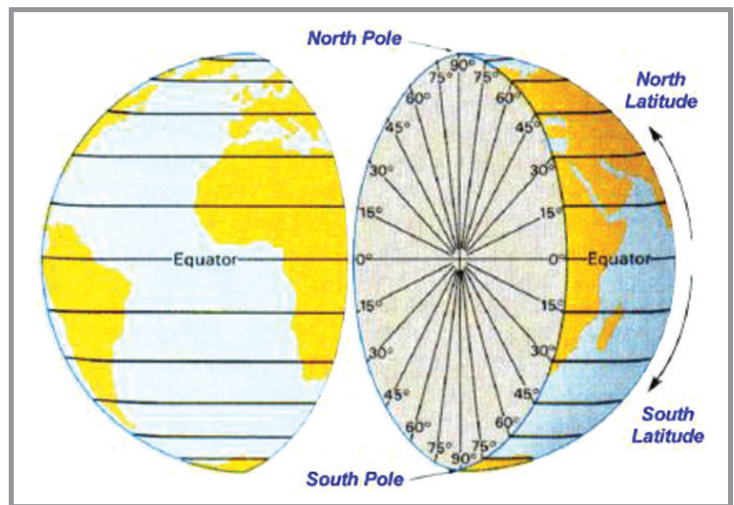


3

Locating Places on the Earth

We know that distance and direction help us to locate a place on a map or a globe. If we are at a new place, we try to observe certain features of our surroundings. These features, such as a temple, a hill or a river help us in locating places. These features are called the **reference points** or **landmarks**.

The earth being spherical in shape has no edges or corners which can be used as reference points in locating the places. However, the end points of the imaginary axis of the earth on which it rotates, provide us two basic points of reference. These end points of the earth's axis are called **North Pole** and **South Pole**. These are the fixed points on the earth. The North Pole lies exactly below the Pole Star and opposite to it is the South Pole. Using the two



Poles as basic reference points, an imaginary circle is drawn around the earth midway between the two Poles. This great circle, divides the earth into two halves, and is known as the **Equator**. The half portion of the earth to the north of the Equator is called the **Northern Hemisphere**. The southern half is called the **Southern Hemisphere**.

A perpendicular line from any of the Poles to the Equator makes an angle of 90° . Thus, the North Pole is at 90° N and the South Pole is at 90° S.

LATITUDES

Horizontal lines drawn on a globe or a map are called **lines of latitude**. Since these lines run parallel to each other they are called **parallels of latitudes**. The latitude of a place on the Earth's surface is its angular distance in the north or in the south of the equator. It is measured as an angle subtended at the centre of the earth. The latitudes are always expressed in degrees. They are numbered from 0° to 90° North and South. Equator is located at 0° . Each degree of latitude is divided into 60 minutes and a minute is further sub-divided into 60 seconds. Suppose the latitude of a place is 8 degrees 4 minutes and 25 seconds, we can express it as $8^\circ, 4', 25''$.

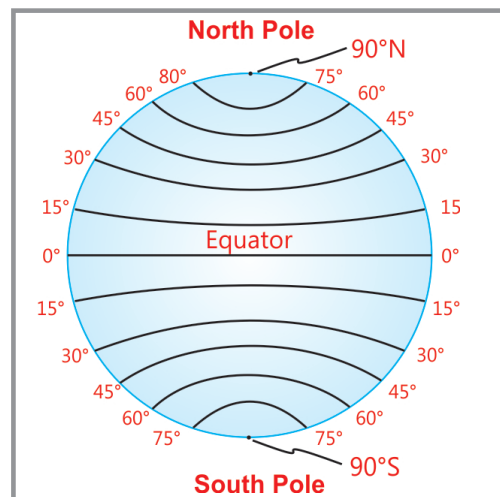
The lines of latitude are the imaginary lines which encircle the earth. All of them are parallel to the equator. All places having the same value of latitude to the north or the south of the equator lie on the same latitude. For example, 30° N latitude line joins all places situated at an angular distance of 30° north of the equator. The equator, being in the middle of the two poles of the earth is the longest line of latitude. Its length is equal to the circumference of the earth which is about 40,075.16 km.

As we move away from the equator, the circumference of the circle decreases. The two poles are, however, only points.

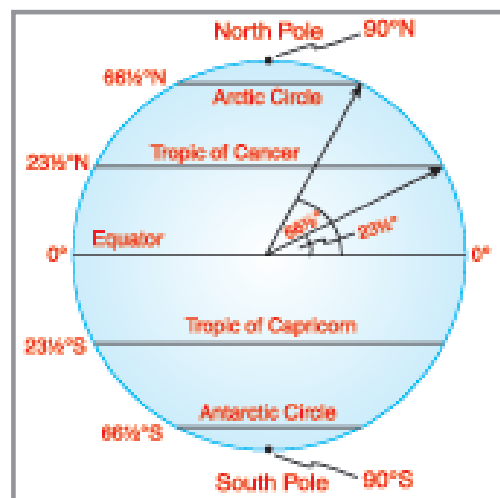
While writing the parallels of latitudes, it is essential to write letter N or S with them. Letter 'N' is written with the latitudes of the Northern Hemisphere and 'S' with the latitudes of the Southern Hemisphere. For example, Kerala (in India) is situated between 8°18'N to 12°48'N of equator.

The number of latitudes, when drawn at 1° interval, are 90 in the Northern Hemisphere and 90 in the Southern Hemisphere. The latitude of the Equator is 0°. Besides the equator and two poles, other important lines of latitude are:

1. **The Tropic of Cancer (23½° N)** - It lies north of the equator in the Northern Hemisphere.
2. **The Tropic of Capricorn (23½° S)** - It is located south of the equator in the Southern Hemisphere.
3. **The Arctic Circle (66½° N)** - This important line of latitude is above the Tropic of Cancer in the Northern Hemisphere.
4. **The Antarctic Circle (66½° S)** - It is below the Tropic of Capricorn in the Southern Hemisphere.



Parallels of Latitude



Important Lines of Latitude

HEAT ZONES

Some parts of the earth receive more heat than other parts because of the variation in the angle of the rays of the sun. Depending on the heat received, the zones are named differently. These are—**Torrid Zone**, **Temperate Zone** and **Frigid Zone**. Let us discuss them one by one.

The Torrid Zone

The Tropic of Cancer and the Tropic of Capricorn mark the limits of this zone. In this zone, the rays of the sun are exactly overhead once a year except on the equator, where the mid-day sun is overhead twice a year. Hence, it receives maximum heat from the sun and is very hot.

The Temperate Zone

The zone between the Tropic of Cancer and the Arctic Circle is called the **North Temperate Zone**. The zone between the Tropic of Capricorn and the Antarctic Circle is called the **South Temperate Zone**.

The sun rays in both these zones are never directly overhead. The angle of the sun rays decreases as we go towards the poles. That is why these zones are neither very hot nor very cold. They have moderate temperature.

The Frigid Zone

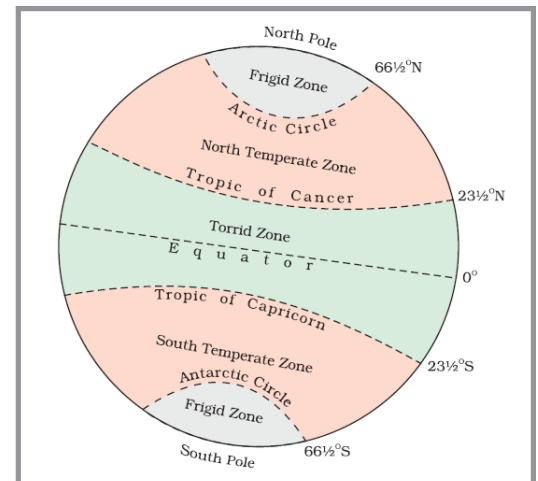
It lies from Arctic Circle to the North Pole and from Antarctic Circle to the South Pole. This zone remains covered with ice and snow for the most part of the year because the rays of the sun are always slanting. Hence, it is the coldest zone of the earth.

LONGITUDES

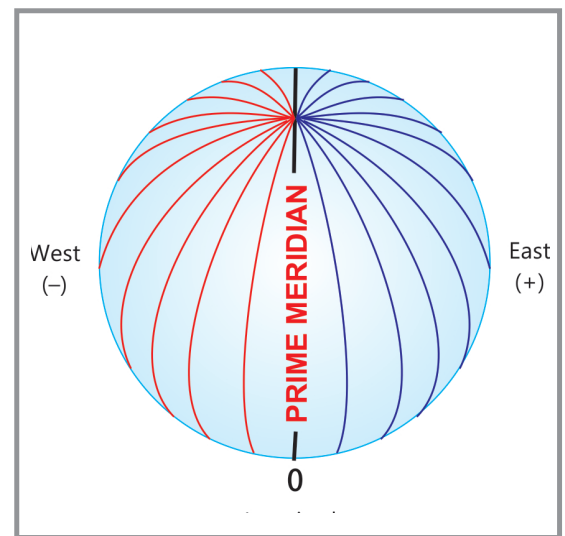
The **meridians of longitude** are a set of imaginary vertical lines. They are in the form of semi-circles which converge towards the two poles and are the widest at the equator. Unlike the parallels of latitudes, they are all equal in length.

The lines of longitudes are drawn all around the globe at an interval of an angle of 1° . As all these lines of longitudes are equal, one particular line of longitude was to be selected for numbering them. The line of longitude passing through the British Royal Observatory at **Greenwich**, London, has been adopted as the **Prime Meridian** or **0° Longitude**.

There are 180° longitudes each drawn on both sides of the Prime Meridian. The value of the meridians of longitude starts from 1° to 180° towards the east as well as towards the west side of the Prime Meridian. The half part of the earth on the east to the Prime Meridian is called **Eastern Hemisphere** and the other half to the west is called the **Western Hemisphere**. Thus, in each hemisphere there are 180 longitudes. The total number of longitudes is, thus, 360. Meridians to the east of Prime Meridian are marked as 'E', whereas to the west of Prime Meridian as 'W'. However, 180° is a common line and forms International date line in the Pacific Ocean.



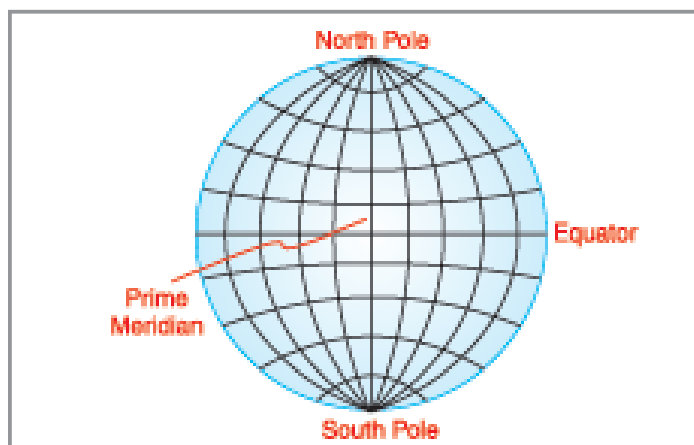
The Heat Zones



Longitudes

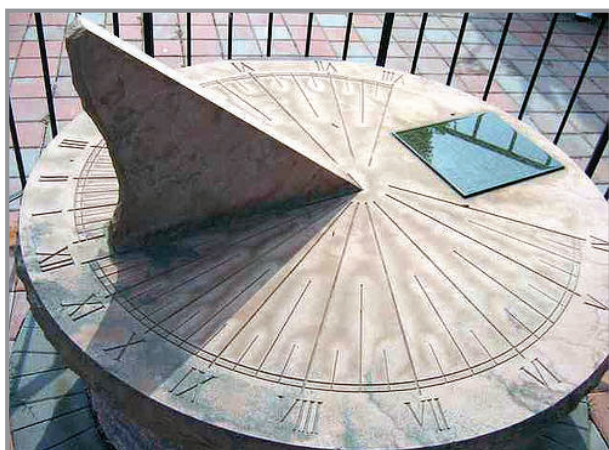
GRID SYSTEM

A network of the lines of latitude and longitude intersecting each other is called a **Grid**. Each place on the globe is intersected by vertical and horizontal lines. Thus, with the help of these two sets of lines or the grid system the location of any place can be determined. For example, Nasik in Maharashtra is located at an intersection of 20°N parallel of latitude and 74°E line of longitude.



Grid of Parallels and Meridians

LONGITUDE AND TIME



Sundial with time

In ancient times, changing seasons, day and night and position of the sun were some of the means to estimate time. People observed the path of the sun in the sky to estimate the time. The earth, as we know, rotates from west to east and completes one rotation in 24 hours. This also means that 360 longitudes face the mid-day sun one after the other in 24 hours. Thus, 15 longitudes pass before the sun in a period of one hour or 60 minutes. Further, it takes 4 minutes for one longitude to cross before the sun.

All the places located on the same meridian have the same local time. The local time of one meridian differs from the other. If it is noon or 12.00 o'clock at **Greenwich**, the local time of all places at 30° E longitude will be 30×4 (minutes) = 120 minutes or 2 hours ahead. It means the time on 30° E will be $12 + 2 = 2.00$ p.m. On the other hand, the local time of all places at 30° W longitude will be 2 hours behind the Greenwich time. It will be $12 - 2 = 10.00$ a.m. Thus, the local time will be ahead at all the places in the **east** of a given meridian and it will be behind at all places in the **west** of a given meridian.



Do You Know?

In Latin a.m. means *ante meridian* and p.m. means *post meridian*.

STANDARD TIME

We know that places located on different meridians have different **local time**. It would create a lot of difficulties, if all countries would adopt different local time. The railway time-table and the

schedules of the air flights would be difficult to prepare. People crossing the longitudes would have to adjust their watches. India lies between $68^{\circ}7'$ E and $97^{\circ}25'$ E longitudes. Think about the problems, the people of India would face if they follow the different local times.

In order to avoid this problem and maintain its uniformity all over a country, it was decided to adopt the local time of a central meridian of a country as the **Standard Time** of India. Mostly the meridian selected, is divisible by $7^{\circ} 30'$ so that the difference

between its standard time and the Greenwich Mean Time (GMT) is expressed in the multiple of 'half an hour'. The meridian, selected for a country, is called the **Standard Meridian**.

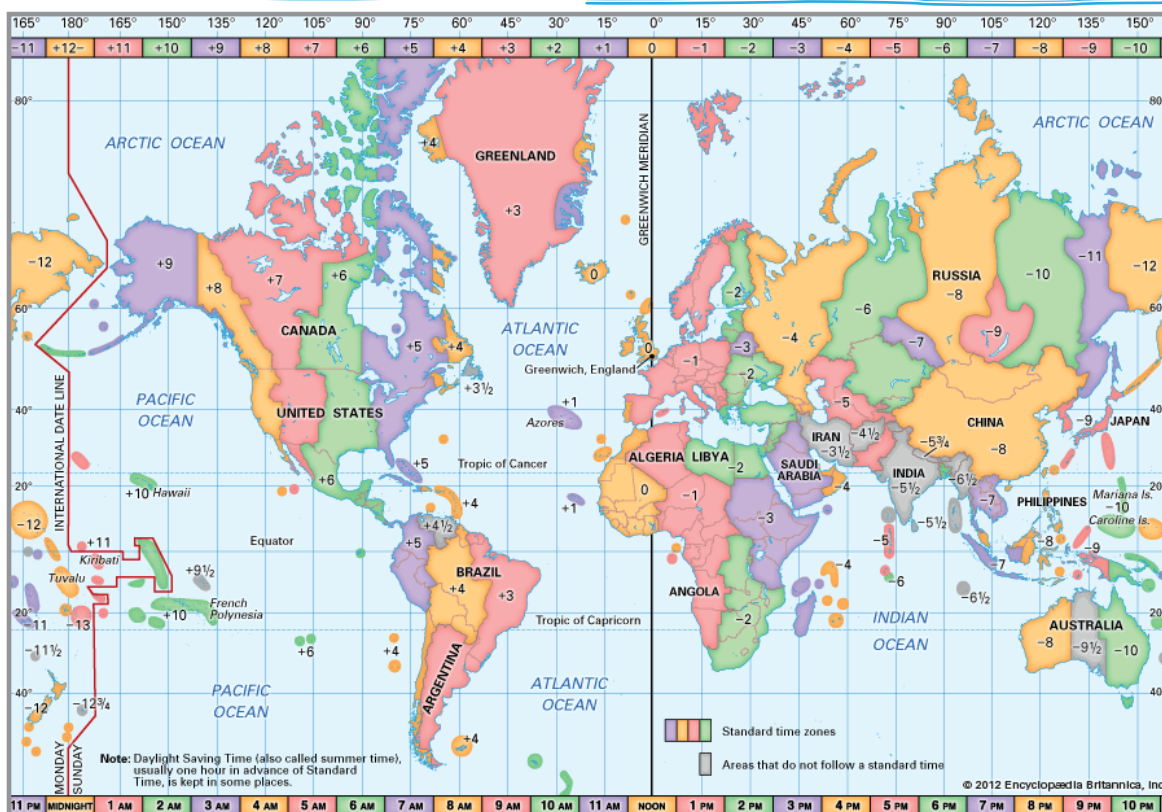


Jantar Mantar - Jaipur



Do You Know?

Some countries have a vast longitudinal extent. That is why countries like Russia has nine and USA has four **time zones**.



Time Zones

India, spanning roughly over 30° longitudes, has selected $82^\circ 30'$ E longitude as its **Standard Meridian**. It passes through a place near Mirzapur. Its local time is taken as the **Indian Standard Time (IST)**. The Greenwich Mean Time (GMT) is $5\frac{1}{2}$ hours behind the Indian Standard Time.

Greenwich Mean Time is followed by all countries for the international airlines and ship fleets.



Do You Know?

Although, about 30 longitudes pass over India, yet it has selected only one standard meridian and one standard time for the whole country for convenience. This is called **Indian Standard Time (IST)**.



Keywords

- **schedule:** it is a plan for carrying out a process or procedure.
- **subtended:** form an angle at a particular point.
- **variation:** it is a slight difference in condition or amount in certain limits.



Something To Know

A. Tick (✓) the correct option.

1. The equator does not pass through which one of the following continents?

- (a) Europe (b) South America
(c) Asia (d) Africa

2. The heat zone lying between $23\frac{1}{2}^{\circ}$ N and $66\frac{1}{2}^{\circ}$ N is—

- (a) Frigid Zone (b) Torrid Zone
(c) Temperate Zone (d) Time Zone

3. The longest circle drawn midway between two poles is—

- (a) The Equator (b) Prime Meridian
(c) The Tropic of Cancer (d) The Tropic of Capricorn

4. When the time is 12 noon at 0° longitude, the time at 75° E longitude will be—

- (a) 4 p.m. (b) 5 p.m.
(c) 3 p.m. (d) 11 p.m.

5. Which one of the following is a correct statement about longitudes?

- (a) Their length is the longest at the poles.
(b) Their length is the shortest at the equator.
(c) All of them have equal lengths.
(d) Their length reduces towards the poles.

B. Fill in the blanks.

- The earth rotates from _____ to _____ .
- All the places on the same meridian will have the _____ local time.
- The distance between the two lines of latitudes is always _____ .
- The _____ are the imaginary lines that connect the north and south poles.
- Each degree of longitude corresponds to a time difference of _____ minutes.

C. Match the following:

- | | |
|--|----------------|
| 1. Two equal division of earth | a. 23° 30' N |
| 2. Latitudes are measured in | b. Mirzapur |
| 3. Tropic of Cancer | c. Hemispheres |
| 4. British Royal Observatory | d. Degrees |
| 5. The place through which Standard Meridian of India passes | e. Greenwich |

D. Answer the following questions in brief.

1. Which two basic points on the earth serve as the reference points?
2. Mention the latitudinal location of the heat zones of the earth.
3. Why does the Torrid zone have the maximum temperature?
4. What is the significance of Greenwich Mean Time?
5. Why is the Standard Meridian selected by a country a multiple of 7.5°?

E. Answer the following questions.

1. State three main characteristics of parallels of latitudes.
2. Why do we use standard time? Explain with an example from India.
3. Which heat zone is most suitable for us to live and why?
4. Why is the time difference between each meridian of longitude 4 minutes? Explain.
5. Distinguish between Equator and Prime Meridian.



Value Based Question

Some countries have non-standard time zones, usually with a 30-minute offset (a few have a 45-minute offset).

Time zones' boundaries are irregular mainly because of political factors, and so this has been a subject of criticism. Time zones can be determined by how countries' and states' borders are positioned. Individual zone boundaries are not straight because they are adjusted for the convenience and desires of local population. Moreover, some geographically large countries, such as India and China, use only one time zone where as other large countries don't do the same.

How does one time zone in a country, like India, help towards unity in diversity?



Map Skill

On the outline map of the world, show—

- (a) Equator
- (b) Tropic of Cancer
- (c) Tropic of Capricorn
- (d) Arctic Circle
- (e) Antarctic Circle
- (f) Prime Meridian



Something To Do

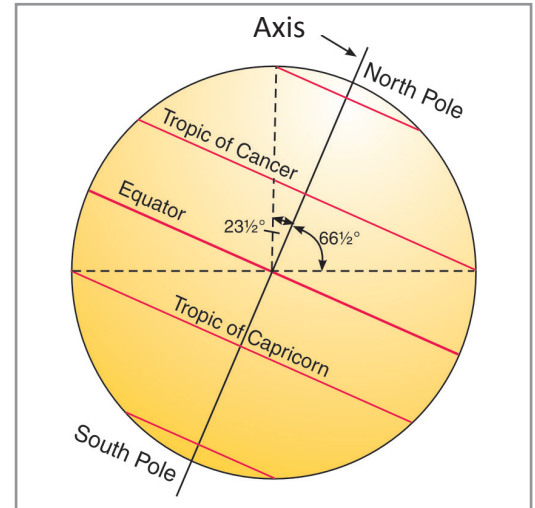
1. Study the atlas and find out the location of the following cities with reference to latitudes and longitudes.
 - (a) Delhi
 - (b) London
 - (c) Tokyo
 - (d) Singapore
 - (e) Cairo
2. In your notebook, draw the diagram of Heat Zones showing the values of different latitudes.



The Motions of the Earth (Day-Night and Seasons)

We have learnt in the previous chapter that the earth is continuously spinning on its imaginary axis from west to east. It completes one round in about 24 hours. This motion of the earth is called **Rotation**. The earth also revolves round the sun in its fixed path known as **Orbit**. It revolves round the sun in 365¼ days, which makes one year. This motion of the earth is called **Revolution**. The axis of the earth is not perpendicular but tilted to one side. It makes an angle of $23\frac{1}{2}^\circ$ from the vertical or perpendicular line. In other words, the earth's axis makes an angle of $66\frac{1}{2}^\circ$ with its orbital plane. This tilt of the axis of the earth is called the **inclination of the earth's axis**.

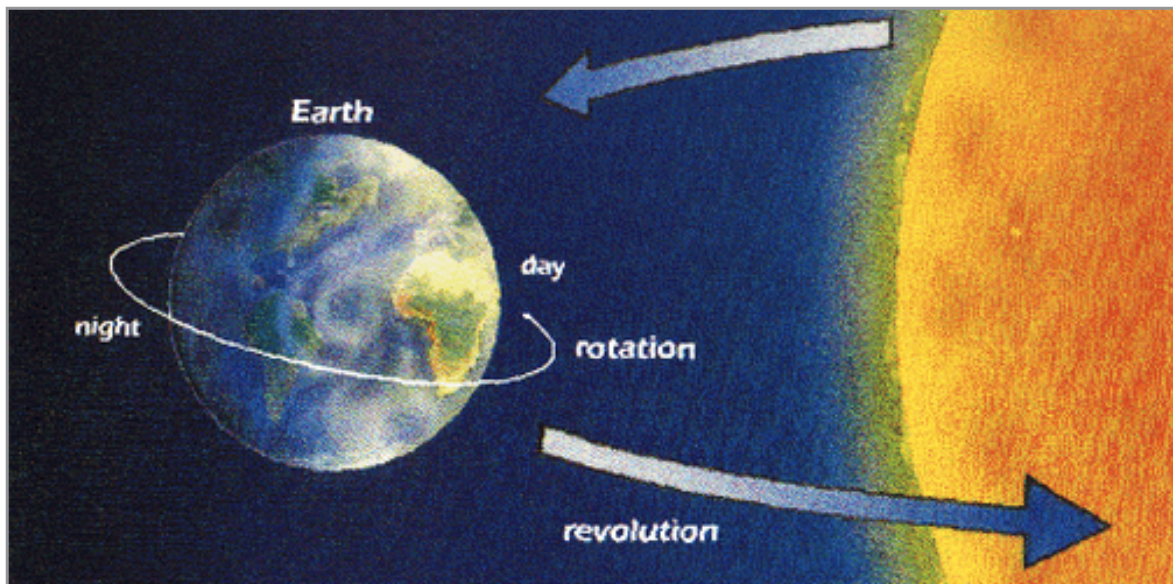
Now, let us know how the rotation of the earth causes day and night.



Earth and its axis

ROTATION OF THE EARTH

The earth faces the sun while rotating from west to east. Each part of the earth facing the sun, is illuminated by sunlight turn by turn. The lighted half part of the earth that faces the sun has **day** while the other part of the earth that is not facing the sun, experiences **night**.



Length of a day and night

Thus, as the earth rotates, the day follows the night and the night follows the day by turns. Imagine, what would happen if the earth stops rotating?

Now, let us perform an experiment to understand the phenomenon of the formation of day and night. For this, we require a globe and an electric lamp. Keep the globe on a table and place a lamp in front of the globe in a dark room. The globe represents the earth and the lamp represents the sun. Mark a point 'P' on the globe to represent a 'place'. Switch on the lamp, observe the lit half and the dark half parts of the globe. First, place point 'P' of the globe in the dark side. Rotate the globe from west to east. See the 'P' is moving towards the



Experiment showing formation of day and night

light in the direction of the lamp representing the sun. Notice 'P' first, in a diffused light. It is the position before sunrise and the time is called **dawn**. Move the globe further till the place 'P' receives the beam of light. You will notice the first beam of the lamp illuminates the place 'P'. This is the time which is called **sunrise** or **morning**. Rotate the globe further eastward, now 'P' will face the lamp (sun) at right angle. This position represents **noon** on the earth. Turn the globe again and notice that the place 'P' moves towards darkness. This is the position of **sunset**. Although place 'P' moves out of the light, but still receives dim light. This time is called **dusk**. On further rotation, 'P' is in complete darkness and it is **night** again. This explains how the day and night follow one after the other.

REVOLUTION OF THE EARTH

We already know that the earth completes one revolution around the sun in an elliptical orbit in one year. To be specific, the earth completes one revolution in 365 days and about 6 hours. For our convenience, we consider 365 days in a year. The remaining 6 hours are added over a period of four years till they become 24 hours or **one day**. This extra day is added to the month of February every four years to make it a month of **29 days** instead of 28 days. The year of 366 days is called **leap year**.

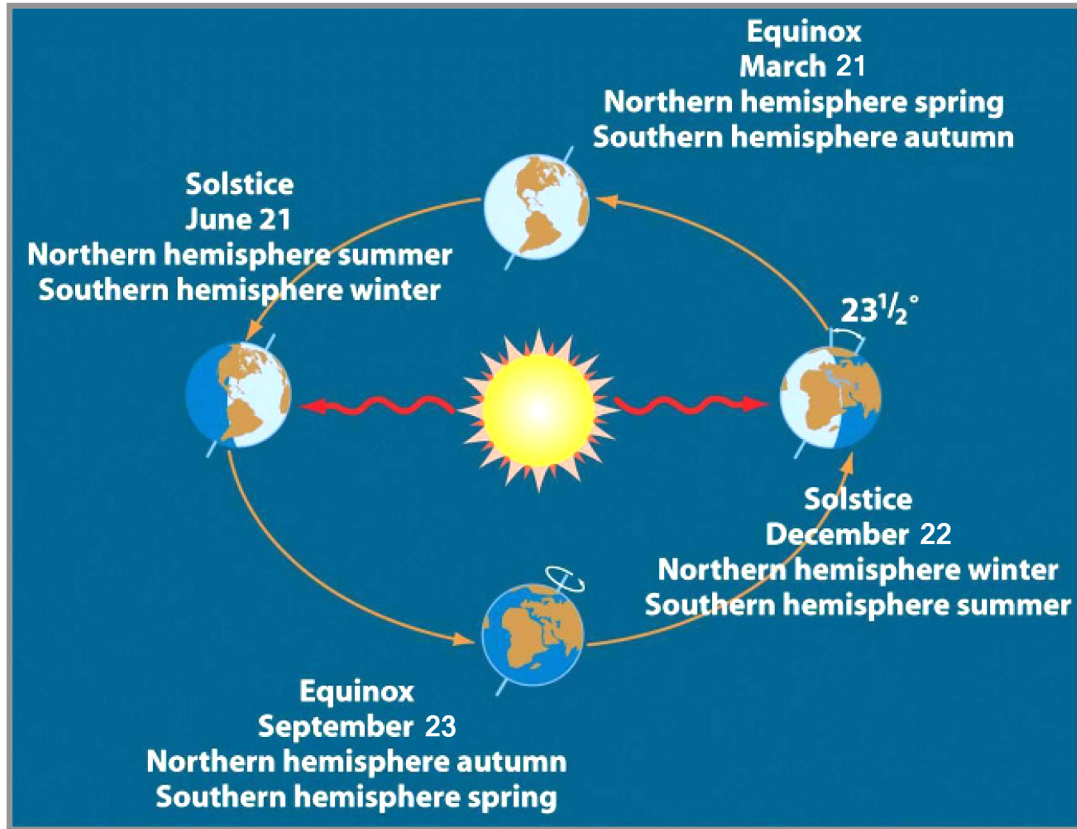


Do You Know?

- The distance between the earth and the sun changes in the course of its revolution on the elliptical orbit.
- The minimum distance (147.5 million km) between the earth and the sun is on 4th January.
- The maximum distance (152.6 million km) between the earth and the sun is on 4th July.

Revolution of the Earth and the Seasons

We know that rotation and revolution of the earth are very essential for causing day and night and occurrence of various seasons. Let us find out the phenomenon of varying length of day and night and the occurrence of different seasons on the earth with the help of a diagram.



Revolution of the Earth and the Seasons

The above diagram shows the path of the earth's revolution and the four positions of the earth on particular dates. The positions indicate the four seasons and their change, one after the other, to form a cycle of seasons.

Position on 21st June

When the revolving earth reaches this position, the Northern Hemisphere is inclined towards the sun and the Southern Hemisphere is away from the sun. The rays of the sun are vertical at the Tropic of Cancer ($23\frac{1}{2}^\circ$ N). The larger portion of the Northern Hemisphere faces the sun. As the lit part of this hemisphere is more than the half, the length of the day is more than night. The duration of day increases towards the North Pole.

The Arctic Circle faces the sun for 24 hours. The region around the North Pole faces the sun for a period of about **six months**. As the sun rays are more vertical and have longer duration, the Northern Hemisphere receives more heat, therefore, it is summer season here. This situation is called **summer solstice** in this hemisphere. The situation in the Southern Hemisphere is just the opposite. The nights are longer than days. The Antarctic Circle remains in complete darkness. The sun rays are more slanting, therefore, it is winter season in the Southern Hemisphere. This situation is called **winter solstice**.

Position on 23rd September

After three months the revolving earth comes to this position. The sun shines vertically over the Equator. The days and nights are of equal duration in both the hemispheres on this date. Both the hemispheres receive the same amount of heat. This situation is called **Equinox**.

It is autumn season in the Northern Hemisphere. Therefore, this position in Northern Hemisphere is known as **autumnal equinox**. At the same time, the Southern Hemisphere has spring season called **vernal equinox**.

Position on 22nd December

The earth continues to revolve and the Southern Hemisphere gradually comes towards the sun. In this position, the sun rays are vertical at the Tropic of Capricorn ($23\frac{1}{2}^{\circ}$ S). The length of the day increases towards the south pole and the nights become shorter. It is summer in the Southern Hemisphere and is called **summer solstice** for this hemisphere.

Opposite to it, the Northern Hemisphere, in this situation is away from the sun. The days are shorter than nights. The sun rays are more slanting. It is winter in this hemisphere. This position in the Northern Hemisphere is called **winter solstice**.

Position on 21st March

The earth continues to move further and comes to this position after three months. The sun rays are vertical again over the Equator. The duration of day and night becomes equal in both the hemispheres, i.e. 12 hours day and 12 hours night. Both the hemispheres receive equal amount of heat. It is spring in the Northern Hemisphere and is called **vernal equinox**. At the same time, Southern Hemisphere experiences autumn season and is called **autumnal equinox**. Thus, the cycle of seasons, continuously goes on year after year.



Do You Know?

The North Pole has darkness for about six months from 23rd September to 21st March whereas the South Pole has sunlight during this period.



Do You Know?

The North Pole has sunlight for about six months from 21st March to 23rd September while the South Pole has night during this period.



Keywords

- **axis**: a line that joins the north and south pole about which the earth rotates.
- **inclination**: degree of sloping.
- **vertical rays**: the rays which fall directly overhead. It covers minimum distance in the atmosphere.



Something To Know

A. Tick (✓) the correct option.

1. On 22nd December, the sun rays are vertical at the—

(a) Tropic of Cancer

(b) Tropic of Capricorn

(c) Equator

(d) Arctic Circle

2. Which statement about a leap year is incorrect?

(a) it has 366 days in a year.

(b) one extra day is added in February.

(c) February has 28 days.

(d) it comes in every fourth year.

3. If there is noon on one side of the earth, the opposite side will have—

(a) morning

(b) evening

(c) mid-night

(d) twilight

4. On 23rd September, mid-day sun is overhead at the —

(a) Equator

(b) Tropic of Cancer

(c) Tropic of Capricorn

(d) Antarctic Circle

5. The angle of sun rays on 21st June on the Tropic of Cancer is—

(a) $66\frac{1}{2}^\circ$

(b) 90°

(c) $23\frac{1}{2}^\circ$

(d) 50°

B. Fill in the blanks.

1. The earth revolves around the sun in a fixed path called as _____ .

2. The angle of inclination of the earth's axis is _____ with its orbital plane.

3. Two motions of the earth are _____ and _____ .

4. The time of sunrise is called _____ .

5. The earth completes one revolution around the sun in _____ days and _____ hours.

C. Match the following:

- | | |
|---|---|
| 1. The duration of the day and night is equal in both the hemispheres on | (a) southern hemisphere |
| 2. The arctic circle has six-month long days in | (b) on 21st June and 22nd December respectively |
| 3. The Tropic of Capricorn is located in | (c) summer solstice |
| 4. The rays of the sun are vertical on Tropic of Cancer and Tropic of Capricorn | (d) vernal equinox |
| 5. Spring equinox is also called | (e) 23rd September and 21st March |

D. Answer the following questions in brief.

1. What is rotation? How much time does earth take in completing one rotation?
2. What is meant by the revolution of the earth?
3. What is a leap year?
4. What is an equinox? Which seasons are indicated by it in both the hemispheres?
5. Why does the duration of day and night change in a year?

E. Answer the following questions.

1. Why are days and nights equal on 21st March at all places on the earth? Explain.
2. Explain with the help of a diagram, why seasons are reversed between Northern and Southern Hemispheres.
3. Why does the month of February have 29 days, after every four years? Explain.
4. How do day and night occur on the earth? Explain with the help of a diagram.



Value Based Question

The planet earth while rotating is also revolving around the sun in an elliptical orbit in a year.

1. What would happen if it stops moving?
2. Why is this movement considered essential for our survival on the planet?



Something To Do

1. Find out the duration of day and night at the place where you live on the following days with the help of sunrise and sunset timings.
 - (a) 21st March
 - (b) 21st June
 - (c) 23rd September
 - (d) 22nd December
2. Make a chart to be displayed in your classroom showing the revolution of the earth and the seasons.
3. Try the experiment showing formation of day and night with the help of a lamp and a globe at home. Write your observations and then discuss in the class.

Many important changes took place in the evolution of human society from the period when man was a food gatherer, to the time when he became a food producer. These changes laid the foundation of civilisation.

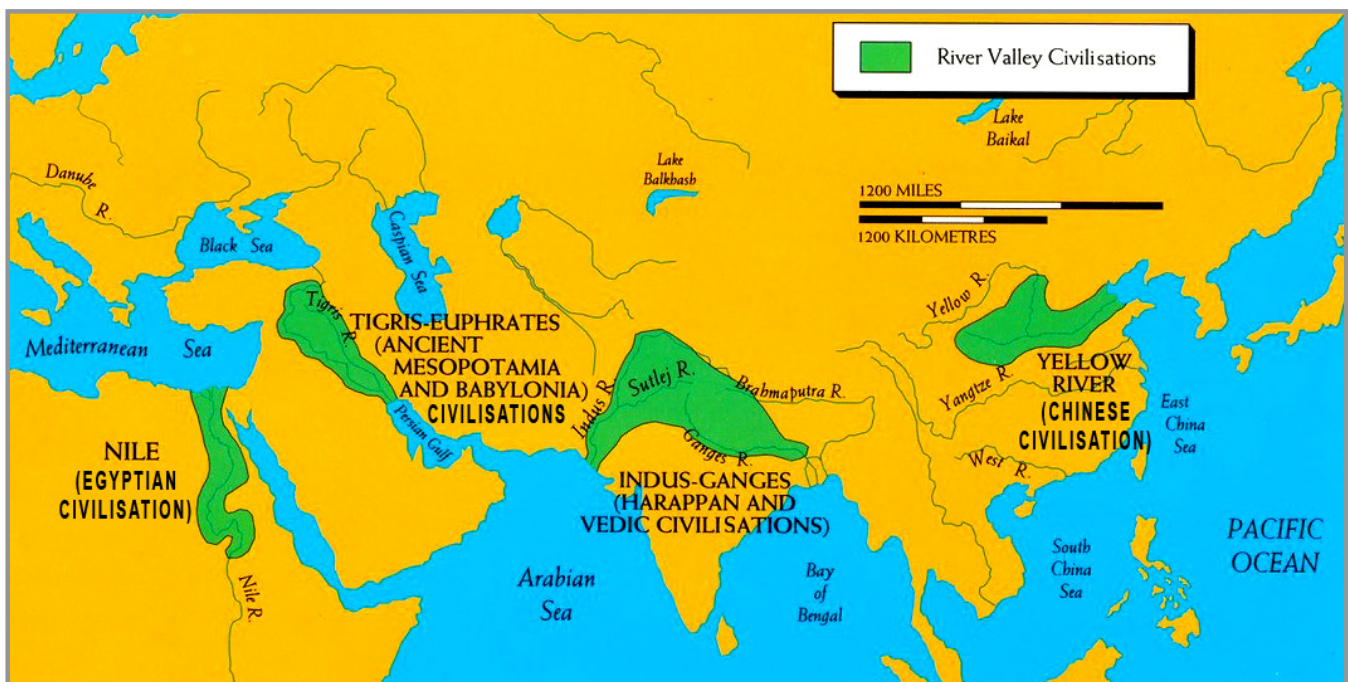
Civilisation is that stage in human development when a lot of progress took place in the fields of art, science, social, political and economic institutions. The early civilisations flourished on the banks of the rivers because of the need of water, fertile soil and clay to make bricks for building houses. Moreover, the water bodies provided opportunity for fishing, transport, trade as well as a moderate climate.



Do You Know?

Smelting means to heat and melt an ore to obtain metal from it.

Man had learnt the art of extracting and smelting of copper in the later Neolithic Period. His experiments helped him to produce a new metal called **bronze**, which is an alloy of two metals, i.e. tin and copper, and is stronger and more durable than both. This period, thus, came to be known as the **Bronze Age**.



Four major ancient civilisations

Hence, it helped the man to make better tools and implements to increase the efficiency and production. Moreover, this period saw the development of new skills and crafts. The village settlements started exchanging goods. The progress in the field of trade and growth of cities led to the rise of civilisations.

Remains of ancient civilisations have been found in Mesopotamia (modern Iraq, southern Turkey and eastern Syria), Egypt, China and India.

The study of civilisations enriches our knowledge and helps us to understand the common characteristics as well as the differences among different cultures.

Civilisations	Religions	Occupations	Inventions
Mesopotamian Civilisation	Worshipped forces of nature in forms of many gods.	Agriculture, Pottery, Glass and Cloth-making.	Cuneiform script, Process of multiplication, division, square and cube root, System of weights and measures, Use of herbs, water clock, lunar calendar, Code of Hammurabi.
Egyptian Civilisation	Worshipped Sun God—Ra, Worshipped nature in the form of moon, floods.	Agriculture, Domestication of animals.	Hieroglyphic script, Papyrus, Solar calendar.
Chinese Civilisation	Worshipped nature in the form of earth, oracles.	Agriculture, Domestication of animals, Painting, Sericulture.	Pictographic script, Paper, Calendar that was a combination of lunar and solar dates, Use of herbal medicine and Acupuncture.

The Ancient Civilisations of Bronze Age developed in river valleys. Let us study about the Ancient Civilisation, i.e. **Indus Valley Civilisation** or **Harappan Culture** that existed in India (some areas are now parts of Pakistan).

INDUS VALLEY CIVILISATION OR HARAPPAN CULTURE

The remains of this oldest and largest ancient-urban civilisation were found in Mohen-jo-daro, Chan-hu-daro, Rupar, Lothal, Kalibangan and many other places on the banks of River Indus and its tributaries in India (before partition). The coins and other materials were excavated first at Harappa in Punjab (now a part of Pakistan) in 1921 by Shri R.B. Dayaram Sahawney. He proved that 5000 years ago, there lived a civilised race in India.



Indus Valley Civilisation

This civilisation came to be known as **Indus Valley Civilisation** or **Harappan Culture** as all the cities and objects found in Harappa, resembled it.

The City Planning

The excavations prove that the cities were well-planned. Most cities were divided into two parts. The upper (raised) part was called **citadel** and the lower part was known as the **lower town**. The citadel was the central part of the city. It enclosed important buildings like the great bath, the granary and the town hall. The lower town was the residential area. A huge Great Bath has been discovered at Mohen-jo-daro in the middle of a citadel. It is a deep bath 12 metres long and 7 metres wide, with a maximum depth of 2.4 metres with steps leading down into it. Perhaps people used it for religious purposes as they believed the



The Great Bath

water to be a great purifier. The great bath had a well-planned system of water supply and drainage system. The amazing fact is that its brickwork was completely waterproof. The floor of the tank was built with gypsum, plaster and a thick layer of bitumen (natural tar).

The citadel also housed the ruling classes, the priests and the merchants. A high and thick wall protected the citadel from the frequent floods of the Indus Valley. Small merchants, craftsmen and labourers inhabited the lower town. Here, the houses were built on either side of the street, with baked bricks, stones and wood. Each house had two or three storeys with stairs. All the streets cut each other at right angles.



Street with drainage



Do You Know?

The streets were made in such a way that the blowing winds cleaned them from one end to the other!

The citadel also had large structures of granary. Granaries have been found at Harappa, Lothal and Kalibangan. They were built to store the surplus grain. In Harappa alone, six granaries have been found though the biggest one has been found in Mohen-jo-daro. Most granaries also had small barracks for the labourers which were located close to the threshing platform.

The elaborate drainage system was highly efficient to drain the dirty water out of the city. They were covered with bricks and stones which could be removed. The small drains of bathrooms and kitchens were joined with the main drains, which in turn fell into the big drain of the city.

Occupations

The main occupations of people of Indus Valley Civilisation were farming, weaving, pottery, toy making, metal work and trading. The annual floods in Indus renewed and enriched the soil for good harvests of cotton, wheat and barley. The farmers were aware of the different methods of irrigation. Traces of canals have been found in some of the sites of Harappa. Other sources were water reservoirs, wells, etc. The farmers used ploughs, sickles, etc., for farming. The cultivation of cotton encouraged textile industry and the people became expert in the art of spinning and weaving. The people domesticated a large number of animals like ox, buffalo, goat, sheep, pig and camel. Pottery was also a popular industry. The pots were baked, glazed and decorated. The people of

Indus Valley were also expert in making terracotta (unglazed and reddish-brown) toys and sculptures of animals. But, the greatest artistic skill is found in the seals. The engravings of animals, flowers and other symbols on seals have artistic and religious importance.

Many bronze tools and statues have been discovered. They indicate the mastery of the artisans in bronze casting.

The Indus Valley had moist climate and thick forests, which provided sufficient timber for kilns and for building boats. The boats helped in a flourishing internal and external trade. Internal trade was also carried out on land routes by bullock carts and camel carts.



Yogi figurine



Pots

The people used weights and measures of slate and stones. The seals of Mesopotamian Civilisation, excavated from Indus cities and the remains of a dockyard discovered at Lothal in Gujarat, prove that people of Indus Valley had trade relations with Mesopotamia, Egypt and other countries.



Bronze statue (dancing girl)



Seals



Do You Know?

Seals are used even today for sealing packets and envelopes to ensure their security.

Religion

The seals have been the main source of information about the religious beliefs of the people. The people worshipped nature in the form of animals, birds and trees. The animal figures depicted on the seals are humped bull, unicorn, ox and the rhinoceros. The people worshipped the pipal tree. They also worshipped human deities that included Shiva or Pashupati and Mother Goddess. The people of Indus Valley Civilisation believed in life after death. They buried the dead with the earthen pots, food, ornaments and other articles used during life.



Humped bull

Script

The script of Indus Valley Civilisation was known as **Pictography** as it consisted of pictures and signs (approx. 375 to 400 signs). But, this script has not been deciphered (cannot be read).



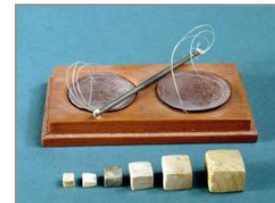
Indus valley script



Do You Know?

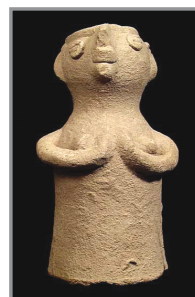
Weighing and Measuring System:

The weight usually made of stone was known as **Chert**. They were cubical in shape with no marks on it. Metal scale pan was used to measure the things/objects.



Life of the People

The quality of life of the people was better in the Bronze Age as compared to the Neolithic Period. They had more comforts and leisure. They amused themselves by singing and dancing. They also played a game which was similar to chess. They made beautiful toys for children.



Toys



Ornaments

The men dressed themselves in a long cloth tied like a *dhoti* and the women wore a long *lehnga* with a shawl. Their clothes were mostly made of cotton. They were fond of ornaments like necklaces, rings and bangles which were made of shells, bones of animals, ivory, etc. They also used cosmetics like face powder and *kajal*.

END OF THE CIVILISATION

No one knows how this great civilisation came to an end after continuing for over a thousand years. The excavation of Mohen-jo-daro proves that the city was destroyed and rebuilt nine times at the same site. It is believed that the cause of the decline may have been a natural disaster like an earthquake, a flood, or a change in the course of the Indus river. The strong high wall around the citadel of the Harappan Civilisation indicates that frequent invasions by the Aryans might have brought the end of Indus Valley Civilisation.



Keywords

- **civilisation:** the stage of human development.
- **drainage system:** an intervention to control water logging.
- **granary:** a storeroom/house for grains.



Something To Know

A. Tick (✓) the correct option.

1. The first Indus Valley site discovered was –

(a) Harappa

(b) Mohen-jo-daro

(c) Kalibangan

(d) Lothal

2. The Indus people used clothes made of –

(a) nylon

(b) wool

(c) cotton

(d) jute

3. The Harappan terracotta pottery was –

(a) unpainted

(b) glazed

(c) red-brown

(d) unbaked

4. The granary was the storehouse for –

(a) meat

(b) straw

(c) cotton

(d) wheat

5. The discovery of the remains of a dockyard at Lothal prove that the people of Indus valley had–

(a) international trade relations.

(b) expertise in ship building.

(c) an organised naval force.

(d) flourishing trade within India.

B. Fill in the blanks.

1. _____ of human society lead to foundation of civilisation.

2. The Great Bath had well-planned _____ system.

3. The people of Indus Valley were expert in making _____ and _____.

4. _____ are the main source of information about the religious beliefs of the Indus people.

5. _____ was the male god worshipped by the Indus people.

C. State True or False for the following statements.

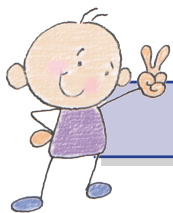
1. The cities were well-planned in the Harappan culture.
2. The citadel was considered the central part of the city.
3. Pottery was not a popular industry in Harappan culture.
4. People of Indus vally worshipped the neem tree.
5. Mohen-jo-daro was rebuilt nine times at the same site.

D. Answer the following questions in brief.

1. What did the thick forests provide to the people of Indus Valley?
2. List the occupations of the Indus Valley people.
3. What type of climate did the Indus Valley have?
4. How was the dress of the men of Indus Valley different from that of the women?
5. Why did the early civilisations develop on the river banks?

E. Answer the following questions.

1. List any three features of the Indus Valley Civilisation which tell us that it was an urban civilisation.
2. What reasons were responsible for the decline of Harappan culture?
3. Explain the town planning system of the Indus people.
4. Which two things helped the people of Indus Valley to have bumper harvest and how?
5. Bring out the similarities and differences between the features of the Indus Valley Civilisation and the Egyptian Civilisation.



Value Based Question

The Bride Who Made Her In-laws Build A Toilet

The one thing common between cities and villages of India is lack of amenities. But this Uttar Pradesh bride knew what's right for her and left the house of her in-laws, due to lack of toilet. Both families tried to persuade her to return but she put her foot down and refused to comply. Finally, the groom's family agreed and had a toilet made with all modern amenities. (source: <http://www.indiatimes.com/news/india>)

1. What qualities of the bride made her a role model for other rural women in India?
2. Which features of the Indus Valley Civilisation can easily be adopted in contemporary Indian villages to achieve the goal of *Swachh Bharat*?



Map Skill

On an outline map of India, name and mark the following–

- (a) A place where dockyard has been discovered.
- (b) A place where the huge Great Bath has been discovered.
- (c) A Harappan site in Rajasthan.
- (d) A Harappan site in Punjab.
- (e) First Indus Valley site discovered.



Something To Do

1. You have learnt about the ancient civilisation of Indus Valley. Compare it with a cosmopolitan city of today. Organise your information under the following headings.

Homes	Transport	Occupation
Buildings	Clothes	Skills
Religion	Trade	Additional Information

2. Prepare four clay seals using potter's clay by engraving or carving on them—an animal, a flower, the National emblem of India and a tree.

The Bronze Age Civilisation had flourished in the eastern part of the world as the western world was far less advanced at that time. Around 1200 BC, the **Iron Age** followed the Bronze Age. The discovery of iron led to manufacturing of stronger tools like sickle, shovel, spades, axe, saw, nails, etc. They helped in a variety of occupations. For example, the axe helped in clearing of jungles which led to large-scale cultivation. There was an increase in the number of cities and towns. They became the centres of trade and craft. Many civilisations started developing around the Mediterranean Sea. Trade between different parts of the world, migration of people and changes in territories due to wars helped in the exchange of ideas. This, in turn, helped in the development of the knowledge of art and crafts. **Barter system** was replaced by the use of currency.



Making of tools in Iron Age



Do You Know?

Iron age is usually associated with the Painted Grey Ware. It refers to the ceramics which have been fired grey and painted with black designs. Plates and bowls were common vessels made out of Painted Grey Ware.

The greatest achievement of the Iron Age was in the field of literature. Great poems, dramas, grammar and history were written. Writing was not only used to keep the records but, it became a medium for self-expression and communication of ideas. The great thinkers wrote about the injustice that was prevalent in the society. This period also saw the development of many religions.

Remains of some of the ancient civilisations during Iron Age have been found in many parts of the world like Greece, Rome and Iran. The development of iron helped them to flourish.

In the table given below, we find a comparative study of the Greek, Roman and Iranian civilisations.

Civilisations	Religions	Occupations	Inventions
Greek Civilisation	Worshipped many Gods and Goddesses, Supreme God-Zeus.	Agriculture, Ship building, Trading, Sculpting, Pottery.	Calculated the circumference of the earth, Drew maps of the world, Olympic games.
Roman Civilisation	Worshipped Goddess-Vesta, Venus and Gods-Jupiter, Mars, Mercury, Juno.	Agriculture, Trading, Fighting (warriors).	Concrete, Water system, Roads, Latin names of months, Roman laws.
Iranian Civilisation	Worshipped Gods- Indra, Vayu, Mitru, Fire and Zoroastrianism.	Trading, Ship building, Crafts-silk weaving, pottery, metal work, gem cutting.	Aramaic script, Decoration of palaces with gold, silver, precious stones, ebony and ivory.

Now let us study about another important Iron Age Civilisation that existed in India: **The Vedic Civilisation.**

THE VEDIC CIVILISATION

The word *Veda* or *Rig* means 'knowledge'. The knowledge contained in *Vedas* is for the whole mankind. Because of the term 'Veda', this period of Indian history is called the **Vedic Period** as *Vedas* are the main source of information about this period.

There are four *Vedas*—*Rigveda*, *Samaveda*, *Yajurveda* and *Atharvaveda*. The Vedic Period can be divided into **Early Vedic Period** and **Later Vedic Period**. The Early Vedic Period is also referred as the **Rig Vedic Period** as the *Rigveda* provides us information about this period. The rest of the vedic literature—*Yajurveda*, *Samaveda*, *Atharvaveda*, *Brahmanas*, *Aranyakas* and *Upnishads* provide information about the Later Vedic Period which is also known as the **Epic Age**.



Do You Know?

Rigveda is the oldest *veda*, composed about 3500 years ago. This includes more than 1000 hymns known as *Sukta* which means 'well said'. Those who composed hymns called themselves **Ayranas** and their opponents as **Dasas** or **Dasyus**.

Political Condition

Rigveda mentions **Rajas** who were different from the later *vedic* kings. They neither had capitals, cities, palaces or armies, nor they collected taxes. Kingship was not on hereditary basis. But in the Later Vedic Period there were a number of small and big kingdoms, where Kingship was hereditary.

King of a small kingdom was called a **Raja**. A **Samrat** or **Maharaja** controlled a large kingdom known as a **Rashtra**. The king was assisted by **Purohit** (priest), **Mantri** (minister), **Senani** (Commander of Army) and **Gramini** (headman of the village). The king consulted the **Sabha** and the **Samiti** on all important matters. The **Sabha** was a small body of selected village elders and the **Samiti** was a large assembly that was responsible for policy making.

The power of the kings increased in the Later Vedic Period. They performed **Rajasuya** and **Ashvamedha yajanas** (horse sacrifice). The **Rajasuya** sacrifice was performed by the king to gain supreme power and the **Ashvamedha** was for declaring his power over a vast territory. The increase in the power of the kings resulted in decrease in the power of **sabha** and **samiti**.

Social Condition

The basic unit of the society was the family. The eldest male member was the head of the joint family. He was known as **Grihapati**. Women were held in great respect. They were educated. Women, like Apala and Gosha, even composed hymns. The participation of wife was essential in all the religious ceremonies. The social evils like **sati-pratha** and child-marriage were unknown in the Early Vedic Period but they gained importance in the Later Vedic Period as the status of women declined.



Do You Know?

- The princesses were allowed to choose their husbands by **Swayamvara**.
- **Chandalas** were regarded as 'polluted' or 'untouchables'. These people performed burials and cremations. They had to live outside the village, used discarded utensils, wore iron ornaments and clothes of the dead people.

The society was divided into four **Varnas** (caste) namely, **Brahmins**, **Kshatriyas**, **Vaishyas** and **Shudras**. **Brahmins** looked after the religious matters and **Kshatriyas** protected the people from internal and external harm. The **Vaishyas** were the cultivators and craftsmen. The **Shudras** were the labourers who served the above three classes.

The people of different **Varnas** had the freedom to intermingle, marry or change their occupations. But, in the Later Vedic Period, the Varna System became hereditary and very rigid. No one could change the occupation or the **Varna**. But there were many areas like north-east where social and economic differences were not very sharp, even the influence of the priests was limited.

The **Upnishads** divided man's life into four **Ashrams** of 25 years each. A man had to spend the first 25 years of his life in a **gurukul** where he learnt the art of life and religion. This stage was called **Brahmacharya Ashram**. The second stage of 25 years was called the **Grihastha Ashram** when a man

worked hard, got married and raised a family. During the third stage, i.e. **Vanaprastha Ashram**, he retired to the forests to meditate. In the last stage, which is called **Sanyas Ashram**, he lived a life of complete detachment and spent his time in preaching.

Occupation

Agriculture was the main occupation of the people. They used ploughs which were pulled by oxen. During this period, people irrigated their fields with water from the wells, canals and lakes. They grew wheat, barley, rice, beans, etc., and domesticated animals like cows, bulls, sheep, goats and dogs. The Aryans also introduced horses in India which were brought from Central Asia. The discovery of iron had provided stronger tools, like ploughs, sickles, shovels, spades, axes, saws, nails



Do You Know?

In the Later Vedic Period, coins, like *Nishka*, *Shatamana* and *Krishnala*, were also used.

and tongs, which helped in a variety of other crafts like pottery, weaving, carpentry, jewellery making, etc. The Aryans were expert traders. Trade was mainly carried on land. They used barter system. The cow was used as a standard of value.

Religion

The early Aryans worshipped many gods representing the forces of nature. **Indra** was worshipped as the god of thunder, **Vayu**—the god of wind, **Prithvi**—the god of earth, **Agni**—the god of fire and **Surya**—the sun god. Milk, ghee, grains and flesh were offered as a part of sacrifices at *yajanas*. The early Aryans did not build temples. In the Later Vedic Period, the *yajanas* became very expensive and the nature Gods were replaced by new Gods – **Brahma**, **Vishnu**, **Shiva**, **Rama** and **Krishna**. The Later Vedic Period saw the birth of Brahmanism and Hinduism.



Do You Know?

The Law Code of Manu (*Manu Smiriti* or *Manav Dharmashastra*) was prepared by Manu. It is an important law book for the Hindus.

Achievements

The *Vedic* literature throws light on the achievements of Aryans in the field of science. The Aryans knew the use of iron. They used it for making stronger tools and weapons. The axe helped in clearing jungles and spreading agriculture. Craftsmen, like carpenters, blacksmiths and tanners, were able to develop their crafts with better tools. Iron weapons, like spearheads, swords and shields, helped in conquering new territories. Mathematics was known as **Ganita**. It included arithmetic, geometry and algebra. The *vedic* people had the knowledge of 'zero', which helped them to calculate large numbers. They also knew the decimal system, cube, cube root, square root, under root, etc. **Astronomy** was

the favourite subject of Aryans. They studied the movement of heavenly bodies. They knew about the movement of the earth on its own axis, around the sun and the movement of moon around the earth. The Aryans could foretell solar and lunar eclipses.

The *vedic* literature proves that the Vedic Civilisation was quite advanced. The people led a happy and simple life. Their clothes were made of cotton, wool and skins of animals. They wore ornaments. They used *madhu* (honey), and took *sura* and *soma ras*. They played many musical instruments like flute, drums and harp. They were also fond of chariot racing, dancing, etc.



Keywords

- **aranyakas**: sacred treaties based on *brahmanas*.
- **barter system**: exchange of goods or service in exchange of goods or services.
- **brahmanas**: commentaries on *Vedas*.
- **currency**: a system of money, in general use, in a particular country.
- **gurukul**: a place where students were given education while living there only.
- **joint family**: an extended family arrangement consisting of many generations living together in the same house.
- **upanishads**: a text containing philosophical concept.



Something To Know

A. Tick (✓) the correct option.

1. The oldest Veda is—

(a) *Rigveda*

(b) *Samaveda*

(c) *Yajurveda*

(d) *Atharvaveda*

2. What was the main occupation of Aryans?

(a) hunting

(b) carpentry

(c) agriculture

(d) fishing

3. The chief god during the Early Vedic Civilisation was—

(a) Indra

(b) Shiva

(c) Vishnu

(d) Rama

4. The supreme god worshipped during the Greek Civilisation was—

(a) Juno

(b) Fire

(c) Zeus

(d) Indra

5. Who calculated the circumference of the earth?

(a) the Greeks

(b) the Romans

(c) the Aryans

(d) the Iranians

B. Fill in the blanks.

1. The word *Veda* means _____.

2. As a part of the barter system _____ was used as a standard of value.

3. The Early Vedic Period is also known as _____ Period.

4. In the Later Vedic Period, *varna* system became _____.

5. During *Sanyas Ashram*, a man lived a life of complete _____.

C. Match the following:

- | | |
|---------------------|-----------------------|
| 1. Epic Age | a. Commander of Army |
| 2. <i>Shudras</i> | b. Head of the family |
| 3. <i>Senani</i> | c. God of Thunder |
| 4. <i>Grihapati</i> | d. Later Vedic Period |
| 5. Indra | e. Labourers |

D. Answer the following questions in brief.

1. What were the main inventions of Greek Civilisation?
2. Name the gods that were worshipped by Romans.
3. Name the four *Vedas*.
4. Give any two examples to prove that Vedic Civilisation was quite advanced.
5. Mention the main occupations of the people of Iranian Civilisation.

E. Answer the following questions.

1. What was the political condition of the country under Aryans?
2. What was the condition of women in the Early Vedic Period.
3. Explain the *Varna* System. What change did it undergo during Later Vedic Period?
4. List the achievements of the Aryans in the field of science and mathematics.
5. List the occupations of the Aryans.



Value Based Question

The people of the Vedic Civilisation led a happy and simple life. Their clothes were made of cotton, wool and skins of animals. They played musical instruments like flute, drums and harp. They were fond of chariot racing and dancing.

In your opinion which activities are eco-friendly in the present scenario.



Map Skill

On the physical map of the world, locate the following civilisations.

- (a) Greek civilisation
- (b) Roman civilisation
- (c) Iranian civilisation
- (d) Vedic civilisation



Something To Do

1. Make a list of Hindu social customs of today that are similar to those which existed in the Aryan Period.
2. Read the stories of *Mahabharata* and *Ramayana* to know more about the Epic Age.
3. Chanting *Gayatri Mantra* every day in the morning assembly is the tradition of DAV schools. Do you know this *mantra* is a part of *Rigveda*? Discuss the meaning and relevance of this *mantra* in your class.



You must have read the story titled ‘Panch Parmeshwar’ written by Munshi Prem Chand. In this story, Algu Chowdhary and Jhumman Sheikh were fast friends who lived in a village. They strongly supported each other in every matter. Once, it so happened that Jhumman Sheikh had some land dispute with his *mausi* (aunt). *Mausi* took the matter to the village *Panchayat* to seek justice. Since Algu Chowdhary was the *Sarpanch* at that time, Jhumman was sure that decision would definitely be given in his favour. After hearing both the sides and consulting other members, Algu Chowdhary, the *Sarpanch*, ordered Jhumman Sheikh to return *Mausi’s* land and pay her the compensation also. The decision was unexpected for Jhumman. It annoyed him so much that he decided to take revenge.

After sometime, Algu Chowdhary got involved in a dispute with someone in the village. The matter was taken to the *Panchayat*. By chance, Jhumman Sheikh was acting as *Sarpanch* this time. He thought it to be a golden opportunity to take revenge. On the final day, after hearing both the parties, the *Sarpanch* had to take a decision. As a *Sarpanch*, Jhumman rose above his self-enmity and gave an impartial decision which was in favour of Algu Chowdhary.

In olden days, the decision of the *Panchayat* was considered to be supreme and could not be challenged. The system continues even today.

The issues and problems of an area can be understood better by the local people. Therefore, the solution to the local problems must be left to the people themselves. They would sit together at a common place, hold discussions and try to find solutions to their day-to-day local problems. Since they govern their affairs themselves, the system is rightly named as **local self-government**.

In India, there is a self-governing body in every village or city to help and assist the people to meet their community needs. These self-governing bodies consist of elected representatives of the people. The system gives an opportunity to the people to develop self-reliance, initiative, power of decision-making and participation in the democratic process of the government. The system also lessens the burden of the state governments. Let us study about the governance of rural India which comprises of more than 2,50,000 villages.



Do You Know?

The *Gram Panchayat* is the oldest system of local self-government in India. The word *Panchayat* means 'assembly (*ayat*) of five (*panch*)'. It is there since *Vedic* age.

SELF-GOVERNING BODIES IN RURAL AREAS

In rural areas, there are three levels of local self-governing bodies.

- (a) **Gram Panchayat** at the Village level.
- (b) **Block Samiti** or **Panchayat Samiti** at Block level.
- (c) **Zila Parishad** or **Zila Panchayat** at the District level.

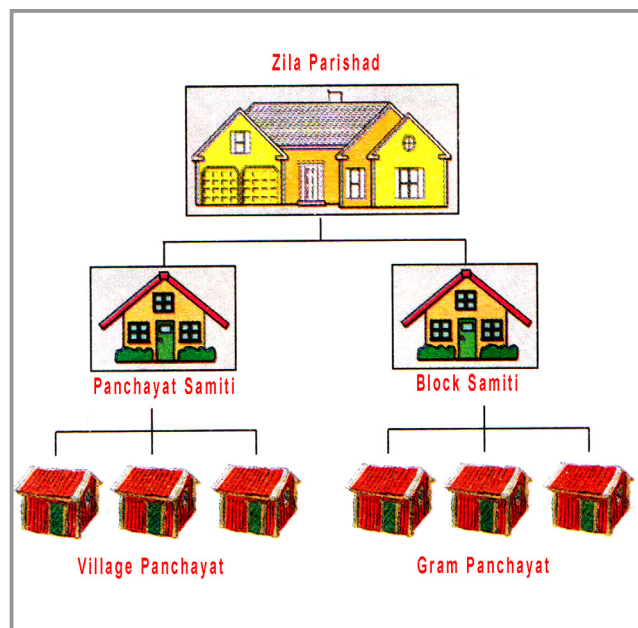
This three-tier system is called **Panchayati Raj System**.

Gram Panchayat

There is a *Gram Panchayat* in every village. In case of very small villages, there is a common or combined *Panchayat* for two or three villages. The number of members varies according to the population of the village. The number of *panchs* is always an odd number like 5,7,9,11,13 and so on. The members of a *Gram Panchayat* who are called **panchs** are directly elected for a fixed term of five years by the members of *Gram Sabha*.

The Gram Sabha

The *Gram Sabha* is the general body of the village. All the men and women of the village who have attained the age of 18 years and are registered as voters, form the *Gram Sabha*. A *Gram Sabha* not only elects the members of *Gram Panchayat*, but also elects its *Pradhan* or the Head-man. The *Pradhan*



is also known as **Sarpanch** or **Mukhiya**. In the absence of *Pradhan*, the *Up-Pradhan*, takes over the responsibilities of the *Pradhan*. He is also elected by the *Gram Sabha*. *Gram Sabha* holds its meetings atleast twice a year. It takes important decisions about the welfare and development of the village. These are later implemented by the *Gram Panchayat*. *Gram Sabha* also approves the annual budget of the *Gram Panchayat*. In fact, *Gram Sabha* is the best example of direct democracy in India.

In every village *Panchayat*, there is one *Panchayat* Secretary to assist and help the elected members in the administrative work, such as maintaining the account of income or expenditure and preparing reports of the meetings. He/She is a permanent government employee.

There is a reservation of seats for Schedule Castes, Schedule Tribes and fifty per cent seats are reserved for women.

Functions of Gram Panchayat

- Provision of clean drinking water.
- Sanitation and public health and animal husbandry.
- Plantation of trees.
- Construction and maintenance of village roads, street lights, public wells, tanks, water ways and other public places in the village.
- Supervision of work of government servants, like policemen, workers of Primary Health Centre, teachers, etc.
- Supply of quality seeds and fertilisers.
- Organisation of fairs and festivals.
- Keeping record of births and deaths.
- Provision of centres of adult literacy.



A woman Sarpanch



Do You Know?

The most popular fairs organised in the villages are **cattle fairs**. The Cattle Fair held at Pushkar in Rajasthan is one of the most famous fairs in India.

Sources of Income

The Village *Panchayat* gets its income from taxes on houses, market places, use of open space, etc., and grants or aid from the government. Many a times, it raises loans to complete its welfare and developmental projects.

Nyaya Panchayat

In ancient India, the most important functions of the *Panchayat* were to settle disputes and provide justice. But now this work is performed by a **Nyaya Panchayat**. It is a form of village court which helps the people to get speedy and inexpensive justice.

Usually three or four villages have one *Nyaya Panchayat*. Its members and the *Sarpanch* are elected by the Village *Panchayat*.

The *Nyaya Panchayat* hears and decides only civil and criminal cases of minor nature like trespassing, minor thefts, water disputes, etc. It can impose a fine of only up to ₹100. But, it cannot send a person to jail.

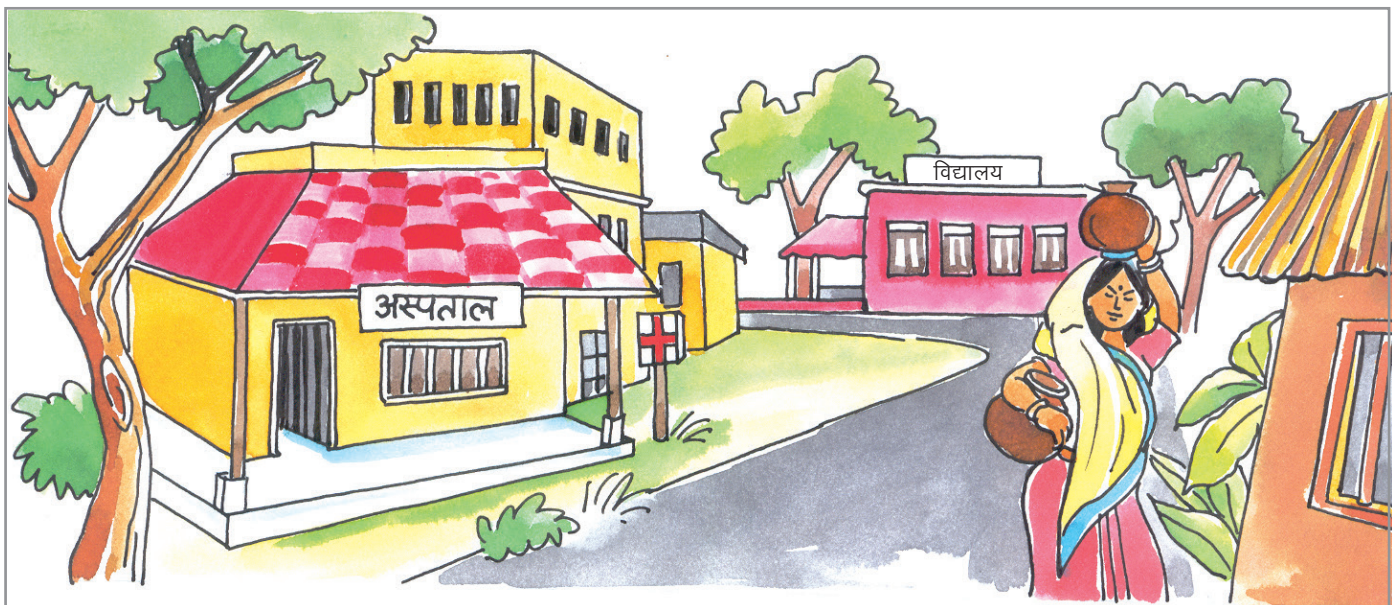


Do You Know?

- One cannot go to any court and appeal against the judgement of a *Nyaya Panchayat*.
- No lawyers can advocate in *Nyaya Panchayat*.

Block Samiti or Panchayat Samiti

There are certain problems which are common to many villages. With limited resources, they are unable to solve them. Therefore, large projects, like well-equipped hospitals, opening of senior secondary schools, colleges and construction of link roads between the villages, are taken up jointly by some villages. For this purpose, some neighbouring *Gram Panchayats* form a *block* and work together. The local self-body that works for the whole *block* is called **Block Samiti**. It is known by different names like **Khand Samiti**, **Panchayat Samiti**, **Kshetra Samiti**, **Prakhand Samiti**, etc., in different parts of India.



A *Block Samiti* is a link between the *Gram Panchayat* and the *Zila Parishad*. Some members of *Panchayat Samiti* are elected directly by the people for a term of five years. All the *Sarpanchs* or *Pradhans* of various *Gram Panchayats*, members of *Vidhan Sabha*, *Vidhan Parishad*, *Lok Sabha* and *Rajya Sabha* who represent that *block*, become the *ex-officio* members of the *Panchayat Samities*. If people from special categories, i.e. woman, Schedule Caste, Schedule Tribe are not represented, then they are appointed by the District Officer. There must be at least two women members and four SC/ST members in a *Panchayat Samiti*. For the smooth functioning of the *Block*, the members elect a Chairman and a Vice-Chairman from amongst themselves for a period of five years. A Block Development Officer (BDO) takes care of the administrative work of the *Block Samiti*.

Functions of a Panchayat Samiti

- The *Panchayat Samiti* looks after the developmental and welfare work of the villages of a particular *Block*.
- It gives advice to the villagers in the field of agriculture, education, medicine veterinary aid, etc.
- It also supervises the projects being undertaken by the *Village Panchayats*.
- *Panchayat Samiti* also looks after agriculture, promotion of cottage industries, poultry, fishery, etc.
- It helps in the formation of co-operative societies.

Sources of Income

The income of the *Block Samiti* comes from two sources. Firstly, by levying taxes on water, land, shops, houses, fairs, expert services, common pastures, etc. Secondly, by getting grants from the State Government.

Zila Parishad

The apex local self-body of *Panchayati Raj System* is the *Zila Parishad*. It supervises and co-ordinates the work of all *Block Samities* of the district and also of the *Gram Panchayats* which are under them. The composition of *Zila Parishad* is similar to that of *Block Samiti*. Besides some elected members, the Chairmen of the *Block Samities*, members of *Lok Sabha*, *Rajya Sabha*, *Vidhan Sabha*, *Vidhan Parishad*, representatives of Schedule Castes, Schedule Tribes and women from the district constitute a *Zila Parishad*. The *Zila Parishad* elects a President and Vice-President from amongst its members for a term of five years. Various sub-committees are formed from its members for the smooth functioning of its different programmes. The important officers of the district administration are also involved for its smooth functioning.

A permanent government employee acts as secretary of the *Zila Parishad*, and maintains its records and accounts.

Functions of Zila Parishad

- *Zila Parishad* acts as a link between the State Government and the *Block Samities* and the *Village Panchayats*.
- It keeps the government informed about the working of local self-governing bodies.
- It prepares plans for over all development of the whole district in the field of education, agriculture, animal husbandry, health care, entertainment, village and cottage industries, etc.
- Implementation of Five Year Plans and other plans for rural development is also the responsibility of *Zila Parishad*.
- It also distributes government funds to *Block Samities*.

Sources of Income

Zila Parishad gets, not only the financial grant from the State Government, but also the rent of its properties and certain other taxes.



Keywords

- **animal husbandary:** the science of breeding and caring for farm animals.
- **co-operative societies:** an autonomous association of persons to meet common goals, e.g. AMUL.
- **ex-officio:** a person who automatically becomes a member of a body because he holds a particular post.
- **grants:** financial help from the government.
- **tresspassing:** entering someone's land or property without permission.
- **veterinary:** relating to the diseases, injuries and treatment of farm and domestic animals.



Something To Know

A. Tick (✓) the correct option.

1. Which one of the following is Not a local body under the *Panchayati Raj* System?

(a) *nagar panchayat*

(b) *gram panchayat*

(c) *block samiti*

(d) *zila parishad*

2. The Chairperson of the *Gram Panchayat* is Not called as—

(a) *pradhan*

(b) *mukhia*

(c) president

(d) *sarpanch*

3. The best example of direct democracy in India is—

(a) *gram sabha*

(b) *gram panchayat*

(c) *block samiti*

(d) *zila parishad*

4. The administrative work of a *Panchayat Samiti* is looked after by a—

(a) public relation officer

(b) health officer

(c) block development officer

(d) sub-divisional officer

5. The apex body of the *Panchayati Raj* System is—

(a) *zila parishad*

(b) *nyaya panchayat*

(c) *gram panchayat*

(d) *block samiti*

B. Fill in the blanks.

1. *Gram Sabha* consists of all the registered _____ of the village.

2. The administrative work of the *Block Samiti* is looked after by a _____ .

3. The *Zila Parishad* acts as a link between _____ and _____ .

4. The *Gram Panchayat* operates at the _____ level of the *Panchayati Raj* System.

5. The *Zila Parishad* distributes grants to the _____ .

C. Write True or False for the following statements.

1. The lowest level of government in India is *Nyaya Panchayat*. _____
2. The members of *Gram Sabha* only elect the members of *Gram Panchayat*. _____
3. *Zila Parishad* implements the Five Year Plans in the district. _____
4. Two or three small villages can have a common *panchayat*. _____
5. The *Zila Parishad* does not have any ex-officio member. _____

D. Answer the following questions in brief.

1. Mention three levels of the local self-governing bodies under the *Panchayati Raj* System.
2. Write two main functions of the *Gram Sabha*.
3. What is the most important function of a *Panchayat Samiti*?
4. How does a Village *Panchayat* generate its financial resources?
5. How are the *Panchs* and the *Pradhan* of a *Gram Panchayat* elected?

E. Answer the following questions.

1. Explain any three functions of the *Gram Panchayat*.
2. Describe the composition of *Zila Parishad*.
3. How does the *Zila Parishad* keep control over the other *Panchayati Raj* Institutions?
4. Differentiate between a *Gram Sabha* and a *Gram Panchayat*.
5. Highlight the significance of self-governing bodies in a democracy like India.



Value Based Question

Saryu and Sunder are cousins living in a village in Maharashtra. Once in a meeting of *Gram Sabha*, Saryu raised the problem of shortage of clean drinking water and the lower level of underground water. Sunder supported him. In consultation with the experts, an effective plan was prepared. It was implemented within two years, with the result, that there was ample clean drinking water to fulfil the needs of the villagers.

1. What would have happened, had there been no co-operation, no determination and no spirit of self-help among the villagers?
2. Why is it important to provide clean drinking water in each and every part of India?



Map Skill

On the political map of India, locate and label the following–

- (a) The state with largest number of districts–Uttar Pradesh
- (b) The state which has won the National Award for the Best State for successfully implementing *Panchayati Raj* Programmes–Kerala
- (c) The first state in India to fix minimum educational qualification for contesting elections to the *Panchayati Raj* Institutions–Rajasthan
- (d) The states which have implemented 50% reservation for women in *Gram Panchayats*–Madhya Pradesh, Bihar, Uttarakhand, Himachal Pradesh
- (e) The state which has made voting compulsory in the elections for the local bodies–Gujarat



Something To Do

1. Elect a *Nyaya Panchayat* at the class level to settle the disputes of your class.
2. Find the names of rural local self-bodies of your state. Invite an elected member of *Gram Panchayat* and discuss with him the working of that body.
3. Enact the story 'Panch Parmeshwar' in your school in the form of a skit.
4. Hold a session of the class *Panchayat* to settle some dispute between two students or two groups of students of your class.
5. Arrange a trip to a nearby village. Find out the achievements of the *Gram Panchayat*. Also enlist some unfulfilled tasks which you would want the *Gram Panchayat* to perform.
6. Discuss the importance of justice and impartiality while deciding a dispute.

We all know that the city life and the village life are quite different from each other. The cities are more populated than the villages. As a result, those who have to look after the management of the cities have to make adequate provisions for drinking water, electricity, transport, health-care centres/hospitals, etc. In addition to the above, there are big markets, mills and production centres in the cities. More and more people are migrating from the rural to urban areas making cities overcrowded. This leads to greater strain on the provision of the civic amenities. The responsibility of providing the amenities and their maintenance is entrusted to the urban self-governing bodies. It would be useful to study how these bodies are composed and how they perform their various functions.

The Seventy Fourth Amendment Act of 1992 has provided three types of urban local bodies. They are **Nagar Panchayats** for semi-urban areas which are gradually developing into cities. **Municipal Councils** or **Nagar Parishad** for cities with population between 20,000 to 10 lakhs and **Municipal Corporations** for big cities like Delhi, Mumbai, Chennai, Kolkata, Kanpur, etc., where the population is more than 10 lakhs.

The urban local bodies, popularly known as **Municipalities**, are elected by the people directly through regular elections. Members elected in this way are called **Municipal Councillors**. Each city is divided into wards. The number of wards depends upon the population of a particular city or town. If a city has a large population, then the number of wards is more. The voters elect one representative from each ward for a period of five years. The age to become a member cannot be less than 21 years. Some wards are reserved for Schedule Castes, Schedule Tribes and Other Backward Classes. One-third seats, in each municipality, are reserved for women.

NAGAR PANCHAYAT

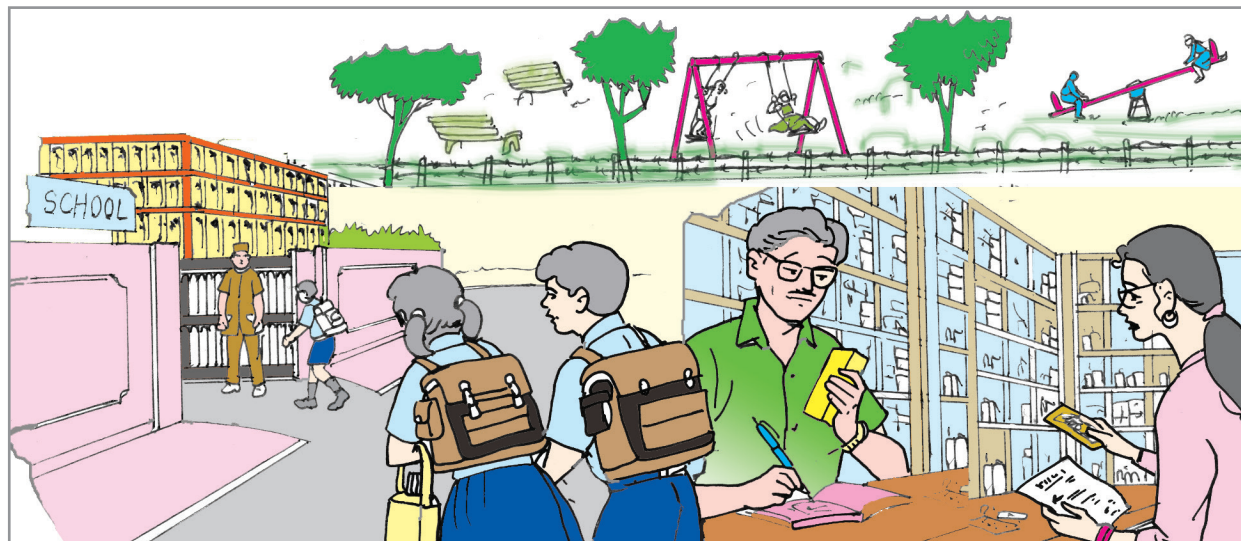
Towns which are smaller than a city but bigger than a village have *Nagar Panchayats*. It is the smallest local body in urban areas. The number of members depends upon the population of the town. The Chairperson of a *Nagar Panchayat* is elected directly by the people and the Vice-Chairperson is elected by the members themselves.

Functions

The prime functions of *Nagar Panchayat* are –

- to solve local problems and to provide better living conditions.
- to provide civic amenities like water and electricity.

- to ensure sanitation, hygiene and healthcare facilities.
- to maintain parks, primary schools and public buildings.
- to keep record of births and deaths.



Sources of Income

A *Nagar Panchayat* gets funds through taxes like water tax, octroi, house tax, vehicle tax, building tax and rent from municipal buildings and properties. But, most of the money comes from financial assistance from the State Government in the form of grants and loans.



Do You Know?

Octroi is a tax levied on goods entering a city. These days it has been abolished in Delhi, Haryana, etc.

MUNICIPAL COUNCIL

Municipal Councils or *Nagar Parishads* are also called **Municipal Boards** or **Municipal Committees**. They are established in the cities with population between 20,000 to 10 lakhs. The number of members vary from 15 to 60 and are directly elected by the people for five years. The Chairperson is also elected directly by the people. His term is for five years. The Deputy Chairperson is also elected by the elected members. The meetings of Municipal Council are held regularly and are presided by the Chairperson.

An Executive Officer, who is appointed by the State Government, looks after the general administration of the city. He acts as a link between the Council and the State Government.

Functions

With the fast changing life in the cities, the functions and responsibilities of Municipal Councils are increasing day by day. Some of them are as given below:

- It ensures proper supply of drinking water and electricity.
- It maintains hygienic and sanitary conditions.

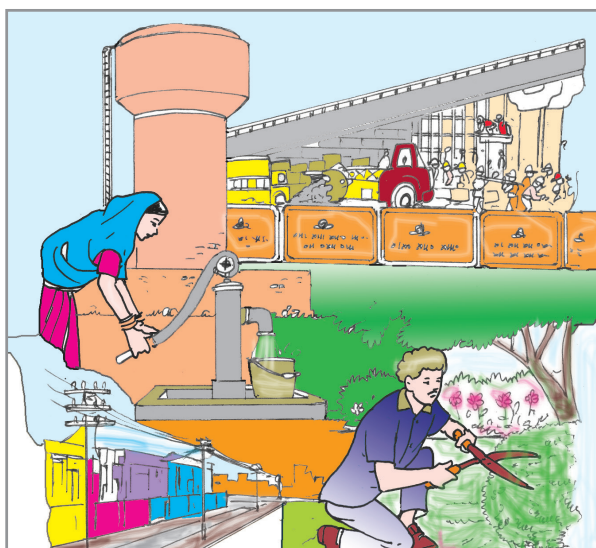
- It constructs and maintains roads, bridges, markets, water tanks, parks, child welfare centres, etc.
- It adopts measures to prevent epidemics and other infectious diseases.
- It opens primary schools, hospitals, community centres, shopping complexes, etc.
- It keeps a record of births and deaths.
- It penalises those hawkers and shopkeepers who adulterate eatables and other items.

Sources of Income

The Municipal Councils collect money from various taxes, and get rent from municipal buildings. They also receive annual financial grant from the State Government.

MUNICIPAL CORPORATION

The big cities with a large population have a Municipal Corporation or *Nagar Nigam*. Since the problems of such cities are more complicated in nature and are difficult to solve, the responsibility of a Municipal Corporation increases. Therefore, the day-to-day work is looked after by various committees consisting of five to twelve members headed by a Chairperson from among the members. For example, the education committee looks after the primary schools, whereas it is the duty of the water supply committee to manage efficient supply of drinking water. Municipal Corporation is headed by a Chairperson who is called the **Mayor** or **Mahapaur**.



The Deputy Mayor, who is elected by the members, performs all the functions of the Mayor in his absence. A Chief Executive Officer implements the decision of the Municipal Corporation. He is called **Municipal Commissioner**. He is appointed by the State Government. He implements the decisions taken by the House and supervises the work of the Municipal Corporation.

Functions

Important functions performed by the Municipal Corporation

- Sanitation and cleanliness including removal of garbage and cleaning of drains.
- Vaccination and inoculations against diseases or epidemics.
- Maintenance of hospitals or dispensaries.
- Supply of fresh drinking water.
- Construction and maintenance of roads, bridges, flyovers, streets, subways, community centres, parks, etc.
- Supply of electricity.

- Opening of schools, libraries and museums.
- Fire fighting services.
- Demolition of unsafe buildings.
- Construction and maintenance of orphanage, night-shelters, children’s homes, rest houses and cremation grounds/graveyard.
- Cheap and convenient public transport service.
- Registration of births and deaths.
- Plantation of trees and plants in order to provide pollution-free environment.

Sources of Income

The fulfilment of all these functions is really a tough task. The local sources of income include water tax, octroi, property tax, entertainment tax, toll tax, rent from municipal properties, license fee, etc. The annual financial grants and loans from the State Governments go a long way in providing facilities for the welfare of the people.



Do You Know?

Toll tax is collected to recover the cost of newly constructed roads and bridges or towards the maintenance of existing ones.

DISTRICT ADMINISTRATION

Though most of our day-to-day problems are solved by the local bodies, yet many more problems need special administrative control and supervision. India has been divided into over 676 districts. Every district is an important unit of administration. The head of the district is called **District Officer**, or **Deputy Commissioner** or **District Collector** or **District Magistrate**. He is an officer of the Indian Administrative Service (IAS) whose selection is made on the basis of an All India Competitive Examination.



Do You Know?

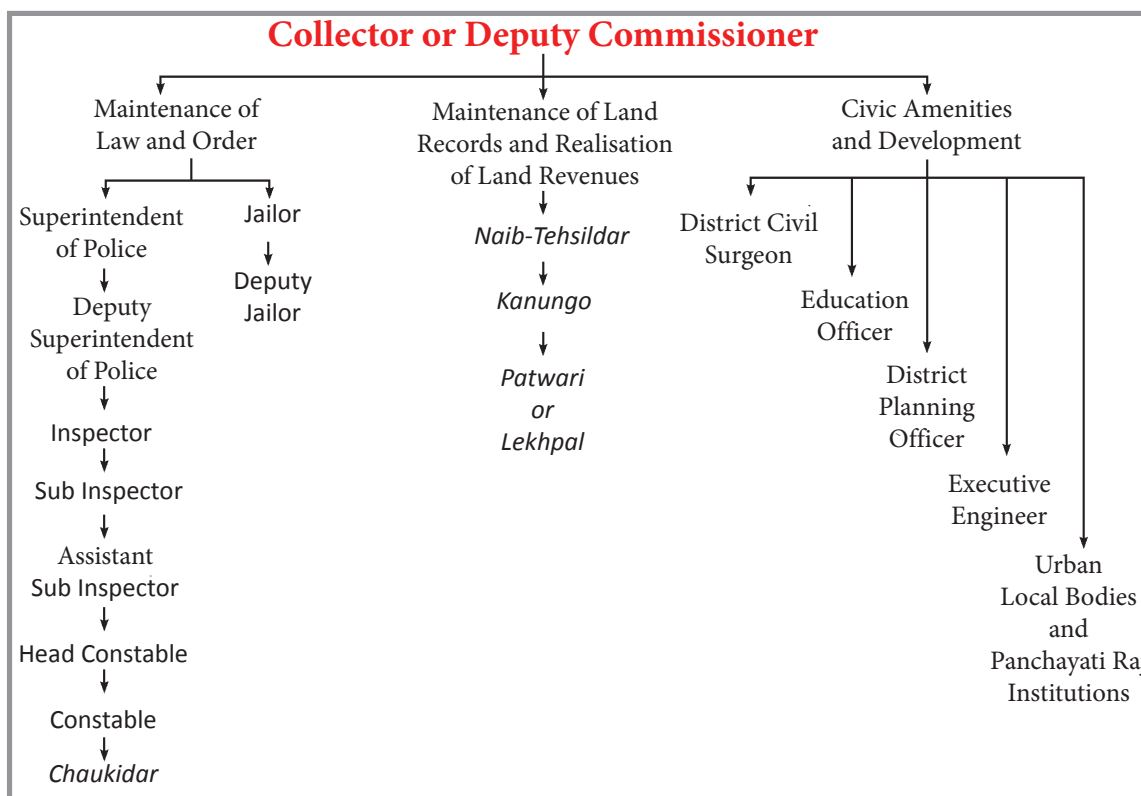
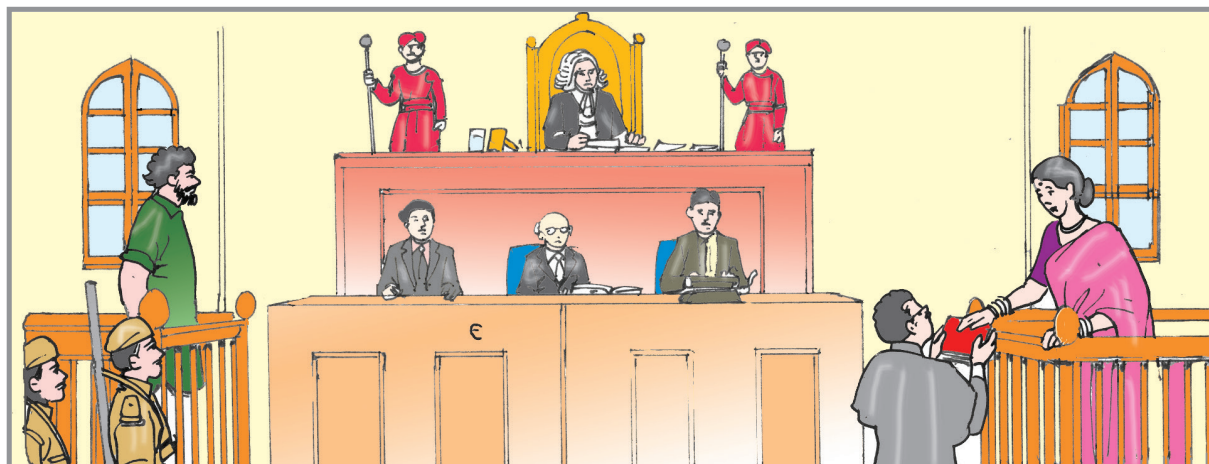
- A *Tehsildar* looks after the maintenance of land records and collection of land revenue at *tehsil* level. A *tehsil* is a sub-division of a district.
- A *Kanungo* is an official who works under a *Tehsildar* but supervises the work of some *patwaris* under him.
- A *Patwari* maintains the revenue records pertaining to land of a particular area – be it a village or a city or part of a city.

Functions

The main functions of a Deputy Commissioner are–

- to maintain law and order in the district.

- to collect revenue, maintain land records and promote developmental activities.
- to co-ordinate the activities of different departments in the district which are headed by Special District Officers. For example, the District Education Officer looks after the educational activities, Superintendent of Police is responsible for the maintenance of law and order in the district.



Keywords

- **amendment:** the change made in the Constitution of India.
- **financial assistance:** helping with money.
- **revenue:** the source of income to meet public expenses.



Something To Know

A. Tick (✓) the correct option.

1. The Chairperson of a Municipal Corporation is called–

(a) Mayor

(b) Chief Councillor

(c) Municipal Head

(d) Municipal Commissioner

2. A Municipal Corporation is also known as–

(a) *Nagar Parishad*

(b) *Nagar Nigam*

(c) *Nagar Palika*

(d) *Nagar Panchayat*

3. The semi-urban areas which are gradually developing into cities have a–

(a) Municipal Corporation

(b) Municipal Council

(c) *Nagar Panchayat*

(d) *Gram Panchayat*

4. The cities with a population of 20,000 to 10 lakhs have–

(a) Municipal Council

(b) *Nagar Panchayat*

(c) *Nagar Nigam*

(d) *Nyaya Panchayat*

5. The cities with more than 10 lakh population have–

(a) Municipal Board

(b) Municipal Council

(c) Municipal Committee

(d) Municipal Corporation

B. Fill in the blanks.

1. Cleanliness and sanitation is the responsibility of _____ in small towns.

2. The minimum age for contesting the Municipal Council elections is _____ .

3. The main cause of rapid growth of population in big cities is due to the inflow of _____ .

4. The Chairperson of a *Nagar Panchayat* is elected by the _____ whereas the Deputy Chairperson is elected by the _____ .

5. A Municipal Council is also called _____ in some states.

C. Write True or False for the following statements.

1. There are 604 districts in India. _____
2. The Seventy Sixth Amendment Act of 1992 provided three types of urban local bodies. _____
3. The Municipalities are formed by nominating its members. _____
4. *Nagar Panchayat* is the smallest local body in urban areas. _____
5. The Municipal Corporation works through various committees. _____

D. Answer the following questions in brief.

1. Name three urban self-governing bodies.
2. Give three functions of a Municipal Commissioner.
3. Mention two sources of income of a *Nagar Parishad*.
4. Name any three committees of a Municipal Corporation and their main functions.
5. What is the Chairperson of a Municipal Corporation known as?

E. Answer the following questions.

1. Describe any five main functions of Municipal Corporation.
2. How is the management of big cities quite different?
3. What are the main sources of income of a Municipal Corporation?
4. Mention some problems being faced by the big cities these days.
5. List three important functions of the Deputy Commissioner in district administration.



Value Based Question

Raju lives in Allahabad. In summer vacations, he visited his aunt in the United States. He not only enjoyed the trip, but was very happy to see clean and green cities and towns of Texas state. But when he came back to India, he was again depressed and disappointed. But with a big difference, now he was wide awake, well aware and more duty-conscious.

1. What brought a big change in Raju's thought and actions?
2. Highlight any three advantages of a clean city.
3. Why are green cities considered as an asset for future generations?



Something To Do

1. Identify the cities in India which have more than one corporation and why?
2. Suppose you invite the Municipal Councillor of your area to your school. List five questions that you would like to ask him/her.
3. Prepare a list of problems that people face in the villages as well as cities. Consult your parents, grandparents, local officials, neighbours, the artisans, etc. Then present these problems and possible solutions with a PowerPoint presentation and graphics.
4. Prepare a comparative flow diagram showing rural and urban problems. Try to evolve possible solutions through group discussions in the class.