



- b. Coins help us to understand the economic conditions of a kingdom. These help us to ascertain territorial extent and reign of the rulers.
- c. Recording events in the order in which they happened is called chronology.
- d. The ruins of an ancient monument provide important information about the level of technology achieved during that period.

The ruins of Nalanda, the famous ancient university, tell us how big it must have been in that age. The murals on Ajanta caves tell us so vividly about the dresses, hair styles, jewellery and social life of the people of that era.

### 3. Answer the following questions in detail :

**Ans.** a. It is a known fact that history is a study of the events that took place in the past. As events regularly become past events from present events, there can be no end to history. After a sufficient time the events become a part of history. As such history is an on going process of recording the past.

- b. In our quest to know history we need to look at the records of the past events. These records are known as source of history.

Broadly we can divide the source of history into two groups—archaeological and literary.

**Archaeological Sources :** Archaeology is the scientific study of the material remains of the past that are discovered through digging or excavations conducted at various historical sites. In the absence of written records, archaeological sources are the only means of understanding the history of the past. Some of these sources are—

**Monuments :** The ruins of an ancient monument provide important information about the level of technology achieved during that period.

The ruins of Nalanda, the famous ancient university, tell us how big it must have been in that age. The murals on Ajanta caves tell us so vividly about the dresses, hair styles, jewellery and social life of the people of that era.

**Coins :** Coins help us to understand the economic conditions of a kingdom. They help us to ascertain the territorial extent and reign of the rulers.

**Literary Sources :** Literary sources include all written and non-written or oral texts containing information about our past. In ancient times, people had no knowledge of writing paper. So they used the bark of the birch tree or palm leaves to write books. These texts, called manuscripts, are now preserved in monasteries or libraries.

**Secular Literature :** This includes biographies, dramas, historical works and the accounts of foreign travellers. Arthashastra, written by Kautilya, provides useful information about the social and political conditions of the Mauryan age. Banabhatta wrote Harshacharita. It deals with the life and times of king Harshavardhana. These sources are very helpful to reconstruct the past because they are the rich sources of information about the past of any country.

- c. **Secular Literature :** Some ancient rulers took interest in getting the main events of their reign recorded. Such records were written by the scholars of



- b. **Stone on Stone :** In this, the pebble from which the tool was to be made was held in first hand. In the other hand, another stone called hammer was held. The second stone was used, to strike off flakes from the first, till the required shape was obtained.
- c. **Pressure-Flaking :** In this, core was placed on a hard surface. The hammer stone was used, on a piece of bone or stone placed on the core, to remove flakes that could be shaped into tools.
- d. Early man must have found out that whenever forests caught fire, the nights were warmer. This might have led him to conclude that fire provided warmth along with light. He might have accidentally discovered how to light a fire while shaping his tool. By striking two stones together he could start a fire whenever he wanted. In the course of time he might have also discovered that fire could be used for cooking. He now had softer and tastier meat. Fire also killed the germs in the raw meat, thus improving his health. This also helped him to scare away the animals while resting in caves.

**4. Answer the following questions in detail :**

- Ans.** a. The early man used fire for roast meat and other food items, because the roasted food was much tastier than the raw food. The fire was also used by him to keep himself warm in the cold weather and scare away the wild animals of the night. He could also get light in his dark cave.
- b. **Skills and Knowledge of Paleolithic Man**
- Early man, who was a hunter and a gatherer started living in caves,
  - To ensure protection from extreme weather he covered himself with coarse animal skin and large leaves.
  - He started moving from one place to another (nomadic life) and also started collecting nuts, fruits, roots or plants.
  - Though early humans moved in large groups they were still afraid of lightning and thunder.
- c. Early humans also practised painting. Painted rocks and caves in Bhimbetka, Madhya Pradesh shows hunters-gatherers chasing animals and birds. This clearly proved the existence of Palaeolithic period.

**Activity**

**Ans.** Do yourself.



# 3

## From Hunters to Farmers

### Exercise

**Section 1 : Formative Assessment (CCE Pattern)**

**1. Oral Questions :**

- Ans.** a. The term Neolithic or New Stone Age is derived from two Greek words, neo meaning 'new' and lithos meaning 'stone'. The Neolithic Age is







**4. Answer the following questions in short :**

- Ans.** a. At Harappa, two rows of six granaries each, known as the Great Granary, used to store surplus foodgrains was discovered. A similar structure was found in Mohenjodaro. All the granaries were built close to the river banks so that grains could be easily transported with the help of boats.
- b. More than 2000 seals have been discovered from the various sites. The seals, rectangular in shape, were made of terracota and soapstone. The most interesting seal is that of a person appearing like Lord Shiva seated in a yogic posture.
- c. The cities had a raised part called the citadel. The citadel had massive walls, and its height provided protection against floods. Important structures like public baths granaries and the town hall were situated in the citadel.
- d. Copper, bronze, gold and silver were used for making crafts.

**5. Answer the following questions in detail :**

- Ans.** a. The cities of the Harappan civilisation were very well-planned. The cities were built according to a well laid out scientific plan. These was an excellent uniformity in the planning and construction of the cities. Most of the cities were divided into two parts-a high citadel in the west and a lower town in the east.
- b. The Harappan people had an excellent and well-planned drainage system. The bathrooms had sloping floors and house drains were connected to the main drain. The main drains which ran along the sides of the streets were covered with bricks. There were manholes at regular intervals which were cleaned regularly. The drainage system exhibits the high architectural skills of the Harappan people as well as the importance they attached to hygiene and sanitation.
- c. The factors responsible for the decline of the Indus Valley civilisation can be studied as under :
- The area was heavily flooded frequently. It was ravaged by earthquakes as well. Thus, the cities may have been destroyed by floods and earthquakes.
  - The civilisation got its prosperity from trade. With a decline in trade, the cities also declined.
  - According to some scholars, the civilisation came to an end because its rulers lost their control. Sites in Sindh and west Punjab (now Pakistan) were abandoned whereas many people settled down into newer, smaller settlements to the east and the south. New cities came into emergence about 1400 years later.
  - Some scholars believe that barbarian invasions caused the downfall of the civilisation. The cities many have been attacked and the inhabitants could not defend themselves.



- c. The Rig Veda is the oldest of the Vedas and contains 1028 hymns in praise of the gods and goddesses. The Sama Veda contains hymns to be sung by a special class of priests in some sacrifice. The Yajur Veda contains hymns that are to be followed in ordinary sacrifice. The Atharva Veda is a collection of songs, spells, magical charms of evil spirits, etc.
- d. The word 'Megalith' literally means a big stone. The stone boulders were carefully arranged by people and were used to mark burial sites. Large stones were placed all around the graves. Hence, they were known as Megaliths.

**4. Answer the following questions in detail :**

**Ans.** a. The people who composed the Vedas called themselves Arya or noble one and those whom they opposed as Dasyas or Dasas. Historians believe that the Dasyas were the original inhabitants of the land. As the Aryans increased in number and started migrating further into the Indo-Gangetic plain and the Deccan Plateau, they had to fight the local inhabitants for the possession of the land. The defeated people were taken as slaves. The Dasas were treated as the property of their masters and had to do whatever their masters wanted.

- b. The two significant characteristics of Megalithic culture are as under :
  - (i) its being closely related to the Iron Age,
  - (ii) use of black and red pottery.
- c. Archaeologists assume that objects discovered with a skeleton, probably belonged to the dead person. Sometimes, more objects are found in one grave than in another. In Brahmagiri, a skeleton was buried with 33 gold beads, 2 stone beads, 4 copper bangles and once conch shell whereas the other skeleton only had a pot. This shows the difference in status, amongst the people who were buried. Some were rich, while others were poor.
- d. Inamgaon is the name of Chalcolithic site in Maharashtra, near the river Ghod. The site was excavated in the 1960s and 1970s. Archaeologists have found much information about the early farmers who lived at this site from 1,600 BCE to 700 BCE

Archaeologists have divided the Chalcolithic period at Inamgaon into three periods : Period I : about 1,600 BCE to 1,400 BCE, Period II : 1,400 BCE to 1,000 BCE and Period III : 1,000 BCE to 700 BCE.

134 mud houses have been excavated at Inamgaon. Mostly belonging to the first two phases, these houses were usually rectangular and quite spacious. One of the biggest houses had as many as five rooms. They were sometimes divided by a partition. Inside the house, there were oval-shaped pits where people cooked their food. Some other structures built during that period include wall round the settlement, landing platforms for boat, and an embankment and channels built to use the water of the Ghod river to

irrigate the fields for cutting plants and animal hide. Copper was known to the people, but was not used much.

Activity

**Ans.** Do yourself.



# 6

## Early States

### Exercise

#### Section 1 : Formative Assessment (CCE Pattern)

##### 1. Oral Questions :

- Ans.** a. The Aryans cleared the thick forests of the Indo-Gangetic plains with the help of iron tools and brought more land under cultivation. As they started leading settled lives as cultivators, their settlements became permanent. Each of these settlements usually consisted of a single jana or tribe. These tribal settlements were the first states. They were called janapadas.
- b. The Jataka Tales are the buddist text gives the information about Janapadas and Mahajanapadas.

##### 2. Multiple Choice Questions :

**Tick (3) the correct answer :**

- Ans.** a. i.                      b. ii.                      c. iv.                      d. i.                      e. ii.

##### 3. Answer in one sentence :

- Ans.** a. A kingdom of Republics was ruled by a clan headed by a king who was elected by the common people.
- b. Vajji and Vidha are the two Republics which flourished during the Buddha's time.
- c. The powerful states that emerged after defeating the smaller states or janapadas came to be known as mahajanapadas.
- d. Punch-marked coin was used in trade in the Mahajanapadas.

#### Section 2 : Summative Assessment (CCE Pattern)

##### 1. Fill in the blanks :

- Ans.** a. The Janapadas were ruled by **rajan** or **chiefs**.
- b. The **Digha Nikaya** famous Buddhist text gives an account of Vajji.
- c. The varna system was **hereditary**.
- d. Generally **two** crops were grown in a year.

##### 2. State whether the following statements are True or False :

- Ans.** a. True                      b. True                      c. False                      d. True                      e. True.

##### 3. Answer the following questions in short :

- Ans.** a. Monarchies were ruled by the hereditary kings or monarchs. The king was very powerful and maintained a large army. He collected taxes from different sources. The example of this form of mahajanapadas are Magadha, Kosala, Vatsa, Avanti.

- b. According to the Buddhist texts Anguttarra Nikaya, and Digha Nikaya, by around 600 BCE there were 16 mahajanapadas. Of these, Magadha emerged the most powerful of all. The other powerful states were Avanti, Vatsa and Kosala.
- c. Magdha, Kosala are the two examples of monarchies and Vajji, Mithila are the two examples of republic states.
- d. For the first time people started using coins as payment for trade, instead of bartering goods. We have evidence of the use of punch-marked coins in trade-silver and copper coins were punched with symbols of hills or trees.
- e. The Vedic texts, mainly the ones composed during the Later Vedic period, like the Sama Veda, Yajur Veda and Atharva Veda, Brahmanas and Upanishads are the main sources about this period. We also come to know about the life of the people from the Buddhist texts like the Jataka Tales. The Digha Nikaya, a famous Buddhist text gives an account of Vajjis.

**4. Answer the following questions in detail :**

**Ans. a. Differences between monarchies and republics**

S.No.	Monarchies	Republics
1.	Monarchies were ruled by the hereditary kings or monarchs.	Republics were ruled by the clan headed by a king who was elected by the common people.
2.	Every monarchy had a regular professional standing army.	In a republic, each raja was free to maintain his own army under his senapati.
3.	The example of this form of mahajanapadas are Magadha, Kosala, Vatsa, and Avanti.	The example of this form of Mahajanapadas are Vajji, Vidha, Vaishali, and Mithila.

**Similarities between Monarchies and Republics**

S.No.	Monarchies	Republics
1.	The monarchies were headed by the king.	The republics were headed by the king called Raja.
2.	The people of monarchies had to pay taxes to king.	The people of republics also had to pay taxes for maintenance of the sate (gana).
3.	The people belonged to lower categories were not allowed to attend the assemblies.	The woman and labourers were not allowed to attend the assemblies.

- b. The mahajanapadas have two types of government-monarchies and republics monarchies.  
Monarchies were ruled by the hereditary kings or monarchs. The king was very powerful and maintained a large army. He collected taxes from different sources. The example of this form of mahajanapadas are Magadha, Kosala, Vatsa, Avanti.

## Republics

A kingdom of Republics was ruled by a clan headed by a king who was elected by the common people. Buddha belonged to such a ganasangha ruled by the Shakya clan.

A republic could also be a confederacy, that is, a number of tribes under a single government. For instance, Vajji functioned as a confederacy. The republics functioned in a democratic manner and they voted to make a decision. The Assembly, elected by the people, performed administrative duties. Though the ganasanghas worked in a democratic manner, women and karmakaras or labourers were not allowed to attend the assemblies. It was headed by the Raja or Senapati.

- c. Trade increased and spread. It became a very important activity. Sources tell us how merchant carried textiles, pots and many other types of crafts to the markets for trade. Sometimes the traders crossed rivers in the search for new markets. For the first time people started using coins as payment for trade, instead of bartering goods. We have evidence of the use of punch-marked coins in trade—silver and copper coins were punched with symbols of hills or trees. Taxila (in Pakistan), Champa and Bharukaccha (Bharuch in Gujarat) emerged as important trading centres.
- d. Magadha emerged as the most powerful mahajanapadas in this period. This was due to many factors :
  - It was located in the Gangetic basin, where the soil was very fertile and yielded large harvests. Land revenue was high and it provided a substantial income for the kingdom which enabled the rulers to maintain a large army.
  - Timber and elephants, provided by the eastern forest to Magadha, were used for constructing buildings and elephants also used in the army.
  - Magadha had large deposits of iron-ore, which was used to make agricultural implements and weapons.
  - Natural barriers like hills and rivers protect the capital from any attack.

Activity

**Ans.** Do yourself.



# 7

## Rise of New Ideas

### Exercise

Section 1 : Formative Assessment (CCE Pattern)

#### 1. Oral Questions :

**Ans.** a. Vardhamana Mahavira is believed to be the last of 24 Tirthanakaras—people who were great preachers and who attained enlightenment by meditation







Section 2 : Summative Assessment (CCE Pattern)

1. Fill in the blanks :

- Ans. a. Chandragupta Captured **Pataliputra** in 321 BC.  
b. The **King** was the supreme authority.  
c. The sufferings caused by **Kalinga war** changed the life of Ashoka.  
d. King Bindusara ruled for about **25** years.

2. Match the following :

- Ans. a. Army → i. Arthashastra  
b. Megasthenes → ii. Subordinates  
c. Adhyakshas → iii. Superintends  
d. Yuktas → iv. Cavalry  
e. Kautilya → v. Indika

3. Answer the following questions in short :

Ans. a. **Ashoka's Dhamma**

- Dhamma is the Prakrit form of the Sanskrit word 'Dharma', which means religious duty. Ashoka gave up the policy of conquest through war and replaced it with a policy conquest through Dharma (Dhamma-Vijaya).  
b. Kautilya's Arthashastra, and Megasthenes Indika are the most important sources to know about the Mauryan administration.  
c. Ashoka is known as 'Ashoka the Great' for his noble deeds. The battle of Kalinga (now known as Odisha) was a turning point in his life. The horrors and killings in the war of Kalinga changed his heart. After his victory at Kalinga, Ashoka gave up fighting forever. He became a Buddhist and devoted the rest of his life in the service of his people.  
d. The king was the supreme authority. He took all the important decisions. He was assisted by a council of ministers (Mantri Parishad). The Prime Minister, Purohita and Senapati were some of the important central ministers. The various branches of administration such as revenue, military etc., were under officers called Amatayas.

4. Answer the following questions in detail :

- Ans. a. The Mauryan Empire had an efficient administrative system. It functioned at four levels :

1. Central,      2. Provincial,      3. District,      4. Village

**Central Administration**

The king was the supreme authority. He took all the important decisions. He was assisted by a council of ministers (Mantri Parishad). The Prime Minister, Purohita and Senapati were some of the important central ministers. The various branches of administration such as revenue, military etc., were under officers called Amatayas.

**Provincial Administration**

The empire was divided into provinces. Each province was placed under a member of the royal family, and was ruled from its own capital. Taxila, Ujjain, for instance, were provincial capitals. Although the centre had

some control over the provinces, local rules and customs were also probably followed. The provinces were further divided into districts and villages.

### **District Administration**

Each province was divided into a number of districts. The pradeshta was the head of each district, and was assisted by junior officials, such as yuktas and rajkutas. Their functions included the survey and assessment of land, collection of revenue and maintenance of law and order.

### **Village Administration**

Each district consisted of many villages. Villagers assisted the government officials in marking the boundaries of the village, maintaining land records and collecting taxes.

- b. Bindusara was succeeded by Ashoka, and he is considered to be one of the greatest rulers of all time. Historians learnt about Ashoka from inscriptions on pillars and rocks, found in various parts of India. For a long time most of the inscriptions could not be read, as they were in a script that had gone out of use. A scholar named James Prinsep deciphered the script and identified it as Brahmi. The inscriptions provided invaluable information about the reign of a kind ruler named Ashoka and the extent of his empire.

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- c. **Tax system under the mauryas**

Land revenue was the main source of income for the government. It was fixed between one-fourth and one-sixth of the produce, depending upon the fertility of the soil. The Arthashastra also mentions a water tax a road tax. Other sources of income for the state included forests, mines, trade, crafts and customs duties on imports. The king also received tributes in kind from different parts of the empire.

The money collected was used to maintain the army, pay salaries, supports various building works and other public utility services such as roads and hospitals.

### **Army under the mauryans**

The Mauryan army was massive and was commanded by the senapati. According to Pliny, a Roman writer, Chandragupta maintained 6,00,000 foot soldiers, 30,000 cavalry and 9,000 elephants. Another source tells us that the Mauryas maintained 8,000 chariots.

- d. The main reason for the decline of the great Mauryan empire was the disorder which emerged after the death of Ashoka in 232 BCE. His successors were weak and could not handle the affairs of the state efficiently. The huge expenditure incurred on maintenance of the army became a burden on the royal industry. The invasions in the north-western border of India added to the unrest.





were called **vellarar**, ordinary farmers **uzhavar** and landless labourers **adimai or kadaisiyar**.

- c. The earliest coins discovered from a number of sites, are known as punch-marked coins. They have been accorded this name because of the designs which were punched on to the metal—silver or copper.
- d. Mathura has been a renowned settlement for more than 2500 years. It was significant, as it is located at the crossroads of major routes of travel and trade—from the north-west to the east and from north to south. Farmers and herders living in nearby areas provided food for people of Mathura. Mathura also provided some extremely fine sculptures.
- e. **Bharuch**, Sopara and Tamralipti were towns that developed primarily as trading port towns. Trade was flourishing. Imports were gold, silver coins, copper, tin, coral; white cotton, silk, ivory and perfume were exported.

#### 4. Answer the following questions in detail :

**Ans.** a. In South India, there were three categories of cultivators. The landowners were called vellalar, ordinary farmers uzhavar and landless labourers adimai or kadaisiyar. These terms have been mentioned in the Sangam Literature.

In North India, the village headman was called gramabhojaka. He was the largest landowner of the village and also acted as a tax collector for the king. Small landowners were called grihapatis and landless workers were called dasa or karmakara. In many villages, there were several craftspersons like blacksmiths, potters, carpenters and weavers.

- b. The invention of new tools and implements, led to the expansion of land under cultivation leading to agricultural intensification. New increase in agricultural production helped in the development of towns mainly **Market towns**. Each of these catered to a variety of villages usually located where there was an agricultural surplus that could be used for exchange.
- c. Many craftsmen and merchants formed associations called guilds or shernis, headed by a chief called the Elder. These organisations played an important role in the economy of ancient India. They resembled chamber of commerce.

The guild would fix rules of work and wages and the prices of commodities produced by its members. It would provide training to craftsmen, get the raw materials required and distribute the end products. Its decisions were like law, upheld by the King and the government. There are brief references to such guilds even in Vedic literature and Buddhist scriptures.

- d. There are many reasons for second urbanisation. Some of these were as follows :
  - Increased agricultural production led to surplus food supply.
  - People took up new occupations and specialised in crafts like weaving jewellery-making and pottery.





- d. I-Tsing came to India via sea-route. He spent around 10 years at Nalanda. During this long period, he studied the translated the Buddhist texts. He returned to China with 400 Sanskrit manuscripts. His book 'A Record of the Buddhist Religion as practised in India and the Malay Archepalago' gives a lively description of the condition of Buddhism and the common masses in both these countries.

**4. Answer the following questions in detail :**

**Ans. a.** In this period, Buddhism enjoyed the patronage of many rulers. Among them, the Kushana King Kanishka and Indo-Bactrian King Milinda were the most famous ones.

Kanishka was deeply influenced by Buddhism. During his reign, the fourth Buddhist council was held at Kashmir. This was presided over by a famous scholar Vasumitra. Other scholars who attended this council were Ashvaghosa (who wrote Buddhacharita), Nagarjuna, Taranath and Charaka.

Buddhism, by this time, had split into many sects. In the fourth Buddhist Council Buddhism was formally divided into Mahayana and Hinayana.

- Mahayana literally means 'greater vehicle'. It became prominent during the reign of Kanishka who ruled large parts of the Indian subcontinent in the late second century CE.
  - The worship of Bodhisattvas also became popular in Central Asia, China, Korea and Japan. They were people who had attained enlightenment. But they had chosen to remain among the people of work for their welfare.
  - In Hinayana Buddhism, the Hinayana Buddhists did not believe in idol worship or in the worship of the Bodhisattvas.
  - Kanishka built many stupas and viharas. He built a monastery at Peshawar.
  - The Buddhist Sangha played an important role in the spread of Buddhism to West and Central Asia, Korea, Japan and China. As Buddhism spread to China, many Chinese scholars travelled to India to learn more about Buddhism.
- b. During the same period, south India saw the emergence of three kingdoms in the areas south of the River Krishna. They were the Cholas, the Cheras and the Pandyas.

**The Cholas**

The Chola kingdom was situated between the Pennar and the Velur rivers and was popularly known as Cholamandlam. Its chief centre of political power was Uraiyur, a place famous for its cotton trade. In the 2nd century BCE, a chola ruler named Elara, conquered Sri Lanka and ruled there for about 50 years. Another important Chola ruler Karikala is said to have constructed 160 km of embankment, above the Kaveri river in about 100

CE, with the help of 12,000 slaves brought from Sri Lanka.

### **The Cheras**

The Cheras, also known as Keralaputras, ruled over an area comprising north Travancore, Kochi and South Malabar. Udiyanjenal was the first important Chera ruler. Their capital was Vajji. The most famous Chera king was Nedunjeral Adan. The Cheras encouraged trade with Rome and Egypt.

### **The Pandyas**

The Pandya kingdom, roughly included the modern districts of Tirunelveli, Ramnad and Madurai in Tamil Nadu. It had its capital at Madurai. The Pandyas were first mentioned by Megasthenes and then in about the 3rd century BCE, in the inscriptions of Ashoka. The Sangam literature, also refers to the Pandya rulers.

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- d. These kingdoms had established trading contacts with the Roman Empire. They exported gold, spices and precious stones. Pepper was a most valued item of export to the Roman Empire, so much that it was known as black gold. These southern kingdoms owed their prosperity to the thriving trade with the Romans. A part from the trade, the rulers also received gifts from their people. Some form of taxation may have also been in existence.

Activity

**Ans.** Do yourself.



### 3. Answer the following questions in detail :

#### Ans. a. **Samudragupta**

Samudragupta was one of the greatest conquerors in Indian history. In his lifetime, he had conquered about twenty kingdoms. His rule extended from the Himalayas to the river Narmada in the south and from the Brahmaputra in the east to the Yamuna in the north.

The eulogy of Samudragupta, written by his court poet Harishena, is inscribed on an Ashokan pillar at Allahabad. This eulogy is known as Prayag Prashasthi.

This eulogy gives us details of his conquests, such as—

- He annexed the kingdoms of the Western Gangetic Plain.
  - The kings of Kamrupa (Assam) Bengal and Punjab were forced to pay homage.
  - In the Deccan, he extended his power as far as Kanchipuram (modern Chennai). He did not annex the empires of the kings of South India but demand that they pay him an annual tribute.
  - He maintained friendly relations with Saka and Kushana rulers.
  - He subjugated the tribes living in the forests of Central India.
- b. Harsha's administration was decentralized and it was similar to that of the Guptas. Local officers could take decisions. The empire was divided into provinces. The provinces were divided into districts and the districts into villages. Farmers, merchants and craftsmen had to pay taxes. The priests were given donations of land grants. Officers were also given land instead of cash salaries.
- c. The southern kingdoms had allowed vast powers to their local units or assemblies. These assemblies were of different nature and represented different people. The Sabha was an assembly of Brahmin landowners who functioned through various sub-committees which looked after local temples, saw agricultural and irrigational operations and took part in making and repairing roads.
- Where the Brahmans were not the land-owners, the Uprastha acted as the village assembly. It worked more or less like the Sabha as mentioned above. The Nagaram was an assembly of the merchants. Many of these assemblies continued to operate for centuries.
- d. **Administration of Harsha**
- Harsha's administration was decentralized and it was similar to that of the Guptas. Local officers could take decisions. The empire was divided into provinces. The provinces were divided into districts and the districts into villages. Farmers, merchants and craftsmen had to pay taxes. The priests were given donations of land grants. Officers were also given land instead of cash salaries.

Activity

Ans. Do yourself.



- d. Sangam literature was composed during this time. The quality of Sangam literature reflected the high intellectual standard of the Tamil composers. The poems were written in the assemblies or Sangams of poets under the Pandya rulers. These works bring to light, many facts of ancient times.
- e. India also made remarkable progress in astronomy. Aryabhatta calculated the position of the planets, discovered the cause of the lunar and solar eclipses, correctly calculated the circumference of the Earth and wrote a book on astronomy which is called Aryabhatiya.

**3. Answer the following questions in detail :**

**Ans. a.** The Ramayana and the Mahabharata are the two great Epics of India.

**The Ramayana**

The Ramayana is believed to be the work of Sage Valmiki. The central theme is the story of Rama and Sita who were the incarnations of Lord Vishnu and Goddess Lakshmi respectively. It is a long story depicting the attainments and virtues of Rama, Sita and other ideal characters, such as Lakshmana, Bharata and Hanuman. Rama fought against Ravana, the ruler of Lanka. He killed Ravana and other demons, who had abducted his wife Sita.

**The Mahabharata**

The Mahabharata is believed to be the work of Ved Vyasa. Main story is about the conflict between the Pandavas and the Kauravas, who were cousins. Duryodhana, the eldest of Kauravas, felt jealous of the Pandavas and planned to destroy them. He refused to give Pandavas their share of the kingdom. This resulted in a fierce battle fought at Kurukshetra. In the battle that lasted for eighteen days, all the Kaurava brothers were killed. Yudhistira, the eldest of the Pandavas became the king of Hastinapur. It also contains the Bhagavat Gita. It is in the form of a dialogue between Lord Krishna and Arjuna. It lays emphasis on doing one's duty fearlessly without a desire for results. It also stressed the immortality of the soul.

- b. **Non-religious literature (Secular literature) :** The historical accounts and biographies written by poets and foreign travellers form part of non-religious or secular literature. They were written to record events, rulers of the contemporary society and administrative regulations. Kautilya's Arthashastra, accounts of the foreign travellers such as Indica written by the Greek ambassador Megasthenese in the court of Chandragupta Maurya, and the writings of Chinese travellers Fa-Hien and Hiuen-Tsang are considered as secular literature. They describe the political, social and economic life of a certain period.
- c. Medical science was fairly advanced. The Atharva Veda mentions the different methods used to diagnose diseases. It also prescribed medicines. Sushruta, an Ayurvedic scholar was expert in performing operations. He gave importance to diet and cleanliness. Charaka wrote the Charak



## Section 2 : Summative Assessment (CCE Pattern)

### 1. Fill in the blanks:

- Ans.** a. Light travels at a speed of  $3 \times 10^5$  kilometres per second.  
b. The nearest star to the Sun is **Proxima Centauri**.  
c. **Uranus** and **Venus** rotates east to west.  
d. The first satellite launched by India in 1975 was named as **Aryabhata**.

### 2. State whether the following statements are True or False :

- Ans.** a. False                      b. False                      c. True                      d. True

### 3. Answer the following questions in short :

- Ans.** a. From a spacecraft, the land on Earth looks a mixture of green and brown. The oceans, which cover more area than the land, look blue. The Earth is therefore, called the Blue Planet.
- b. A constellation is a group of stars forming a certain shape. One such constellation is a group of seven stars which is called the *Saptarishi*.
- c. The Saptarishi forms a part of the constellation of the Big Bear, also known as Ursa Major in Latin.
- d. The word 'planet' is originally a Greek word which means 'wanderer'. Planets are so called because they are always in motion around the Sun in fixed orbits. Out of the eight planets of our solar system, the first four are inner planets, i.e., Mercury, Venus, Earth and Mars. They are made up of rocks, which is why, they are also called Terrestrial Planets. The outer planets include Jupiter, Saturn, Uranus and Neptune. They are mainly gaseous in nature and are called Jovian Planets.

### 4. Answer the following questions in detail :

- Ans.** a. The Sun and the eight planets that revolve round the Sun are members of the solar system. These eight planets are—Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune. Besides the Sun and the planets, there are some smaller celestial bodies as well in the solar system. These small bodies are called satellites. The satellites revolve round the planets in the same way as the planets revolve round the Sun. Our Earth has one satellite which we call the 'moon'.
- b. India's space programme began in 1975. Since the launch of its first satellite Aryabhata in 1975 followed by two other satellites named Bhaskar-I and Bhaskar-II, India has achieved remarkable progress in the field of space research and technology. So far, a large number of satellites have been launched successfully from Sri Harikota (Andhra Pradesh). Prominent among these include satellite of Rohini, SROSS, INSAT and IRS series. On 9 September 2012 ISRO made history as it launched its 100th indigenous mission. India has now emerged as a major player in satellite launch business. ISRO not only launches its own indigenously built satellites but also make arrangements for putting into the Earth's orbit satellites of other countries.
- c. The Earth is a unique planet of the solar system. It is the only planet on

which life exists. This is because the conditions required to support life are found only on Earth. Now let us see what these conditions are.

**Moderate temperature :** The amount of heat a planet receives from the Sun depends on its distance from the Sun. Neptune is the farthest planet and, therefore, the coldest. The average temperature on Neptune is about  $-225^{\circ}\text{C}$ . On Mercury and Venus, which are closest to the sun, the temperatures go above  $4000^{\circ}\text{C}$ ! The Earth is the third planet from the Sun. It has an average temperature of  $22^{\circ}\text{C}$ . This temperature is suitable for plants and animals.

**Water in liquid form :** You know that plants and animals need water. The Earth is the only planet on which liquid water is found. On some other planets water is found only in frozen form.

**Favourable atmosphere :** The Earth is surrounded by a layer of gases. This layer of gases is called its atmosphere. Animals need oxygen to breathe. This gas is found in the Earth's atmosphere. Plants need carbon dioxide to make food. This gas is also present in our atmosphere. Apart from these, the Earth's atmosphere has a gas called ozone. This protects plants and animals from certain harmful rays of the Sun.

The combination of the factors mentioned above makes life possible on Earth.

Activity

Ans. Do Yourself



## 2

# Globe : Latitudes and Longitudes

## Exercise

Section 1 : Formative Assessment (CCE Pattern)

### 1. Oral Questions :

- Ans.** a. The longitude opposite to  $0^{\circ}$  is  $180^{\circ}$ . They together form the Great Circle or one full circle running around the Earth. Similarly, opposite to  $1^{\circ}$  longitude will be  $179^{\circ}$  and opposite to  $15^{\circ}$  longitude will be  $165^{\circ}$  longitude in the other hemisphere or opposite,  $30^{\circ}$  E will be  $150^{\circ}$  W and so on. The two lines together will give total longitude of  $180^{\circ}$ . Each such full circle will divide the globe into two equal halves or hemispheres. Any circle that divides the globe into two equal halves is known as the Great Circle.
- b. The equator cuts the globe into two equal halves known as hemisphere.
- c. The local time of a place is 12 noon when the midday Sun is right above it. All places on the same meridian have noon at the same time if the watches are set according to the time of the overhead Sun at a particular meridian.





to 1° longitude will be 179° and opposite to 15° longitude will be 165° longitude in the other hemisphere or opposite, 30° E will be 150° W and so on. The two lines together will give total longitude of 180°. Each such full circle will divide the globe into two equal halves or hemispheres. Any circle that divides the globe into two equal halves is known as the Great Circle. All other lines are small circles. Among latitudes only equator is the Great Circle.

**4. Match the following:**

- Ans.** a. Equator → iii. Tropical Zone  
 b. Tropic of Cancer → ii. 0°  
 c. Arctic Circle → i. 23½°N  
 d. Prime Meridian → v. London  
 e. Torrid zone → iv. 66½°N

**5. Answer the following questions in short :**

- Ans.** a. **Latitude :** These are the imaginary lines or semi circles drawn on the map or Globe from West to East. All latitudes are parallel to each other and the vertical distance between two latitudes is equal all over the Earth.
- b. The important parallels of latitudes are the following:
- Tropic of Cancer : It is the parallel of 23½°N in the Northern Hemisphere. It passes through the middle of our country.
  - Tropic of Capricorn : It lies the parallel of 23½°S in the Southern Hemisphere.
  - Arctic Circle : It is 66½° N of the equator.
  - Antarctic Circle : It lies 66½° S of the equator.
- c. The line of meridian passing through British Royal Observatory at Greenwich (near London) be called the Prime Meridian (that is, the Chief Meridian). It is also known as Greenwich Meridian.
- d. Torrid Zone lies between the Tropic of Cancer and Tropic of Capricorn and is also known as Tropical Zone (Torrid Zone). It is the hottest zone of the world. At any point in this zone, the Sun is vertically overhead twice a year. Most of the southern half of India, lies in this zone.
- e. The imaginary lines joining the two poles at regular distances are called the lines of longitudes or meridians.

**6. Answer the following questions in detail :**

**Ans. a. Local Time**

The local time of a place is 12 noon when the midday Sun is right above it. All places on the same meridian have noon at the same time if the watches are set according to the time of the overhead Sun at a particular meridian.

**Standard Time**

As the local time differs by 4 minutes at every longitude, it would create a lot of confusion regarding time for any country as a whole which may

stretch across several longitudes. Therefore, each country selects a central meridian and the local time of this meridian as the standard time of that country.

b. The important parallels are the following :

Tropic of Cancer : It is the parallel of  $23\frac{1}{2}^{\circ}\text{N}$  in the Northern Hemisphere. It passes through the middle of our country.

Tropic of Capricorn : It lies the parallel of  $23\frac{1}{2}^{\circ}\text{S}$  in the Southern Hemisphere.

Arctic Circle : It is  $66\frac{1}{2}^{\circ}\text{N}$  of the equator.

Antarctic Circle : It lies  $66\frac{1}{2}^{\circ}\text{S}$  of the equator.

c. The lines of longitude and latitude form a network on the globe. The longitudes and latitudes intersect each other at right angles forming a grid. Using the grid we can locate any place on Earth by referring to the point where latitudes and longitudes intersect. The parallels help us to locate a place north or south of the Equator, while the Meridians do the same east or west of the Prime Meridian.

The point of intersection of these lines gives the precise location of a place. For example, Haridwar in Uttarakhand lies at the point of intersection of  $30^{\circ}\text{N}$  and  $78^{\circ}\text{E}$  (longitude and latitude respectively).

d. **Heat Zones of The Earth**

On the basis of the heat received, the Earth is divided into the following :

1. **Torrid Zone** : It lies between the Tropic of Cancer and Tropic of Capricorn and is also known as Tropical Zone (Torrid Zone). It is the hottest zone of the world. At any point in this zone, the Sun is vertically overhead twice a year. Most of the southern half of India, lies in this zone.
2. **Temperate Zones** : The zone outside the Torrid Zone between  $23\frac{1}{2}^{\circ}\text{N}$  and  $66\frac{1}{2}^{\circ}\text{N}$  and  $23\frac{1}{2}^{\circ}\text{S}$  and  $66\frac{1}{2}^{\circ}\text{S}$  receives slanting rays of the Sun. This zone is neither too hot nor too cold i.e. it has moderate temperature. The belt between the Tropic of Cancer and the Arctic Circle is called the North Temperate Zone. The belt between the Tropic of Capricorn and the Antarctic Circle is called the South Temperate Zone. The mid-day Sun is never overhead beyond the Tropic of Cancer or the Tropic of Capricorn.
3. **Frigid Zones** : These two zones lie between  $66\frac{1}{2}^{\circ}$  and  $90^{\circ}$  north and south of the equator. They lie beyond the Arctic Circle in the Northern Hemisphere and Antarctic Circle in the Southern Hemisphere. As the angle of the sun rays goes on decreasing towards the Poles, the Sun never rises much above the horizon in these two zones. As the name indicates, these are cold regions and receive minimum solar energy. The midnight Sun phenomenon also happens in this zone.

- e. By a common consensus the longitude of Greenwich, a place near London in England, has been accepted as  $0^\circ$ . The Earth rotates on its axis once in 24 hours. It means that it takes 24 hours to pass through  $360^\circ$  of longitude. In other words, it takes 4 minutes to pass through  $1^\circ$  longitude. Thus, if we know the meridians of longitude of two places, we can find out the difference in their local times. For example, the longitude of Delhi is  $77^\circ\text{E}$ . It means there shall be a difference of  $77 \times 4 = 308$  minutes or 5 hours and 8 minutes between the local time of Greenwich and Delhi.

As the Earth rotates from west to east, the local time of places to the east of Greenwich will be ahead of Greenwich time and the local time of places to the west of Greenwich will be behind the Greenwich time.

If it is 12 o'clock noon at Greenwich the time at Delhi shall be 5 hours and 8 minutes ahead of Greenwich because it lies to the east of Greenwich. It shall be =  $12 + 5$  hours and 8 minutes = 17 : 08 or 5 : 08 p.m. at Delhi.

Activity

**Ans.** Do Yourself



## 3

## Motions of the Earth

### Exercise

Formative Assessment (CCE Pattern)

#### 1. Oral Questions:

- Ans.** a. The Earth takes  $365\frac{1}{4}$  days to complete one revolution around the Sun. For the sake of convenience, we count only 365 days in a year, and after every four years, the balance of 6 hours adds up to a day (24 hours). Thus, every four years February has 29 days instead of usual 28, and the year has 366 days. Such a year is called a leap year.
- b. The equatorial regions have very little variation of day and night because all the year round they receive almost the equal amount of sunlight.
- c. On 22 December (Winter Solstice), Northern Hemisphere feels Winter Season and Southern Hemisphere has summer. So there should be summer season at Canberra in Australia.

#### 2. Multiple Choice Questions :

**Tick (3) the right answer :**

- Ans.** a. iii.                      b. i.                      c. ii.                      d. ii.                      e. iv.

#### 3. Unscramble the letters to write correct words for each of the following :

- Ans.** a. REVOLUTION                      b. MORNING  
c. LEAPYEAR                      d. EQUINOX  
e. WINTER

Section 2 : Summative Assessment (CCE Pattern)

1. Fill in the blanks:

- Ans. a. The spinning around of the Earth on its axis is called **rotation**.  
b. 23rd September is known as **Autumnal Equinox**.  
c. The direction of Earth is from **West to East**.  
d. The movement of Earth around the sun is known as **revolution**.  
e. Leap day is added in the month of **February**.

2. State whether the following statements are True or False :

- Ans. a. True                      b. False                      c. True                      d. True                      e. True

3. Match the following:

- Ans. a. March 21st → ii. Spring Equinox  
b. 23rd September → v. Autumnal Equinox  
c. June 21 → iv. Summer Solstice  
d. 22nd December → i. Winter Solstice  
e. Day and Night → iii. 24 hours

4. Distinguish between the following :

- Ans. a. **Rotation** : The spinning of the Earth around its axis is called rotation. The axis of the Earth is an imaginary line which joins the North and South poles passing through the centre of the Earth. The Earth completes its rotation in 24 hours or in one day.

**Revolution** : The movement of the Earth around the Sun along a fixed path is called revolution. It takes the Earth a little over 365 days or one year to complete a revolution around the sun.

- b. **Calender year** : Year with 365 days in which February has 28 days is called calender year.

**Leap year** : Year with 366 days in which February has 29 days is called leap year.

- c. **Solstice** : The word solstice means sun standing still. 21st June is known as summer solstice and 22nd December is known as winter solstice.

**Equinox** : The two days, 21st March and 23rd September are called equinoxes (meaning equal nights) as the sun is over head at the equator and the days and night are equal in length.

5. Answer the following questions in short :

- Ans. a. Rotation of the Earth has the following effects :

- occurrence of day and night
- sunrise in the east and sunset in the west
- deflection of winds and ocean currents
- flattening of the Earth at the poles and bulging at the Equator
- occurrence of tides twice a day
- it gives us 24 hours
- since the Earth rotates from west to east, the heavenly bodies seem to move from east to west.

- b. Rotation of Earth causes a distinct day and night-12 hours day and 12 hours

night. Since the shape of Earth is spherical, only half of it gets sunlight and the other half remains in darkness. Part of the earth facing the Sun experiences day and the other half in shadow experiences night. A part of the Earth's surface that emerges from darkness Experiences sunrise. Later, when it is obscured from the rays of Sun it experiences sunset.

- c. A year is usually divided into four seasons—spring, summer, autumn and winter. Seasons change when there is change in the position of the Earth with reference to the Sun. These changes are due to :
  - 1. the revolution of the Earth, and
  - 2. the inclination of the Earth's axis in a fixed direction.
- d. The axis of the Earth, which is an imaginary line joining the North and South poles, is not vertical. It is tilted and makes an angle of  $66\frac{1}{2}^\circ$  with the plane of the Earth's orbit. This is known as the inclination of the Earth's axis. The inclination remains always in the same directions.

**6. Answer the following questions in detail:**

- a. Moving on its orbit, the Earth reaches the position on 21st of March. On this day, the Sun remains equidistant from the North Pole and the South Pole. Hence the Sun's rays fall vertically on the Equator. The days and nights become equal all over the world. This period in the Northern Hemisphere is Spring Equinox and in the Southern Hemisphere, Autumnal Equinox.
- b. The Earth moves gradually and after three months of summer solstice on 23rd of September it reaches the position of Autumnal Equinox. From 21st June onwards the length of day starts decreasing and the length of night starts increasing till September 23rd in the Northern Hemisphere. The opposite of this takes place in the Southern Hemisphere. On 23rd September the North and South Poles remain equidistant from the Sun. The Sun's rays thus fall vertically on the Equator. The days and nights become equal all over the world. This period in the Northern Hemisphere is called **Autumn season** and in the Southern Hemisphere it is called Spring season.
- c. The Earth' axis is an imaginary line joining the North Pole and the South Pole. The axis is tilted at an angle of  $66\frac{1}{2}^\circ$  with the plane of the Earth's orbit. This tilt is called the inclination of the Earth's axis.  
The inclination of the Earth's axis causes varying lengths of day and night. If the Earth's axis were vertical to the plane of the orbit, any place would have received the Sun's rays in the same way all round the year. Thus, the days and nights would have been of equal length throughout the year all over the world.  
The Earth's axis is always inclined in the same direction and in the same angle. It is because of the inclination of the Earth's axis that days and nights are not of the same length. In summer, days are longer than nights while in winter nights are longer than days.

Activity

**Ans.** Do Yourself



Industries

A map acts as a guide for the tourists.

- c. Thematic maps show specific information. They deal with a single theme like distribution of rainfall, population, industries, crops, temperature, vegetation, roadways, railway networks, etc.
- d. Title, Scale, Directions and Legend or Key are the components of a map.

**4. Answer the following questions in detail:**

**Ans.** a. Maps are drawn to scales. Scale is the ratio between the distance on the map and the actual distance on the ground.

The distance between the two places on a map measured along a straight line is called the map distance. Ground distance is the distance between two points on the ground measured along a straight line.

There are three ways in which a scale can be represented.

**By Statement :** Scale can be represented by words or a statement, e.g. one inch equals one mile. It means one inch on the map equals one mile on the ground.

**By Representative Fraction :** It can also be represented by a ratio or fraction e.g., 1 cm = 10 km, which means a distance of 10 km on ground will be shown as 1 cm on the map. In this method, the ratio is given in the form of fraction, e.g.,

10,00,000 or 1 : 10,00,000.

**By Linear Scale :** Linear scale method represents the map distance through a scale. The scale is drawn with the help of a straight line. Just like an ordinary scale, linear scale has primary and secondary divisions. It shows the relationship between distance on a map and the distance on ground.

b. Maps are important and useful due to certain advantages:

Maps can be drawn for smaller as well as larger areas.

They are portable and easy to handle which serve many purposes.

Maps provide us a lot of information. A variety of information can be represented on the following maps:

Political and Physical

Minerals

Vegetation and Wildlife

Climate

Industries

A map acts as a guide for the tourists.

c. **Small-scale maps :** Maps that represent large areas of the Earth and show less details are called small-scale maps. Maps in an atlas are of this type. In such a map, a distance of one cm on the map may represent 5,000 km on the ground, e.g. a World Map.

**Large-scale maps :** Such maps show a small area of the Earth in great detail. They may use a scale of 1 cm on the map equal to 1 km on the ground e.g., district map or map of your city.





- c. Unequal heating of the atmosphere on the Earth causes differences in temperatures and pressure. When air moves in a horizontal direction from an area of high pressure to an area of low pressure, it is called wind. This results in a flow of air from areas of high pressure to areas of low pressure.

**4. Answer the following questions in detail :**

**Ans. a.** The landforms on the Earth's surface are grouped under three major divisions-mountians, planteaus and plains.

**1. Mountain :**

A mountain is a large mss of land that rises to a great height, much above the sorrouding area. The top of a mountain is called a peak. It may be sharp or rounded. It slopes down to the base, which is generally wide. Mountains generally occur in long chains called ranges which strech over hundreds of kilometres.

On the basis of their origin, mountains are generally classified into four types- mountains, block mountains, volcanic mountains and residual mountains.

**2. Plateaus :**

A plateau is a comparatively flat land that rises abruptly from the sorrouding area. Its surface is undulating and it usually has steep slopes on one or more sides. It is also called a tableland. Zased on their formation, plateaus can be classified into three types-tectonic plateaus, residual plateaus and volcanic plateaus.

**3. Plains :**

A plain is a flat, low-lying land surface with a very gentle slope. In some regions, plains are absolutely level while in others the surface is undulating. Plains are generally not more than 200m above mean sea level. Zased on their formation plains are classified into three types-structural plains, erosional plains and depositional plains.

b. The components of the atmosphere are useful to us in various ways.

Nitrogen is required to maintain the fertility of the soil.

Oxygen is the gas that living beings breathe in.

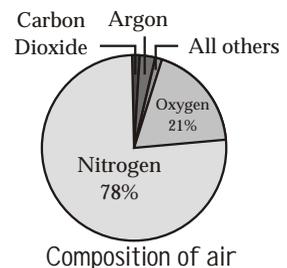
Carbon dioxide helps plants to produce food in the presence of sunlight. It also keeps the Earth warm by absorbing the heat radiated from the surface. This is called the greenhouse effect.

Ozone protects us from the harmful ultraviolet rays of the Sun.

The water vapour in the atmosphere causes weather phenomena.

The dust particles form the nucleus for condensation which results in the formation of clouds.

c. Atmospheric air is a mixture of various gases and dust particles. It is mainly composed of gases—78% nitrogen, 21% oxygen and 1% consisting of argon, carbon dioxide and other gases. The atmospheric gases are essential for life. Nitrogen is required in various forms to maintain







blocks are termed as 'horsts' and the lowered blocks are called graben. The Rhine Valley and the Vosges mountain in Europe are examples of such mountain systems.

**Volcanic Mountains :** Volcanic mountains are formed due to volcanic activity. Mt. Kilimanjaro in Africa and Mt. Fujiyama in Japan are examples of Volcanic mountains.

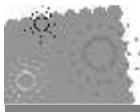
- b. A Plateau is a level area of land higher than its surroundings, often in an upland area. It is called a tableland as it is flat on the top with steep sides on either side. Plateaus are storehouse of minerals and mining activity, therefore, many of the mining areas in the world are situated in the plateau areas for example– African plateau is famous for gold and diamond mining and Chhota Nagpur plateau has large reserves of iron, coal, manganese, etc.
- c. The Himalayas, the Alps, the Andes and the Rockies are young fold mountains formed in the recent geological ages. They are very high, with steep slopes and sharp, pointed peaks, Covered with snow. Volcanic activities are very common in such mountains because the crust of the Earth here is still unstable.
- d. The landforms change with time. These relief features are the result of processes taking place inside and outside the Earth's surface. Thus, we classify these processes are :
  - a. Internal processes lead to rising and sinking of land surfaces. The processes include earthquakes, volcanic eruptions and earth movements.
  - b. External processes involve the continuous process of wearing down and rebuilding of Earth's surface.

Wearing away of Earth's surface is called erosion which lowers down the higher surfaces, e.g. by rivers, winds and moving ice.

The Earth's surface is rebuilt by laying down the rock materials by the process called deposition.

Activity

Ans. Do Yourself



# 7

## India–Location, Physical Features and Climate

### Exercise

#### Section 1 : Formative Assessment (CCE Pattern)

##### 1. Oral Questions:

- Ans. a. The land which is surrounded by the water by three sides is called peninsula.  
b. Godavari, Mahanadi, Krishna and Kaveri are the important rivers of the Deccan Plateau.





land routes into China and Tibet. Some of the important passes are Shipkila in the Satluj valley in Himachal, Bomdila in Arunachal Pradesh and Nathula in Sikkim. (The word 'La' means 'pass' in the Chinese language).

From north to south, the Himalayas consists of three parallel ranges, namely, the Himadri, Himachal and Shivalik.

- c. In India, the variations in temperature, amount and distribution of rainfall and the monsoon winds cause four seasons. They occur in an almost fixed sequences to form an annual cycle. The four distinct seasons are:
1. The Cold Weather Season
  2. The Hot Weather Season
  3. The Advancing Monsoon Season
  4. The Retreating Monsoon Season

**The Cold Weather Season :**

In India winter falls between the months of December and February. December and January are the coldest months. Winter is more severe in North India than it is in south India.

The mean temperature in the Northern Plains is very low (10–50°C). Sometimes the temperature drops to -45°C in Leh and Ladakh in Mammu and Kashmir. The days are warm, while the nights are cold. In the Thar Desert the night temperature falls below 0°C in winter.

**The Hot Weather Season :**

This season starts in early March and continues till the end of May, and in some areas till the end of June. During these months temperature starts rising and practically every part of India experiences hot and dry weather. In March, temperature is around 38°C in the Deccan Plateau, as the heat belt moves towards north, the temperature rises up to 42°C to 43°C in Gujarat and Madhya Pradesh. During May, the day temperature may be more than 45°C in most north-western parts of India.

**The Advancing Monsoon Season :**

This season starts in the month of June and continues till the end of September. Due to high temperature, North-West India becomes a seat of Low Pressure. The south-east trade winds are attracted towards this region. These South-West winds are the monsoon-bearing winds, over the Indian Ocean and the adjoining water bodies of Arabian Sea and Bay of Bengal.

**The Retreating Monsoon Season :**

This season runs from October to November. In this season the sky is usually clear and humidity is low. At this time the monsoons start retreating. The months of October and November form a period of transition from hot rainy season to dry winter conditions.

- d. The distribution of rainfall in India is highly uneven. The amount of rainfall varies not only from season to season, but also from place to place. Most of it comes within four months (June to September) from the southwest monsoons. There are a few areas like the Western Coast and North-East India which receive heavy rainfall. Here the annual amount of rainfall is over 300 cm. West-North Rajasthan, parts of Punjab, Haryana and Gujarat, interior parts of the Deccan Plateau and the area around Leh receive a low amount of rainfall. Here the annual rainfall is less than 50 cm. All other parts of India



receive a moderate amount of rainfall. The North-West Himalayan region receives some snowfall during winter.

Activity

Ans. Do Yourself



# 8

## India–Natural Vegetation and Wildlife

### Exercise

#### Section 1 : Formative Assessment (CCE Pattern)

##### 1. Oral Questions :

- Ans. a. The shorter trees do not get sunlight in a tropical evergreen forest because the trees in a tropical evergreen forests are often very high. The taller trees get proper sunlight but the shorter trees do not get it properly.
- b. Monsoon forests are called deciduous forests because these forests are covered by deciduous trees.
- c. Peacock is the national bird of India.

##### 2. Multiple Choice Questions :

Tick (3) the correct answer :

- Ans. a. iii.                      b. i.                      c. i.                      d. iii.

##### 3. Give reasons for the following :

- Ans. a. Himalayan vegetation has varied belts ranging from Tropical Deciduous to Alpine forests within a height of 4000 metres because the Himalayan forests are distributed according to the altitude. In the mountains, the temperature decreases with the increase in altitude.
- b. The Indian Government has set up various projects for tigers and the one-horned rhinoceros because these animals are endangered species of wildlife in India.
- c. Wild life reserves have been set up in different parts of India for conserving wildlife of country.

#### Section 2 : Summative Assessment (CCE Pattern)

##### 1. Fill in the blanks:

- Ans. a. Thorn forests receive rainfall less than **100 cm per annum**.
- b. Tropical evergreen rainforest are found in the **western ghats** and hills of **Assam**.
- c. In a **zoo**, we can watch the different animals and birds very closely.
- d. Tidal forests are found along the **coasts** and in **deltas**.
- e. Project Rhino is implemented at **Kaziranga wildlife** sanctuary at **Assam**.

##### 2. State whether the following statements are True or False :

- Ans. a. True                      b. False                      c. True                      d. False                      e. False

**3. Match the following:**

- |                               |                      |
|-------------------------------|----------------------|
| <b>Ans.</b> a. Bird Sanctuary | i. Mangrove forests  |
| b. Tidal forests              | ii. Bharatpur        |
| c. Gir Forests                | iii. National animal |
| d. Tiger                      | iv. Gujarat          |

**4. Answer the following questions in short :**

- Ans.** a. Mangrove forests are found in the deltas of the Ganga, Mahanadi, Godavari and Krishna river and along the eastern coast.
- b. The evergreen forests are called so because these forests remain green throughout the year and do not shed their leaves.
- c. The Van Mahotsav is a week-long festival of tree plantation celebrated all over India during the month of July. It encourages people to appreciate the importance of trees in our lives.
- d. Monsoon forests is another name for tropical deciduous forests.
- e. The trees found in the tropical deciduous forests are known as deciduous trees. They shed their leaves for six to eight weeks during the dry season. Some deciduous forests are teak, sal, sandalwood, bamboo, etc.

**5. Answer the following questions in detail :**

- Ans.** a. Tropical rain forests are found in regions with rainfall above 300 cm. The climate is highly moist and humid. The temperature is even. The dry season is very short. These forests are of equatorial type. They are commonly found in the Western Ghats and hills of Assam. Important trees of tropical rain forests are oak, chestnut, deodar, cedar, chir and pine, etc. Tropical rain forests do not shed their leaves and remain green throughout the year. So they are called evergreen forests.
- b. Forests are needed to be conserved due to following reasons.  
Forests provide us with plenty of useful products, out of which, timber is the most important. The evergreen and deciduous trees provide hardwood for making doors, windows and furniture. The coniferous trees yield softwood, which is used to making plywood, packing boxes and matchsticks. It is the principal raw material for making paper and newsprint.
- The forests also yield a host of other products such as lac, resins, gums, medicinal herbs, fruits, dyes, honey, cellulose, grasses and leaves.
  - They help in maintaining the ecological balance, by absorbing carbon dioxide and releasing oxygen.
  - They prevent soil erosion by binding the soil with tree roots. In this way, floods are also controlled.
  - Forests increase the moisture content in the air.
  - They provide natural habitat for wildlife.
  - Therefore, we need to conserve our forests resources. If the forests are cut down at a rapid pace to cater to the needs of the growing population, then our country will soon be transformed into a dry and barren land.



## Section 2 : Summative Assessment (CCE Pattern)

### 1. Fill in the blanks:

**Ans.** a. Indian is a land of **diversity**.

b. **Geographical** and **climatic** conditions determine the economic activities of a region.

c. The source of most languages of North is **Sanskrit**.

d. The Muslims pray in a **Mosque**.

### 2. Answer the following questions in short :

**Ans.** a. 1. My friend belongs to different religion.

2. My friend's family is different from my family.

b. Hinduism, Islam, Christianity, Sikhism, Buddhism and Jainism are the main religions of India.

c. The Bhagwat Gita, the Quran and the Bible are the holy books of hindus, muslims and christians respectively.

d. A classroom can easily be compared to a country. A classroom comprises students who have different academic, capabilities, food habits, family backgrounds, belong to different religions and castes and speak different languages. But, the common factor is that they all belong to the same class. The overall excellence of the class depends upon the all-round development of all the students and individual academic excellence of each student. Each student tries to attain this goal in his or her own way. Similarly, in our country through we live in different regions, speak different languages, wear different clothes, eat different kinds of food, and so on, we are all Indian citizens and share a common past.

### 3. Answer the following questions in detail :

**Ans.** a. India is known as a nation having unity in diversity. This phrase was coined by India's first Prime Minister Jawaharlal Nehru. Many kinds of diversity occur in India such as linguistic, religious, regional and cultural diversity.

#### **Linguistic diversity**

India has a diverse list of spoken languages. At least 800 languages and 200 dialects have been identified. Of these, 22 languages have been adopted as the national language. Some of these official languages include Hindi, Gujarati, Manipuri, Santhali, Telugu and Urdu.

#### **Religious diversity**

India is probably the only nation in the world to have such a wide variety of religions. It is the birthplace of several religions such as Hinduism, Buddhism, Sikhism and Jainism. It is among the few places in the world with a sizeable Zoroastrian population.

#### **Diversity in food and festivals**

Indian festivals and food speak of India's rich cultural and traditional background. Every region has its own food preparations depending on the kind of food available locally. Kerala, for example, has several dishes made

out of coconut which is easily available in the area. People celebrate their festivals also according to their local customs and rituals. The common element in all the celebrations is that they celebrate humanity. Some of the common rituals, which are followed in most of the festivals are—processions in the streets, decoration of homes and sacred places, traditional folk song and dance performances, special dishes, flowers and lights.

### **Regional and cultural diversity**

India has a great variety in landforms which in turn has shaped its culture. In the north and east we find the Himalayas and the three perennial river systems—Ganga, Brahmaputra and Indus. The west is marked by a rough terrain and a desert while in the south we have the coastal regions. These geographic divisions have had a lasting influence on the eating habits, clothing, customs and economic activities of the region giving rise to diversity.

- b. Culture is a set of features of society or a social group. It includes, in addition to art and literature, lifestyles, ways of living together, value systems, traditions and beliefs. Respecting and safeguarding culture is a matter of Human Rights. Cultural Diversity presupposes respect of fundamental freedoms —freedom of thought, conscience and religion, freedom of opinion and expression, and freedom to participate in the cultural life of one's choice.

India's culture is ever-changing, always adapting to changes caused by internal factors or contact with external cultures and adopting new elements from other countries. Today, in the age of aeroplanes and e-mails, in an age when travelling for work or leisure has become more common, faster and easier, there is a steady exchange of cultural traditions. We carry our traditions to new places and also adapt to the ways of life of that place.

- c. Unity in diversity has been India's greatest strength. It is a slogan celebrating cooperation and oneness between different groups of people, despite their differences and diverse cultural background. India's struggle against British rule was a great unifying factor, when the entire nation stood against the tyranny of British rule together. People from different religious, cultural and regional backgrounds came together with the common agenda of ousting the Britishers from India. The British could not 'divide and rule' India beyond a point and had to leave in the wake of fierce and sustained resistance to their rule from every section and region of India.

Activity

**Ans. Do Yourself**



inequality and discrimination.

- d. 1. **Social causes** : Discrimination can be different in various societies. Family or parents can become the cause of gender based discrimination in the society.
2. **Religious causes** : Religious fanaticism or religious intolerance may give the feeling of hatred or insecurity to other religion.
3. **Majority vs Minority** : Minor community may feel insecured in the hands of majority.

**4. Answer the following questions in detail :**

**Ans.** a. Discrimination refers to an unfavourable action, behaviour, outcome or treatment. When people act on the basis of their prejudices, they are discriminating. Discrimination may mean not allowing people to participate in activities, restricting their access to work or to live in certain neighbourhoods, or denying them something they are entitled to by right and law.

b. Boys are physically stronger.

Boys should study science subjects while girls should study arts and social sciences.

Girls should be soft spoken and well behaved.

Girls are good at embroidery, dance and painting.

Fair people are more beautiful compared to dark complexioned people.

City dwellers are lethargic and seek luxury while inhabitants of villages are rustic and backward.

The above mentioned statements are examples of some common stereotypes which we come across in our daily lives.

c. The different forms of inequality, whether caste inequality, religious inequality, race inequality or gender inequality, give rise to discrimination which proves very harmful for the society.

d. Steps needed for the reduction of prejudice discrimination and inequality :

1. **Education** : Both formal and informal means of education should inculcate the feelings of harmony.
2. **Laws** : Laws should be made to reduce discrimination and inequalities and should be strictly adhered.
3. **Inter-caste Marriages** : Inter-caste marriages should be encouraged.
4. **Media** : Media should encourage harmony among different communities.
5. **Religion should not breed hatred** : Meaning of religion should be propagated in a broader sense which should breed harmony, tolerance and respect for all.

Activity

**Ans.** Do Yourself





## Section 2 : Summative Assessment (CCE Pattern)

### 1. Fill in the blanks:

- Ans.** a. There is one Nyaya Panchayat for every **three** or **four** villages.  
b. In the Gram Panchayat, seats are reserved for **SCs** and **STs**.  
c. The **Panchayat Secretary** is appointed by the District Magistrate.  
d. The **Indian Constitution** allows each state to have their own laws for the **Panchayats**.  
e. Gram panchayat work for the **Welfare** of the villages.

### 2. State whether the following statements are True or False :

- Ans.** a. True                      b. False                      c. False                      d. False

### 3. Match the following:

- Ans.** a. An assembly of villagers → i. Sarpanch  
b. Panchayat President → ii. Block Samiti  
c. Level of Panchayat → iii. Gram Sabha  
d. A Block Level Panchayat → iv. Zila Parishad  
e. The District Level Panchayat → v. Three

### 4. Answer the following questions in short :

- Ans.** a. The Zila Parishad is the highest institution of the Panchayat Raj in India. It functions at the district level. It is also called District Council on the District Board.  
b. There is one Nyaya Panchayat for every three or four villages. Each village panchayat elects a member of the Nyaya Panchayat. The Nyaya Panchayat is headed by a sarpanch. It hears minor civil and criminal cases.  
c. The Gram Panchayat requires funds for undertaking measures to improve the life of villagers. It derives its income mainly from three sources. One part comes from taxes on houses, shops, fairs and purchase or sale of cattle and property. The state government provides funding to the Panchayat. Also, a small part of the funds comes from donations given by villagers for community development projects.  
d. The Gram Sabha consists of all the men and women in a village who are 18 years of age and above. They meet at least twice a year. The Gram Sabha elects their representatives to the Gram Panchayat.

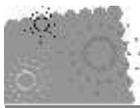
### 5. Answer the following questions in detail :

- Ans.** a. **Functions of Village (Gram) Panchayat :** The Gram Panchayat meets at regular intervals and looks after the implementation of the development programmes and other issues. Its main duty is to improve the condition of the village and villagers by providing basic amenities like roads, water, schools and electricity. Therefore, it has to handle construction and maintenance of roads, provide clean drinking water and water for irrigation. It also has to maintain records of births and deaths in the village. In addition to that, it has to look after the welfare of the people by providing reading rooms or libraries, organising fairs, maintaining water sources such as wells, ponds, etc.

- b. The Gram Panchayat requires funds for undertaking measures to improve the life of villagers. It derives its income mainly from three sources. One part comes from taxes on houses, shops, fairs and purchase or sale of cattle and property. The state government provides funding to the Panchayat. Also, a small part of the funds comes from donations given by villagers for community development projects.
- c. Panchayati Raj refers to the system of self-governance in rural areas or at the grassroots level. The administrative activities in the villages are conducted through this system. The local problems of villages pertaining to roads, canals, schools, land disputes, healthcare, sanitation, etc. can be most effectively resolved only by the local people. The vastness of our country makes it impractical for the central government or state governments to look into the local problems of rural areas. So, the local people constitute a governing body which caters to their specific needs.

Activity

**Ans.** Do Yourself



# 5

## Rural Administration

### Exercise

#### Section 1 : Formative Assessment (CCE Pattern)

##### 1. Oral Questions:

**Ans.** a. The Patwari maintains the records of land in rural areas.

b. The Hindu Succession Amendment Act (HSAA), 2005 came into force from 9th September, 2005.

##### 2. Multiple Choice Questions :

**Tick (3) the correct answer :**

**Ans.** a. iv.

b. i.

c. iv.

#### Section 2 : Summative Assessment (CCE Pattern)

##### 1. Fill in the blanks :

**Ans.** a. The states in India are divided into **districts**.

b. The **update** report of the Patwari, gives information regarding the ownership.

c. The District Magistrate supervises the work of the **patwari**.

d. **The Patwari** maintain records of land.

##### 2. State whether the following statements are True or False :

**Ans.** a. True

b. True

c. True

d. False

##### 3. Answer the following questions in short :

**Ans.** a. Tehsildar is the revenue officer. He/She supervises the work of patwaris.

b. The Hindu Succession Amendment Act (HSAA), 2005 came into force from 9th September, 2005. It is a significant step towards advancing

women's rights. In its essence, the Act has been enforced to remove gender discriminatory provisions in the Hindu Succession Act (HSA), 1956.

- c. The maintenance of land records by the patwari including maps, etc, helps to resolve any dispute in the village that relates to property and its ownership. One such record is the Khasra. It is a register of harvest inspections (parthtaal). By its help, the parwari settle disputes regarding ownership of land in a village.
- d. New inheritance law act gives all daughters (married or not) the right to reside in or seek partition of the family house. Earlier married women did not even have the right to reside at their parents home and unmarried daughters had residence but no right in the partitioned property. This law has helped women to be at par with men as far as the agricultural and residential property is concerned.

#### **4. Answer the following questions in detail :**

**Ans.** a. Apatwari has three chief responsibilities :

- 1. Maintenance of records of the crop grown at every harvest.
- 2. Maintaining and updating the records of rights, that is, who owns which field in the village and who would inherit it.
- 3. Measuring land and organising the collection of land revenue from the farmers. She/He also provides information to the government about crops based on harvest inspection.

- b. It is the responsibility of the patwari to report at once all serious calamities affecting the land or the crops and all severe outbreaks of diseases amongst men and beasts. She/He must aid the headman in revenue collection. She/He keeps a diary and a workbook. The entries should be made on the day on which the events come to the notice of the patwari.

The patwari is responsible for the safe custody of all the records, maps and equipments of the area that are in her/his charge. In the workbook, she/he enters the work done by her/him on each day.

- c. The HSAA 2005 Act brings all agricultural land at par with other property and makes Hindu women's inheritance rights on land legally equal to those of men in all the states. This can benefit millions of women dependent on agriculture for their survival. The act also gives all daughters (married or not) the right to reside in or seek partition of the family house. Earlier married women did not even have the right to reside at their parent's home and unmarried daughters had residence but no right in the partitioned property.

This law has helped women to be pat with men as far as the agricultural and residential property is concerned.

Activity

**Ans.** Do Yourself





- c. **Anand Dairy Cooperative** is the biggest supplier of dairy products in India.
- d. Banks play an important role in economic **development**.

**2. State whether the following statements are True or False:**

**Ans.** a. False                      b. True                      c. False                      d. True

**3. Answer the following questions in short:**

**Ans.** a. In a broad manner, occupations are divided into the following three categories:

1. **Primary Occupations**-These occupations relate to natural resources. Primary occupations include raising of crops, fishing, animal grazing, breeding and rearing, forestry and mining, etc.
  2. **Secondary Occupationse**-People engaged in secondary occupations convert the products of primary occupations into manufactured goods. Secondary occupations include various types of industries-large scale as well as small scale. Examples are cotton textiles and sugar industries, etc.
  3. **Tertiary Occupations**-These occupations are primarily concerned with services such as health, education, transport, communication, banking, insurance, entertainment, arts, etc.
- b. Dairy farming and Poultry farming are the two occupations related to agriculture.
- c. (i) Mining – Primary Occupation  
(ii) Banking – Tertiary Occupation  
(iii) Textile industry – Secondary Occupation.

**4. Answer the following questions in detail:**

**Ans.** a. Regular employment is that employment which is continuous. The employee regularly gets work. There are several jobs, professions and industries which provide employment throughout the year. For instance employment is on regular basis in banks. Employment is regular in the teaching profession. The secondary occupations usually provide regular employment. Monthly income is assured. There is normally security of service. Profit or loss if any, belongs to the organisation/individual who is the owner. One can prepare his budget according to the income the employee gets. In regular employment, apart from monthly salary, other benefits like dearness allowance, and sick leave etc. are also available. The hours of work are also fixed. These all facilities are not got by the wage earners.

- b. Migration of people from rural to urban areas leads to rapid increase in population of cities. People from rural areas come in large numbers to cities in search of better jobs and in order to improve their standard of living.

Other factors that prompt them to migrate are:

- (i) lack of educational and medical facilities in villages,
- (ii) poor conditions of pay and employment, and
- (iii) feeling of insecurity.

Many landless labourers migrate to the cities for a short time when they have no work to do in villages. They employed as casual workers. They live on the outskirts of the cities in unhygienic conditions, without safe drinking water and electricity. They make a sizeable number of the urban poor.

Activity

**Ans.** Do Yourself

