

- (c) Hand tools: Pear-shaped tools used for cutting or smashing.
 Core tools: Larger stones chipped to create sharp edges for cutting and digging.
 Flint tools: Smaller, sharp tools made from flint for detailed cutting like through animal skin.
4. (a) (vi) (b) (v) (c) (i) (d) (v)
 (e) (ii) (f) (iii)
5. (a) nomadic (b) Acheulian (c) stone (d) Flint
 (e) hand tools
6. (a) False (b) True (c) False (d) False
 (e) False (f) True
7. (a) Neolithic Age (b) Wheat, barley, and rice
 (c) Cultivation allowed early humans to settle in one place, leading to the development of stable communities and eventually, the rise of civilization.

Chapter 3: The First Farmers and Herders

1. (a) (ii) (b) (iv) (c) (iii) (d) (i)
 (e) (iii) (f) (ii)
2. (a) Two changes in the life of early man during the Neolithic Age included the beginning of farming and settling down in one place, leading to the formation of villages.
 (b) Burial practices of the Neolithic Age are important sources of information because they contain artifacts, remains, and other items that provide insights into the social and cultural aspects of the people.
 (c) Changes in the creation of tools during the Neolithic Age include the use of polished stone tools and the development of tools for farming and building.
 (d) The Chalcolithic Age is the period in human history where both stone and copper tools were used, marking a transition from the Stone Age to the Bronze Age.
 (e) Building activities undertaken by Neolithic people included constructing permanent homes and communal structures using mud-brick, developing large buildings like granaries, and the creation of settlements.
3. (a) As Neolithic people began cultivating crops, they needed ways to store their surplus food safely. This need led to the development of pottery, which provided durable and secure storage for grains and other foods. Pottery became essential as it helped in keeping the food safe from pests and the weather, leading to better survival strategies during harsh conditions and non-harvest seasons.
 (b) The earliest plants that were domesticated include wheat and barley. For animals, the first to be domesticated were dogs, followed by goats and sheep. These domestications played crucial roles in the development of agriculture and sedentary human societies.
 (c) The Fertile Crescent is a region in the Middle East that includes parts of modern-day Iraq, Syria, Lebanon, Israel, and Jordan. It is named so because of its fertile land and crescent shape. This area was among the first in the world where people started farming, leading to the rise of early civilizations due to its rich soils and ample water supply.
 (d) The invention of agriculture marked a fundamental shift from nomadic to settled life. People could now grow their food, which allowed them to live in one place rather than moving constantly in search of food. This stability led to the development of villages, advancements in tools, crafts, and trade, and the formation of more complex social structures and governance.
 (e) The Chalcolithic Age is known as the Copper Age because it was the era during which humans first discovered and started utilizing copper extensively, alongside stone tools. The use of copper marked

a significant advancement in technology and craft, leading to improved tools and artifacts. This period bridged the gap between the Neolithic period's stone tool use and the Bronze Age's more advanced metallurgy.

4. (a) (v) (b) (ii) (c) (iv) (d) (i)
(e) (ii)
5. (a) Wheel (b) Copper (c) Fertile Crescent (d) Catal Hayuk
(e) Ireland (f) Cow, bull
6. (a) False (b) True (c) False (d) True
(e) True

Chapter 4: The First Cities

1. (a) (ii) (b) (ii) (c) (iii) (d) (i)
(e) (ii) (f) (ii) (g) (ii)
2. (a) The Great Bath was a large public bathing structure in Mohenjodaro, made of brick, coated with plaster, and made watertight with bitumen. It included steps leading down from both sides into the pool.
(b) Seals during the Harappan civilization were used for trade and administrative purposes, often bearing symbols or script that likely indicated ownership or identity.
(c) Two reasons for the decline of the Indus Valley Civilization include ecological changes such as shifting river courses or drying up of the river, and potential invasions or conflicts with other cultures.
(d) Evidence of Lothal's advancement in science includes its sophisticated town planning, a dockyard for trading ships, and advanced bead-making and metallurgy techniques.
(e) Craftsmen of the Harappan era demonstrated skill through their intricate beadwork and the uniformity and standardization seen in bricks and weights used in construction and trade.
3. (a) The script used by the people of Harappa, known as the Indus script, is largely pictographic with around 400 to 600 distinct symbols. This script appears on various seals, pottery, tools, and other artifacts uncovered from Harappan sites. Despite extensive studies, the script has not been deciphered, and as such, much about the language or the content it represents remains unknown. The script's complexity suggests a sophisticated system used for administrative or ceremonial purposes, reflecting the advanced urban culture of the Harappan people.
(b) Several features of the Harappan civilization indicate the presence of a form of government or administrative control. The uniformity in the weights and measures used across a vast area, extensive urban planning, standardized brick sizes, and the complex drainage and sewage systems suggest centralized planning and regulatory control. Additionally, the presence of large granaries as communal storage facilities may indicate an organized way of managing agricultural produce, which is a sign of governance.
(c) Yes, the Harappan civilization had extensive trade relations with other regions and countries. Evidence of trade is seen through the discovery of Harappan seals, beads, and other goods in Mesopotamia (modern-day Iraq) and the Gulf region, indicating active trade routes. Additionally, materials like lapis lazuli from Afghanistan and other precious stones found at Harappan sites suggest that the civilization engaged in long-distance trade. These interactions helped in the cultural and economic exchange between the Harappan civilization and distant lands, underlining its significance as a major trade hub in the ancient world.
4. (a) (iii) (b) (v) (c) (iv) (d) (i)
(e) (ii)

5. (a) Granary (b) Khol (c) Civilization (d) Seal
 (e) Lapis Lazuli (f) Peepal
6. (a) The citadel in Harappan cities like Mohenjodaro was a raised platform that was architecturally distinct from the lower city areas. It was likely constructed to protect against floods and for defensive purposes. The citadel contained major public buildings, administrative centers, and possibly housing for the elite or ruling classes. It was made of mud bricks and featured advanced urban planning, including excellent drainage systems and structured layouts.
- (b) The citadel was primarily used for administrative or ceremonial purposes. It housed significant public buildings such as granaries, assembly halls, and possibly temples. The elevated design also suggests its use for protection against flooding and as a defensive stronghold in times of conflict. Moreover, its strategic location and construction indicate its importance in governance and social organization within the Harappan society.
- (c) Another name for natural tar used in Harappan architecture is "bitumen." Bitumen was used as a waterproofing material, especially notable in the construction of the Great Bath at Mohenjodaro, where it helped to make the structure watertight.
- (d) The oblong structure in Mohenjodaro is referred to as "the Great Bath." It is one of the most famous architectural findings from the Indus Valley Civilization, illustrating the advanced urban planning and public water management systems of the Harappans. The Great Bath was likely used for ritualistic or ceremonial bathing, indicating its religious or social significance.

Chapter 5: Changes and Development with the Arrival Aryans

1. (a) (i) (b) (ii) (c) (ii) (d) (iv)
 (e) (iii) (f) (ii) (g) (i)
2. (a) During the Aryan period, the political structure was centered around tribal chiefdoms led by a king or 'Rajan', supported by a council of elders and tribal assemblies. The king was responsible for the tribe's welfare, leading in warfare, and upholding dharma.
- (b) The religion of the Early Vedic Age was polytheistic and ritualistic, focusing on the worship of nature gods like Indra and Agni through sacrifices and hymns (Rigveda) to maintain cosmic order.
- (c) In the Early Vedic Age, the main occupations were cattle rearing and small-scale agriculture. By the Later Vedic Age, agriculture became more dominant, supplemented by crafts such as pottery, weaving, and metalwork.
- (d) Brahmanas are prose texts that explain the rituals and myths associated with the hymns of the Vedas. They serve as commentaries that detail the ceremonial significance and proper performance of Vedic rituals.
- (e) In the later Vedic period, Prajapati emerged as a significant new deity, often considered the lord of creatures and the creator, representing the abstract aspects of existence and creation in Vedic mythology.
3. (a) The main literary sources from the Vedic Age are the Vedas, which consist of four divisions: Rigveda, containing hymns to deities; Samaveda, verses for chanting; Yajurveda, a collection of sacrificial rituals; and Atharvaveda, which includes spells and charms. These texts provide insights into the religious practices, social structure, and philosophical concepts of early Vedic society.
- (b) The Aryans were an Indo-European people who migrated into the Indian subcontinent around 1500 BCE. They are believed to have originated from the steppes of Central Asia, near modern-day

Kazakhstan, and migrated through the northwest passages into India, bringing with them distinct cultural and linguistic traits that blended with the local cultures.

- (c) After settling in the Ganga Yamuna doab, the Aryans transitioned from a primarily pastoralist society to a more settled agricultural society. They cleared forests to expand agricultural activities and established more permanent settlements. This shift supported larger populations and led to the development of complex societies and the expansion of trade networks.
- (d) In the later Vedic Age, the political life became more structured with the emergence of kingdoms and republics. The power of the king increased, and the role of the assemblies diminished. The concept of state and governmental machinery developed, with official positions and administrative divisions becoming more defined, reflecting a shift from tribal to more centralized governance systems.
- (e) Aryan society was divided into four main groups or Varnas: Brahmins (priests and teachers), Kshatriyas (warriors and rulers), Vaishyas (traders, farmers, and artisans), and Sudras (laborers and service providers). Each group had specific duties and functions: Brahmins performed religious rituals; Kshatriyas upheld law and order; Vaishyas handled commerce, agriculture, and craft; Sudras served the other three groups.
4. (a) Varuna (b) Vedas (c) Senani (d) Sudras
(e) Iron (f) Rigveda
5. (a) Central Asia (b) Atharvaveda (c) 1000 B.C. to 600 B.C (d) Indo-Aryans
(e) Indra, Varuna, and Agni (f) Maharashtra
6. **Across**
(a) Agni (b) Vedas (c) Bharatas
Down
(d) Shiva (e) Sabha (f) Gurukul (g) Samiti

Chapter 6: The Deccan and the Southern India

1. (a) (iv) (b) (iii) (c) (iv) (d) (iii)
(e) (iv) (f) (iv) (g) (iii) (h) (iii)
2. (a) The Satavahanas were an ancient Indian dynasty that ruled in the Deccan and central India. They came into prominence after the decline of the Mauryan Empire and are known for their contributions to art, culture, and administration. They helped in establishing peace and stability, allowing trade and commerce to flourish.
- (b) A variety of articles were exported from ancient India to Rome, including spices (like pepper and cinnamon), fine textiles (such as silk and cotton), precious stones, pearls, and ivory. These goods were highly valued in Rome for their quality and exotic nature.
- (c) After the decline of the Mauryan Kingdom, several regional kingdoms emerged, including the Sunga, Kanva, and Satavahana dynasties in central and southern India, as well as the independent states of Kalinga, and the kingdom of the Kushanas in the northwest.
- (d) Lord Buddha is called the “Light of Asia” because his teachings enlightened people about the path to Nirvana—freedom from suffering and the cycle of rebirth. His philosophy and moral code had a profound impact on the lives of millions across Asia, offering a guiding light towards peace and ethical living.
- (e) The Silk Route was an ancient network of trade routes that connected the East and West, facilitating not only the exchange of silk and other goods but also the transmission of ideas, culture, and technology. It played a crucial role in economic and cultural interactions between civilizations across Asia and Europe.

- (f) Chaityas were Buddhist shrines or prayer halls that typically housed a stupa and were used for worship and meditation. These structures were integral to Buddhist monastic complexes and were elaborately decorated with sculptures and carvings, reflecting the artistic heritage of the period.
3. (a) Chaityas and Stupas were significant in Buddhist religious practices. Chaityas, primarily prayer halls, were used for worship and meditation. Stupas, mound-like or hemispherical structures containing relics, typically of Buddha or other monks, served as a focal point for meditation and represented the Buddha's presence. They helped disseminate the essence of Buddha's teachings and were pivotal in ritual activities.
- (b) Kanishka, an emperor of the Kushan dynasty, played a crucial role in the spread of Buddhism. He supported Buddhist teachings and convened the Fourth Buddhist Council in Kashmir, which was significant for the formal division between Mahayana and Theravada Buddhism. His patronage helped Buddhism expand beyond India into Central Asia and China, establishing it as a world religion.
- (c) Buddhism spread beyond India through trade routes and the active patronage of influential leaders like Ashoka and Kanishka. Monks traveled along the Silk Road to Central Asia, China, and Southeast Asia, translating texts and establishing monastic schools. Ashoka's missionaries promoted Buddhism in Sri Lanka and Southeast Asia, fostering its acceptance and integration into local cultures.
- (d) Gautamiputra Satakarni was a prominent ruler of the Satavahana dynasty in ancient India. He revitalized his empire by defending it against invasions and expanding its territory. His reign marked economic prosperity and cultural flourish. He is celebrated for promoting trade, maintaining effective administration, and strengthening the cultural identity and unity of his empire.
- (e) After Ashoka's death, the Mauryan Empire declined due to weak succession and administrative control. The vast empire faced challenges in maintaining order and managing its extensive territories. Economic difficulties and internal rebellions further weakened the state, leading to its fragmentation and eventual takeover by smaller regional kingdoms and foreign invaders.
- (f) The Greco-Roman style of art, evident in the Gandhara school, was a syncretic blend of Greek, Roman, and Indian influences, particularly during the post-Alexander period in regions like Afghanistan and northwest India. Characterized by realistic human figures, drapery, and expressive faces, this style significantly influenced Buddhist sculpture, portraying the Buddha in a more humanized form, incorporating elements like voluminous robes and detailed anatomical features.
4. (a) different religions and sects (b) Simuka (c) Kushan dynasty
(d) Andhras (e) Indigenous
5. (a) **Deccan:** The Deccan refers to the plateau in South India, located between the Eastern and Western Ghats. It is known for its rich cultural heritage and historical significance.
- (b) **Chaityar:** Assuming the term is intended to be "Chaitya," it refers to a Buddhist shrine or prayer hall with a stupa at one end.
- (c) **Andhrar:** Likely referring to "Andhras," which is another name for the Satavahanas who ruled in the present-day Andhra region.
- (d) **Silk Route:** The Silk Route was an ancient network of trade paths that facilitated the exchange of goods, culture, and ideas between the East (China) and the West (Mediterranean).
6. (a) (v) (b) (i) (c) (iv) (d) (ii)
(e) (iii)

Chapter 7: New Empires and Kingdoms

1. (a) (ii) (b) (i) (c) (i) (d) (iv)
(e) (ii) (f) (ii) (g) (i) (h) (ii)

2.
 - (a) Harsha was initially a worshipper of Shiva but later became an ardent follower of Buddhism. He supported both Hinduism and Buddhism, patronizing many religious assemblies and promoting religious tolerance and scholarship.
 - (b) The emergence of Samantas, or feudal lords, was a result of the decentralization of political power during the Gupta period and afterwards. As central control weakened, local rulers gained more autonomy and power, becoming feudal lords under larger sovereigns to whom they paid tribute in exchange for protection and the right to govern their territories.
 - (c) Samudragupta was known for his patronage of the arts and culture, as evidenced by the cultural renaissance during his reign. He supported scholars, artists, and musicians, and his court was a center of literary and artistic activities, which is well-documented by inscriptions and the accounts of court poets like Harisena.
 - (d) The conflict between the Pallavas and the Chalukyas was primarily due to territorial expansion and control over lucrative trade routes. These dynastic rivalries were marked by frequent battles over strategic regions in southern India, each aiming to dominate the other politically and economically.
 - (e) Chandragupta II assumed the titles of 'Vikramaditya' and 'Sakari', signifying his prowess and success in expanding his empire and defeating foreign invaders, including the Sakas.
 - (f) Pulakesin II was a prominent king of the Chalukya dynasty in India, known for his military conquests and the administration of a vast kingdom that included most of the Deccan region. He is also famed for his resistance against the north Indian Emperor Harsha, successfully stopping his southward expansion at the Narmada River.
3.
 - (a) The Gupta period is considered the Golden Age of ancient India due to its significant advancements in arts, science, and culture. During this era, there were major developments in various fields including mathematics, astronomy (Aryabhata), literature (Kalidasa), and architecture (rock-cut temples). The period was marked by political stability, economic prosperity, and flourishing trade, which contributed to the cultural renaissance and intellectual achievements.
 - (b) Samudragupta is often referred to as the 'Indian Napoleon' due to his great military conquests that extended the Gupta Empire across much of the Indian subcontinent. Like Napoleon, Samudragupta was known for his brilliant strategic skills and swift, aggressive expansion tactics. His campaigns are well-documented on the Allahabad Pillar, which glorifies his victories and the way he established a vast empire.
 - (c) Chandragupta Maurya was the founder of the Maurya Empire and achieved the unification of India under one administration for the first time in history. He established a centralized government and developed an efficient bureaucracy with a network of spies. His reign saw the implementation of economic regulations and he maintained peace and security through his well-organized administrative system. Chandragupta's patronage of Jainism in his later years also marked a significant cultural and religious contribution.
 - (d) The Gupta administration was marked by a decentralized yet effective system of government. While the emperor held supreme power, much of the governance was carried out by local rulers and officials who were given considerable autonomy. The empire was divided into provinces and further into districts. Local administration was overseen by officials like the Kumaramatyas and governed according to a well-structured bureaucracy. This system facilitated trade, cultural exchanges, and stability within the empire.
 - (e) Chandragupta II, also known as Vikramaditya, further strengthened the administrative framework laid by his predecessors. His reign was known for political stability, economic prosperity, and cultural development. He expanded the empire through military conquests and diplomacy and maintained effective control through a centralized administration. His court was a center of learning and arts, attracting scholars from various fields. The effective administrative practices of his reign contributed to making it a period of cultural and economic flourishing.

- (f) The decline of the Gupta Empire was due to a combination of internal weaknesses and external pressures. The succession after Chandragupta II saw less capable rulers, which weakened central control. The empire also faced financial problems and administrative disarray. Externally, it was challenged by the Pushyamitras in the east and the Hun invasions from the northwest. These factors combined to bring about the gradual disintegration of the empire by the late 6th century AD.
4. (a) Kumaradevi (b) the Veena (c) Bhuktis (d) Samantas
(e) Harsha
5. (a) False (b) True (c) True (d) False
(e) True
6. (a) **Maharajadhiraja:** A Sanskrit title used in ancient and medieval India, signifying “King of Kings” or “Great King.” It denotes a higher status than Rajadhiraja and is often used to assert sovereignty or supreme status among kings.
- (b) **Sakari:** Means “enemy of the Sakas.” It is a title assumed by some Indian kings who fought against the Saka invaders/scythians.
- (c) **Prashasti:** A genre of Indian historical writing, prashastis are eulogistic inscriptions that praise the king or patron commissioning the inscription. They typically extol the virtues and accomplishments of their subjects.
- (d) **Samantas:** Feudal lords or military chiefs in ancient India who were granted land in return for their services to a higher king. Over time, they became hereditary landholders.
7. (a) Vishyapati (b) Varahamihira (c) Samudragupta
(d) Vikramaditya (e) Kanauj

Chapter 8: Culture and Science

1. (a) (ii) (b) (iii) (c) (iv) (d) (iv)
(e) (iii) (f) (ii) (g) (iv) (h) (ii)
2. (a) The four Vedas are the Rigveda, Yajurveda, Samaveda, and Atharvaveda.
- (b) Kalidasa’s works include “Abhijnanashakuntalam” (a play), “Meghaduta” (a lyrical poem), “Kumarasambhava” and “Raghuvamsha” (epic poems).
- (c) Our cultural heritage includes tangible heritage like monuments, manuscripts, tools, and artifacts, as well as intangible heritage such as traditions, languages, rituals, and practices.
- (d) Important texts of secular literature in ancient India include the Arthashastra by Kautilya, which discusses statecraft, economic policies, and military strategy. Other examples are the Kamasutra by Vatsyayana, which details aspects of human relationships and living.
- (e) The oldest text on surgery is the “Sushruta Samhita,” attributed to Sushruta, which includes descriptions of surgical techniques, instruments, and medicinal treatments.
- (f) The Gandhara School of Art developed during the Kushana period, known for its syncretic style combining Indian and Greco-Roman elements, especially in Buddhist sculptures.
3. (a) Ashoka’s stupas, constructed during his reign after converting to Buddhism, were solid hemispherical structures built to house relics of the Buddha. The most famous, the Sanchi Stupa, originally built with bricks and later encased in stone, features intricate carvings depicting Buddhist legends. These stupas were not only religious monuments but also markers of the spread of Buddhism across his empire.
- (b) stupas and rock-cut caves. These structures evolved from simple mounds to elaborate monuments adorned with carvings and frescoes depicting the life of Buddha. The design of Buddhist monasteries

(viharas) and prayer halls (chaityas) also influenced religious architecture, leading to innovations in structural and decorative elements.

- (c) Pallava architecture, prominent between the 6th and 9th centuries, is celebrated for pioneering rock-cut and structural temples in South India. Notable examples include the Shore Temple and the Pancha Rathas at Mahabalipuram, which are UNESCO World Heritage sites. These temples feature sculpted panels and are significant for their role in the transition from rock-cut to free-standing structural temples.
- (d) India's contributions to science and technology are vast, including the introduction of the concept of zero, advancements in mathematics by Aryabhatta and Brahmagupta, and significant developments in medicine and surgery documented in the texts of Sushruta and Charaka. Indian astronomers proposed that the earth orbits the sun long before the European Renaissance. Techniques in metallurgy and textiles also saw significant advancements.
- (e) Ancient Indian architecture is marked by its diversity, from the urban planning of the Indus Valley Civilization to the monumental temples of the later periods. Early examples include the planned cities of Harappa and Mohenjo-Daro with their advanced drainage systems. Later, the focus shifted to religious structures like Buddhist stupas, Hindu temples, and ornate cave complexes, each with distinct artistic styles and construction techniques.
- (f) Aryabhatta was a pioneering Indian mathematician and astronomer from the 5th century AD, known for his work "Aryabhatiya," where he formulated the approximation of pi (π) and the area of a triangle, proposed the heliocentric theory of gravitation, and explained lunar and solar eclipses scientifically. His works laid the foundations for algebra and influenced mathematical thought well into the medieval period.
4. (a) The Iron Pillar (b) stupas (c) Kushan period (d) Silappathikaram
(e) Brahmagupta
5. (a) True (b) False (c) True (d) False
(e) False
6. (a) (v) (b) (iii) (c) (i) (d) (ii)
(e) (iv)
7. (a) **Pradakshina:** The act of walking around a sacred object, shrine, or deity in a clockwise direction, performed as a form of reverence and worship in Hindu and Buddhist practices.
(b) **Chaityas:** Rock-cut shrines or halls in India, typically associated with Buddhist architecture, used for prayer and meditation, often housing a stupa.
(c) **Garbhagriha:** The innermost sanctuary of a Hindu temple where the main deity is enshrined; literally meaning 'womb-chamber,' it is the most sacred area of the temple.
(d) **Panchatantra:** A collection of ancient Indian animal fables written in Sanskrit, attributed to Vishnu Sharma, aimed at imparting moral education to children through simple, engaging stories.

Chapter 9: Earth in the Solar System

1. (a) (iii) (b) (i) (c) (ii) (d) (iii)
(e) (iii)
2. (a) Planets are celestial bodies that do not produce their own light or heat; they are visible because they reflect the sunlight. They vary in composition and size, are spherical in shape, and rotate on their axes. Stars, on the other hand, are massive celestial bodies made up of hot glowing gases that produce their own light and heat.

- (b) Venus is called the Morning Star because it is very bright and often visible in the sky at dawn or dusk. It is known as Earth's twin because it is similar in size to Earth.
- (c) A constellation is a group of stars that forms a recognizable pattern in the sky. The Big Dipper (part of the Ursa Major constellation) and the Little Dipper are two groups of stars that point to the Pole Star, Polaris.
- (d) Meteors are called 'shooting stars' because they produce a brief, bright streak of light as they burn up while entering Earth's atmosphere. This bright streak is due to the burning of the meteoroid due to friction with the Earth's atmosphere .
3. (a) False (b) False (c) False (d) True
(e) True (f) True
4. (a) Mercury (b) The Sun (c) Jupiter (d) Meteors
(e) Klemola
5. (a) Mercury (b) Uranus (c) the Milky Way (d) Jupiter
(e) light year (f) Saturn
6. (a) The planet that takes the longest to revolve around the sun is Neptune (164.8 years).
(b) The planet that is the farthest from the sun is Neptune.
(c) The planet that takes longer to rotate than to complete one revolution is Venus (rotation period 243 days, revolution period 224.7 days).
(d) The planets that have more satellites are the Jovian planets (Jupiter, Saturn, Uranus, Neptune) as opposed to the Terrestrial ones (Mercury, Venus, Earth, Mars).

Chapter 10: Utility of Globes and Maps

1. (a) (iv) (b) (i) (c) (ii) (d) (ii)
(e) (iii) (f) (ii)
2. (a) The essential elements of every map include the title, directions, scale, legends (signs and symbols), and latitudes and longitudes. These elements help to accurately convey the map's information and purpose.
(b) Conventional symbols are standardized signs used on maps to represent various geographical and man-made features, which are internationally recognized to ensure consistency and easy understanding. Symbols for a river bed (dry), grass, dam, spring, and metre gauge are specifically detailed in the list of symbols provided in the PDF, helping readers quickly identify these features on a map.
(c) Topographical maps show detailed natural and man-made features of a small area, including elevations and terrain, useful for land navigation. Nautical charts are specialized for marine navigation, detailing water depths, coastal contours, and navigational hazards, essential for safe and efficient maritime travel.
(d) Cardinal points are the four main directions or compass points: North, South, East, and West, used for navigation and orientation.
The scale of a map indicates the relationship between the distance on the map and the actual distance on the ground, helping to measure real-world distances from the map itself.
3. (a) compass (b) Title (c) Geological maps
(d) The globe (e) Latitude lines
4. (a) A north-south line is used on a map: This line helps to establish direction on the map. An arrow labeled 'N' at the top typically points to the north, making it easier to orient the map correctly and determine other directions such as south, east, and west.

- (b) Conventional symbols are used on maps: Conventional symbols standardize the representation of various physical features and elements across different maps. This standardization helps anyone using the map to quickly identify specific features like roads, rivers, or boundaries without confusion, regardless of who created the map or where it is used.
 - (c) Every map has some distortions: Distortions occur because the Earth is a three-dimensional object and a map is a two-dimensional representation. It's impossible to project the globe onto a flat surface without some distortion of area, shape, distance, or direction.
 - (d) People prefer to use maps instead of globes: Maps are more practical as they can be easily carried, stored, and can cover large areas of the Earth in varying detail, which makes them more versatile and useful for different purposes, such as navigation, planning, and education.
 - (e) A globe is the most accurate model of the earth: A globe accurately represents the shape of the Earth, its relative sizes, and distances between points without the distortions inherent in flat maps. This makes the globe the most precise way to understand the Earth's geography, though it is less convenient than maps.
- 5.** (a) (iii) (b) (i) (c) (ii) (d) (v)
(e) (iv)
- 6.** (a) Physical and topographical maps: Physical maps show natural features like mountains, rivers, and lakes using different colors to depict various landforms. Topographical maps detail the natural and man-made features of a smaller area, including elevation and terrain details.
- (b) Large-scale and small-scale maps: Large-scale maps cover small areas in great detail, ideal for city planning or construction. Small-scale maps cover large areas with less detail, suitable for broader overview like road atlases.
- (c) Map and globe: Maps are flat representations of the Earth's surface and can show details for specific areas or themes but have distortions. Globes provide a three-dimensional representation of the Earth, showing accurate shapes, sizes, and positions but are not practical for detailed navigation or planning.
- (d) Plan and sketch: A plan is a detailed drawing of a small area or room to scale, showing precise measurements and layouts. A sketch is an informal, not-to-scale drawing used to quickly convey ideas or layouts.
- (e) Nautical and aviation charts: Nautical charts are used for maritime navigation, showing coastal depths, hazards, and aids to navigation. Aviation charts display flight routes, altitudes, and airport data, crucial for aerial navigation.
- (f) Distribution and tourist maps: Distribution maps show the spread of various phenomena like vegetation, population, or climate across different areas. Tourist maps highlight points of interest, routes, and facilities for travelers.
- 7.** 1. Desk/Table - Rectangles placed to represent student seating arrangement.
2. Teacher's Desk - A larger rectangle or square, distinct from student desks.
3. Door - A line or arc indicating entry and exit points.
4. Windows - Lines along walls to represent window locations.
5. Blackboard/Whiteboard - A rectangle on one wall, labeled for clarity.
6. Bookcase or Shelves - Squares or small rectangles along walls.
7. Light fixtures - Small circles or stars on the ceiling plan.
8. Electrical Outlets - Small circles or specific symbols where power outlets are located.
9. Computer Station - A distinct symbol or a labeled area with computers.
10. Emergency Exit - A special symbol or sign near a door indicating emergency egress routes.

Chapter 11: Latitudes and Longitudes

- (iii)
 - (iv)
 - (iii)
 - (ii)
 - (ii)
- Latitudes are helpful as they allow us to determine the distance north or south of the equator, which is essential for navigation, climate studies, and geographic orientation.
 - It is necessary to have standard time for each country to coordinate times across different regions, especially those spanning multiple longitudes, to ensure consistency in travel, communication, and commerce.
 - The Earth has three major heat zones: the Torrid Zone, located between the Tropics of Cancer and Capricorn, which receives the most direct sunlight; the Temperate Zones, located between the tropics and the polar circles, which experience moderate temperatures; and the Frigid Zones, found beyond the Arctic and Antarctic Circles, which receive the least sunlight and are the coldest.
- Frigid Zone
 - Longitude
 - longitudes
 - Capricorn
 - meridians
- (iv)
 - (iii)
 - (i)
 - (ii)
 - (vi)
 - (v)
- Torrid Zone
 - Equator
 - Greenwich Mean Time (GMT)
 - Temperate Zone
 - Great Circle
 - Prime Meridian
- Latitudes and Longitudes - Latitudes are horizontal lines from east to west, determining north-south position. Longitudes are vertical lines from north to south, determining east-west position.
 - Local and Standard time - Local time is the actual solar time at a location, varying with longitude. Standard time is a uniform time established for a region, regardless of the sun's position.
 - Torrid and Frigid Zone - The Torrid Zone is warm as it receives direct sunlight around the equator. The Frigid Zone is cold, located around the poles where sunlight is slanted and less direct.
 - IDL and IST - The International Date Line (IDL) is a line of demarcation where the date changes by one day when crossed. Indian Standard Time (IST) is the time zone for India, 5:30 hours ahead of GMT.

Chapter 12: Rotation and Revolution

- (iii)
 - (iii)
 - (i)
 - (iv)
 - (i)
- Rotation is the daily movement of the Earth on its axis from west to east, taking about 24 hours to complete one full turn. If the Earth stopped rotating, we would experience prolonged periods of daylight and darkness, extreme temperature changes, and disrupted weather patterns, potentially devastating to life and the environment.
 - It is hotter in the tropics because this region receives more direct sunlight throughout the year. The sun's rays hit the tropics more directly compared to other regions, leading to higher temperatures.
 - A leap year occurs every four years to help synchronize the calendar year with the solar year. The Earth takes approximately 365.25 days to complete one orbit around the Sun. These extra quarter days accumulate, and every four years, an extra day (February 29) is added to align the calendar with the Earth's position in its orbit.
 - Seasons are caused by the tilt of the Earth's axis and its orbit around the Sun. This tilt leads to varying angles of sunlight and varying lengths of days and nights at different times of the year, which in turn cause seasonal changes.

- (e) Areas close to the equator have a maximum of twelve hours of daylight because the equator experiences nearly equal amounts of daylight and darkness throughout the year. This is due to the Earth's axis being tilted neither towards nor away from the sun, leading to consistent day lengths.
3. (a) Art emerged as early humans started to create cave paintings, possibly believing these images could influence their success in hunting. It was also a way to communicate feelings and emotions through visual means.
- (b) Fire allowed early humans to cook food, provided warmth, protection from wild animals, and light during the night.
- (c) Hand tools: Pear-shaped tools used for cutting or smashing.
Core tools: Larger stones chipped to create sharp edges for cutting and digging.
Flint tools: Smaller, sharp tools made from flint for detailed cutting like through animal skin.
4. (a) Circle of Illumination (b) 23.5 degrees (c) Dawn
(d) Rotation of the Earth (e) 23.5 degrees (f) Autumn Equinox
5. (a) **Rotation and Revolution**
Rotation: Earth's daily movement on its axis, causing day and night.
Revolution: Earth's movement around the Sun in a year, causing seasons .
- (b) **Calendar year and Leap year**
Calendar year: Consists of 365 days.
Leap year: Includes an extra day (366 days total), occurring every four years to align our calendar with the Earth's orbit around the Sun .
- (c) **Solstice and Equinox**
Solstice: Occurs when the sun reaches its highest or lowest point in the sky at noon, marked by the longest and shortest days.
Equinox: Occurs when the sun crosses the equator, making day and night of equal length .

Chapter 13: Realms of the Earth

1. (a) (ii) (b) (ii) (c) (ii) (d) (i)
(e) (iv) (f) (iv) (g) (iii)
2. (a) The atmosphere is crucial as it protects life on Earth by absorbing ultraviolet solar radiation, warming the surface through heat retention (greenhouse effect), and reducing temperature extremes between day and night. It contains the air we breathe and acts as a medium for weather phenomena like rain and snow.
- (b) The air's composition in the atmosphere by volume is approximately 78% nitrogen, 21% oxygen, and 1% other gases including argon, carbon dioxide, neon, helium, and methane.
- (c) Australia is called an Island Continent because it is the only country that occupies an entire continent and is surrounded by water, making it an island in geological terms. It is isolated from other continents.
- (d) North America is bordered by three major bodies of water: the Arctic Ocean to the north, the Atlantic Ocean to the east, and the Pacific Ocean to the west.
3. (a) False (b) False (c) False (d) True
(e) True
4. (a) Wind (b) Crust (c) Lake (d) Lake
(e) Atmosphere

5. (a) **Lithosphere and Hydrosphere:**

The lithosphere is the solid, outer part of the Earth, consisting of the crust and upper mantle. It is primarily composed of rocks and soil.

The hydrosphere includes all the Earth's water bodies, such as oceans, seas, lakes, rivers, and groundwater.

(b) **Lakes and Seas:**

Lakes are usually smaller than seas and are surrounded by land, which means they do not have direct access to the ocean.

Seas are larger than lakes and are partially enclosed by land but have a wider connection to the ocean.

(c) **Atmosphere and Biosphere:**

The atmosphere is a layer of gases surrounding the planet, vital for weather and climate.

The biosphere is the global ecological system integrating all living beings and their relationships, including their interaction with elements of the lithosphere, hydrosphere, and atmosphere.

Chapter 14: India : Our Motherland

1. (a) (i) (b) (i) (c) (i) (d) (iii)
(e) (iii)
2. (a) India is located in South Asia, between 8°4'N to 37°6'N latitude and 68°7'E to 97°25'E longitude. This strategic location along the ancient trade routes (Silk Road) contributes significantly to its cultural and commercial significance. It provides maritime advantages, with access to the major sea routes and proximity to the Middle East and Southeast Asia.
- (b) Three parallel ranges of the Himalayas:
Himadri (Greater Himalayas): Contains the highest peaks, including Mount Everest.
Himachal (Lesser Himalayas): Known for many popular hill stations and lush landscapes.
Shivalik (Outer Himalayas): The lowest range, known for its fertile valleys.
- (c) The Himalayas are crucial for providing water to a large part of the continent, influencing climate control by blocking cold winds from the north, and maintaining biodiversity.
- (d) It supports agriculture, is a source of freshwater, has significant cultural and religious importance, and supports dense population settlements.
- (e) Divided mainly into the Central Highlands and the Deccan Plateau. The Central Highlands are north of the Narmada River, and the Deccan Plateau is south of the river, flanked by the Eastern and Western Ghats.
3. (a) Eastern Coastal Plain is wider because of the extensive river systems and their delta formations which lead to broader coastal plains.
- (b) Northern Plains are the most fertile and densely populated due to the alluvial soil deposited by rivers which enhances agriculture, supporting higher population densities.
- (c) The sea along the eastern coast is unsuitable for harbours due to the shallow waters and extensive sediment deposits by rivers, which hinder deepwater navigation.
- (d) Difference of two hours between the western and eastern parts of India is due to the longitudinal extent of about 30 degrees, with a time difference of about four minutes per degree longitude.
- (e) Life of the people differs in each physical division of India due to variations in geography, climate, and natural resources affecting livelihoods, culture, and habits.

3.

<i>States of India</i>	<i>Language</i>	<i>Capital City</i>	<i>Important Festivals</i>
Jammu & Kashmir	Kashmiri	Srinagar (summer), Jammu (winter)	Eid-ul-Fitr, Eid-ul-Adha, Diwali, Navroz
Odisha	Odia	Bhubaneswar	Rath Yatra, Durga Puja, Makar Sankranti
Nagaland	English	Kohima	Hornbill Festival, Sekrenyi, Moatsu
Madhya Pradesh	Hindi	Bhopal	Diwali, Dussehra, Bhagoria Haat
Andhra Pradesh	Telugu	Amaravati	Ugadi, Sankranti, Deepavali

4. (a) harvest (b) Jawaharlal Nehru (c) transportation and communication
5. (a) Assam (b) Rajasthan (c) Kerala
(d) Maharashtra, Karnataka, Telangana, and Andhra Pradesh (e) Tamil Nadu

Chapter 16: Diversity, Discrimination and Equality

1. (a) (ii) (b) (iv) (c) (iii) (d) (iii)
(e) (i)
2. (a) Fundamental rights given by the constitution:
Right to Equality Right to Freedom
Right against Exploitation Right to Freedom of Religion
Cultural and Educational Rights Right to Constitutional Remedies
- (b) **Social Norms and Practices:** Discrimination often stems from long-standing social norms or practices, such as those based on caste, race, or gender, which segregate and create inequalities.
Economic Disparities: Economic inequality can lead to discrimination, with wealthier groups having greater access to resources, education, and opportunities, thereby perpetuating social hierarchies.
- (c) **Inequality** refers to the unequal distribution of resources and opportunities among members of society. It manifests in various forms like income disparity, unequal access to education, healthcare, and social mobility.
Prejudice is a preconceived opinion that is not based on reason or actual experience. It is often directed towards different social groups based on race, gender, caste, or religion and leads to biased attitudes or unjust behavior towards members of those groups.
- (d) Poverty can lead to inequality through the limitation of access to resources such as quality education, healthcare, and employment opportunities. Those in poverty often live in areas with fewer social services, face greater exposure to crime and pollution, and have less political influence. This lack of access and opportunity reinforces a cycle where the poor remain disadvantaged, perpetuating social and economic inequalities within society.
3. (a) Prejudice refers to preconceived opinions or judgments about people or groups without proper knowledge or experience. These opinions are often based on stereotypes and can involve any characteristic, such as race, gender, age, or religion. People tend to be prejudiced against those who differ from them or from the societal norm in some way.

- (b) Discrimination is the unjust or prejudicial treatment of different categories of people, especially on the grounds of race, age, or sex. Types of discrimination in society include racial discrimination, gender discrimination, age discrimination, discrimination based on disability, and sexual orientation discrimination.
- (c) Dr. B.R. Ambedkar is often called the Father of the Indian Constitution. His contributions include advocating for the rights of Dalits and other marginalized groups, chairing the Drafting Committee of the Constituent Assembly, and ensuring the Constitution enshrined principles of justice, equality, and fraternity, particularly through provisions for reservations, fundamental rights, and directive principles.
- (d) The government ensures equality for all citizens primarily through the enforcement of the Constitution, which includes Fundamental Rights ensuring equality before the law and prohibiting discrimination on grounds of religion, race, caste, sex, or place of birth. Additionally, various laws and policies like the Right to Education Act and affirmative action policies in public employment and higher education are used to promote equality.
4. (a) Dialects (b) Prejudice (c) Harijans (d) Fundamental Rights
(e) Discrimination
5. Stereotypes are generalized beliefs or ideas about a group of people that are often oversimplified and not based on factual reality. Prejudice involves negative attitudes or emotions directed at individuals from a certain group, based on stereotypes or irrational feelings.
(a) S (b) S (c) P (d) S
(e) S
6. (a) **Sovereign:** The state has supreme and absolute power within its internal and external affairs.
(b) **Democratic:** Government by the people, where supreme power lies in a system based on free and fair elections.
(c) **Republic:** A state in which supreme power is held by the people and their elected representatives, and which has an elected or nominated president rather than a monarch.
(d) **Fraternity:** Promoting brotherhood among all citizens.
(e) **Secular:** Principle of separation of the government institutions and persons mandated to represent the state from religious institutions and religious dignitaries.
7. (a) Disagree.
Rewrite: Both boys and girls can be equally proficient in cooking.
Reason: Cooking skills depend on individual interest, practice, and passion, not on one's gender.
- (b) Disagree.
Rewrite: People living in the countryside may have varying levels of proficiency in English, just as those in urban areas do.
Reason: Exposure to and education in any language, including English, depends on the educational opportunities available rather than geographical location.
- (c) Disagree.
Rewrite: Sincerity in studying is a personal attribute that varies from individual to individual, irrespective of gender.
Reason: Both boys and girls can be equally sincere or insincere in their studies based on personal habits and motivations.
- (d) Disagree.
Rewrite: Everyone has emotions, and expressing them through crying is natural for both boys and girls.
Reason: It's healthy for all individuals to express their feelings openly, regardless of gender.

Chapter 17: Government

- (a) (ii)
 - (b) (i)
 - (c) (i)
 - (d) (i)
 - (e) (ii)
- (a) Switzerland is a notable example where women were granted the right to vote in federal elections in 1971; however, in the canton of Appenzell Innerrhoden women obtained the right in 1991.
 - (b) Governments are essential for maintaining law and order, protecting the country, managing economic and social infrastructure, and ensuring the rights and freedoms of citizens. They create laws, policies, and regulations to help manage and unify diverse societies.
 - (c) Two key features of democracy include the protection of the fundamental rights of individuals and the conduct of government operations based on majority rule through elected representatives.
 - (d) Universal adult franchise means that all adult citizens of a country have the right to vote without any discrimination based on race, sex, belief, wealth, or social status. It's a principle that supports the democratic value of equality.
 - (e) Common forms of government include democracy, monarchy, republic, communist state, and dictatorship.
- (a) A government is an organization through which a body of people exercises political authority, implements and enforces laws. We need a government to provide social order, protect the rights of citizens, deliver public services, and promote economic stability and growth.
 - (b) A three-level government—central, state, and local—is necessary to efficiently manage and address the specific needs of diverse communities and regions within a country, from national defense and foreign policy to local infrastructure and community services.
 - (c) Government sources of income include taxes (income, sales, property), fees, fines, tariffs, and public enterprises. The government uses this income to provide public services, infrastructure, social welfare programs, defense, and public administration.
 - (d) Countries favor democratic governance because it promotes freedom and equality among citizens, ensures accountability and transparency of the government, and allows for peaceful changes in government through elections. Democracies also tend to foster economic growth and social harmony by involving citizens in decision-making processes.
- (a) municipal or village
 - (b) government
 - (c) vote
 - (d) democracy
 - (e) 18
- (a) (iv)
 - (b) (iii)
 - (c) (i)
 - (d) (v)
 - (e) (ii)
- (a) C
 - (b) L
 - (c) S
 - (d) L
 - (e) C
- (a) T
 - (b) F
 - (c) F
 - (d) F
 - (e) F

Chapter 18: Urban Local Self-Government

- (a) (iv)
 - (b) (ii)
 - (c) (iv)
 - (d) (ii)
 - (e) (i)
 - (f) (iv)
 - (g) (iv)
 - (h) (iii)
- (a) Municipal Corporations are set up in large urban centers with substantial populations, typically in major cities or state capitals that meet certain administrative and financial criteria. These are

established to manage the affairs of cities with dense populations and significant infrastructure needs.

- (b) The office-bearers of a Municipal Corporation typically include the Mayor, Deputy Mayor, and councilors. The administrative functions are assisted by various officers like the Municipal Commissioner, who is the chief executive officer and heads the administrative staff of the municipal corporation.
 - (c) Aldermen are members of a municipal assembly or council in many jurisdictions founded upon English law. They are typically elected by the councilors from among the people who are not themselves councilors but are eligible to stand for election as a councilor. They support and provide insights in council activities but their presence and roles can vary depending on the local government structure.
 - (d) Octroi tax is a local tax collected on various articles brought into a district for consumption. It is an older form of taxation and has been largely abolished in many regions, replaced by other forms of local taxes such as entry taxes or Goods and Services Tax (GST) in India.
 - (e) Control over local bodies is typically exercised by the state government. The state government oversees their function through various legislations and regulations, ensuring that local bodies adhere to the laws and manage their finances properly. State governments may audit their operations and intervene in certain circumstances.
 - (f) The accounts of all local bodies are generally audited by the state's Auditor General or a similar statutory authority designated for financial oversight. This department checks for compliance with financial regulations, the correctness of expenditures, and the proper management of funds.
- 3.**
- (a) A Municipal Corporation is composed of elected members, including the mayor, deputy mayor, and councilors. The number of councilors depends on the population of the city. These members are elected by the public through elections held every five years. The administrative functions are led by the Municipal Commissioner, an IAS officer appointed by the state government, who manages the daily operations and executive duties of the corporation.
 - (b) The main difference between a Municipal Committee (or Council) and a Municipal Corporation lies in the size and population of the area they govern. Municipal Corporations are set up in larger urban centers with larger populations, and they handle more complex administrative duties with greater financial resources. In contrast, Municipal Committees manage smaller towns and cities with lesser populations and have fewer administrative responsibilities and financial autonomy.
 - (c) Local bodies provide a variety of public services including water supply, sewage treatment, waste management, street lighting, maintenance of city roads and parks, issuance of birth and death certificates, and more. They also regulate markets, manage public health services, and run educational institutions and libraries. Their role is crucial in urban planning and infrastructure development.
 - (d) The main sources of income for Municipal Corporations include property tax, professional tax, entertainment tax, and taxes on water and other utilities. They also earn revenue from user charges for various services, government grants, and funds from the central and state governments. Additionally, they can raise money through municipal bonds and public-private partnerships for various development projects.
 - (e) The Mayor is the ceremonial head of the Municipal Corporation and presides over the meetings of the council. The Mayor represents the city at official functions and has a role in the governance processes by influencing council decisions and facilitating the smooth operation of meetings and legislative functions. However, the executive powers largely rest with the Municipal Commissioner.
 - (f) The permanent staff of a Municipal Corporation typically includes the Municipal Commissioner, various deputy commissioners or heads of departments such as finance, public works, health, education, and others. There are also engineers, health officers, sanitation officers, tax assessors, and a range of administrative and support staff essential for the day-to-day operations of the municipality.

4. (a) wards (b) municipal corporation (c) committees
(d) Clean water and sanitation (e) Councilors
5. (a) T (b) F (c) F (d) T
(e) F
6. (a) **Municipal Committee:** A form of local government in smaller towns and cities that administers urban areas with a smaller population. It functions under the state government and manages services such as sanitation, street lighting, and water supply.
- (b) **Municipal Corporation:** A local government body that administers a city with a large population. It has greater powers and responsibilities than a Municipal Committee, including urban planning, infrastructure development, public health, and education.
- (c) **Mayor:** The elected head of a municipal corporation or committee, responsible for leading the council, overseeing the implementation of its policies, and representing the municipality at ceremonial functions.
- (d) **Ward:** A division of a city or town for electoral or administrative purposes. Each ward elects a representative to the municipal council.