INDIA AND THE WORLD-VI

GEOGRAPHY – VI

Chapter 1 : Our Earth and the Solar System

I. 1. The word solar means 'of the sun'. Therefore, the sun, its nine planets and the moons of the planets collectively form the solar system.
2. The earth is the only planet in the universe where life exists. That is why the earth is known as a unique planet.
3. In the night sky, the stars form various patterns. A group of stars thus forming various shapes is called constellation.
4. Planets, Asteroids, Meteors and Comet are the members of the solar family.
5. The duration from new moon to no moon is called lunar month. This duration is of approximately 29½ days long.

II. 1. In a clear dark night, a fuzzy band patch of starlight is seen across the sky, it is called Milky way.
2. Everything that exists around us comprises the universe.
3. The star which lies immediately above the earth's north pole and around which all other stars seem to revolve is called Pole Star.
4. Galaxies are huge congregation of stars held together by the forces of gravity.
5. It is believed that the sun has been formed from a morning cloud of gases which is called nebula.

III. 1-d, 2-c, 3-b, 4-e, 5-c

IV. 1. ✓
2. ×, Orbit is the path of movement of the planets.
3. ×, the earth has only one satellite.
4. ×, The earth is the third planet in the solar system.
5. ✓
6. ✓
7. ×, Apogee means the moon is at its farthest point.
8. ×, Pole star is also called Dhruva Tara.
9. ✓
10. ✓

V. 1. the moon 2. orbits 3. akash ganga 4. Sun
5. the earth 6. craters 7. comet 8. anticlockwise
9. flattened 10. water, wind

VI. 1. Luna 2. Life existence 3. Geoid 4. Meteors
5. Halley's comet 6. Earth 7. Stars 8. 2,000 stars
9. 9 10. 12,756 km

VII. 1. Apollo 11 2. 1986 3. geoid 4. eclipse
5. mountain valley

Chapter 2 : How do the Globe and Maps help Us

I. 1. A globe is a model of the earth. As such, it shows accurate sizes and shapes of all the physical features of the earth, such as oceans and continents.

2. (a) Globes are difficult to carry.

(b) The detail of the minute things like roads, railways, towns etc. cannot be properly shown on the globe.

3. Maps are drawn on sheets of paper and it is easy to handle sheets of paper as they can be kept in and files and also can be transported to other places.

4. A map is a conventional delineation of the earth's surface, or as portion thereof on a flat sheet.

5. Earlier maps were draw on a clay table or a tablet. Ancient people used to make maps by different techniques. Eskimos used to cut coastal islands on dark coloured animal's skin. Egyptians used to engrave maps on metal plates. People in the Pacific Islands used to make plans by knotting reeds.

6. Symbols are used to show various things such as boundaries, roads, railways, water features, forts, dams, springs, cities, villages etc. on maps clearer and easier to read.

7. The length of the space between two points is called distance. Distance between two cities, two countries etc. on the earth is shown in kms. But on the map, to show the same distance, we use smaller unit, that is cm.

For example, a scale '1 cm to 100 kms' given on a map tells that a distance of 100 kms is shown on the map as 1 cm.

8. If you know the direction of the sun rising, you can easily find the other three directions. If your face is towards the sun, that is east. Then your back will point towards the west and left hand in the north and right hand towards the south.

9. A plan is a layout of building or a school or a playground or an office. A plan of a building can show various details like number of rooms, their situation in the building, stairs, open space, balconies etc. So, a plan covers a small area on a large scale and also shows details of the area.

10. Physical relief includes the delineation of grounds and plains, the distinguishing of high grounds and low grounds. The varying heights of hills and mountains and the depths of valleys and gorges are known as relief.

II. 1. These are the two methods of showing reliefs on the map. Contour lines are the lines on a map joining points of equal heights. The coast line or sea level line is a natural contour line of uniform level. Hill shading is the method of indicating hill slopes.

These lines indicate the direction of the slope where the slopes one less steep, finer and wider apart, these lines indicate the direction of the slope where the slopes are less steep. These lines become lighter until they stop where the slope ends. So, there is no hill shading on level country.

2. A globe is a model of the earth whereas a map is a drawing of the earth's surface or as portion thereof on a flat sheet.
3. Political maps show the states and the countries of the world with proper boundaries. Physical maps are drawn to show the relief features of the earth's surface, such as rivers, oceans, plains, mountains and plateaus.
4. When the scale is shown in lines, it is called a linear scale, when the scale is shown in words instead of lines i.e. 1 cm = 100 kms. This method is called representation by a statement.
5. The four main directions—east, west, north and south are called cardinal directions and the four sub directions—North-east, South-east, South-west and North-west are called intermediate directions.

III. 1. A plan is a detailed drawing of a small area on a very large scale.
2. Thematic maps show the weather conditions, climatic zones, vegetation etc.
4. The commonly used symbols on the map are called conventional symbols.
5. Topographic maps show the natural features of the area covered as well as certain artificial features.

IV. 1. maps 2. Direction 3. hill shading 4. sphere, ellipsoid
5. movement 6. Egyptians 7. Topographic 8. blue

V. Do it yourself.

VI. Do it yourself.

Chapter 3 : Locating Places on the Earth

I. 1. The vertical lines on the globe are called lines of longitude or meridians.
2. The horizontal lines on the globe are called lines of latitude or parallels. The latitude of any point or place indicates the angular distance of that point or place, north or south of the equator.
3. Latitudes divide the earth into different heat zones :

The Hot or the Torrid Zone

It is situated between 23½° N and 23½°S. It lies between the Tropic of cancer and the Tropic of Capricorn. It is the hottest zone of the world.

The Moderate or the Temperate Zone

It lies between the Tropic of Cancer and the Arctic Circle in the Northern Hemisphere. It is situated between 23½° and 66½° in both the hemispheres.

4. *The Cold or the Frigid Zone*

It lies between the Arctic Circle and the North Pole in the Northern Hemisphere and the Antarctic Circle and the South Pole in the Southern Hemisphere. It is situated between 66½° and 90° in both the

hemispheres. Here, the length of day or night, at least once in a year, is of 24 hour duration. The Poles have days and nights of 6 month duration each. It is a very cold area.

5. Standard time is a uniform time officially adopted by all places over a certain area without regard to their local time. The whole world has been divided into 24 standard time zones. Each zone, therefore, separated by 15° longitude or by one hour.

II. 1. Local time is the time of a place which is calculated according to the noon, that is, when the sun at any place is highest in the sky.

2. Poles are two reference points on the earth's surface. These are the tips or the end-points of the axis of the earth.

3. Equator represents the imaginary line passing round the earth midway between the north and south poles.

4. Geographic grid is intersecting line drawn on maps and globes.

5. Greenwich Meridian is the Prime Meridian (0° longitude) passing through the former Royal Observatory at Greenwich, England from which other meridians are calculated.

6. The International Date line is located entirely in the oceans, so all changes of date are made on ship or plane, and no part of land is devided by it, it is

III. 1. Two sets of lines enriching the globe are lines of latitude and lines of longitude. The horizontal lines are lines of latitude or Parallels and the vertical lines are lines of longitude.

2. Local time is the time of a place which is calculated according to the noon, that is, when the sun at any place is highest in the sky. All the places on the same meridian have the same local time. Standard time is a uniform time officially adopted by all places over a certain area without regard to their local time.

3. Poles are the tips or the end-points of the axis of the earth. If you hold a globe in front of you, the top will be the North Pole and the bottom will be the South Pole.

4. Torrid Zone is the hottest zone of the world. It is situated between 23½ N and 23½ S. It lies between the Tropic of Cancer and the Tropic of Capricorn.

Frigid Zone lies between the Arctic Circle and the North Pole in the Northern Hemisphere and the Antarctic Circle and the South Pole in the Southern hemisphere. It is situated between 66½° and 90° in both the hemispheres.

5. The Arctic Circle lies at an angular distance of 66½° north of the equator. The Antarctic Circle lies at an angular distance of 66½° South of the equator.

IV. 1. Location : Situated in Northern hemisphere north of the equator; degrees = 23½° N.

2. Location : Situated in Southern hemisphere, south of the equator; degrees = 23½° S.

3. Location : North of the equator ; degrees : 66½° N
4. Location : South of the equator ; degrees : 66½° S
5. Location : Middle of the earth ; degrees : 0°
6. Location : Greenwich (Wear London) ; degrees : 360 longitudes
7. Location : Between the Tropic of Cancer and the Tropic of Capricorn.
   Degrees : 23½° N and 23½° S
8. Location : Between the Tropic of cancer and the Arctic Circle in the Northern hemisphere and between the Tropic of Capricorn and the Antarctic Circle in the Southern Hemisphere.
9. Location : Between the Arctic circle and the North Pole in the Northern Hemisphere and between the Antarctic Circle and the South Pole in the Southern Hemisphere.
   Degrees : Between 66½° N and 90½° N and between 66½° and 90° S.

V. 1. Equator 2. 90° N 3. Intersecting 4. Latitude
5. 90 6. Cancer 7. Frigid 8. England 9. 180
10. time

VI. 1. false 2. true 3. true 4. true 5. false
6. false 7. false 8. true 9. true 10. true

VII. 1. Arctic Circle 2. Frigid Zone 3. Tropic of Cancer
4. Frigid Zone 5. Standard time 6. ellipsoid

Chapter 4 : Days and Seasons

I. 1. The earth revolves in a fixed path at a speed of 1,06,560 kms per hour. The earth takes about 365¼ days in making one revolution of the sun. As we take 365 days for a year, difference of ¼ of a day requires adjustment. This is the cause behind that we add one day to February after every four years.
2. Rotation of the earth on its axis is responsible for days and nights. While rotating, one half of the earth's surface gets light from the sun and the other half remains dark. So, the lit half is day and the dark half is night.
3. Days and nights are of equal duration throughout the world on March 21. It is storing in the Northern Hemisphere. So, it is called Spring Equinox in the Northern Hemisphere.
4. At noons, the rays of the sun are more or less vertical. They fall on a smaller area and make it very hot. That is why the noons are comparatively hotter.
5. The position when the mid day sun is directly overhead at the Tropic of Cancer, is called the Summer Solstice. This position is on June 21.

II. 1. tilting 2. rotation 3. 24 hours 4. ellipse

III. 1. Besides moving round the sun, our earth also moves on its own axis. This movement of the earth is called rotation.

2. The movement of the earth around the sun is called revolution.

3. The path that the earth takes to move around the sun is called orbit. The shape of the orbit is an ellipse and not a circle.

4. The earth takes 365¼ days in making one revolution. But, we take 365 days for a year, difference of ¼ of a day requires adjustment. This is the cause behind that we add one day to February after every four years. The year that has 1 more day i.e. 366 days is called the leap year.

Chapter 5 : Major Domains of the Earth

I. 1. The earth is important because it is the only planet which has water, air and soil which support life on it.

2. The three spheres of the earth are as follows :

(a) Atmosphere (the gases)

(b) Lithosphere (the solids)

(c) Hydrosphere (the liquids)

3. The five main layers defined in the atmosphere are as follows :

1. Stratosphere
2. Troposphere
3. Exosphere
4. Ionosphere
5. Mesosphere

4. The lithosphere is the top, solid land part of the earth which is made up chiefly of rocks and metals. On this top crust our continents and ocean basins rest. It is the thickest in the continental regions where it has an average thickness of 40 kms and thinnest in the oceans where it may have a maximum thickness of 10 to 12 kms.

5. Plains are found usually along the coasts or across the rivers. They are formed by the deposits brought by the major rivers and their tributaries. Mostly plains are fertile. Agriculture all over the world flourishes on such plains. In plains transport and communication network is easy. Of all the land forms, plains are the most densely populated.

6. The seven continents are as follows :

1. Asia 2. Europe 3. Africa 4. North America
5. South America 6. Australia 7. Antarctica

Asia is the largest continent.

7. The four major oceans on the earth are :

1. The Pacific Ocean
2. The Atlantic Ocean
3. The Indian Ocean
4. The Arctic Ocean

II. 1. Plains are low-lying and relatively flat stretches of land.
2. Plateaus are moderately elevated flat topped lands.
3. Biosphere is a narrow zone, where land, air and water come in close contact.
4. Air exerts pressure upon us all the time. It is because of the gravitational pull of the earth. This is known as the air pressure.
5. The lithosphere is the top, solid land part of the earth which is made up chiefly of rocks and metals.
6. Extensive masses of land rising above the sea level are called continents.

III. 1. seven 2. Eurasia 3. Dark continent 4. Triangular
5. 95% 6. Himalayas 7. tableland 8. Biosphere
9. air 10. carbon-dioxide, sunlight

IV. Do it yourself

V. 1. barometer 2. lithosphere 3. Asia 4. Africa
5. Australia 6. Antarctica 7. Mountains 8. Tibetan Plateau
9. Pacific Ocean 10. Equator

Chapter 6 : India : Our Country

I. 1. Arabian Sea, Bay of Bengal, Indian Ocean
2. The average altitude of the Himadri is 6,000 m. In the plateau of Ladakh, that lies here, one experiences very cold and dry climate. It is also known as cold desert. South of the Himadri lies the Himachal range. Himachal range has a height varying between 3,700 and 4,500 metres above sea levels. The beautiful Kashmir, Kulu and Kangra valleys of India and Kathmandu valley in Nepal, popular hill stations of Shimla, Mussoorie, Nainital and Darjeeling are also located in the Himachal ranges of the Himalayas. The Shiwalik range is the southernmost ragne of Himalayas which is also the lowest range of the Himalayas. It extends from Jammu and Kashmir to Arunachal Pradesh.
3. Himalayas, China, Nepal and Bhutan are our neighbours in the north. Afghanistan and Pakistan are our neighbours in north-west. On our eastern side Bangladesh and Myanmar are our neighbours. Two island neighbours across the sea lying to the south of India are Sri Lanka and Maldives. Palk strait and the Gulf of Mannar lie between Sri Lanka and India. These are narrow channels of saline water.
4. Due to longitudinal differences there is difference in local time from place to place. Between the extreme eastern and western points, time difference amounts to 2 hours. The sun rises two hours earlier in Arunachal Pradesh that is close in Gujarat. It is because the earth rotates from west to east, place lying to the east receives sunlight earlier. We follow a common time all over the country thus there is only one standard time for the entire country.

5. The Indo-Gangetic Plains have two great river valley systems, Ganga and its tributaries. These plains are made of silt and mud deposited by the rivers for a long time. Such plains are called riverine plains and thus fertile.

II. 1. Deccan Plateau 2. Hindi 3. Gangotri 4. Thar Desert
5. Indus Valley Civilisation 6. Between the latitudes 8°4' and 37°6' North and longitudes 68°7' and 97°25' East 7. South India
8. Plateau of Ladakh 9. Sunderban delta 10. Lakshadweep Island

III. 1. Assamerse, Bengali, Gujarati, Kannada
2. Himachal Pradesh, Haryana, Punjab, Jharkhand
3. Chandigarh, Daman and Diu, Pondicherry, Andeman and Nicobar Islands.
4. Sutlej, Ravi, Beas, Chanab
5. Ladakh, Ley, Siligudi, Beenagudi

IV. 1. sixth 2. Cancer 3. Pir Panjal range, Dhauladhar 4. silt, mud
5. Tsangpo 6. triangular 7. 28, 7

V. Do it yourself.

Chapter 7 : Our Climate, Natural Vegetation and Wildlife

I. 1. The climate of India is monsoon type. It is hot and moist in summer. It is cold and dry in winter. India's nearness to the equator and its position at the head of the Indian Ocean are the two main factors that influence the monsoon winds. Our farmers depend very much on the monsoon showers to ensure a good harvest. In India, climatically, monsoon is a very important phenomenon. That is why climate of India is called monsoon climate.

2. Evergreen forests are found in regions with rainfall above 300 cms. Temperature and humidity are high here. The vegetation is very thick and trees do not shed their leaves in one season. Important trees grown here are ebony, abnoos, bamboo, rubber, cinchona, mahogany, rosewood etc. These forests are of equatorial type and are commonly found in the Western Ghats, hills of Assam, Andaman and Nicobar Islands.

3. In India the year may be divided into four distinct seasons :
   1. The Cold Weather Season (Winter)
      (December to February)
   2. The Hot Weather Season (Summer)
      (March to May)
   3. The South-West Monsoon Season (Rainy)
      (June to September)
   4. The Season of Retreating Monsoon
      (October to November)

4. October and November are the two months known for the retreating monsoons. The South-West monsoon retreats or withdraws from the northern India slowly. South India gets some amount of rainfall during this season.
5. Natural vegetation includes, trees, shrubs, creepers etc. that grow naturally. Due to varied climatic conditions India has a wide range of natural vegetation.
6. Tropical deciduous forests are found in the regions that receive about 100 to 200 cms of rainfall. They are found in West Bengal, Orissa, eastern parts of M.P., Chhota-Nagpur Plateau, Bihar, Jharkhand and Chhattisgarh. The trees in these forests shed their leaves for six to eight weeds in summer to minimise the transpiration. Important trees grown here are sal, teak, palash, shisham, arjun, peepal, sandalwood.
7. The wildlife in our country is our national heritage and asset. Wild animals and birds not only add beauty to our country but also help in the preservation of the ecological balance.

II. 1. Alpine vegetation is a type of mountainous vegetation. Such vegetation is found at altitude beyond 3500 metres. Alpine vegetation mainly includes grasses and shrubs.
2. Project Tiger is one of the premier conservation efforts of the country. It has helped us in not only saving the tiger from extinction but other rare and endangered species of flora and fauna.
3. Project elephant was launched by Indian government to protect the growth of this animal species.
4. The word monsoon is derived from the Arabic word, 'mausam' meaning season. Most of rain in India is brought by the monsoon winds. Our farmers depend very much on the monsoon showers to ensure a good harvest. Climatically, monsoon is a very important phenomenon.
5. During winter, the monsoon winds blow from North-East part of India towards the Bay of Bengal. It is known as North-East Monsoon. The winds are named by direction from which they come.
6. Mangrove forests are also known as Tidal forests. These forests are found in the deltas of rivers which are subjected to tides. The salt water due to tidal waves gets mixed with fresh water near low-lying coastal areas.

III. 1. Environment 2. 33 per cent 3. Sunderbans 4. forests
5. March, May 6. evergreen 7. retreating 8. altitudes
9. 86 10. deer

IV. Do it yourself

V. 1. Project Tiger 2. Hard wood like sal and teak 3. About 80,000 species 4. Winter season 5. Loo 6. 19.27 per cent
7. Soft wood of pine and deodar 8. Distance from the equator
9. Monsoon type