (Classical), Savari, Ghumara, Painka, Munari, Chhau
▪ Paschim Banga	Kathi, Gambhira, Dhali, Jatra, Baul, Marasia, Mahal, Keertan
▪ Punjab	Bhangra, Giddha, Daff, Dhaman, Bhand, Naqal
▪ Rajasthan	Ghumar, Chakri, Ganagor, Jhulan Leela, Jhuma, Suisini, Ghapal, Kalbeliya
▪ Tamil Nadu	Bharatanatyam, Kumi, Kolattam, Kavadi
▪ Uttar Pradesh	Nautanki, Raslila, Kajri, Jhora, Chappeli, Jaita
▪ Uttarakhand	Garhwali, Kumayuni, Kajari, Jhora, Raslila, Chappeli

Instruments and Vocalists

Carnatic	MS Subbalakshmi, Balamuralikrishna, Bombay Jaishri, HK Raghavendra, Aryakudi Ramanujan Iyengar Venkataram, Sitarajam, Mani Krishnaswamy, Akhil Krishnan, ML Vasanthakumari, MD Ramanathan, GN Balasubramaniam
Dhrupad	Ustad Rahim Fahim-ud-din Dagar, Zahir-ud-din Dagar, Wasif-ud-din Dagar, Bundecha Bandhu, Pt Abhay Narayan Mallick, Pt Ritwik Sanyal, Uday Bhawalkar
Hindustani	Shubha Mudgal, Madhup Mudgal, Mukul Shivputra, Pandit Jasraj, Parveen Sultana, Naina Devi, Girija Devi, Ustad Ghulam Mustafa Khan, Gangubai Hangal, Krishna Hangal, V Rajput, Kumar Gandharva, Faiyyaz Khan, Mallikarjun Mansur.
Thumri	Ustad Bade Ghulam Ali Khan, Ustad Mazhar Ali Khan, Ustad Zawad Ali Khan, Poornima Chaudhary, Shanti Heerananda, Naina Devi, Rita Ganguly

Musical Instruments and Instrumentalists

<i>Instruments</i>	<i>Instrumentalists</i>
Stringed Instruments	
1. Been	Asad Ali Khan, Zia Moin-ud-din Khan
2. Santoor	Shiv Kumar Sharma
3. Sarod	Buddhadev Dasgupta, Ali Akbar Khan, Amjad Ali Khan, Bahadur Khan, Sharan Rani, Zarin S Sharma
4. Sarangi	Ustad Binda Khan
5. Sitar	Ravi Shankar, Hara Shankar Bhattacharya, Nikhil Banerjee, Vilayat Khan, Mustaq Ali Khan
6. Surb Ahar	Sajjad Hussain, Annapurna
7. Veena	Doraiswamy Iyengar, Chittibabu, Emani Sankara Shastri, Dhanammal, S Bala Chandran, KR Kumaraswamy
8. Violin	Gajanan Rao Joshi, MS Gopal Krishnan, TN Krishnan, Baluswamy, Dikshitar, Dwaran Venkataswamy Naidu Lalyuli G Jayaraman, Mysore T Chowdiah, VG Jog
Wind Instruments	
9. Flute	TR Mahalingam, N Ramani, Hari Prasad Chaurasia, Pannalal Ghosh
10. Nadaswaran	Sheikh Chinna Moula, Neeruswamy Pillai, Rajaratanam Pillai
11. Shehnai	Bismillah Khan
Percussion (Striking Thumping) Instruments	
12. Mridangam	Palghat Mani Iyer, Karaikudi R Mani, Palghat Raghu
13. Pakhawag	Pt Ayodhya Prasad, Gopal Das, Babu Ram Shanker Pagaldas
14. Tabla	Zakir Hussain, Nikhil Ghosh, Kishan Maharaj, Alla Rakha Khan, Pandit Samta Prasad, Kumar Bose, Latif Khan
15. Kanjira	Pudukkotai Dakshinamurthi Pillai

Cultural Institutions

<i>Institutions</i>	<i>Headquarters</i>	<i>Institutions</i>	<i>Headquarters</i>
■ Anthropological Survey of India, 1945	Kolkata	■ Sahitya Academy, 1954	New Delhi
■ Archaeological Survey of India, 1861	New Delhi	■ Sangeet Natak Academy, 1953	New Delhi
■ Asiatic Society, 1784 (Sir William Jones)	Kolkata	■ Library of Tibetan Works and Archives	Dharmashala
■ Indira Gandhi National Centre for Arts, 1985	New Delhi	■ Science City	Kolkata
■ Lalit Kala Akademi (National Academy of Fine Arts), 1954	New Delhi	■ Victorial Memorial Hall	Kolkata
■ National Archives of India, 1981	New Delhi	■ Birla Industrial and Tech Museum	Kolkata
■ National School of Drama, 1959	New Delhi	■ Central Institute of Buddhist Studies	Leh
		■ Nava Nalanda Mahavihara	Nalanda (Birla)
		■ National Gallery of Modern Art	New Delhi



GEOGRAPHY

WORLD GEOGRAPHY

UNIVERSE

- The study of universe is known as **Cosmology**. The universe is commonly defined as the totality of everything that exists including all physical matter and energy, the 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 by their own gravity. There are 100 billion galaxies in the universe and each galaxy has, on average, 100 billion stars.
- Our galaxy is **Milky Way Galaxy** (or the **Akash Ganga**) formed after the Big Bang.
- **Andromeda** is the nearest galaxy to the Milky Way.
- **The Big Bang Theory** Big Bang was an explosion of concentrated matter in the universe that occurred 15 billion years ago, leading to the formation of galaxies of stars and other heavenly bodies.
- It is believed that universe should be filled with radiation called the “cosmic microwave background.” NASA has launched two mission to study these radiation, i.e. the Cosmic Background Explorer (COBE) and the Wilkinson Microwave Anisotropy Probe (WMAP).
- **Stars** are heavenly bodies made up of hot burning gases and they shine by emitting their own light.
- **Black Hole** Stars having mass greater than three times that of the Sun, have very high gravitational power, so that even light can not escape from its gravity and hence called black hole.

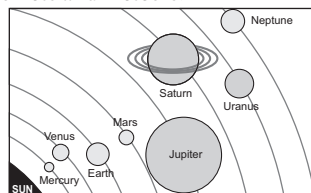
- **Comets** Made up of frozen gases. They move around the Sun in elongated elliptical orbit with the tail always pointing away from the Sun.
- **Constellations** The sky is divided into units to enable the astronomers to identify the position of the stars. These units are called constellations. There are 88 known constellations.
- **Satellites** are the heavenly bodies that revolve around the planets. Moon is the natural satellite of the Earth.

Facts about the Moon

Diameter	3476 km
Average distance from Earth	384365 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 the Earth	1.3 sec

Solar System

- The solar system consists of the Sun, eight planets and their satellites (or moons) and thousands of other smaller heavenly bodies such as asteroids, comets and meteors.



- The **Sun** is at the centre of the solar system and all these bodies revolve around it. It is the nearest star to the Earth.

Facts about the Sun

Average distance from the Earth	149598900 km
Diameter	1391980 km
Temperature of the Core	15000000°C
Rotation Speed	25.38 days (with respect to equator); 33 days (with respect to poles)
Time taken by Sunlight to reach the Earth	8 min and 16.6 sec

Important Facts about Universe

Biggest Planet	<i>Jupiter</i>
Biggest Satellite	<i>Ganymede (Jupiter)</i>
Blue Planet	<i>Earth</i>
Green Planet	<i>Uranus</i>
Brightest Planet	<i>Venus</i>
Brightest Planet outside Solar System	<i>Sirius (Dog Star)</i>
Closest Star of Solar System	<i>Proxima Centauri</i>
Coldest Planet	<i>Neptune</i>
Evening Star	<i>Venus</i>
Farthest Planet from Sun	<i>Neptune</i>
Planet with maximum number of satellites	Saturn (Overtaking Jupiter)
Fastest revolution in Solar System	<i>Mercury</i>
Hottest Planet	<i>Venus</i>
Densest Planet	<i>Earth</i>
Fastest rotation in Solar System	<i>Jupiter</i>
Morning Star	<i>Venus</i>
Nearest Planet to Earth	<i>Venus</i>
Nearest Planet to Sun	<i>Mercury</i>
Red Planet	<i>Mars</i>
Slowest Revolution in Solar System	<i>Neptune</i>
Slowest Rotation in Solar System	<i>Venus</i>
Smallest Planet	<i>Mercury</i>
Smallest Satellite	<i>Deimos (Mars)</i>
Earth's Twin	<i>Venus</i>
Only Satellite with an atmosphere like Earth	<i>Titan</i>

Asteroids (or Planetoids)

Small planetary bodies that revolve around the Sun and found in between the orbits of Mars and Jupiter. Also known as minor planets.

Meteors and Meteorites

- Meteors are also called as **shooting stars**.
- **Meteors** are fragments of rocks coming towards the Earth.
- They are formed due to collision among the asteroids.
- Meteors that do not burn up completely in Earth's atmosphere and land on the Earth, are called **meteorites**.
- Meteorites are composed of various proportions of a nickel-iron alloy (10% nickel and 90% iron) and silicate minerals.

Classification of Planets

Inner Planets Include Mercury, Venus, Earth and Mars.

Outer Planets Include Jupiter, Saturn, Uranus and Neptune.

<i>Inner Planet</i>	<i>Outer Planet</i>
They are called as Terrestrial or Rocky planets.	They are called as Jovian or Gaseous planets.
They are nearer to the Sun.	They are far away from the Sun.

Dwarf Planet According to International Astronomical Union (IAU), it is a celestial body in direct orbit of the Sun, that is massive enough that its shape is controlled by gravitational forces, but has not cleared its neighbourhood. *e.g.*, Pluto, Ceres, Eris, Makemake and Haumea.

A **light year** is the distance light travels in one year at the speed of 3×10^8 m/s.
Astronomical unit mean distance between Earth and Sun.

Earth

- The Earth is an **oblate spheroid**. It is almost spherical, flattened a little at the poles with a slight bulge at the centre (equator).
- **Perihelion** Nearest position of the Earth to the Sun.
- **Aphelion** Farthest position of the Earth from Sun.
- The Earth's interior is composed of three major layers: the **crust**, the **mantle** and the **core**.

- Eduard Suess has explained the interior of Earth on the basis of chemical composition as SIAL, SIMA and NIFE.
- **SIAL** (Silicon-Aluminium) Upper part of the crust.
- **SIMA** (Silicon-Magnesium) Lower part of the crust.
- **NIFE** (Nickel-Iron) Outer part of the core.
- **Rotation of the Earth** Earth spins on its imaginary axis from West to East in one day. Result in causation of day and night, tides.
- **Revolution of the Earth** Earth's motion in elliptical orbit around the Sun in one year. Result in Change of seasons.

Statistics Data of the Earth

Age	4550 million years
Mass	5.976×10^{24} kg
Volume	1.083×10^{12} km ³
Mean Density	5.513 g/cm ³
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 (<i>Vernal Equinox</i>); 23rd September, (<i>Autumnal Equinox</i>)
Longest day	21st June, (<i>Summer Solstice</i>) Sun is vertically overhead at Tropic of Cancer
Shortest night	22nd December, (<i>Winter Solstice</i>) Sun is vertically overhead at Tropic of Capricorn
Escape velocity	11.2 km/sec
Mean surface temperature	14°C

Latitudes

Imaginary lines drawn on the Earth's surface parallel to the equator. Equator (0°) is the biggest latitude that divides Earth in two equal hemispheres (North and South).

- | | |
|---------------------|--------|
| 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.
 - The most important line of latitude is the Equator.

Longitudes (Meridians)

- Meridians are a series of semicircles that run from pole to pole passing through the equator.
- **Prime Meridian** passes through Greenwich near London, divides the Earth in Eastern and Western hemisphere. Its value is 0°.
- Longitude has very important function *i.e.*, it determines local time in relation to **Greenwich Mean Time** (GMT).
- 1° change of longitude corresponds to 4 minutes difference in time.

International Date Line (IDL)

- It is the longitude where the date changes by exactly one day when it is crossed.
- 180° East and 180° West meridians is the same line, which is called the International Date Line.
- Crossing Date line from West to East — addition of 1 day
Crossing Date line from East to West — subtraction of 1 day
- Recently Samoa island decided to shift itself on west side of IDL.

Indian Standard Time (IST)

- The Earth takes approximately 24 hours to complete one rotation *i.e.*, it takes 24 hours to complete 360° of its rotation.
- Indian Standard Time is calculated on the basis of 82.5°E longitude which passes through Uttar Pradesh, Madhya Pradesh, Odisha, Chhattisgarh and Andhra Pradesh.
- IST is 5 hr 30 min ahead of GMT.

Eclipses

When the light of the Sun or the Moon is blocked by another body, the Sun or the Moon is said to be in eclipse.

- **Solar Eclipse** It is caused, when the Moon revolving around the Earth comes in between the Earth and the Sun, thus making a part or whole of the Sun invisible from a particular part of the Earth. Thus, the eclipse can be partial or complete.
- **Lunar Eclipse** When the Earth comes between the Moon and the Sun, the shadow cast by the Earth on the Moon results in a lunar eclipse.

ROCKS

Rocks are made up of individual substances, called minerals, found mostly in solid state. *Rocks are classified into three major types*

- **Igneous rocks** are formed by the solidification of the molten magma, *e.g.*, Mica, Granite etc.
- **Sedimentary rocks** are formed due to accumulation of rock particles and organic matter in layers, under tremendous pressure, *e.g.*, Gravel, Peat, Gypsum etc.
- **Metamorphic rocks** were originally igneous or sedimentary but later changed due to pressure, heat or action of water, *e.g.*, Gneiss, Marble, Quartzite etc.

Type of Rock	Original Rock	Metamorphic Rock
Igneous	Granite	Gneiss
Igneous	Basalt	Green-stone
Sedimentary	Limestone	Marble
Sedimentary	Coal	Graphite, Coal
Sedimentary	Sandstone	Quartzite
Sedimentary	Shale/Clay	Slate, Mica, Schist

Weathering

The process by which rocks are chemically or physically disintegrated into fragments.

EARTHQUAKES

- Any sudden disturbance below the Earth's surface may produce **vibrations** or shaking in Earth's crust and some of these vibrations, when reach the surface, are known as earthquakes.
- The magnitude of an earthquake is measured by **Richter Scale**.
- The intensity of earthquake waves is recorded by **Seismograph**.
- Intensity of shaking is measured on the modified **Mercalli Scale**.
- **Focus** is the point beneath the Earth where earthquake originates.
- **Epicentre** is the point just above the focus on the Earth's surface.

VOLCANISM

- Sudden eruption of hot magma (molten rock), gases, ash and other material from inside the Earth to its surface.

Types of Volcanoes

- **Active** Which erupts frequently, *e.g.*, Mauna Loa (*Hawaii*), Etna (*Sicily*), Vesuvius (*Italy*), Stromboli (*Mediterranean Sea*).
- **Dormant** Not erupted for quite sometime, *e.g.*, Fujiyama (*Japan*), Krakatoa (*Indonesia*), Barren Island (*India*).
- **Extinct** Not erupted for several centuries. *e.g.*, Arthur's Seat, Edinburgh, Scotland.
- **Ring of Fire** Hundreds of active volcanoes found on the land near the edges of the Pacific Ocean.

Tsunami

Large ocean wave that is caused by sudden motion on the ocean floor. Motion could be an earthquake, volcanic eruption or underwater landslide.

LANDFORMS

There are three major landforms mountains, plateaus and plains.

Mountains

An uplifted portion of the Earth's surface is called a hill or a mountain.

Mountains are classified into following four types

- **Fold Mountains** These are formed by folding of crustal rocks by compressive forces. *e.g.*, Himalayas (Asia), Alps (Europe).
- **Block Mountains** When great blocks of the Earth's crust are raised or lowered during the last stage of mountain building, block mountains are formed, *e.g.*, Vosges in France, Black Forest mountains in Germany.
- **Volcanic Mountains** These are formed by the matter thrown out from the volcanoes, and are also known as mountains of accumulation, *e.g.*, Mt Mauna Loa in Hawaii, Mt Popa in Myanmar.
- **Residual or Dissected Mountains** They are known as relict mountains or mountains of circum-denudation. They owe their present form to erosion by different agencies, *e.g.* Nilgiris, Girnar and Rajmahal.

Major Mountain Ranges

Range	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

Mountain Peak	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

Plateaus

Plateaus are flat, table like, upland areas with rough top surface and steep side walls.

Famous Plateaus of the World

Plateau	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

Plains

A relatively low-lying and flat land surface with least difference between its highest and lowest points is called a Plain.

ATMOSPHERE

- The **vast expanse of air**, which envelops the earth all around is called the atmosphere. It extends to thousands of kilometres.
- It protects the Earth's surface from the Sun's harmful **ultraviolet rays**.

Structure of Earth's Atmosphere

Layer	Height (km)	Feature
Troposphere	0-18 km	Contains 75% of the gases in the atmosphere. As height increases, temperature decreases (about 6.5°C/km ascent).
Stratosphere	18-50 km	This layer contains the ozone layer. The temperature remains fairly constant in the lower part but increases slowly with increase in height due to presence of ozone gas. At upper layer temperature is almost 0°C.
Mesosphere	50-80 km	This is the coldest region of the atmosphere. The temperature drops to about -100°C.
Ionosphere	80-600 km	Radio waves are bounced off the ions and reflect waves back to the Earth. This generally helps radio communication.
Exosphere	Above 600 km	Upper part of exosphere is called Magnetosphere. The temperature keeps on rising constantly at high rate.

- It also regulates temperature, preventing the Earth from becoming too **hot** or too **cold**.
- The **major constituents of air** in the atmosphere are Nitrogen (78%), Oxygen (21%), Argon (0.93%) and Carbon dioxide (0.03%).
- Besides water vapour, dust particles, smoke, salts and other impurities are present in air in varying quantities.

Greenhouse Effect and Global Warming

- A **greenhouse gas** (sometimes abbreviated GHG) is a gas in the atmosphere that absorbs and emits radiation within the thermal infrared range. This process is the fundamental cause of the greenhouse effect.
- The primary greenhouse gases in the Earth's atmosphere are water vapour, carbon dioxide, methane, nitrous oxide and ozone.
- In the **solar system**, the atmosphere of Venus, Mars and Titan also contain gases that cause greenhouse effects.
- **Global warming** is the increase of Earth's average surface temperature due to effect of greenhouse gases, such as carbon dioxide emissions from burning fossil fuels or from deforestation. This is a type of greenhouse effect.

Pressure System of Earth

- The pressure exerted by the atmosphere due to its weight, above a unit area of the Earth's surface is called **atmospheric pressure**. It is measured by **Mercury Barometer**.
- Major pressure belts of the Earth are equatorial low, sub-tropical high, sub-polar low and polar high.

Winds

Due to horizontal differences in air pressure, air flows from areas of high pressure to areas of low pressure. **Horizontal movement** of the air is called wind.

The types of winds are given below

- **Planetary Winds** The winds blowing throughout the year from one latitude to another in response to latitudinal differences in air pressure are called planetary or prevailing winds.
- Planetary winds are divided into three types they are Trade winds, Westerlies and Polar winds.
 - (i) **Trade Winds** They blow from the Sub-tropical High Pressure Belt to the Equatorial Low Pressure Belt in the tropics between 30° North and 30° South latitudes.
 - (ii) **Westerlies** They blow from Sub-tropical High Pressure Belt to the Sub-Polar Low Pressure Belt in the temperate latitudes between 30° and 60°, on the either side of the Equator.
These are also called **Roaring Forties**, the **Furious Fifties** and **Shrieking or Screaming sixties**.
 - (iii) **Polar Winds** They blow from the Polar High Pressure Belt to the Sub-Polar Low Pressure Belt between 60° latitude and the Pole on both sides of the Equator.
- **Periodic Winds** They change their direction periodically with the change in pressure and temperature, e.g., Monsoon, Land and Sea Breeze.
- **Local Winds** Local winds develop as a result of local differences in temperature and pressure. e.g., Fohn, Chinook, Loo.
- **Cyclones** Rapid inward circulation of airmasses with a low pressure at centre. It is anticlockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere.
- **Anticyclones** Rapid outward movement of air masses with a high pressure at centre.
- **Hurricane** This is also known as tropical cyclone or tropical storm. This is a disturbance of about 650 km across, spinning around a central area of very low pressure, with (with wind speed above) 140 km/h.

List of 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 Sea. It is also known as Blood rain.
Solano	Hot, moist wind from Sahara towards Iberian Peninsula.
Harmattan	Hot, dry wind blowing outwards from the interior of Western Africa. Also called Guinea Doctor.
Bora	Cold, dry wind blowing outwards from Hungary to the North of Italy (near Adriatic Sea).
Mistral	Very cold wind, which blows from the Alps over France.
Punas	Cold, dry wind blowing down towards the 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 in USA.

Major Rivers of the World

River	Origin
Nile	Victoria lake
Amazon	Andes (Peru)
Yangtze	Tibetan Kiang Plateau
Mississippi Missouri	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
Niger	Guinea

Cyclones of the World

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

Important Canals of the World

Panama	Pacific Ocean with 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 Islands
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

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

Waterfalls

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

Riverside Cities

<i>Town</i>	<i>River</i>
Akyab (<i>Myanmar</i>)	Irrawaddy
Baghdad (<i>Iraq</i>)	Tigris
Basara (<i>Iraq</i>)	Tigris and Euphrates
Belgrade	Danube
Berlin (<i>Germany</i>)	Spree
Bristol (<i>UK</i>)	Avon
Budapest (<i>Hungary</i>)	Danube
Cairo (<i>Egypt</i>)	Nile
Canton	Si-Kiang
Glasgow (<i>Scotland</i>)	Clyde
Hamburg (<i>Germany</i>)	Elbe
Jamshedpur	Subarnarekha
Kabul	Kabul
Karachi	Indus
Khartoum (<i>Sudan</i>)	Nile
Lahore	Ravi
Lisbon (<i>Portugal</i>)	Tangus
London (<i>UK</i>)	Thames
Lucknow	Gomti
Montreal (<i>Canada</i>)	Ottawa
New Castle (<i>UK</i>)	Tyre
New Orleans (<i>USA</i>)	Mississippi
New York (<i>USA</i>)	Hudson
Paris (<i>France</i>)	Seine
Philadelphia (<i>USA</i>)	Delaware
Rome (<i>Italy</i>)	Tiber
Shanghai	Yang-tse-Kiang
Srinagar	Jhelum
Warsaw (<i>Poland</i>)	Vistula
Washington DC	Potomac
Yangon (<i>Myanmar</i>)	Irawady

Great Deserts of the World

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

Major Islands of the World

<i>Rank</i>	<i>Name</i>	<i>Area (km²)</i>	<i>Country/Area</i>
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

<i>Mineral</i>	<i>Leading Producer</i>
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 term 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

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
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

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

INDIAN GEOGRAPHY

INDIA

- India is the **seventh largest country** in the world with an area of 3287263 sq km, which is 2.42% of world's area.
- India is the **second most populous** country in the world with a population of 1.21 billion, which is 17.44% of the world.
- Indian subcontinent is located in the Northern and Eastern hemisphere.
- India shares **longest boundary** with Bangladesh (4096 km), followed by China (3488 km), Pakistan (3323 km), Nepal (1751 km), Myanmar (1643 km), Bhutan (699 km) and Afghanistan (106 km).
- In India, the **Tropic of Cancer** (23.5° N latitude) passes through **8 states** (Gujarat, Rajasthan, Madhya Pradesh, Chhattisgarh, Jharkhand, West Bengal, Tripura and Mizoram).
- **Islands** Andaman and Nicobar Islands in the Bay of Bengal; Lakshadweep, Amindivi and Minicoy in the Arabian Sea.
- **Ocean** India lies midway between the Far East and Middle East. The trans-Indian Ocean routes connecting the industrially developed countries of Europe in the West and the under developed countries of East Asia pass close by Indian subcontinent.
It is surrounded by Arabian Sea in the South-West and Bay of Bengal in the South-East.

Indian States UTs Situated on the Border

Country	Border
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 (in m)	State/UTs
Mt K2	8611	PoK (India)
Kanchenjunga	8598	Sikkim
Nanda Devi	7817	Uttarakhand
Saltoro Kangri	7742	Jammu and Kashmir
Kangto	7090	Arunachal Pradesh
Reo Purgyl	6816	Himachal Pradesh
Saramati	3841	Nagaland
Sandakphu	3636	West Bengal
Khayang	3114	Manipur
Anaimudi	2695	Kerala
Dodda Betta	2636	Tamil Nadu

Important Facts

<i>Latitudinal extent</i>	8°4' North to 37° 6' North
<i>Longitudinal extent</i>	68°7' East to 97° 25' East
<i>North-South extent</i>	3214 km
<i>East-West extent</i>	2933 km
<i>Land Frontiers</i>	15200 km
<i>Total Coastline</i>	7516.6 km
<i>Number of States</i>	28
<i>Union Territories</i>	8 (After bifurcation of J & K in Jammu and Kashmir and Ladakh and merger of Dadar and Nagar Haveli with Daman and Diu)
<i>Land Neighbours</i>	Pakistan, Afghanistan, China, Nepal, Bhutan, Bangladesh and Myanmar
<i>Longest Coastline</i>	Gujarat
<i>Active volcano</i>	Barren Island in Andaman and Nicobar Islands
<i>Southern most point</i>	Indira Point or Pygmalion point in Great Nicobar
<i>Southern most tip</i>	Kanyakumari
<i>Northern most point</i>	Indira Col
<i>Western most point</i>	West of Ghaur Mota in Gujarat
<i>Eastern most point</i>	Kibithu (Arunachal Pradesh)

Bhangar and Khadar

<i>Bhangar</i>	<i>Khadar</i>
<ul style="list-style-type: none"> These are low plains. Formed of older alluvium 	<ul style="list-style-type: none"> The deposit of fresh alluvium every year brought by the Himalayas rivers makes this belt of Northern plains.
<ul style="list-style-type: none"> This belt ends in Khadar. 	<ul style="list-style-type: none"> This belt ends in Terai.

Terai and Bhabar

<i>Terai</i>	<i>Bhabar</i>
<ul style="list-style-type: none"> Terai is a broad long zone South of Bhabar plain. 	<ul style="list-style-type: none"> Bhabar is a long narrow plain along the foothills.
<ul style="list-style-type: none"> It is a marshy damp area covered with thick forest. 	<ul style="list-style-type: none"> It is a pebble studded zone of porous beds.
<ul style="list-style-type: none"> It is 20-30 km wide. 	<ul style="list-style-type: none"> It is 9-16 km wide.
<ul style="list-style-type: none"> It is suitable for agriculture. 	<ul style="list-style-type: none"> It is unsuitable for agriculture.

South to North Doabs

<i>Doab</i>	<i>Region</i>
Bist Doab	Between Beas and Sutlej
Bari Doab	Between Beas and Ravi
Rechna Doab	Between Ravi and Chenab
Chaj Doab	Between Chenab and Jhelum
Sind Sagar Doab	Between Jhelum and Indus

The Coastal Plains

<i>Eastern Coast</i>	<i>Western Coast</i>
Smooth outline	Dissected outline
Occurrence of deltas	Occurrence of estuaries
Broad	Narrow
Long rivers	Small rivers

Eastern and Western Ghats

<i>Eastern Ghat</i>	<i>Western Ghat</i>
Located East to Deccan Plateau.	Located West to Deccan Plateau.
They are parallel to Eastern Coast, i.e., Coromandal, Northern Circar, etc.	They are parallel to Western Coast, i.e., Konkarn, Kannad, Malabar etc.
Mahanadi, Cauveri, Godavari, Krishna etc rivers are drawn in this land form.	Narmada, Tapi, Sabarmati and Mahi etc rivers are drawn in this land.
Jindhagada with an altitude of 1690 m is the highest peak.	Anaimudi with an altitude of 2695 m is the highest peak.

Important Indian Towns on Rivers

<i>Town</i>	<i>River</i>
Jamshedpur	Subarnarekha
Delhi	Yamuna
Kanpur	Ganga
Surat	Tapti
Ferozpur	Sutlej
Prayagraj	At the confluence of the Ganga and Yamuna
Varanasi	Ganga
Haridwar	Ganga
Badrinath	Alaknanda
Ludhiana	Sutlej
Srinagar	Jhelum
Ayodhya	Saryu
Ahmedabad	Sabarmati
Patna	Ganga
Kota	Chambal
Jabalpur	Narmada
Panji	Mandavi
Ujjain	Kshipra
Guwahati	Brahmaputra
Kolkata	Hooghly
Cuttack	Mahanadi
Hyderabad	Musi
Nasik	Godavari
Lucknow	Gomti

Some of the Important Waterfalls of India

Waterfall	Height (km)	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

Name of Lake	State/UTs	Important Fact
Chilka Lake	Odisha	It is largest brackish water lake of India.
Kolleru Lake	Andhra Pradesh	It is a freshwater lake.
Loktak Lake	Manipur	It is a freshwater lake having inland drainage in Manipur.
Lonar Lake	Maharashtra	It is a meteorite crater lake in Buldhana area of Maharashtra. The water is highly charged with Sodium carbonates and Sodium chloride.
Pangong Lake	Jammu and Kashmir	It is a salty lake.
Pulicat Lake	Tamil Nadu & Andhra Pradesh border	It is a saline and lagoon lake.
Sambhar Lake	Rajasthan	It is a shallow lake which is saline, located near Jaipur.
Tso Moriri Lake	Jammu & Kashmir	It is a salty lake.
Vembanad Lake	Kerala	It is a lagoon lake and largest lake by surface area.
Wular & Dal Lakes	Jammu and Kashmir	Wular lake was created due to tectonic activities and is largest fresh water lake of India.

Important Rivers of India

Name	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
Tungabhadra	Western Ghats	Krishna

Important River Projects and their Beneficiary States

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

Natural Vegetation of India

Name	Climatic Requirement	Feature	Important Species	Found in Area
<i>Tropical Wet Evergreen</i>	Rainfall > 250 cm Temperature 25-27°C Humidity 80% or more	Dense forest, tall trees Height 24-36 m	Mesa, Dhup, White cedar, Jamun, Bamboo, Agar and Hopea	North-East India, Western slopes of Western Ghats, Andaman and Nicobar Islands
<i>Tropical Semi-Evergreen</i>	Rainfall > 200-250 cm, Temperature 24-27°C Humidity 80%	Evergreen mixed with deciduous, Height 24-36 m	Semul, Rosewood, Indian Chestnut, Kusum, Mesua	Lower slopes of Eastern Himalayas, Odisha Coast
<i>Tropical Dry Evergreen</i>	Areas receive rain from North-East Monsoon, Temperature 28°C, Humidity 74%	Presence of canopy, low height, about 9-12 m	Khirni, Jamun, Tamarind, Neem, Cane	Coromandal Coast of Tamil Nadu
<i>Tropical Moist Deciduous</i>	Moderate rainfall of 150-200 cm, Temperature 26-27°C, Humidity 60-80%	Trees shed their leaves in the dry season	Sal, Teak, Sandalwood, Ebony, Mahua, Shisham	Western Ghats, Eastern coastal plains, Eastern Plateau
<i>Tropical Dry Deciduous</i>	Rainfall < 150 cm, Dry season	Undergrowth is shrubby and grassy, trees shed their leaves in the dry season	Sal, Teak, Khair, Palash, Tendu, Laurel	Uttar Pradesh, Tamil Nadu, Western Ghats, Rajasthan and West Bengal
<i>Tropical Thorny</i>	Rainfall 50-70 cm, Temperature 25-27°C, Humidity < 47%	Trees are stunted (6-9 m), trees have long roots, sharp spines and glossy leaves to conserve water	Babul, Acacia, Khair, Khejri	South-Western Punjab, Western Haryana and Uttar Pradesh, Western Madhya Pradesh, Kachchh and Saurashtra, Rajasthan
<i>Tidal/Littoral Mangrove</i>	Rainfall > 200 cm, high water salinity and areas are flooded regularly	Trees are evergreen, breathing roots called pneumatophores	Keora, Amur, Sundari, Agar, Bhenidi, Nipa	Delta regions of Ganga, Mahanadi, Godavari and Krishna

Soils in India

<i>Types</i>	<i>States where Found (Occurrence)</i>	<i>Composition</i>	<i>Crops Grow</i>
<i>Alluvial</i>	Punjab, Haryana, Uttar Pradesh, Bihar and Jharkhand	Rich in potash and lime but deficient in nitrogen and phosphorus.	Large variety of rabi and kharif crops such as wheat, rice, sugarcane, cotton and jute etc.
<i>Black soil (Regur soil)</i>	Deccan Plateau, Valleys of Krishna and Godavari, Andhra Pradesh, Madhya Pradesh and Tamil Nadu.	Rich in iron, lime, aluminium, magnesium, calcium, but lacks in nitrogen, phosphorus and humus.	Cotton sugarcane, jowar, tobacco, wheat and rice.
<i>Red</i>	Eastern parts of Deccan Plateau, Tamil Nadu, Goa, Odisha and Meghalaya.	Rich in iron and potash, but deficient in lime, nitrogen, phosphorus and humus.	Wheat, rice, cotton, sugarcane and pulses.
<i>Laterite</i>	Summits of Eastern and Western Ghats, Assam hills, Andhra Pradesh, Karnataka, West Bengal and Odisha.	Rich in iron but poor in silica, lime, phosphorus, potash and humus.	Tea, coffee, rubber, cashew and millets.
<i>Desert</i>	West and North-West India, Rajasthan, North Gujarat and Southern Punjab.	Rich in soluble salts, but deficient in organic matter.	Generally unsuitable for cultivation, but with irrigation useful for cultivation of drought-resistant lime, millets, barley, cotton, maize and pulses.
<i>Mountain</i>	Hills of Jammu and Kashmir, Uttarakhnad and Assam hills.	Rich in iron and humus, but deficient in lime.	with fertilisers, tea, fruits and medicinal plants can be grown.
<i>Saline (Reh, Kallar, Usar, Thur, Rukar) and Alkaline</i>	Drier parts of Bihar, Jharkhand, Uttar Pradesh, Haryana, Punjab, Rajasthan and Maharashtra.	Many salts such as sodium, magnesium and calcium.	Unfit for agriculture.
<i>Peaty and Marshy</i>	Kerala, coastal regions of Odisha, Tamil Nadu and Sunderbans of West Bengal.	Contain large amount of soluble salts and organic matter, but lack in potash and phosphates.	Useful for rice and jute cultivation.

Forests of India

Forest Type	Distribution	Climatic Conditions	Characteristics	Species
<i>Tropical Evergreen Forests</i>	<ul style="list-style-type: none"> Rainy slopes of Western Ghats. NE India except Arunachal Pradesh. Eastern part of West Bengal and Odisha. Andaman and Nicobar Islands. 	<ul style="list-style-type: none"> Rainfall > 200 cm Relative Humidity > 70% Average temperature is about 24°C. Hot and humid climate. 	<ul style="list-style-type: none"> Height of trees is 40 to 60 m. Leaves are dark green and broad. 	<ul style="list-style-type: none"> Mahogany, Mahua, Bamboo, Cones, Ironwood, Kadam, Iru, Jamun, Hopea, Rubber tree, Toon, Telsur etc.
<i>Tropical Moist Deciduous Forests</i>	<ul style="list-style-type: none"> Eastern parts of Sahyadris (Western Ghats). North Eastern part of Peninsula. Middle and lower Ganga valley. Foothills of Himalayas in Bhabar and Tarai region. These cover about 20% India's forest area. 	<ul style="list-style-type: none"> 100 to 200 cm rainfall per annum. Moderate temperature. 	<ul style="list-style-type: none"> 30 to 40 m high trees. Due to deficiency of water, they shed their leaves in spring (onset of summer). 	<ul style="list-style-type: none"> Sal, Teak, Arjun, Mulberry, Kusum, Sandalwood, Siris, Haldi, Khair, Mango, Banyan tree etc.
<i>Tropical Dry Deciduous Forests</i>	<ul style="list-style-type: none"> Large parts of Maharashtra and Andhra Pradesh. Parts of Punjab, Haryana and Eastern parts of Rajasthan. Northern and Western parts of Madhya Pradesh. Tamil Nadu. Southern parts of Uttar Pradesh. 	<ul style="list-style-type: none"> 50 to 100 cm rainfall. Moderate humidity. 	<ul style="list-style-type: none"> 6 to 15 m high. Roots are thick and long. 	<ul style="list-style-type: none"> Teak, Sal, Bamboo, Mango, Acacia, Neem, Shisham etc.
<i>Dry Forests or Arid Forests</i>	<ul style="list-style-type: none"> Rajasthan and adjoining areas of Haryana, Gujarat and Punjab. Rainshadow area of peninsular India. 	<ul style="list-style-type: none"> Low rainfall (less than 50 cm per annum). Relative humidity is less. 	<ul style="list-style-type: none"> Thorny vegetation. Roots are very long. Leaves are small. 	<ul style="list-style-type: none"> Cactus, Thorny bushes, Kikar, Babool, Date palm, Acacia, Khair, Euphorbias etc.

CLIMATE

Monsoon

A type of wind system, in which there is almost complete reversal of prevailing wind direction.

Types

1. South West Monsoon (*June and July*)
2. North East Monsoon (*Sept. to Dec.*)

Climatic Regions of India

Type	Area	Characteristic
<i>Tropical Rain Forests</i>	Western Ghats, West Coastal Plains, Parts of Assam	High temperature throughout the year, heavy seasonal rainfall, annual rainfall 200 cm annually (May to November)
<i>Tropical Savana Climate</i>	Most of Peninsular region (except leeward side of Western Ghats)	Dry winters, annual rainfall varies from 76 cm to 150 cm.
<i>Tropical Semi-Arid- Steppe Climate</i>	Rainshadow belt running Southward from Central Maharashtra to Tamil Nadu.	Low rainfall varies from 38 cm to 80 cm and temperature from 20° to 30°C.
<i>Tropical and Sub-tropical Steppes</i>	Punjab, Haryana and Kachchh region	Temperature varies from 12°-35°C.
<i>Tropical Desert</i>	Western parts of Barmer, Jaisalmer and Bikaner districts of Rajasthan and parts of Kachchh	Scanty rainfall (mostly in form of cloud burst), high temperature.
<i>Humid Sub-tropical Climate with dry winters</i>	South of Himalayas	Mild winters and extremely hot summers.
<i>Mountain Climate</i>	Mountainous region (above 6000 m or more)	Rainfall varies from 63.5 cm to 254 cm. (Mostly during South-West Monsoon)

AGRICULTURE

India is essentially an agricultural land. Two-thirds of its population still lives on agriculture. It includes farming, animal rearing and fishing.

Agricultural Seasons in India

There are three major crop seasons in India

Kharif

Sown in June/July, harvested in September/October, e.g., rice, jowar, bajra, ragi, maize, cotton and jute.

Rabi

Sown in October/December, harvested in April/May e.g., wheat, barley, peas, rapeseed, mustard, sesame.

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

Zaid

Sown in February/March harvested in May/June, e.g., urad, moong, melons etc.

Green Revolution

It is the phrase generally used to describe the spectacular increase that took place during 1968 and is continuing in the production of foodgrains in India.

The components of Green Revolution are

High Yield Variety Seeds, Irrigation, Use of Fertilisers, Use of Insecticide and Pesticide, Command Area Development, Programme Consolidation of Holdings etc.

Chief Crops and Producing States

Type	Name	Major Producers
Cereals	Wheat	Uttar Pradesh, Punjab and Madhya Pradesh
	Rice	West Bengal and Uttar Pradesh
	Gram	Madhya Pradesh, Maharashtra and Rajasthan
	Barley	Maharashtra, Uttar Pradesh and Rajasthan
	Bajra	Rajasthan, Maharashtra and Gujarat
Cash Crops	Sugarcane	Uttar Pradesh and Maharashtra
	Poppy	Uttar Pradesh and Himachal Pradesh
Oil Seeds	Coconut	Kerala and Tamil Nadu
	Linseed	Rajasthan, Madhya Pradesh and Haryana
	Groundnut	Gujarat, Andhra Pradesh and Tamil Nadu
	Rape seed and mustard	Rajasthan, Madhya Pradesh and Haryana
	Sesame	Gujarat, West Bengal and Karnataka
Fibre Crops	Sunflower	Karnataka, Andhra Pradesh and Maharashtra
	Cotton	Maharashtra and Gujarat
	Jute	West Bengal and Bihar
	Silk	Karnataka and Kerala
	Hemp	Madhya Pradesh and Uttar Pradesh
Plantations	Coffee	Karnataka and Kerala
	Rubber	Kerala and Karnataka
	Tea	Assam and Kerala
	Tobacco	Gujarat, Maharashtra and Madhya Pradesh
Spices	Pepper	Kerala, Karnataka and Tamil Nadu
	Cashewnuts	Kerala, Tamil Nadu and Andhra Pradesh
	Ginger	Kerala and Uttar Pradesh
	Turmeric	Andhra Pradesh and 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 (Chhotanagpur Plateau) are the richest mineral deposits in India.

Mineral Resources of India

Mineral	States
Coal	West Bengal, Jharkhand, Odisha, Madhya Pradesh and Chhattisgarh
Copper	Madhya Pradesh, Rajasthan, Jharkhand, Karnataka
Gold	Karnataka, Andhra Pradesh
Iron	Karnataka, Chhattisgarh and Jharkhand
Bauxite	Odisha, Jharkhand, Gujarat and Madhya Pradesh
Mica	Jharkhand, Andhra Pradesh and Rajasthan
Petroleum	Assam, Gujarat, Mumbai High, Bassein (South of Mumbai High)
Uranium	Jharkhand, Rajasthan, Andhra Pradesh and Karnataka
Thorium	Kerala Coast, Rocks of Aravalli in Rajasthan
Silver, Zinc and Lead	Rajasthan, Andhra Pradesh, Karnataka (Kolar mines)
Diamond	Panna (Madhya Pradesh), Banda (Uttar Pradesh)

TRANSPORTATION IN INDIA

Railways

- Indian Railway system is the second largest in Asia and the fourth largest in the world.
- The longest railway platform in India is now **Gorakhpur** with a stretch of around **1.3 km**.

Railway 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	Bhubaneswar
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

- **The first train** ran in India between Bombay and Thane, a stretch of 34 km on 16th April, 1853.
- **The second train** ran between Howrah and Hooghly in 1854.
- The first electric train in India was **Deccan Queen**. It was introduced in 1929 between Bombay and Poona.
- **The longest train** route is 'Vivek Express' from Dibrugarh in Assam to Kanyakumari in Tamil Nadu. It covers a distance of 4273 km (2655 miles).
- The first Metro train was introduced in Kolkata (West Bengal) on **24th October, 1984**. The two stations connected were Dumdum and Belgachhia.
- In 1990, Konkan Railway has been started between Goa, Maharashtra and Karnataka.
- Delhi metro rail was started in 2002 on 25th December between Shahdra and Tees Hazari.
- Rapid metro train has been started in Gurgaon (Haryana) on 14th November 2013.

- The newest metro opened is Nagpur Metro on March 8, 2019.
- Vande Bharat Express also known as Train 18, is an Indian semi-high speed electric (India's fastest train) train made by Integral Coach Factory, Chennai, under make in India Programme.
- Delhi-Meerut Regional Rapid Transit System (RRTS) is an 82.15 km long, under-construction, semi-high speed rail corridor connecting Delhi, Ghaziabad and Meerut.
- The Lucknow-New Delhi Tejas Express is the first Indian train operated by private operators, IRCTC, a subsidiary of Indian Railway.
- As of January, 2021 there are 13 operational rapid transit (Metro rail) in India. Delhi Metro is the largest and busiest metro in India.
- The Indian Railways operate in three different gauges i.e. Broad Gauge (distance between rails is 1.676 m), Metre Gauge (distance between rail is 1.00 mm) and Narrow Gauge (distance between rails is 0.762 or 0.610 m).

Road Transport

- India has one of the largest road networks in the world (48 lakh km approx). It consists of National highways, State highways; major/other district roads and rural roads.
- **NH 44** (3745 km) is the longest highway of India (Srinagar to Kanyakumari).
- **NH 548** is the shortest National Highways with the length of 5 km.
- The **North-South** and **East-West Corridor** (NS-EW) is the largest ongoing expressway project in India. It is the **second phase** of the National Highways Development Project (NHDP) and involves building **7300 km** of six lane expressway connecting Srinagar, Kanyakumari, Porbandar and Silchar.
- **Maharashtra** has the maximum length of surfaced roads in India.
- Eastern Peripheral Expressway or Kundli-Ghaziabad-Palwal Expressway is a 6-lane expressway passing through the states of Haryana and Uttar Pradesh.
- India's longest greenfield 6 lane expressway, named as Agra-Lucknow expressway has been inaugurated in Uttar Pradesh.

Bharat Mala

It is a major highway, economic corridor and expressway development scheme of Government in India, launched in 2015, it is the biggest road Construction Plan in the country (approximately 83,677 km). Government of India has decided to construct a greenfield major port at Vadhaven in Gujarat under Sugarmala Project.

Mangalore (<i>exports Kudremukh iron-ore</i>) Karnataka	Tuticorin (<i>Southernmost</i>) Tamil Nadu
Cochin (<i>natural harbour</i>) Kerala	Port Blair (<i>strategically important</i>) Andaman and Nicobar Islands
	Enayam Port (Tamil Nadu)

Note Kandla port was renamed as Pt. Deen Dayal Upadhyay port in 2017.

Important National Highways
(New numbering)

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

As per the National Waterways Act, 2016, 111 Waterways have been declared as National Waterways including the five existing NWs given below:

NW1	Allahabad to Haldia on Ganga river	1620 km
NW2	Sadia to Dhubri on Brahmaputra river	891 km
NW3	Kollam to Kottapuram (along 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

13 Major Ports in India

Western Coast	Eastern Coast
Kandla (<i>child of partition</i>) Gujarat	Paradip (<i>exports raw iron to Japan</i>) Odisha
Mumbai (<i>busiest and biggest</i>) Maharashtra	Vishakhapatnam (<i>deepest port</i>) Andhra Pradesh
JL Nehru (<i>fastest growing</i>) Maharashtra	Chennai (<i>oldest and artificial</i>) Tamil Nadu
Marmugao (<i>naval base also</i>) Goa	Ennore (<i>most modern in private hands</i>) Tamil Nadu

Air Transport

- In 1935, the 'Tata Air Lines' started its operation between Mumbai and Thiruvananthapuram and in 1937 between Mumbai and Delhi.
- In 1953, all the private airline companies were nationalised and Indian Airlines and Air India came into existence.
- Vayudoot Limited started in 1981 as a private air carrier and later on it merged with Indian Airlines.
- International Airports Authority of India and National Airports Authority were merged on 1995 to form Airports Authority of India.
- The Authority manages the Civil Aviation Training College at Allahabad and National Institute of Aviation Management and Research at Delhi.

Major international airports in India

International Airports	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
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 green field 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 system.

Ecology Biological science that studies the relationships between living organisms and their environment; study of the structure and functions of nature.

Ecosystem It is defined as a unit which include all the organisms (biological components) in a given area interacting with the environment (physical component), so that the flow energy leads to a clearly defined trophic structure, biotic diversity and material cycles.

Biome Terrestrial regions characterised by certain types of vegetation and other forms of life. Examples include various types of deserts, grasslands and forests.

Wetland Land that is covered all part of the time with saltwater or freshwater, excluding streams, lakes and the open ocean.

Biodiversity Variety of different species (species diversity), genetic variability among individuals within each species (genetic diversity), variety of ecosystems (ecological diversity) and functions such as energy flow and matter cycling needed for the survival of species and biological communities (functional diversity).

Biosphere Zone of the Earth where life is found. It consists of parts of the atmosphere (the troposphere), hydrosphere (mostly surface water and groundwater) and lithosphere (mostly soil and surface rocks and sediments on the bottoms of oceans and other bodies of water) where life is found.

Wildlife All free, undomesticated species. Sometimes the term is used to describe animals only.

Threatened Species Wild species that is still abundant in its natural range but is likely to become endangered because of a decline in numbers.

Ozone (O_3) Colourless and highly reactive gas and a major component of photochemical smog. Also found in the ozone layer in the stratosphere and protect us from ultra violet rays.

Smog Originally, a combination of smoke and fog but now used to describe other mixtures of pollutants in the atmosphere.

Acid Rain When fossil fuel is burnt, oxides are formed in the atmosphere. The oxides formed of sulphur and nitrogen get dissolve in water and cause acid rain.

Global Warming Warming of the Earth's lower atmosphere (troposphere) because of increases in the concentrations of one or more greenhouse gases. It can result in irreversible climate change that can last for decades to thousands of years.

Ecomarks The Ministry of Environment Forest and Climate change, Government of India instituted a scheme, that is operating on a national basis and provides accreditation and labelling for household and other consumer products which meet certain environmental criteria.

Coral Bleaching Coral bleaching occurs when the relations between the coral host and zooxanthallae, which give coral much of their colour, breaks down. Without the zooxanthallae, the tissue of the coral animal appears transparent and the coral's bright white skeleton is revealed.

Sustainability Ability of Earth's various systems, including human cultural systems and economies, to survive and adapt to changing environmental conditions indefinitely.

Important Sanctuaries and National Parks

<i>Name</i>	<i>Location</i>	<i>Reserve For</i>
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 Muntgac)
Achanakmar Sanctuary	Chhattisgarh	Tiger, boar, cheetal, sambhar and bison
Velvadore National Park	Gujarat	Wolf and black buck
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
Banerghatta National Park	Karnataka	Elephant, cheetal, deer and grey partridge and green pigeon
Bhadra Sanctuary	Karnataka	Elephant, cheetal, panther, sambhar and wild boar
Bandipur National Park Dandeli Sanctuary	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 reshus maccaque
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, black buck, cheetal and sambar
Khangchendzonga National Park	Sikkim	Snow leopard, musk deer and Himalayan boar
Vedanthangal Bird Sanctuary	Tamil Nadu	Important bird sanctuary
Chandraprabha Sanctuary	Uttar Pradesh	Gir lions, cheetal and sambhar
Dudhwa National Park	Uttar Pradesh	Tiger, panther, sambar, cheetal, nilgai and barking deer
Corbett National Park	Uttarakhand	Tiger, leopard, elephant and sambhar (named in memory of Jim Corbett)
Jaldapara Sanctuary	West Bengal	Rhinoceros, Elephant
Sunderban Tiger Reserve	West Bengal	Tiger, deer, wild boar, crocodile and Gangetic dolphin

Biosphere Reserves of India

Name	States	Type	Area (km ²)
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

Environment Related Important International Agreement/Conference

UN Conference on the Human Environment	Stockholm (1972)
Convention on Migratory Species	Bonn (1979)
Convention for the Protection of the Ozone Layer	Vienna (1985)
Pototocol 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, Morocco (2016)
Bonn Conference (CoP-23)	Bonn (2017)
Katowice Conference (CoP-24)	Katowice, Poland (2018)
Madrid Conference (CoP-25)	Madrid, Spain (2019)
CoP-26	Scheduled in Glasgow (2021)

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
Project Dolphin	2020
Project Asiatic Lion	2020

Endangered Species of India

Birds	Great Indian Bustard, Forest Owlet, Vulture, Bengal Florican, Himalayan Quail, Siberian Crane
Mammals	Flying Squirrel, Red Panda, Pygmy Hog, Kondana Rat, Snow Leopard, Asiatic Lion, One-Horned Rhinoceros
Reptiles	Gharial, Hawksbill Turtle, River Terrapin, Sispara Day Gecko
Amphibians	Flying Frog, Tiger Toad



INDIAN POLITY

CONSTITUTION

Framing of the Indian Constitution

- The idea to have a Constitution was first given by **MN Roy** (A pioneer of Communist Movement in India).
- The Constitution was framed by the **Constituent Assembly** of India, set-up on 16th May 1946, in accordance with the Cabinet Mission Plan, under the Chairmanship of Sachchidanand Sinha, initially. **Dr Rajendra Prasad** and HC Mukherjee were elected as the President and Vice-President respectively on 11th December 1946. BN Rau was appointed as the Constitutional Advisor.
- The total membership of the Constituent Assembly was 389, of these 292 were representatives of British States; 93 were representatives of Princely States and 4 were from the Chief Commissioners Provinces of Delhi, Ajmer-Merwara, Coorg and British Baluchistan.
- The Chairman of the Drafting Committee was **Dr BR Ambedkar**, also known as the Father of the Indian Constitution.

Enactment of the Constitution

- The Constituent Assembly took **2 years, 11 months and 18 days** to complete the Constitution.
- Some of the provisions related to citizenship, elections, provisional Parliament etc were given immediate effect.
- The Constitution, is adopted on 26th November, 1949, contained a Preamble, **395** Articles divided into 22 Parts and **8** Schedules. Presently, it has 448 Articles divided into 25 Parts and **12** Schedules.

- The enforcement of Constitution was delayed till 26th January because, in 1929, on this day Indian National Congress demanded **Poorna Swaraj** in Lahore Session, Chaired by JL Nehru.
- The Constitution came into force on 26th January, 1950, known as Republic Day of India. The Constituent Assembly adopted our National Flag on 22nd July, 1947. It was designed by **Pingali Venkayya**.

Interim Government (1946)

Members	Portfolios Held
Jawaharlal Nehru	External Affairs & Commonwealth Relations
Sardar Vallabhbhai Patel	Home, Information & Broadcasting
Dr Rajendra Prasad	Food & Agriculture
Dr John Mathai	Industries & Supplies
Jagjivan Ram	Labour
Sardar Baldev Singh	Defence
CH Bhabha	Works, Mines & Power
Liaquat Ali Khan	Finance
Abdur Rab Nishtar	Posts & Air
Asaf Ali	Railways & Transport
C Rajagopalachari	Education & Arts
Il Chundrigar	Commerce
Ghaznafar Ali Khan	Health
Joginder Nath Mandal	Law

Note *Interim government was formed from the newly elected Constituent Assembly.*

Preamble

- It is the preface or the introduction of the Constitution. It is an integral part of the Constitution. The interpretation of the Constitution is based on the spirit of the Preamble.
- The **Objective Resolution**, drafted and moved by Pandit Jawaharlal Nehru and adopted by the Constituent Assembly, ultimately became the Preamble.

- The idea of the Preamble was borrowed from the Constitution of USA.
- The words, **Socialist**, **Secular** and **Integrity** were added by the 42nd Constitutional Amendment Act in 1976.

The Preamble

“WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN, SOCIALIST, SECULAR, DEMOCRATIC REPUBLIC and to secure to all its citizens:

JUSTICE, Social, Economic and Political

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity; and to promote among them all

FRATERNITY assuring the dignity of the individual and the unity and integrity of the Nation; IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949 do HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.

Sources of the Indian Constitution

UK	<ul style="list-style-type: none"> ▪ Rule of Law ▪ Cabinet System ▪ Prerogative Writs ▪ Parliamentary Government ▪ Bicameral Parliament ▪ CAG Office ▪ Single Citizenship ▪ Law making procedures
USA	<ul style="list-style-type: none"> ▪ Written Constitution ▪ Vice-President as the Ex-officio Chairman of Upper House ▪ Fundamental Rights ▪ Supreme Court ▪ Independence of Judiciary and Judicial Review ▪ Preamble
Erstwhile USSR	<ul style="list-style-type: none"> ▪ Fundamental Duties
Australia	<ul style="list-style-type: none"> ▪ Concurrent List ▪ Joint sitting of Parliament
Japan	<ul style="list-style-type: none"> ▪ Procedure established by law
Germany	<ul style="list-style-type: none"> ▪ Suspension of Fundamental Rights during the Emergency
Canada	<ul style="list-style-type: none"> ▪ Scheme of federation with a strong Centre ▪ Distribution of powers between the Centre and the States and placing Residuary Powers with the Centre

Ireland	<ul style="list-style-type: none"> ▪ Concept of Directive Principles of State Policy. ▪ Method of election of the President
South Africa	<ul style="list-style-type: none"> ▪ Procedure for amendment of the constitution and election of member of Rajya Sabha
France	<ul style="list-style-type: none"> ▪ Republic and the ideals of Liberty equality and fraternity in the Preamble.

Main Features

- Bulkiest written Constitution in the World.
- Combination of Rigidity and Flexibility
- Parliamentary System of Government
- Federal System with a Unitary bias
- Fundamental Rights and Duties
- Directive Principles of State Policy
- Integrated and Independent Judiciary
- Single Citizenship
- Emergency Powers
- Universal Adult Franchise

Important Articles

Part I

Union and its Territories (Article 1-4)

1. The Constitution says, “India, that is Bharat, shall be a Union of States”.
2. Admission or establishment of new States.
3. The Constitution empowers the Parliament to form new States and to alter the areas, boundaries or names of existing States.

Note Through J & K Reorganisation Act of 2019, the state of Jammu and Kashmir was divided into two Union Territories i.e. Union Territory of Ladakh and the Union Territory of Jammu and Kashmir.

Part II

Citizenship (Article 5-11)

The Citizenship Act of 1955 prescribes five ways to acquire citizenship of India

1. By birth
2. By descent
3. By registration
4. By naturalisation
5. By incorporation

Three modes of losing citizenship

1. Renunciation
2. Termination
3. Deprivation

Through Citizenship (Amendment) Act 2019 members of Hindu, Sikh, Buddhist, Jain, Parsi and Christian religions minorities from Afghanistan, Bangladesh and Pakistan who entered India before 31st December, 2014 will be given Indian citizenship.

Part III

Fundamental Rights

(Article 12-35)

Rights to Equality (Article 14-18)

- Equality before Law (Article 14).
- Prohibition of discrimination on grounds of religion, race, caste, sex or place of birth.(Article 15)
- Equality of opportunity in matters of public employment. (Article 16)
- Abolition of untouchability (Article 17).
- Abolition of titles. (Article 18)

Rights to Freedom (Article 19-22)

- Protection of certain rights regarding; Speech and expression, assembly, association, movement, residence, and profession (Article 19)
- Protection in respect of conviction for offences. (Article 20)
- Protection of life and personal liberty (Article 21).
- Protection against arrest and detention in certain cases (Article 22).

Right to Education

Article 21A states that the state shall provide free and compulsory education to all children of the age of 6-14 years.

Rights against Exploitation

(Article 23-24)

- Prohibition of human trafficking and forced labour (Article 23).
- Prohibition of employment of children in any factories, etc (Article 24).

Rights to Freedom of Religion

(Article 25-28)

- Freedom of conscience and right to profess, practice and propagate one's religious beliefs. (Article 25)

- Freedom to manage religious affairs (Article 26).
- Freedom from taxation for promotion of any particular religion (Article 27).
- Freedom from attendance of religious instructions or religious worship in certain educational institutions (Article 28).

Cultural and Educational Rights

- Protection of interest of minorities (Article 29).
- Right of minorities to establish and administer educational institutions (Article 30).

Freedom of Press is implicit in the Article 19. Article 20 and 21 cannot be suspended even during *National Emergency*. (Article 352)

Right to Property under Article 19 (1) (f) was repealed by the 44th Amendment Act, 1978, and was made a legal right under Article 300A.

Rights to Constitutional Remedies

- Right to move to the Supreme Court (Article 32) and the High Courts (Article 226) in case of violation of the Fundamental Rights BR Ambedkar called Article 32 as the **Heart and Soul of the Constitution**.
- 5 Writs of habeas corpus, mandamus, prohibition, certiorari and quo-warranto can be issued under this.

Types of Writs

Writ	Meaning	Intended Purpose
Habeas Corpus	You may have the body	To release a person who has been detained unlawfully whether in prison or in private custody.
Mandamus	We Command	To secure the performance of public duties by lower court, tribunal or public authority.
Certiorari	To be certified	To quash the order already passed by an inferior court, tribunal or quasi judicial authority.
Prohibition	The act of stopping something	To prohibit an inferior court from continuing the proceedings in a particular case where it has no jurisdiction to try.
Quo Warranto	What is your authority	To restrain a person from holding a public office to which he is not entitled.

Part IV

Directive Principles of State Policy (Article 36-51)

Directive principles are broad guiding principles that state shall keep in mind while formulating policies and enacting laws. *These are non-justiciable in nature*

Articles 36-37 Definition and application of the principles contained in this part.

Article 38 To secure and protect a social order, which stands for the welfare of the people.

Article 39 Certain principles of policy to be followed by the State.

Article 40 To organise village Panchayats as units of self- government.

Article 41 Right to work, to education and to public assistance in certain cases.

Article 42 To secure just and humane conditions of work and maternity relief.

Article 43 Living wage etc for workers, to promote cottage industries.

Article 44 Uniform Civil Code for the citizens.

Article 45 Provision of early childhood care and education to children below the age of 6 years.

Article 46 To promote the educational and economic interests of the weaker sections of the people, especially the Scheduled Castes and Scheduled Tribes.

Article 47 Improvement of public health and the prohibition of intoxicating drinks and drugs.

Article 48 Organisation of agriculture and animal husbandry on modern lines.

Article 49 To protect all monuments of historic interest and national importance.

Article 50 To bring about the separation of the judiciary from the executive.

Article 51 Promotion of international peace and security.

Part IV (A)

Fundamental Duties (Article 51A)

It was inserted by the **42nd Amendment Act** in 1976 on the recommendations of Swaran Singh Committee it was inspired by the Constitution of erstwhile USSR.

It shall be the duty of every citizen of India

(a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem.

(b) to cherish and follow the noble ideals which inspired our national struggle for freedom.

(c) to uphold and protect the sovereignty, unity and integrity of India.

(d) to defend the country and render national service, when called upon to do so.

(e) to promote harmony and the spirit of common brotherhood amongst all the people of India, transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women.

(f) to value and preserve the rich heritage of our composite culture.

(g) to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures.

(h) to develop scientific temper, humanism and the spirit of enquiry and reform.

(i) to safeguard public property and to abjure violence.

(j) to strive towards excellence in all spheres of individual and collective activity, so that the nation constantly rises to higher levels of endeavour and achievement.

The **86th Amendment Act, 2002** inserted Article 51A (K), "each parent or guardian to provide opportunities for education to his child or ward between the age of 6 and 14 years."

Part V

Union (Article 52-151)

THE PRESIDENT

- Executive Head of the State and the first citizen of India.
- The 42nd Amendment of the Constitution has made it obligatory on

the part of the President to accept the advice of the Council of Ministers. However, 44th Amendment Act amended the word 'obligatory' and added that 'President can send the advice for reconsideration'.

Qualifications Must be a citizen of India; of 35 years in age; eligible to be a member of the Lok Sabha and must not hold any office of profit.

Election Indirectly elected through Electoral College consisting of elected members of both the Houses of the Parliament and elected members of the Legislative Assemblies of the States and elected members of the Legislative Assemblies of Union Territories of Delhi and Puducherry.

- Members of the Legislative Councils have no right to vote in the Presidential election.
- Supreme Court decides all disputes regarding President's election.

Tenure The term is 5 years though there is no upper limit on the number of times a person can become the President (Article 57). He can give resignation to the Vice-President before the full-term.

- The salary of the President is ₹ 5,00,000 per month.
- In case, the office of the President falls vacant due to death, resignation or removal, the Vice-President acts as the President.
- If he is not available then Chief Justice of India, if not then the senior most Judge of the Supreme Court shall act as the President of India.
- The first President who died in the office, was Dr Zakir Hussain. Fakhruddin Ali Ahmed was the second president to die in office.
- Justice M Hidayatullah was the first Chief Justice of India to be appointed as the President (July 1969-August 1969).

Impeachment Procedure

- It is a quasi-judicial procedure. President can be impeached only on the grounds of violation of the Constitution. (Article 61)
- The impeachment procedure can be initiated in either House of the Parliament.

Powers of President

- He is the formal head of the administration.
 - The President shall have the power to appoint and remove high authorities like the Prime Minister, other Ministers of the Union, Judges, Governors of States and appoints Chiefs of Army, Navy and Air Force.
 - He nominates 12 members of the Rajya Sabha from persons of literature, art, science and social work and 2 members in the Lok Sabha of the Anglo-Indian Community.
- Note** Parliament has passed (126th) Amendment Bill in December 2019, doing away with the provision of Anglo-Indians to Lok Sabha and Some State Assemblies.
- Declares wars and concludes peace subject to the approval of the Parliament.
 - President has the **Veto** power.
 - **Under Article 72**, the President has the power to grant pardons, reprieves, respites or remission of punishment or to suspend, remit or commute the sentence of any person convicted with death sentence.
 - **Under Article 123**, President can promulgate Ordinances, when the Parliament is not in session.

Types of Vetoes

Absolute Veto Withholding the assent to the Bill.

Qualified Veto Can be overridden by the Legislature with a higher majority.

Suspensive Veto Can be overridden by the Legislature with an ordinary majority.

Pocket Veto Delay in giving assent to the Bill. *The Veto Power has been exercised only twice (a) by Dr Rajendra Prasad and (b) by R.Venkata raman. President of India is vested with three vetos absolute veto, suspensive veto and pocket veto. There is no qualified veto in the case of Indian President.*

Emergency Powers

- To declare National Emergency. (Article 352)
- To impose President Rule in a State. (Article 356)
- To declare Financial Emergency. (Article 360)

VICE-PRESIDENT

- **Article 63** of the Constitution stipulates a Vice-President for India.
- He is elected by both the Houses of Parliament.
- The Vice-President is the Ex-officio **Chairman** of the Council of States (Rajya Sabha) as mentioned in the **Article 64**.
- Present salary of the Vice-President is ₹ 4,00,000 per month.
- The first Vice-President of India was Dr S Radhakrishnan.
- The first and only Vice-President who died in the office, was Shri Krishna Kant (1997-2002).

COUNCIL OF MINISTERS

- Article 74 of the Constitution states that there shall be a Council of Ministers, with the **Prime Minister** at its head, to aid and advise the President.
- It is composed of all Union Ministers—the Prime Minister, Cabinet Ministers, Ministers of State and Deputy Ministers.
- The other Ministers shall be **appointed by the President** on the advice of the Prime Minister under Article 75(1).
- A Minister must be a member of either House of Parliament or be elected within 6 months of assuming office under Article 75(5).
- The Council of Ministers is **collectively responsible** to the Lok Sabha, It means the Lok Sabha can remove the Council of Ministers from office by passing a No-confidence Motion. [Article 75 (3)].
- Ministers are also responsible for their departments and can be removed from the office by the President on the advice of the Prime Minister. This is essentially an individual responsibility under Article 75 (2).

PRIME MINISTER

- The Prime Minister is the head of the Government and the head of the Council of Ministers.
- The Prime Minister is appointed by the President on the basis of his being the leader of the majority party in the Lok Sabha.

- If no party gets an **absolute majority** in the Lok Sabha or a Prime Minister resigns or dies, the President can use his own discretion in the choice of the Prime Minister.
- Article 78 stipulates that it is the duty of the Prime Minister (a) to communicate to the President all the decisions taken by the Cabinet and (b) to furnish such information relating to the administration of the Union or any Legislation as the President may call for. The Prime Minister serves in the office for five years though he can be re-appointed.
- When the Lok Sabha is dissolved, He can continue in office upon the request of the President until new government is formed.
- If the Government is defeated in the Lok Sabha, the Prime Minister and the entire cabinet must resign, however, if defeated in the Rajya Sabha, resignation is not obligatory.

Tit-Bits

- **Jawaharlal Nehru** was the first Prime Minister and the longest serving Prime Minister so far.
- The first and the 'only' acting Prime Minister was **Gulzarilal Nanda**.
- **Lal Bahadur Shastri** was the first PM who died abroad, while in office at Takshent. Gulzarilal Nanda has acted twice as the acting Prime Minister.
- **Chaudhary Charan Singh** was the only PM who did not face Parliament, while being in office.
- The youngest Prime Minister was **Rajeev Gandhi** and the oldest Prime Minister was **Morarji Desai**.
- **AB Vajpayee** (May 1996–June 1996) government had the shortest tenure (13 days).

UNION LEGISLATURE

- Legislature of the Union is called the Parliament and consists of the Rajya Sabha (Council of States), the Lok Sabha (House of the People) and the President (Article 79).

- The business of Parliament is transacted either in Hindi or in English. However, the Presiding Officers of the two Houses may permit any member to address the House in his/her mother tongue too.

Rajya Sabha (Council of States)

- Rajya Sabha is the Upper House of the Parliament. First sitting of the Rajya Sabha was held on 3rd April, 1952.
- The maximum permissible strength of the Rajya Sabha is 250. Of these, 238 members are elected indirectly from the States and Union Territories, and 12 are nominated by the President for their expertise in art, literature, science, sports and social services (Article 80).
- Currently, the strength of the Rajya Sabha is 245. Of these, 229 members are elected from States and 4 members represent Union Territories while 12 members are nominated by the President.
- The Rajya Sabha is a **Permanent House** and is not subject to dissolution and members enjoy a tenure of six years. However, one-third of the members retire every second years (Article 83).
- It shares legislative powers with the Lok Sabha, except in the case of Money Bill where the Lok Sabha has overriding powers.

Lok Sabha (People's House)

- The Lok Sabha is the Lower House of the Parliament and its first sitting took place on 13th May, 1952. The current Lok Sabha is the 17th constituted Lok Sabha.
- Three Sessions of the Lok Sabha are held every year, namely Budget Session (February to May); Monsoon Session (July to September); and Winter Session (November to December).

Members 530 from States, 20 from Union Territories and 2 nominated by the President, from the Anglo Indian Community (now abolished).

Election The representatives of the states are directly elected by the people of the states on the basis of adult suffrage.

Qualifications Article 84 provides for the eligibility for membership of the Parliament. *The conditions are*

- (a) citizen of India;
- (b) Not less than 25 years of age for the Lok Sabha and 30 years of age for the Rajya Sabha; and
- (c) possess such other qualifications as may be prescribed by the Parliament.

Bills It may be classified as Ordinary, Money, Financial and Constitutional Amendments.

- **The Ordinary Bills** can be introduced in either House of the Parliament, but **Money Bill** can be initiated only in the House of the People i.e. Lok Sabha.
- After a Money Bill has been passed by the Lok Sabha, it is sent to the Rajya Sabha for deliberations. The Rajya Sabha is given 14 days to make recommendations, which can be accepted or not by the Lok Sabha.
- Article 111 stipulates that a Money Bill cannot be returned to the House by the President for reconsideration.

Speaker of the Lok Sabha

- As soon as a new Lok Sabha is constituted, the President appoints a Speaker pro-tem, who is generally the senior most member of the House. (It is a temporary office that ceases to exist after new speaker is elected by the house.)
- **Speaker** is the head of Lok Sabha. He/She is elected from amongst the members of Lok Sabha. The Speaker of the Lok Sabha conducts the business in the House. A Deputy Speaker is also elected to officiate in the absence of the Speaker.

Facts about Speaker

- **GV Mavlankar** was the first Speaker of the Lok Sabha (1952-1956).
- **MA Ayyangar** was the first Deputy Speaker (1952-1956).
- **Dr Balram Jakhhar** was the longest serving Speaker (1980-1989).
- **GMC Balyogi** is the first Speaker to die in the office (1998-2002).
- **Meira Kumar** is the first woman speaker of the Lok Sabha (2009-2013).

SUPREME COURT

The Supreme Court of India was inaugurated on 28 January, 1950. Presently, Supreme Court is functioning at full strength (sanctioned strength 34). A small Bench, with two to three Justices, is called a Division Bench. A large Bench, with five or more Justices, is called a Constitutional Bench.

Tenure and Qualification

- Judges of the Supreme Court are appointed by the President and retire at the age of 65.
- The **qualifications** are (a) must be a citizen of India; (b) a Judge of a High Court for at least 5 years; or (c) an advocate of a High Court for at least 10 years; or he should be a distinguished jurist in the opinion of the President.
- The Constitution has not prescribed a minimum age for appointment as a judge of the Supreme Court.

Independence of Judges (Article 125) The salaries and allowances of Judges are charged upon the Consolidated Fund of India (Present salary of the CJI is ₹ 2.8 Lakh and of other Judges is ₹ 2.5 Lakh).

Removal of Judges Judges can be removed only on the grounds of proved **misbehaviour** or **incapacity**.

Judges can be removed only by a resolution of both Houses of Parliament supported by a majority of total membership of both the Houses and 2/3 of members present and voting. The first Judge against whom the proceedings were initiated was **V Ramaswami** (1993) and the second one was **Soumitra Sen** (2011).

Jurisdiction

The Supreme Court has original, appellate, advisory and writ jurisdictions.

- Original Jurisdiction means that certain types of cases can originate with the Supreme Court only. The Supreme Court has original jurisdiction in (a) disputes between the centre and one or more States; (b) disputes between the Centre and any State(s) on one side and one or more States on the other side;

(c) disputes between two or more States; and (Article 131).

- Appellate Jurisdiction means that appeals against judgements of lower courts can be referred to it. The Supreme Court is the highest court of appeal in the country. Four types of cases fall within its appellate jurisdiction, namely, constitutional cases, civil cases, criminal cases and appeals by special leave.

- The first Chief Justice of India was **HJ Kania** (1950–51).
- The shortest tenure so far is of **KN Singh** (25th November, 1991—12th December, 1991).
- The longest tenure, so far is of **YV Chandrachud** (1978–85).
- The first woman Judge of the Supreme Court was Justice **Fatima Beevi** in 1987 and the second woman Justice was **Gyan Sudha Mishra** in 2010.

- Advisory Jurisdiction refers to the process where the President seeks the court's advice on legal matters (Article 143). The Supreme Court is a court of record (Article 129).
- Under Article 139 (A) (inserted by the 44th Amendment), the Supreme Court may transfer to itself, cases from one or more High Court if these questions involve a significant question of law.

Comptroller and Auditor General (CAG) (Article 148-151)

- The Comptroller and Auditor General is appointed by the President under **Article 148** of the Constitution.
- The CAG audits all receipts and expenditures of the Union and State Governments.
- The CAG also acts as the external auditor for the government-owned companies.
- The CAG submits its reports to the President (in case of accounts relating to the Union Government) or to the concerned State Governors (for State Government Accounts).
- The CAG is also the head of the Indian Audits and Accounts Service (IA & AS). The office of the CAG was established in 1860.

- The first CAG of India was **V Narahari Rao** (1948-1954).
- The CAG can only be removed from office in manner similar to a Judge of the Supreme Court.
- The salary and benefits of the CAG cannot be changed to his disadvantage during his tenure.
- The CAG is not eligible for further office under the Union or State Governments. The expenses of the office of the CAG is charged upon the Consolidated Fund of India.
- **Article 171** states that the States where Legislative Councils exists, the Governor can **nominate some members** from amongst those distinguished in literature, science, art, cooperative movement and social service.
- **Article 213** empowers the Governor to issue the **ordinances** during the recess of the State Legislature.

Qualifications

- Must be a citizen of India.
- Completed 35 years of age.
- Shouldn't be a member of either House of Parliament or State Legislature.
- Must not hold any office of profit.

Attorney General of India

- The Attorney General is the **highest law officer** in the country appointed by the President under **Article 76** of the Constitution.
- The first Attorney General of Independent India was **MC Setalvad** (1950-1963). The 15th and Current Attorney General of India is **KK Venugopal**.
- To be appointed as Attorney General, a candidate must be qualified to be appointed as a Judge of the Supreme Court.
- The Attorney General can participate in proceedings of the Parliament without the Right to Vote (Article 88).

Part VI

The States (Article 152-237)

THE GOVERNOR

- The Governor is the **Constitutional Head** of the State and the same Governor can act as Governor of more than one State (Article 153).
- The Governor is appointed by the **President** (Article 155) and Article 156 states that the Governor holds office during the pleasure of the President.
- **Article 161** gives the Governor the power to grant pardons, reprieves, remission of punishment to persons convicted under the state law.
- **Article 163** talks of **discretionary powers** of the Governor, which is not even provided to the President. Moreover, the courts cannot question his discretion.

STATES LEGISLATURE

Article 163 Council of Ministers to aid and advise the Governor.

Article 165 An Advocate General for each of the State.

Article 169 Abolition or creation of Legislative Councils in States.

Most of the states have unicameral system, only 6 states have legislative council. These states are Andhra Pradesh, Bihar, Karnataka, Maharashtra, Uttar Pradesh and Telangana.

Legislative Assembly Legislative Assembly consists of Representatives directly elected by the people. The strength of assembly varies from 60 to 500 members. However assembly of Sikkim, Goa, Mizoram, Arunachal Pradesh, Nagaland and Puducherry have less than 60 members.

Composition of Legislative Council Unlike the members of the Legislative Assembly, the members of Legislative Council are indirectly elected. The maximum strength of the Council is fixed at one-third of the total strength of assembly and the minimum strength is fixed at 40.

HIGH COURTS (ARTICLE 214-232)

There are **25** High Courts in India. The Calcutta High Court, established in 1862, is the oldest High Court in India. The Bombay and Madras High

Courts were also established in the same year. The newest High Courts are the Tripura, Meghalaya and Manipur High Courts, all were established in the year 2013. High Court of Andhra Pradesh (25th High Court of India) came into existence from January 1, 2019.

Part IX

The Panchayats (Article 243-243 O)

- Introduced by the 73rd Amendment Act, 1992 which envisaged a three tier system of local government.

These are

- Gram Panchayat at the village level
- Panchayat Samiti at the block level
- Zila Parishad at the district level

Jurisdiction and Seats of High Courts

Court Name	Estd. in the Year	Territorial Jurisdiction	Seat
Mumbai	1862	Maharashtra, Dadra and Nagar Haveli, Goa, Daman and Diu	Mumbai (Bench at Nagpur, Panaji and Aurangabad)
Kolkata	1862	West Bengal, Andaman and Nicobar Islands	Calcutta (Circuit Bench at Port Blair)
Chennai	1862	Tamil Nadu and Puducherry	Chennai (Bench at Madurai)
Allahabad	1866	Uttar Pradesh	Prayagraj (Bench at Lucknow)
Karnataka	1884	Karnataka	Bangalore (Circuit Benches at Hubli Dharwad and Gulbarga)
Patna	1916	Bihar	Patna
Madhya Pradesh	1956	Madhya Pradesh	Jabalpur (Benches at Gwalior and Indore)
Jammu & Kashmir	1928	Jammu and Kashmir	Srinagar and Jammu
Punjab and Haryana	1875	Punjab, Haryana and Chandigarh	Chandigarh
Orissa	1948	Odisha	Cuttack
Guwahati	1948	Assam, Nagaland, Mizoram and Arunachal Pradesh	Guwahati (Bench at Kohima, Aizwal and Itanagar)
Rajasthan	1949	Rajasthan	Jodhpur (Bench at Jaipur)
Kerala	1958	Kerala and Lakshadweep	Ernakulam
Gujarat	1960	Gujarat	Ahmedabad
Delhi	1966	National Capital Territory of Delhi	New Delhi
Himachal Pradesh	1971	Himachal Pradesh	Shimla
Sikkim	1975	Sikkim	Gangtok
Chhattisgarh	2000	Chhattisgarh	Bilaspur
Uttarakhand	2000	Uttarakhand	Nainital
Jharkhand	2000	Jharkhand	Ranchi
Tripura	2013	Tripura	Agartala
Manipur	2013	Manipur	Imphal
Meghalaya	2013	Meghalaya	Shillong
Andhra Pradesh	2019	Andhra Pradesh	Amaravati
Telangana	2019	Telangana	Hyderabad

- The Panchayat system exists in all states except Nagaland, Meghalaya and Mizoram. It also exists in all Union Territories except Delhi.
- Panchayat system is provided for all states having a population more than 2 million. Every Panchayat can continue for 5 years from the date of its first meeting.

Part IXA

The Municipalities (Article 243 P-243 ZG)

- Introduced by the 74th Amendment Act, 1992 which envisages three types of urban local bodies, namely, Nagar Panchayat, Municipal Council and Municipal Corporation.

Committees to Study Panchayat System

Name	Established	Recommendation
Balwantrai Mehta	1957	Establish local bodies, devolve power and authority, basic unit of decentralised government to be Block/Samiti. Conceptualised PRIs as 3-tier system.
K Santhanam	1963	Panchayats to have powers to levy tax on land revenue etc, Panchayati Raj Finance Corporation to be set-up.
Ashok Mehta	1978	District to be a viable administrative unit for planning, PRIs as two-tier system with Mandal Panchayat and Zila Parishad.
GVK Rao	1985	PRIs to be activated and supported, Block Development Office (BDO) to be central to rural development.
LM Singhvi	1986	Local self-governments to be constitutionally recognised, non-involvement of political parties.

- The first Municipal Corporation in India was introduced in Madras in 1688. The Madras Municipal Corporation is the first municipal body in the whole commonwealth outside the UK. The Bombay and Calcutta Corporations were established in 1726.
- Municipal Corporations are established in cities with population greater than 1 million.
- Nagar Panchayat administers urban areas having population greater than 30000 and less than 100000.
- A Municipal Council administers an urban area of population 200000 or less.

Part XI

Relations between the Union and the States (Article 245-263)

- Legislative Relations
- Administrative Relations
- Financial Relations

Article 262 Adjudication of disputes relating to waters of inter-state rivers or river valleys.

Article 263 Inter-state council.

Part XII

Finance, Property, Contracts and Suits (Article 264-300 A)

Article 266 Consolidated Fund of India.

Article 267 Contingency Fund of India.

Part XIV

Services Under the Union and the States (Article 308-323)

Article 312 All India Services.

Article 315 Public Service Commissions for the Union and for the States.

- The first Public Service Commission was set-up in 1926, on the recommendations of the Lee Commission.
- The Government of India Act, 1935 provided for the establishment of a Federal Public Service Commission and Provincial Public Service Commissions.

Union and State Public Service Commissions

- Constitution provides a Public Service Commission for the Union, a Public Service Commission for each state or a Joint Public Service Commission for a group of states.
- The appointment is done by the President in case of the Union or Joint Commission and by the Governor of the State in the case of a State Commission.
- At least half of the members of these commissions should be civil servants with at least 10 years experience in central or state services.
- Age of retirement for a member of UPSC is 65 years and for a member of PSC of a State or a Joint Commission is 62 years.

Functions

- To conduct exams for appointment to services under the Union and the States.
- Maintains continuity in administration.
- Members of the UPSC and State Commissions can be removed by the President on the charges of misbehaviour, if these charges are upheld by the Supreme Court.

Elections (Article 324-329)

Article 324 stipulates that the superintendence, direction and control of elections shall be vested in the Election Commission.

Article 325 provides for a single electoral roll for every constituency. Also stipulates that no person shall be eligible or ineligible for inclusion in electoral rolls on the basis of race, religion, caste or sex.

Article 326 stipulates that elections shall be held on the basis of adult suffrage. Every person, who is a citizen of India and is not less than 18 years of age shall be eligible for inclusion.

Political Parties

Registration of the People Act, 1951 provides for registration of political parties with the election commission.

There are eight (8) National Parties in India, namely BJP, Congress, BSP, NCP, CPI, CPM, Trinamool Congress and National People's Party.

A political party shall be eligible to be recognised as a **National party** if

- (i) It secures at least 6% of the valid votes polled in any four or more states, at a general election to the House of the People or to the State Legislative Assembly; and
- (ii) In addition, it wins at least four seats in the House of the People from any State or States.

or

- (iii) It wins at least 2% seats in the House of the People (*i.e.*, 11 seats in the existing House having 543 members) and these members are elected from at least three different States.

Likewise, a political party shall be entitled to be recognised as a **State party**, if

- (i) It secures at least 6% of the valid votes polled in the State at a general election, either to the House of the People or to be Legislative Assembly of the State concerned; and
- (ii) In addition, it wins at least two seats in the Legislative Assembly of the State concerned.

or

It wins at least 3% of the total number of seats in the Legislative Assembly of the State or at least three seats in the Assembly, whichever is more.

For elections of President and Vice-President, election petitions can only be filed with the Supreme Court.

Election Commission

- The Election Commission is an autonomous, quasi-judiciary constitutional body. Its function is to conduct free and fair elections in India.
- The Election Commission was established on 25th January, 1950 under **Article 324** of the Constitution.
- The first Chief Election Commissioner was **Sukumar Sen**.

Planning Commission

- The Planning Commission was established in March, 1950 by an executive resolution of the Government of India (*i.e.*, Union Cabinet) on the recommendation of the Advisory Planning Board constituted in 1946 under the Chairmanship of KC Neogi.
- Now, the Planning Commission has been replaced by NITI Aayog.

NITI Aayog

- NITI Aayog or National institution for transforming India Aayog is a policy think-tank of Union Government of India that replaces Planning Commission of India and aims to involve the states in economic policy-making in India. It will be providing strategic and technical advice to the central and the State Governments.
- Prime Minister of India heads the Aayog as its Chairperson.

National Development Council (NDC)

- Functions of the NDC was to review the working of national plan. The NDC was formed in **1952**, to associate the states in the formulation of the plans.
- The PM is the ex-officio chairman of NDC.
- It is an extra-constitutional and extra legal body.
- Since establishment of NITI Aayog, NDC has been proposed to be abolished.

Finance Commission

- **Article 280** of the Constitution of India provides for a Finance Commission as a quasi-judicial body. It is constituted by the President of India every fifth year.
- It consists of Chairman and 4 other members.

Functions The Finance Commission is required to make recommendation to the President of India in the following matters: The distribution of the net proceeds of taxes to be shared between the centre and the states and the allocation between the states, the respective shares of such proceeds. The 15th Finance Commission was appointed on 2nd January, 2017 under the Chairmanship of NK Singh.

AMENDMENTS OF THE CONSTITUTION (ARTICLE 368)

There are two categories of Amendment under Article 368 which are:-

1. By special majority of Parliament that is (more than 50 percent) of the total membership of each House and a majority of two-thirds of the members of each House present and voting.
2. By special majority of Parliament and with the consent of half of the State Legislature by a simple majority. Provisions related to Federal structure can be amended through this procedure. There is a third category of the Amendment which is done by simple majority though these amendments do not come under ambit of **Article 368**.

It has been held by the Supreme Court in the **Keshavananda Bharati Case (1973)** that every provision of the Constitution is amendable under the meaning of Article 368 except the basic structure of the Constitution.

e-GOVERNANCE

The word **electronic** in the terms e-Governance implies technology driven governance.

The prespective of the e-governance is "the use of the technology that both governing and have to be governed.

Generally five basic models are given in e-Governance

- G2C (Government to Citizens)
- G2B (Government to Business)
- G2E (Government to Employees)
- G2G (Government to Governments)
- C2G (Citizens to Governments)

The National e-Governance Plan (NeGP) takes a holistic view of e-governance initiatives across the country, integrating them into a collective vision.

Impacts of e-Governance

e-Governance brings about two major impacts **firstly**, making the government offices work smart. **Secondly**, e-governance makes services available to the citizen at his doorstep through the internet.

Some of the most successful citizen oriented e-governance projects are the Railways Reservation System, MCA 21 is the Ministry of Corporate Affairs and Bhoomi Project in Andhra Pradesh, etc.

E-districts

It is a mission mode under e-governance. Its objective under National E-Governance Policy is to computerisation of services. Under it, different programmes are conducted in following states

- Jandoot Project - Madhya Pradesh
- Compact 2020 - Andhra Pradesh
- Land Programme - Karnataka
- Friends - Kerala
- Disha - Haryana

PARLIAMENTARY TERMS

Quorum It is the minimum number of members required to transact the business of the House. **Article 100** of the Constitution specifies that the Quorum of either House shall be 10% of the strength of the House.

Question Hour The first hour of every sitting of Parliament is called the Question Hour. Questions usually need a 10 day notice before being answered by the concerned minister.

Starred Questions To be answered orally on the floor of the House. Supplementary questions can be asked.

Unstarred Questions To be answered in writing. No supplementary questions may be asked.

Zero Hour Does not formally exist in the Parliamentary procedure. The hour after Question Hour is popularly known as Zero Hour. Members raise matters which they feel urgent.

Adjournment Motion Motion to adjourn the proceedings of the House, so as to take up a matter of urgent public importance. It can be moved by any member. Requires support from at least 50 members.

Calling Attention Motion A member may call the attention of a Minister to an urgent matter and the Minister may make a statement regarding it.

No Confidence Motion A No Confidence Motion indicates lack of confidence of the Lok Sabha in the Council of Ministers. It can be introduced in the Lok Sabha only. If the Motion is passed, the government must resign.

CONSTITUTIONAL AMENDMENTS

First Amendment Act, 1951 Added Ninth Schedule.

Seventh Amendment Act, 1956 Necessitated on account of reorganisation of States on a linguistic basis.

Fifteenth Amendment Act, 1963 Age of retirement of the Judges of High Court has been extended from 60 to 65 years.

Twenty Sixth Amendment Act, 1971 Abolished the titles and special privileges of former rulers of princely states.

Thirty Sixth Amendment Act, 1975 Made Sikkim a State.

Forty Fourth Amendment Act, 1978 The Right to Property was deleted from Part III. Article 352 was amended to provide 'Armed Rebellion' as one of the circumstances for declaration of emergency.

Seventy Third Amendment Act, 1992 The institution of Panchayati Raj receive constitutional guarantee, status and legitimacy. XIth Schedule was added to deal with it. It also inserted Part IX, containing Articles, 243, 243 A to 243 O.

Eighty Ninth Amendment Act, 2003 The Act adds Article 338 A and provides for the creation of National Commission for Scheduled Tribes.

Ninety First Amendment Act, 2003 Amended the Anti-Defection Law and also made a provision that the number of ministers in the Centre and State Government, cannot be more than 15% of the strength of Lok Sabha and the respective Vidhan Sabha.

Ninety Third Amendment Act, 2005 To reserve seats for socially and educationally backward classes, besides the Scheduled Castes and the Scheduled Tribes, in private unaided institutions other than those run by minorities.

Ninety Seventh Amendment, 2011 Amend- ment of Article 19(1)(i), Insertion of Article 43B, Insertion of Part IXB. This amendment gives constitutional status to cooperatives.

Ninety-Ninth Amendment Act, 2014 deals with replacing the collegium system for the appointments of the Judges of the Supreme Court and the 24 High Courts. But Supreme Court of India has declared this unconstitutional and void.

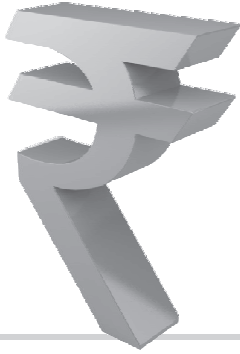
One Hundredth Amendment Act, 2015 to give effect to the acquiring of territories by India and transfer of certain territories to Bangladesh in pursuance of the agreements and its protocol.

One Hundredth One Amendment Act, 2016 with deals Goods and Services Tax (GST)

One Hundredth Two Amendment Act, 2018 provides the Constitutional status to National Commission for Backward Classes.

One Hundredth Three Amendment Act, 2019 provides 10% reservation to the economically backward classes of society.

One Hundredth Fourth Amendment Act, 2020 extended the reservation of seats for SCs and STs in Lok Sabha and State Assemblies from seventy years to eighty years and removed the reserved seats for Anglo-Indian community in Lok Sabha and State Assemblies.



INDIAN ECONOMY

OUTLINE OF INDIAN ECONOMY

The economy of India is the 5th largest in the world by nominal GDP and 3rd largest by Purchasing Power Parity (PPP).

Nature of the Indian Economy

- (i) **Mixed Economy** Existence of both public and private sectors. This term was coined by Pat Mullins and Supported by JM Keynes.
- (ii) **Agrarian Economy** Even after six-decades of independence 58% of the workforce of India is still agriculturist and its contribution to **GDP** is around 17% at current prices.

Features

Following are the features of Indian economy

- (i) Slow growth of national and per capita income.
- (ii) Capital deficiency and low rate of capital formation, hence low rate of investment, low production, etc; poor quality of human capital.
- (iii) Over-dependence on agriculture alongwith low productivity in agriculture; heavy population pressure.
- (iv) Unequal distribution of income and wealth.
- (v) Mass poverty, chronic inflation and chronic unemployment.

Broad Sectors of Indian Economy

Primary Sector Agriculture, forestry and fishing, mining etc.

Secondary Sector manufacturing, electricity, gas and water supply and construction.

Tertiary Sector (also called service sector) business, transport, telecommunication, banking, insurance, real estate, community and personnel services.

Economic Planning in India

Planning Commission (1950) was set-up under the Chairmanship of Pandit Jawaharlal Nehru (Gulzarilal Nanda was the first Deputy Chairman).

Basic aim of Economic Planning is to bring rapid economic growth through agriculture, industry, power and all other sectors of the economy.

NITI Aayog

NITI Aayog or *National Institution for Transforming India Aayog* came into existence on 1st January, 2015; policy-making think-tank of government that replaces Planning Commission and aims to involve states in economic policy making. It will provide strategic and technical advice to the Central and the State Governments.

The Prime Minister heads the Aayog as its chairperson. Rajiv Kumar is the Vice-Chairperson of NITI Aayog of India.

Historical Milestones

Planned Economy for India (1934)

M Visvesvaraya

National Planning Committee (1938)

Jawaharlal Nehru

Bombay Plan (1944)

Gandhian Plan (1944) SN Agarwal

People's Plan (1945) MN Roy

Sarvodaya Plan (1950) JP Narayan

Five Year Plans At a Glance

Plan	Growth Rate		Important Sector
	Target	Achieved	
First Plan (1951-56) (Based on Harrod Domar Model)	2.1%	3.6%	Agriculture, irrigation, electricity
Second Plan (1956-61) (Based on PC Mahalanobis two sector model)	4.5%	4.2%	Heavy industries
Third Plan (1961-66)	5.6%	2.8%	Foodgrains, heavy industries
Plan Holiday (1966-69)			
Fourth Plan (1969-74)	5.7%	3.3%	Agriculture
Fifth Plan (1974-78)	4.4%	4.8%	Removal of poverty
Rolling Plan (1978-80)			
Sixth Plan (1980-85)	5.2%	5.4%	Agriculture, industries
Seventh Plan (1985-90)	5.0%	6.0%	Energy, foodgrains
Two Annual Plans (1990-92)			
Eighth Plan (1992-97)	5.6%	6.6%	Human resource education
Ninth Plan (1997-2002)	6.5%	5.4%	Social justice
Tenth Plan (2002-07)	8.1%	7.5%	Income, energy
Eleventh Plan (2007-2012)	8.0%	7.9%	Inclusive growth
Twelfth Plan (2012-2017)	8%	—	Faster, sustainable and more inclusive growth

National Income in India

National Income refers to the aggregate value of goods and services produced in an economy in one year. Following are the measures of National Income in India

- Gross Domestic Product (GDP) is the final value of the goods and services produced within the geographical boundaries of a country during a year.
- Net Domestic Product (NDP) equals to the GDP minus depreciation (value loss of an asset) on country capital goods.
- Gross National Product (GNP) is an estimate of the total value of all the final products and services produced in a given period (usually a year) by the nationals of a country.
- The Net National Product (NNP) is obtained by subtracting depreciation value from GNP.
- When NNP is obtained at factor cost it is called National Income. It is calculated by deducting indirect taxes and adding subsidies in NNP at market price.

Indian Tax Structure

Direct Tax The term direct tax generally means a tax paid directly to the government by the persons on whom it is imposed. *e.g.* income tax, Corporate income tax, capital gain tax, stamp duty, land tax, estate duty, wealth tax, petroleum revenue tax. The government earns maximum from corporate income tax.

Indirect Tax An indirect tax is a tax collected by an intermediary from the person who bears the ultimate economic burden of the tax. *e.g.* sales tax or VAT, customs duty, insurance premium tax, excise duties, landfill tax, electricity duty, climate change levy.

Goods and Service Tax (GST)

The GST as it is more commonly referred to is a system of taxation where there is a single tax in the economy for goods as well as services. Indian GST was first proposed in India in the Union Budget speech in 2006-07. This tax came into effect from 1 July, 2017.

The main feature of the GST is that there is a tax credit available at each stage of the value chain.

Inclusive Development

Human Development Index (HDI)

- HDI measure was given by Pakistani Nobel Prize Winner, Mehabub-ul-Haq
- Level of Human development is measured by Human Development Index (HDI), published by UNDP since, 1990.
- Three dimensions
 - Life expectancy at birth;
 - Education Index comprising means year of schooling and expected year of schooling;
 - GNI per capita (PPP US \$) Index.
- India has been ranked 131 out of 189 countries on 2020's HDI.

Programmes/Measures

- NRHM** (National Rural Health Mission) was launched on 2nd April, 2005 to reduce Infant Mortality Rate and Maternal Mortality Rate.
- NUHM** (National Urban Health Mission) launched on 2013. Education programmes like Sarva Shiksha Abhiyan, Mid-Day Meal Scheme etc were launched.
- Rural development programmes like **MGNREGA** and **Bharat Nirman**.

POVERTY

- The erstwhile Planning Commission estimated poverty rate** based on data collected by National Sample Survey Organisation (NSSO).
- Main Reasons for Rural Poverty** Rapid population growth, lack of capital, lack of alternate employment other than poor agriculture, illiteracy and lack of proper implementation of PDS.
- Main Reasons for Urban Poverty** Migration from rural areas, lack of skilled labour, lack of housing facilities, limited job opportunities in cities.
- Based on **2400 calories** (rural) and **2100 calories** (urban) and monthly per capita consumption expenditure of ₹ 454 (rural) and ₹ 540 (urban), Planning Commission (Now NITI Aayog) estimated poverty ratio in India in 2004-05 was 27.5% and according to the Suresh Tendulkar Committee was 37.2%.

- The Tendulkar Committee stipulated a benchmark of daily per capita expenditure of ₹ 27 and ₹ 33 in rural and urban areas, respectively.

Socio-Economic Programmes

Programme/Measure	Year of Launch
Twenty Point Programme	1975
Indira Awaas Yojana	1985
Jawahar Rozgar Yojana	1989
Nehru Rozgar Yojana	1989
Swarna Jayanti Shabri Rozgar Yojana	1997
Pradhan Mantri Gramodaya Yojana	2000
Pradhan Mantri Gram Sadak Yojana	2000
Sampoorna Grameen Rozgar Yojana	2001
Bharat Nirman	2005
Jawaharlat Nehru National Urban Renewal Mission	2005
Prime Minister Employment Generation Programme	2008
Mahatma Gandhi National Rural Employment Programme	2009
National Rural Livelihood Mission (NRLM)	2011
Nirmal Bharat Abhiyan	2012
Swachh Bharat Abhiyan	2014
Pradhan Mantri Jan Dhan Yojana	2015
Atal Pension Yojana	2015
Digital India Programme	2015
National Skill Development Mission	2015
HRIDAY (Heritage City Development and Augmentation Yojana)	2015
Smart City Mission	2015
AMRUT (Atal Mission for Rejuvenation and Urban Transformation)	2015
Pradhanmantri Jeevan Jyoti Beema Yojana	2015
Pradhanmantri Suraksha Beema Yojana	2015
Pradhan Mantri Krishi Sinchayee Yojana	2015
Start-up and Stand-up Yojana	2016
Pradhan Mantri Fasal Bima Yojana	2016
Ujala Yojana	2016
SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds)	2016
Pradhan Mantri Garib Kalyan Yojana	2016
Pradhan Mantri Vaya Vandana Yojana	2017
Pradhan Mantri Matritva Vandana Yojana	2017
Pradhan Mantri Sahaj Bijli Har Ghar Yojana	2017
Rashtriya Vayoshri Yojana	2017

Programme/Measure	Year of Launch
Saubhagya Yojana	2017
UDAN Scheme	2017
Ayushman Bharat	2018
Pradhan Mantri Kisan Samman Nidhi	2019
Pradhan Mantri Shram Yogi Man-dhan Yojana	2019
SVAMITVA Scheme	2020
One Nation One Card Scheme	2020
Ghar Tak Fibre Scheme	2020
PM SVANidhi	2020
Atmanirbhar Bharat Scheme	2020
Kisan Suryodaya Yojana	2020
Pradhan Mantri Matsya Sampada Yojana	2020
PM-WANI Scheme	2020

UNEMPLOYMENT

It refers to a situation, when a person is able and willing to work at the prevailing wage rate, but does not get the opportunity to work.

Estimation of Unemployment

Since 1973 on the recommendation of **B Bhagwati Committee**, three estimates of unemployment have been brought about by Planning Commission, viz

- Usual Principal Status** Persons who remained unemployed for a major part of the year.
- Current Weekly Status** Persons who did not find even an hour of work in a week preceding the date of survey.
- Current Daily Status** Persons who did not find work even for 1 hour in a day.

Women Empowerment and Child Development

Programme/Measure	Year
Mid-Day Meal Scheme	1995
Swadhar	1995
Swayam Sidha	2001
SSA	2001
Support to Training and Employment Programme for Women (STEP)	2003-04
Ujjwala	2007
Dhanlaxmi	2008
Integrated Child Protection Scheme	2009-10
Sabla Scheme	2010
National Mission for Empowerment of Women	2010

Programme/Measure	Year
Bal Bandu Scheme	2011
Nai Roshni	2012
Beti Bachao, Beti Padhao	2015
PM Ujjwala Yojna	2016
PM Matri Vandana Yojna	2017
Suposhit Maa Abhiyan	2020

AGRICULTURE

- Agriculture is the mainstay of Indian economy. It makes important contribution in GDP, National Income, employment, trade and industry.
- Green Revolution** is associated with the use of **HYVS** (High Yielding Variety Seeds), chemical, fertilisers and new technology, which led to a revolutionary results in agricultural production.
- Dr. MS Swaminathan has been called the 'Father of Green Revolution' in India.

Major Agricultural Revolutions

Revolution	Production
Blue	Fish Production
Golden Fibre	Jute
Pink	Onion
Red	Meat
White	Milk
Yellow	Oilseed

Tricolour Revolutions

- Tricolour revolution has 3 components
- Saffron revolution–Solar energy
 - White revolution–Cattle welfare
 - Blue revolution–fisherman's welfare

INDUSTRIES

Industrial Policies

- Industrial policies were launched in 1948, 1956, 1977, 1980 and 1991.
- Industrial Policy 1956 is called **Economic Constitution of India** and gave public sector the strategic edge.
- Industrial Policy 1991 opened up the economy. *Its main aims were*
 - to end license-permit raj;
 - to integrate Indian economy with the outer world;
 - to remove restrictions on FDI and
 - to reform public sectors.

Public Sector Enterprises (PSEs)

- Industries requiring **compulsory licensing** (a) distillation and brewing of alcoholic drinks; (b) cigar and cigarettes of tobacco; (c) electronic aerospace and defence equipment; (d) industrial explosives; (e) specific hazardous chemicals.
- Areas reserved for public sector are (a) atomic energy—production, separation and enrichment of fissionable materials and (b) railways.
- Present Policy** on PSEs is to (a) not to privatise profit-making companies and to modernise and revive sick companies; (b) not to bring government stake in PSEs below 51%; (c) to adopt initial public offering route to disinvestment.

Maharatnas, Navratnas, and Miniratnas

- To impart greater managerial and commercial autonomy to the PSEs, the concept of Maharatna, Navratna and Miniratna was started.
- Maharatnas** were started in 2009. Ten Maharatnas are ONGC, SAIL, IOC, NTPC, Coal India Ltd, BHEL, GAIL (India) Ltd, and BPCL, HPCI and Power Grid Corporation.
- Navratnas** Bharat Electronics Ltd, HAL, MTNL, NALCO, National Mineral Development Corporation, Neyveli Lignite Company Ltd, Oil India Ltd, Power Finance Company Ltd, Rashtriya Ispat Nigam Ltd, Rural Electrification Corporation Ltd, Shipping Corporation of India Ltd, CCIL, EIL and NBCCL.
- Miniratnas** Public Sector Enterprises (PSEs) that have made profit continuously for the last three years and have positive net worth.
- At present there are 61 in category I and 12 in Category II.

Industrial Committees

- Hazari Committee** on Industrial Policy.
- Subimal Dutt Committee** on Industrial licensing.
- Abid Hussain Committee** on Small Scale Industry.
- C Rangarajan Committee** on disinvestment.
- Memorandum of Understandings (MoU) Arjun Sengupta.

Small Scale Industry

- A new thrust to Small Scale Industry, given in Industrial Policy of 1977.
- MSMED Act, was enacted in 2006.
- Contributes 8% to GDP, 45% to all manufactures and 42% to exports.
- According to the 4th census (2009) of SSIs, 67% of the MSME are in manufacturing and 33% are in services sector.

Classification of MSMEs

Category	Annual turnover
Micro	Not exceeding ₹ 5 crores
Small	Between ₹ 5 crores to ₹ 75 crores
Medium	₹ 75 to ₹ 250 crores

Major Industries in India

Iron and Steel

- First Steel Industry at Kulti, West Bengal—Bengal Iron Works Company was established in 1874.
- First large scale steel plant—TISCO at Jamshedpur (1907) was followed by IISCO at Burnpur (1919), West Bengal.
- The first public owned steel plant was Rourkela integrated steel plant. Presently, India is the 3rd largest producer of steel and comes 1st in the production of sponge iron.

Location (Plants)	Assistance
Rourkela (Odisha)	Germany
Bhilai (Chhattisgarh)	Russia
Durgapur (West Bengal)	Britain
Bokaro (Jharkhand)	Russia
Visakhapatnam (Andhra Pradesh)	Russia

Jute Industry

- India ranks no 1 in jute production and no 2 in raw jute exports after Bangladesh.
- More than two third jute industry is concentrated in West Bengal.

Cotton and Textile Industry

- Largest organised and broad-based industry accounting for 4% of GDP, 20% of manufacture value added and one third of total exports earning.

Cement Industry

- First cement producing unit was set-up at Chennai in 1904 but modern manufacturing unit of cement started at Porbandar (Gujarat) in 1914.
- India is the second largest producer of cement in the world.

Sugar Industry

- India is the second largest producer of sugar in the world with a 22% share. It is the second largest agro-based industry in the country.

Committees on Various Sectors of Indian Economy

AC Shah Committee	Non-Banking Financial Company
Bimal Jalan Committee	Market Infrastructure Instruments
Malegam Committee	Functioning of Micro Finance Institutions
Birla Committee	Corporate Governance
Kirit Parikh Committee	Rationalisation of Petroleum Product Prices
Chaturvedi Committee	Improving National Highways in India
SR Hashim Committee	Urban Poverty
Abhijit Sen	Wholesale Price Index

Abid Hussain Committee	Development of Capital Markets
Damodaran Committee	Customer Service in Banks
Khandelwal Committee	Human Resource in Commercial Banks
Patil Committee	Corporate Debt
VK Sharma Committee	Credit to Marginal Farmers
Sarangi Committee	Non-Performing Assets
Khanna Committee	Regional Rural Banks
Dantawala Committee	Lead Bank Scheme
Gadgil Committee	Financial Inclusion

BANKING AND FINANCE

- **Bank of Hindustan** was the first bank, established in India in 1770.
- First bank with limited liability managed by an Indian Board was the **Oudh Commercial Bank** in 1881.
- First purely Indian bank was **Punjab National Bank** (1894).

Nationalisation of Bank

- A step towards **social banking** was taken with the nationalisation of **14 commercial banks** on 19th July, 1969. Six more banks were nationalised on 1980, total number of public sector banks are 27.
- Later on, in the year 1993, the government merged New Bank of India with Punjab National Bank.
- **Bhartiya Mahila Bank**, India's first bank exclusively for women, headquarters in New Delhi was Inaugurated on 19th November, 2013. It has been merged with SBI in 2017.
- **IDBI Bank** is an Indian financial service company, formerly known as Industries Development Bank of India, head quartered in Mumbai, India.
- In September, 2004, the RBI incorporated IDBI as a scheduled bank under the RBI Act, 1934.

- In 2019, Oriental Bank of Commerce and United Bank got merged with Punjab National Bank. Syndicate Bank is merged with Canara Bank while Union Bank of India, Andhra Bank and Corporation Bank got merged. Similarly Indian Bank got merged with Allahabad Bank.
- **Repo Rate** It is the rate, at which RBI lends short-term money to the banks against securities.
- **Reverse Repo Rate** It is the rate, at which banks park short-term excess liquidity with the RBI. This is always 100 base point, 1% less than Repo rate.

Reserve Bank of India (RBI)

RBI was established in 1935, under RBI Act, 1934. RBI is the Central Bank of India. The main purpose of creating RBI was to regulate money supply and credit in the country. RBI was nationalised in 1949 and its first Indian Governor was **CD Deshmukh**. Its headquarter is in Mumbai.

Functions of the RBI

- Monetary policy, regulation and supervision of the banking and non-banking financial institutions.
- Debt and cash management for Centre and State Governments.
- Foreign exchange management, current and capital account management.
- Management of foreign exchange reserves.
- Currency management; oversight of the payment and settlement systems.
- Development role.
- Research and statistics.

The RBI and Credit Control

Quantitative Credit Control

It is used to control the volume of credit and indirectly to control the inflationary and deflationary pressures. *The quantitative credit control consists of*

- **Bank Rate** It is the rate, at which the RBI gives finance to Commercial Banks.
- **Cash Reserve Ratio (CRR)** Cash that banks deposits with the RBI without any floor rate or ceiling rate.
- **Statutory Liquidity Ratio (SLR)** It is the ratio of liquid asset, which all Commercial Banks have to keep in the form of cash, gold and government approved securities with itself.

Qualitative/Selective/Direct Credit Control

Qualitative measures are used to make sure that purpose, for which loan is given is not misused. It is done through

- credit rationing
- regulating loan to consumption etc.

New Bank Licence

In April 2015, Reserve Bank of India provided licence for operation to two new private banks namely Bandhan Financial Services and Infrastructure Development Finance Company (IDFC).

MUDRA Bank

Micro Units Development and Refinance Agency Bank (MUDRA Bank) was launched on 8th April, 2015. Bank set up under SIDBI (Small Industries Development Bank of India). Bank has launched 3 loan instruments

- Shishu–Cover loans upto ₹ 50,000
- Kishore–Cover loan above ₹ 50,000 and upto ₹ 5 lakh.
- Tarun–Cover loans above ₹ 5 lakh and upto ₹ 10 lakh.

Indradhanush Scheme 2015

This is for the banking reforms in India. The 7 key reforms of Indradhanush Mission includes. appointments de-stressing, capitalisation, empowerment, framework of accountability, governance reforms and bank board bureau.

15th Finance Commission

The 15th Finance Commission was constituted in accordance with the **Article 280** of the Indian Constitution.

The first finance commission was headed by **KC Neogi** and the 15th Finance Commission is headed by NK Singh.

Stock Exchange of India

- Capital market is the market for long-term funds while money market is the market for short-term funds.
- Capital market of India is regulated by SEBI (Securities and Exchange Board of India, 1988).
- A **Stock Exchange** provides services for brokers and traders to trade stocks, bonds, and other securities.
- **The Bombay Stock Exchange (BSE)** is a stock exchange located on Dalal Street, Mumbai and is the oldest stock exchange in Asia. The BSE has the largest number of listed companies in the world established in 1875.
- **The National Stock Exchange (NSE)** is the 16th largest stock exchange in the world. It is situated in Mumbai.

Insurance

- Insurance industry includes two sectors, life Insurance and General Insurance.
- LIC was established on 1st September, 1956.
- **Insurance Regulatory and Development Authority of India (IRDAI)** was set-up on 19th April, 2000 to regulate the Insurance Sector. IRDA has changed its name to Insurance Regulatory and Development Authority of India in December 2014.

Foreign Trade

Balance of Trade (BoT)

The difference between a nation's imports of goods and services and its exports of them is known as **Balance of Trade**. There are three possibilities in the Balance of Trade (BoT) which are as follows

1. Balance BoT *i.e.* Exports = Imports
2. Adverse BoT *i.e.* Exports < Imports
3. Favourable BoT *i.e.* Exports > Imports

Balance of Payment (BoP)

BoP records the transactions in goods, services and assets between residents of a country with the rest of the world for a specified time period typically a year. There are two main accounts in the BoP : the *current account* and the *capital account*. In addition to that BoP includes errors and omissions and change in foreign exchange reserves.

Foreign Direct Investment (FDI)

It is an investment in a foreign country through the acquisition of a local company or the establishment of an operation on a new greenfield site. Direct investment implies control and managerial and perhaps technical, input.

FDI Limits

Sector/Activity	% of FDI/Equity
Multi Brand Retail (food)	100%
Telecom Services	100%
Tea Plantation	100%
Asset Reconstruction Company	100%
Petroleum and Natural Gas	49%
Commodity Exchanges	49%
Insurance	74%
Power Exchanges	49%
Stock Exchanges/Clearing Corporations	49%
Credit Information Companies, Pharma	100% (Green Field), 74 % (Brown Field)
Courier Services	100%
Single Brand Product Retail Trading	100%
Defence Sector	100%
Airlines	100%

CENSUS 2011

Population Trend in India

- 1891-1921** Stagnant population
1921-1951 Steady growth
1951-1981 Rapid high growth (stage of population explosion)
1981-2001 High growth rate with definite signs of slowing down

Total Population	1210569573
Male	623121843 (51.47%)
Female	587447730 (48.53%)
Density	382 per sq km
Sex Ratio	943
Child Sex Ratio	914

Largest and the Smallest States/UTs (in Population)

<i>Top States/UTs</i>		<i>Bottom States/UTs</i>	
Uttar Pradesh	199281477	Lakshadweep	64,429
Maharashtra	112372972	Ladakh	2,74,000
Bihar	103804637	Andaman and Nicobar Islands	3,79,944
West Bengal	91347736	Dadra and Nagar Haveli and Daman and Diu	5,85,764
Andhra Pradesh	84665533	Sikkim	6,07,688

Effective Literacy Rate (2001-2011)

	2001 (%)	2011 (%)	Difference
Persons	64.83	74.04	10.21
Males	75.26	82.14	6.9
Females	53.67	65.46	11.8

States/UTs (according to Literacy)

<i>Top States/UTs</i>	(in %)	<i>Bottom States/UTs</i>	(in %)
Kerala	93.91	Bihar	63.82
Lakshadweep	92.28	Arunachal Pradesh	66.95
Mizoram	91.58	Rajasthan	67.06
Tripura	87.75	Jharkhand	67.63
Goa	87.40	Andhra Pradesh	67.66

Sex Ratio

	2001		2011	
	Population (in mn)	Proportion (in %)	Population (in mn)	Proportion (in %)
■ Males	532.2	51.74	623.7	51.51
■ Females	496.5	48.26	586.4	48.46
Adult Sex Ratio	933		943	
■ Males	85.0	51.89	82.9	52.24
■ Females	78.8	48.11	75.8	47.76
Child Sex Ratio	927		914	

ECONOMIC TERMS

- Assets** Property of any kind.
- Balance of Trade (BoT)** The difference between the exports and imports of two countries in trade with each other is called Balance of Trade.
- Balance Sheet** It is a statement of accounts, generally of a business concern, prepared at the end of a year.
- Banker's Cheque** A cheque by one bank to another.
- Bank Rate** It is the rate of interest charged by the Reserve Bank of India for lending money to commercial banks.
- Barter** To trade by exchanging one commodity for another.
- Bearer** This term on cheques and bills denotes that any person holding the same, has the same right in respect of it, as the person who issued it.
- Black Money** It means unaccounted money, concealed income and undisclosed wealth. The money which thus remains unaccounted for, is called the black money.
- Bond** A legal agreement to pay a certain sum of money (called principal) at some future date and carrying a fixed rate of interest.
- Budget** An estimate of expected revenues and expenditure for a given period, usually a year, item by item.
- Budget Deficit** When the expenditure of the government exceeds the revenue, the balance between the two is the budget deficit.
- Bulls** Speculators in the stock markets who buy goods, in some cases without money to pay with, anticipating that prices will go up.
- Buyer's Market** An area in which the supply of certain goods exceeds the demands so that purchasers can drive hard bargains.
- Commercial Banks** Financial institutions that create credit accept deposits, give loans and perform other financial functions.
- Call Money** Loan made for a very short period. It carries a low rate of interest.
- Deflation** It is a state in monetary market when money in circulation has decreased.
- Depreciation** Reduction in the value of fixed assets due to wear and tear.
- Devaluation** Official reduction in the foreign value of domestic currency. It is done to encourage the country's exports and discourage imports.
- Dividend** Earning of stock paid to shareholders.
- Dumping** Sale of a commodity at different prices in different markets, lower price being charged in a market where demand is relatively elastic.
- Exchange Rate** The rate at which Central Banks will exchange one country's currency for another.
- Excise Duty Tax** Imposed on the manufacture, sale and consumption of various commodities, such as taxes on textiles, cloth, liquor, etc.
- Fiscal Policy** Government's expenditure, tax policy and borrowing.
- Gross Domestic Product (GDP)** A measure of the total flow of goods and services produced by the economy over a specific time period, normally a year.
- Repo Rate** The rate at which banks borrow from RBI. It injects liquidity into the market.
- Inflation** A sustained and appreciable increase in the price level over a considerable period of time.
- Monopoly** Single seller selling single product.
- Monopolistic Competition** Existence of too many sellers selling differentiated products.
- Bilateral Monopoly** Existence of single buyer and single seller.
- Monopsony** Single buyer buying product being unique.
- Oligopoly** Existence of few sellers and few products. Price war is a common feature.
- Reverse Repo Rate** The rate at which RBI borrows from banks for a short-term. It withdraws liquidity into the market.

AWARDS AND HONOURS

INTERNATIONAL

Nobel Prize

- The most prestigious award in the world. It was set-up in 1900 under the will of **Alfred Bernhard Nobel**.
- The Nobel Prizes are presented annually on 10th December (The death anniversary of the founder).
- It is given in the fields of Peace, Literature, Physics, Chemistry, Physiology or Medicine (from 1901) and Economics (from 1969).

Winners of Nobel Prize from India

Winner	Field	Year
Abhijit Banerjee	Economics	2019
Kailash Satyarthi	Peace	2014
Venkatraman Ramakrishnan	Chemistry	2009
Amartya Sen	Economics	1998
Subrahmanyan Chandrasekhar	Physics	1983
Mother Teresa	Peace	1979
Hargobind Khorana	Medicine	1968
CV Raman	Physics	1930
Rabindranath Tagore	Literature	1913

Grammy Awards

- It is awarded for the outstanding achievements in the music industry by National Academy for Recording Arts and Sciences, America. It was started in 1959. Pt. Ravi Shankar got this 3 times.

Pulitzer Prize

- Instituted in 1917 and named after US publisher Joseph Pulitzer.
- It is conferred annually in the United States for the accomplishments in journalism, literature and music.

Magsaysay Awards

- Instituted in 1957. Named after Ramon Magsaysay, the former President of Philippines.

- The award is given annually on 31st August, the birth anniversary of Magsaysay, for outstanding contributions in Public service, Community Leadership, Journalism, Literature and Creative Arts and International Understanding.

Man Booker Prize

Instituted in 1968, is the highest literary award of the world, set-up by the Booker Company and the British Publishers Association along the lines of the Pulitzer Prize of USA.

Right Livelihood Award

- The Right Livelihood Award was established in 1980.
- It is also referred as '**Alternative Nobel Prize**'.
- It is given to persons to honour those "working on practical and exemplary solutions to the most urgent challenges facing the world today."

Oscar Awards

Instituted in 1929, these awards are conferred annually by the Academy of Motion Pictures, Arts and Sciences, USA, in recognition of outstanding contribution in the various fields of film making.

- The Indian films nominated for Oscars are Mother India (1957), Salaam Bombay (1988), Lagaan (2001)
- Bhanu Athaiya was the first Indian to win an Oscar Award in 1982 for costume design in Gandhi Movie.

UN Human Rights Award

Instituted in 1966, this award is given every 5 years for individual contributions to the establishment of human rights.

NATIONAL

Bharat Ratna

- Bharat Ratna is India's highest Civilian Award. It was first awarded in 1954.
- The actual award is designed in the shape of a **peepal** leaf with *Bharat Ratna* inscribed in Devanagri script in the Sun Figure.
- The reverse side of the decoration Satyameva Jayate has been written in Hindi with an inscription of state emblem.
- The emblem, the Sun and the rim are of platinum. The inscriptions are in burnished bronze.

Winners of Bharat Ratna

- Pranab Mukherjee (2019)
- Bhupen Hazarika (2019)
- Nanaji Deshmukh (2019)
- Madan Mohan Malaviya (2015)
- Atal Bihari Vajpayee (2015)
- Sachin Tendulkar (2014)
- CNR Rao (2014)
- Pandit Bhimsen Joshi (2008)
- Lata Dinanath Mangeshkar (2001)
- Ustad Bismillah Khan (2001)
- Prof Amartya Sen (1999)
- Lokpriya Gopinath Bordoloi (1999)
- Loknayak Jayprakash Narayan (1999)
- Pandit Ravi Shankar (1999)
- Chidambaram Subramaniam (1998)
- Madurai Shanmukhavadiyu Subbulakshmi (1998)
- Dr Abul Pakir Jainulabdeen Abdul Kalam (1997)
- Aruna Asaf Ali (1997)
- Gulzari Lal Nanda (1997)
- Jehangir Ratanji Dadabhai Tata (1992)
- Maulana Abul Kalam Azad (1992)
- Satyajit Ray (1992)
- Morarji Ranchhodji Desai (1991)
- Rajiv Gandhi (1991)
- Sardar Vallabhbhai Patel (1991)
- Dr Bhimrao Ramji Ambedkar (1990)
- Dr Nelson Rolihlahla Mandela (1990)
- Marudur Gopalan Ramachandran (1988)
- Khan Abdul Ghaffar Khan (1987)
- Acharya Vinoba Bhave (1983)

- Mother Teresa (Agnes Gonxha Bojaxhiu) (1980)
- Kumaraswamy Kamraj (1976)
- Varahagiri Venkata Giri (1975)
- Indira Gandhi (1971)
- Lal Bahadur Shastri (1966)
- Dr Pandurang Vaman Kane (1963)
- Dr Zakir Hussain (1963)
- Dr Rajendra Prasad (1962)
- Dr Bidhan Chandra Roy (1961)
- Purushottam Das Tandon (1961)
- Dr Dhonde Keshav Karve (1958)
- Pt Govind Ballabh Pant (1957)
- Dr Bhagwan Das (1955)
- Jawaharlal Nehru (1955)
- Dr Mokshagundam Vivesvaraya (1955)
- Chakravarti Rajagopalachari (1954)
- Dr Chandrasekhara Venkata Raman (1954)
- Dr Sarvapalli Radhakrishnan (1954)

Republic Day Awards

Padma Awards

Padma Awards, which were instituted in 1954, is announced every year on the occasion of Republic Day. The award is given in three categories—Padma Vibhushan, Padma Bhushan and Padma Shri. The awards fall in line after the Bharat Ratna.

There are three Padma Awards

- **Padma Vibhushan** is the second highest National Award given for exceptional and distinguished service in any field including service rendered by government employees.
- **Padma Bhushan** is the third highest National Award given for distinguished service in any field.
- **Padma Shri** is the fourth highest award given for distinguished service in any field.

Gallantry Awards

- **Param Vir Chakra** is the highest decoration of valour award. It is the most conspicuous act of bravery or some act of valour or self-sacrifice in the presence of the enemy, whether on land, at sea or in the air. The medal is made of bronze.
- **Mahavir Chakra** is the second highest gallantry award for acts of conspicuous gallantry in the presence of the enemy whether on land, at sea or in the air. The medal is made of standard silver.

- **Vir Chakra** is awarded for acts of gallantry in the presence of enemy, whether on land, at sea or in the air. The medal is made of standard silver.
- **Ashok Chakra** This is awarded for valour, courageous action or sacrifice, away from the battlefield. It is highest military award during peacetime.
- **Kirti Chakra** The decoration is awarded for conspicuous gallantry. It is made of standard silver and is circular in shape. The obverse and the reverse are exactly the same as in Ashoka Chakra.
- **Shaurya Chakra** The decoration is awarded for an act of gallantry during peacetime.
- This award is given to a film personality for his/her outstanding contribution to the growth and development of Indian cinema. The award comprises of a swarna kamal, a cash prize of Rs. 10,00,000 and a shawl.
- Dhundiraj Govind (Dadasheb) Phalke's silent feature film, **Raja Harishchandra** (1913) was first indigenous feature film of India.
- Ardeshir Irani in 1931, released first full length talkies film **Alam Ara**. **Mrs Devika Rani Roerich** was the first person to receive Dadasaheb Phalke Award in 1969.

Sports Awards

- **Rajiv Gandhi Khel Ratna** is instituted in 1991-92 with the objective of honouring most outstanding sports-person to enhance their general status. It is the highest award bestowed to a sports person in India.
- **Arjuna Award** instituted in 1961 by the Government of India to recognise outstanding achievement in National Sports. The award carries a cash prize, a bronze statue of Arjuna and a scroll of honour.
- **Dronacharya Award** instituted in 1985 by the Government of India to recognise excellence in sports coaching. The award carries a cash prize, a bronze statue of Dronacharya and a scroll of honour.
- **Dhyanchand Award** instituted in 2002, carries a cash prize, a plaque and a scroll of honour. This honour is given to those sportspersons who have contributed to sportspersons, and sports by their performance and continue to contribute their promotion for sports even after their retirement from active sporting career.

Indian Cinema Awards

Dadasaheb Phalke Award

- Dadasaheb Phalke is known as the Father of Indian Cinema. The highest National Film Award is named after him in 1969.

Other National Awards

Bharatiya Jnanpith Award

- Instituted in 22nd May, 1961, carries a cash prize of ₹ 11 lakh, a citation and a bronze replica of Vagdevi (Saraswati).
- This award is given for the best literary writing by an Indian citizen in a language listed in Eighth Schedule of the Indian Constitution.

Gandhi Peace Prize

- Established in 2nd October, 1994, on the occasion of the 125th birthday anniversary of Mahatma Gandhi, carries a cash prize of ₹ 1 crore.
- Indian Government instituted this annual prize to encourage and promote the significance of Gandhian values over the world.

Indira Gandhi Prize for Peace, Disarmament and Development

- Instituted in 1985, this prestigious award is regarded as 'Nobel' and over the years, it has been awarded to those persons who have done outstanding work for international peace, disarmament and development.

Borlaug Award

- Instituted in 1973, carries a cash prize of ₹ 5 lakh. Instituted to honour outstanding agricultural scientists.

Sahitya Akademi Award

- Awarded for outstanding literary work and carries a cash prize of ₹ 1 lakh.
- Sahitya Akademi gives 22 awards for literary works in the languages which has recognised works.

INDIAN DEFENCE

Indian Army Commands

<i>Command</i>	<i>HQ Location</i>	<i>Command</i>	<i>HQ Location</i>
Central Command	Lucknow	South-Western Command	Jaipur
Eastern Command	Kolkata	Western Command	Chandigarh
Northern Command	Udhampur	Training Command	Shimla
Southern Command	Pune		

Indian Air Force Commands

<i>Command</i>	<i>HQ Location</i>	<i>Command</i>	<i>HQ Location</i>
Central Air Command	Prayagraj	Western Air Command	New Delhi
Eastern Air Command	Shillong	Maintenance Command	Nagpur
Southern Air Command	Thiruvananthapuram	Training Command	Bengaluru
South-Western Air Command	Gandhinagar		

Indian Navy Commands

<i>Command</i>	<i>HQ Location</i>
Western Naval Command	Mumbai
Eastern Naval Command	Vishakhapatnam
Southern Naval Command	Kochi

Note Andaman and Nicobar Command at Port Blair is the only Tri-service Command of Armed Forces.

Indian Defence Training Institutions

<i>Training Institution</i>	<i>Place</i>	<i>Estd in</i>
Rashtriya Indian Military College (RIMC)	Dehradun	1922
Army Cadet College (ACC)	Dehradun	1929
Indian Military Academy (IMA)	Dehradun	1932
National Defence Academy (NDA)	Khadakwasla, Pune	1941
High Altitude Warfare School (HAWS)	Gulmarg	1948
National Defence College (NDC)	New Delhi	1960
Officers Training Academy (OTA)	Chennai	1963
Counter Insurgency and Jungle Warfare School	Vairengte (Mizoram)	1970
College of Defence Management	Secunderabad	1970
College of Combat/Army War College	Mhow (Madhya Pradesh)	1971
Army School of Physical Training (ASPT)	Pune	1978
Army Air Defence College (AADC)	Gopalpur (Odisha)	1989
Officers Training Academy	Gaya	2011
Indian National Defence University (INDU)	Gurgaon (Haryana)	2013

Ranks of Commissioned Officers

<i>Army</i>	<i>Air Force</i>	<i>Navy</i>
General	Air Chief Marshal	Admiral
Lt. General	Air Marshal	Vice Admiral
Major General	Air Vice Marshal	Rear Admiral
Brigadier	Air Commodore	Commodore
Colonel	Group Captain	Captain
Lt. Colonel	Wing Commander	Commander
Major	Squadron Leader	Lt Commander
Captain	Flight Lieutenant	Lieutenant
Lieutenant	Flying Officer	Sub-Lieutenant

Missiles and other Weapons

<i>Name</i>	<i>Class</i>	<i>Range</i>
Agni II	MRBM	2500 km
Agni III	IRBM	3500 km-5500 km
Agni IV or Agni II Prime	IRBM	4000 km
Agni V	ICBM	5000 km-6000 km
Agni VI	ICBM	8000-10000 km
Barak	MRSAM	100 km
Dhanush	SRBM	350 km
Nirbhay	Subsonic Cruise Missile	1000 km
Brahmos	Supersonic Cruise Missile	290 km
Brahmos 2	Hypersonic Cruise Missile	290 km
Prithvi I	SRBM	150 km
Prithvi III	SRBM	350 km
Rudram	Air to Surface Anti-radiation Missile	125 km
Sagarika	SLBM	700 km
Shourya	TBM	700 km
Astra	Air to Air Missile	80 km-100 km
Nag	Anti-Tank	7 km

Note Recently, a post, Chief of Defence Staff is created to help improve coordination among the three services of Armed Forces. It is the highest ranking (4-Star Officer) in the Armed Forces and is head of the military staff of Armed Forces and Chief Executive of Department of Military Affairs.

Paramilitary, Reserve Forces and other Agencies

Indo-Tibetan Border Police (ITBP)	<ul style="list-style-type: none"> It was established in 1962, after the Chinese attack. It is basically employed in the Northern borders for monitoring the borders and also to stop smuggling and illegal immigration.
National Security Guards (NSG)	<ul style="list-style-type: none"> It was established in 1984 to counter the surge of militancy in the country. It is a highly trained force which deals with the militants effectively.
Central Industrial Security Force (CISF)	<ul style="list-style-type: none"> It was set-up in 1969 after the recommendations of Justice B Mukherji. Its objective is to monitor the industrial complexes of Central Government.
Assam Rifles	<ul style="list-style-type: none"> It was established in 1835 and is the oldest paramilitary force in the country. Its main objective is to keep vigilance of international borders in North East and counter insurgency operations in Arunachal Pradesh, Manipur, Mizoram and Nagaland.
Border Security Force (BSF)	<ul style="list-style-type: none"> It was established in 1965. It keeps a vigil over the international borders against the intrusion in the country.

National Cadet Corps (NCC)	<ul style="list-style-type: none"> It was established in 1948. Its main objective is to stimulate interest among the youth in the defence of the country in order to build up a reserve manpower to expand armed forces.
Central Reserve Police Force (CRPF)	<ul style="list-style-type: none"> It was set-up in 1939. Its main objective is to assist the State / Union Territory Police in maintenance of law and order. The 88th Battalion of CRPF, known as 'Mahila Battalion' (commissioned on 30th March, 1986) is the world's first paramilitary force comprising entirely of women.
Territorial Army (TA)	<ul style="list-style-type: none"> It was established in 1948. It is a voluntary, part-time force (between 18 and 42 years), not of professional soldiers, but civilians who wish to assist in defence of the country.
Home Guard	<ul style="list-style-type: none"> It was established in 1962, to assist the police in maintaining security, to help defence forces and to help local authorities in case of any eventuality.
Indian Coast Guard	<ul style="list-style-type: none"> It was set-up in 1978. Its objective is to protect the maritime and other national interests in the maritime zones of India.
Intelligence Bureau (IB)	<ul style="list-style-type: none"> It was set-up in 1920. Its objective is to collect secret information relating to country's security. It was originally set-up as Central Special Branch (CSB) in 1887 and renamed IB in 1920.
Central Bureau of Investigation (CBI)	<ul style="list-style-type: none"> It was established in 1963. Its objective is to investigate cases of misconduct by public servants, cases of cheating, embezzlement and fraud. CBI is also entrusted with the investigation of international crime cases in collaboration with INTERPOL.
National Crime Records Bureau (NCRB)	<ul style="list-style-type: none"> It was established in 1986. Its objective is to collect crime statistics at the national level, information of inter-state and international criminals to help investigation agencies.
Rapid Action Force (RAF)	<ul style="list-style-type: none"> It was established in 1991. Under the operational command of CRPF, 10 battalions of the CRPFs have been re-oriented for tackling communal riots in the country.

Nuclear and Space Research Centres in India

<i>Research Centre</i>	<i>Place</i>
Indian Rare Earths Limited	Mumbai
Uranium Corporation of India Limited	Jadugoda (<i>Jharkhand</i>)
Atomic Energy Commission (<i>AEC</i>)	Mumbai
Electronics Corporation of India Limited	Hyderabad
Bhabha Atomic Research Centre (<i>BARC</i>)	Trombay (<i>Mumbai</i>)
Radio Astronomy Centre	Ootacamund (<i>Tamil Nadu</i>)
Tata Institute of Fundamental Research	Mumbai
Saha Institute of Nuclear Physics	Kolkata
Centre of Earth Sciences Studies	Thiruvananthapuram (<i>Kerala</i>)
Physical Research Laboratory	Ahmedabad
Space Commission	Bengaluru
Vikram Sarabhai Space Centre	Thiruvananthapuram
Indian Space Research Organisation (<i>ISRO</i>)	Bengaluru
Space Application Centre	Ahmedabad
Thumba Equatorial Rocket Launching Station	Thumba (<i>Kerala</i>)
Second Satellite Launch Port (Planned)	Thoothukudi (<i>Tamil Nadu</i>)