

# GEOGRAPHY

## Chapter 1: ENVIRONMENT



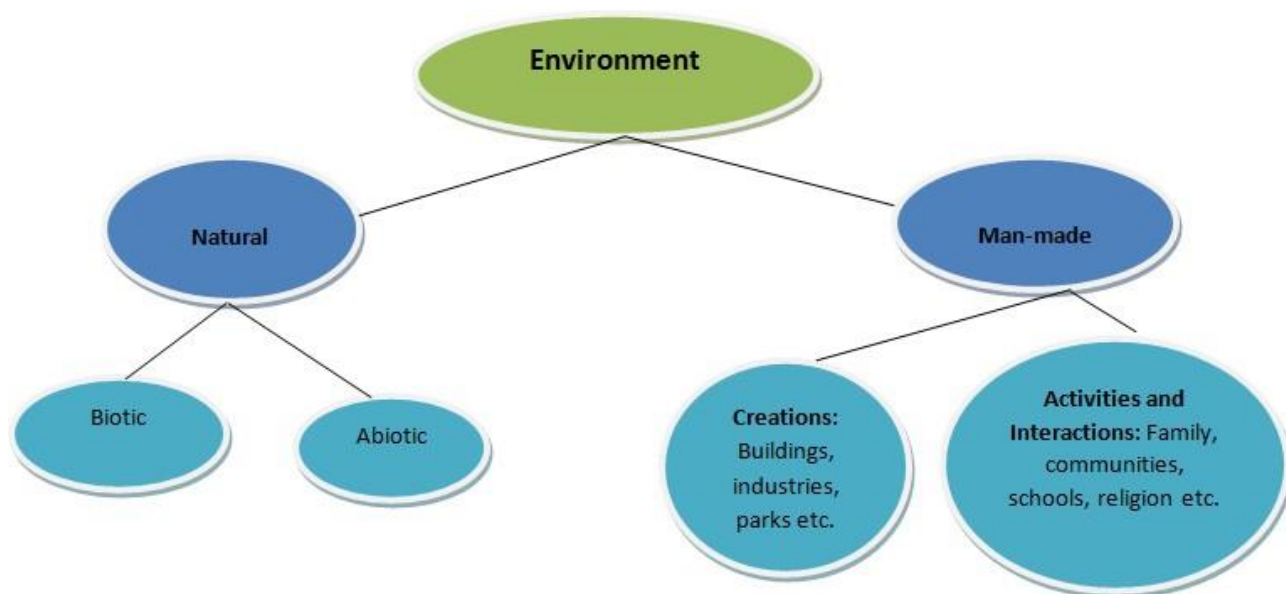
## ENVIRONMENT

### Environment- Meaning and Significance

#### Meaning :

Every living organism is surrounded by an environment. Places, nature or things which surround living organisms is known as their environment.

The environment consists of natural and man-made environments. Natural environment can be further divided into biotic and abiotic environments. Man-made environment refers to the creations (such as buildings, buses etc.), activities and interactions among humans.



Natural environment refers to both biotic and abiotic environments.

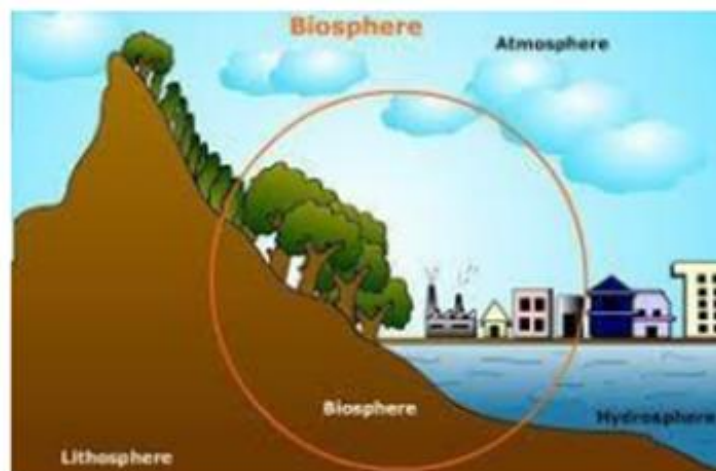
**Biotic Environment:** Includes all the living organisms such as plants, animals, humans etc.

**Abiotic Environment:** Includes all the non living things such as land, sea etc.

Existence of the environment is essential as it provide life to various organisms. It consists of the air we breathe, water we drink, food we eat and the land we live on. Humans have considerably modified or changed the environment. This has been done by constructing roads, buildings, dams, industries, cars etc.

### The Natural Environment

The natural environment consists of land, water, plants, animals and air. Natural environment can be further divided into the lithosphere, hydrosphere, atmosphere and biosphere.



Diagrammatic representation of the lithosphere, hydrosphere, atmosphere and biosphere

### **Lithosphere :**

- It is the top hard crust of the Earth which is covered by a thin layer of soil.
- It is made up of rocks and minerals.
- The lithosphere of the Earth is uneven as it comprises of many landforms such as mountains, plateaus, valleys and plains.
- This domain of the Earth largely bears forests, grasslands and land. Forests provide us with wood, food, fuel and fodder. Grasslands are used for grazing while land is used for cultivation and building human settlements.

### **Hydrosphere :**

- The domain of the Earth which consists of water is known as the hydrosphere.
- The hydrosphere includes various water bodies such as oceans, rivers, lakes etc.
- This domain is important as it is the source of water for all living organisms.

### **Atmosphere :**

- The atmosphere is a thin layer of air which surrounds the Earth. The gravitational pull of the Earth holds the atmosphere around the Earth.
- The atmosphere acts as a blanket and protects us from the harmful rays and extreme heat of the Sun.
- The atmosphere consists of various gases, dust and water vapour.

### **Biosphere :**

- The plant and animal kingdoms together make up the biosphere. Hence the biosphere supports life.

- It is a narrow zone of the Earth where land, water and air interact with each other.

## Ecosystem

The ecosystem can be defined as a community of living and non-living organisms in the same area, which are interdependent on each other. The relationship between living organisms and their interactions with their living and non-living surroundings constitutes an ecosystem. There are numerous ecosystems in the world. A pond, desert, rivers etc. are some examples of an ecosystem.



The ecosystem of a pond

## Human Environment

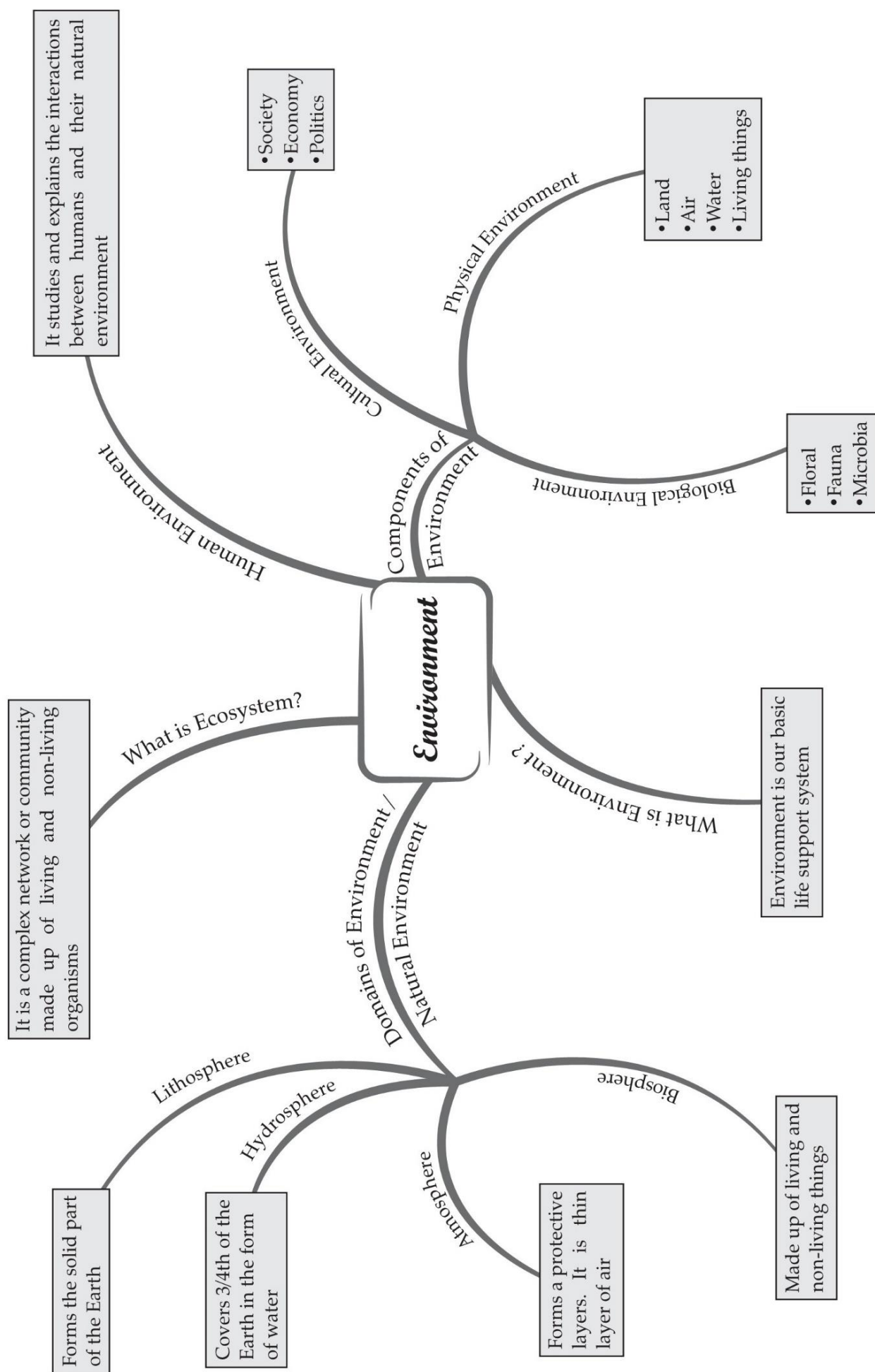
- Humans live and interact with the environment. They modify or alter it according to their own needs.
- Human beings fulfill all their needs and requirements from the environment which exists around them.
- Human needs and requirements keep on changing with time. Earlier man invented the wheel and transported goods to various places. This helped in the growth of trading activities. The industrial revolution which followed further enhanced the production of goods on large scale.
- Humans have also changed or modified the environment by clearing land for cultivation, domestication, building houses, roads, industries etc.
- Humans not only change the environment according to their needs but also themselves according to the environment. For example, watermelon is generally consumed in summers to keep the body temperature down.
- However, too many changes in the environment by the humans may harm it. Deforestation, rapid exhaustion of mineral resources etc. is harming the environment. We should live and use our environment in a peaceful manner.



Rapid deforestation by the humans to fulfill their needs is harming the environment

# MIND MAP : LEARNING MADE SIMPLE

## CHAPTER-4



## Important Questions

### ➤ Multiple Choice Questions :

Question 1. What is a source of mineral wealth?

- (a) Atmosphere
- (b) Biosphere
- (c) Lithosphere

Question 2. The domain of water is referred to as:

- (a) Hydrosphere
- (b) Atmosphere
- (c) Lithosphere

Question 3. Who protect earth from the harmful rays and scorching heat of the Sun?

- (a) Mechanical force
- (b) Gravitational force
- (c) Atmosphere

Question 4. Which of the following is a human made environment?

- (a) Hydrosphere
- (b) Economic
- (c) Industries

Question 5. When is the world environment day is celebrated?

- (a) 5 July
- (b) 5 June
- (c) 5 January

Question 6. What is Environer/Environner means?

- (a) Environment
- (b) Aquarium
- (c) Neighbourhood

Question 7. Which one has solid crust or the hard top layer of the earth?

- (a) Lithosphere
- (b) Hydrosphere
- (c) Atmosphere

Question 8. Plant and animal kingdom together made:

- (a) Atmosphere
- (b) Hydrosphere
- (c) Biosphere

Question 9. Which one has thin layer of air that surrounds the earth?

- (a) Atmosphere
- (b) Biosphere
- (c) Hydrosphere

Question 10. The word environment derived from the French word “Environer” which means:

- (a) Brotherhood
- (b) Neighbourhood
- (c) Childhood

Question 11. Which is not a component of human environment?

- (a) Land
- (b) Religion
- (c) Community
- (d) All of these

Question 12. Which is not a natural ecosystem?

- (a) Desert
- (b) Aquarium
- (c) Forest
- (d) None of these

Question 13. What is the solid crust of the earth is called?

- (a) Atmosphere
- (b) Lithosphere
- (c) Crust
- (d) All of these

Question 14. When is world Environment Day is celebrated?

- (a) 5th January
- (b) 5th June
- (c) 5th August
- (d) None of these

Question 15. What is the life support system among the following?



- (a) Transportation
- (b) Music system
- (c) Environment
- (d) Both (a) and (b)

➤ **Fill in the blanks :**

1. \_\_\_\_\_ is our basic life support system.
2. Land, water, air, plants and animals comprise \_\_\_\_\_ environment.
3. \_\_\_\_\_ is the solid crust or the hard top layer of the earth.
4. \_\_\_\_\_ system is a trade in which goods are exchanged without the use of money.
5. \_\_\_\_\_ revolution enabled large scale production.

➤ **Write true (T) or false (F) :**

1. Aquarium is not a natural ecosystem.
2. Land is a component of human environment.
3. Road is a human made environment.

➤ **Very Short Questions :**

1. What is environment?
2. Why is our environment changing?
3. What are the basic components of natural environment?
4. What does lithosphere provide us?
5. Name different types of water bodies.
6. How is atmosphere important for us?
7. What do you see in the deserts? Name some animals.
8. What is barter system?
9. Distinguish between biotic and abiotic environment with examples.
10. How is environment important for us?

➤ **Short Questions :**

1. Define natural environment. What are its domains?
2. What is hydrosphere?
3. Define environment?
4. What is Lithosphere?
5. What is Atmosphere?



➤ **Long Questions :**

1. Give an account of various domains of the environment.
2. How have human beings adapted to the environment to fulfil their needs?
3. Explain “Impact of human activities on Natural environment as well as on human life”.
4. How did human interaction with the environment change over time?
5. How does human being use environment to fulfil their needs?

**ANSWER KEY –**

➤ **Multiple Choice Answer :**

1. (c) Lithosphere
2. (a) Hydrosphere
3. (c) Atmosphere
4. (c) Industries
5. (b) 5 June
6. (c) Neighbourhood
7. (a) Lithosphere
8. (c) Biosphere
9. (a) Atmosphere
10. (b) Neighbourhood
11. (a) Land
12. (b) Aquarium
13. (b) Lithosphere
14. (c) 5th August
15. (c) Environment

➤ **Fill in the blanks :**

1. Environment
2. Natural
3. Lithosphere
4. Barter
5. Industrial

➤ **Write true (T) or false (F) :**

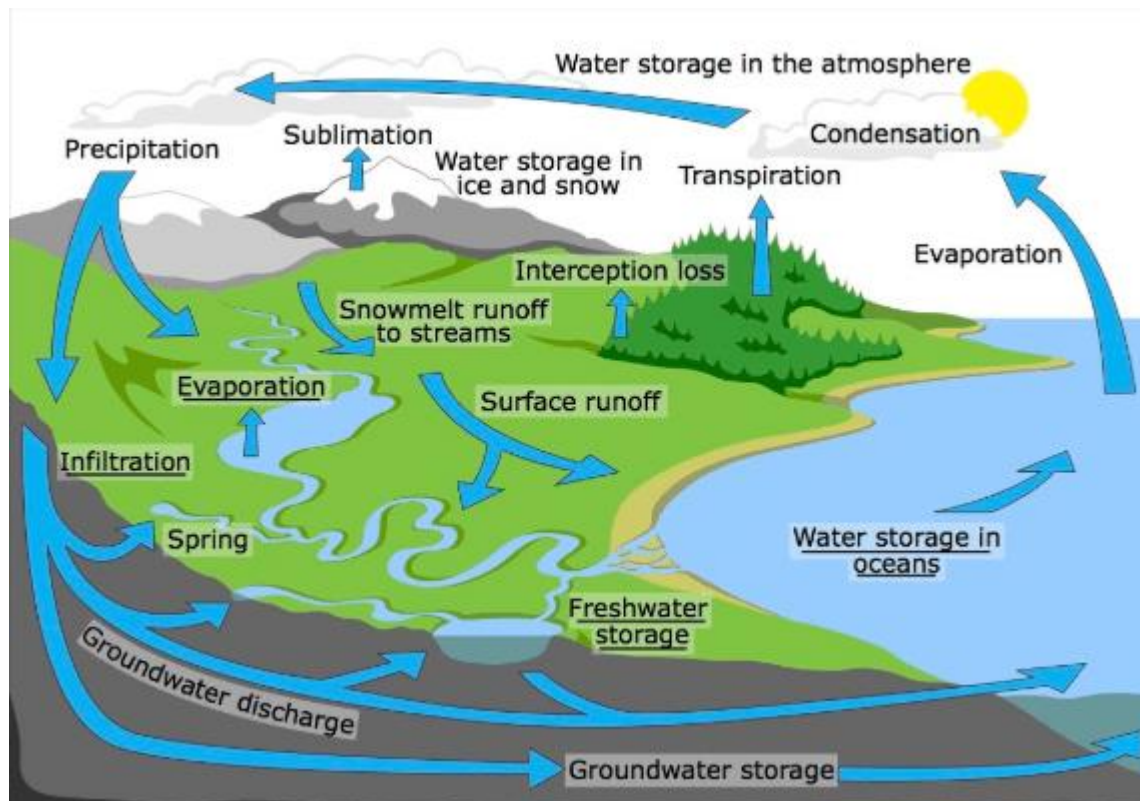
1. True
2. False
3. True

➤ **Very Short Answer :**

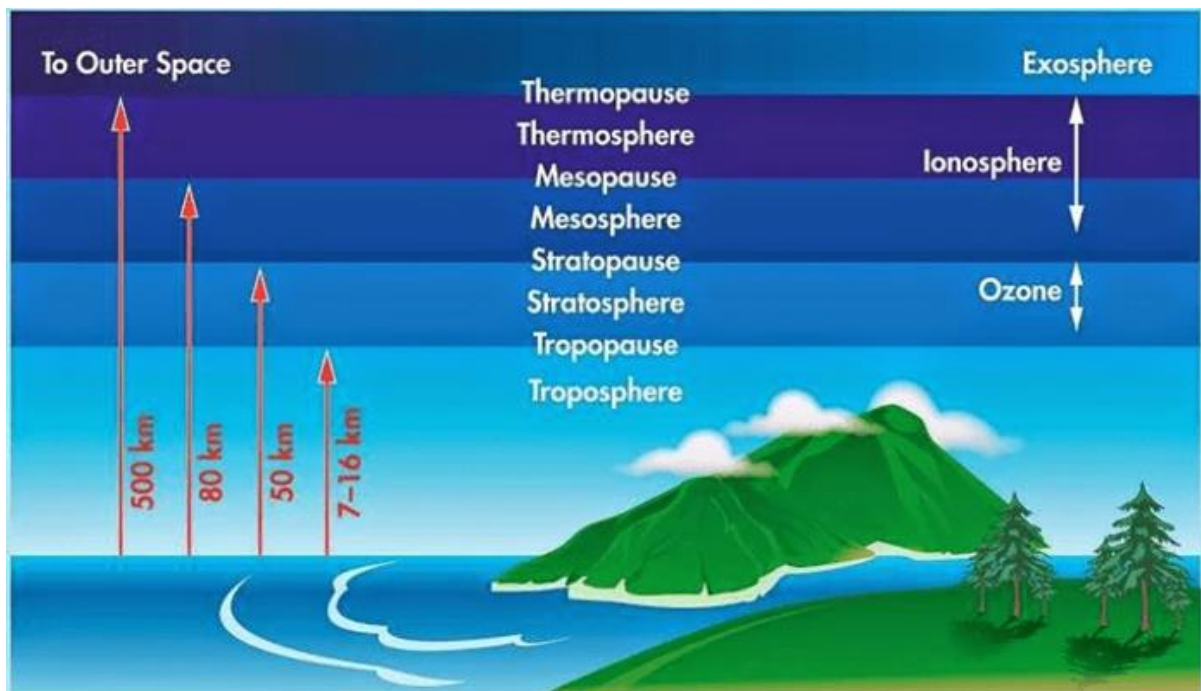
1. Everything that we see in our surroundings forms environment. It is our basic life support system. It provides us air, water, food and land—the basic needs of our life.
2. Our environment is changing because our needs are increasing day by day. To fulfil these needs we often don't think about the environment and start modifying it.
3. The basic components of natural environment are—land, water, air, plants and animals.
4. Lithosphere provide us forests, grasslands for grazing land for agriculture and human settlements. It is a rich source of minerals.
5. Rivers, lakes, seas, oceans, etc.
6. Atmosphere protects us from the harmful rays and scorching heat of the sun.
7. We see camels, snakes, lizards and insects.
8. Barter system is a method of trade in which goods are exchanged without the use of money.
9. The world of living organisms is known as biotic environment. Example: plants and animals. The world of non-living element is known as abiotic environment. Example: land.
10. It is important for us because it is the provider of air, water, food and land— the basic necessities of life.

➤ **Short Answer :**

1. All the objects created by nature comprise of natural environment. It includes both biotic as well as abiotic condition existing on earth. Lithosphere, hydrosphere, atmosphere is the domain of natural environment.
2. The domain of water is referred to as hydrosphere. It comprises various sources of water and different types of water bodies like rivers, lakes, seas, oceans, etc. It is essential for all living organisms.



3. Whatever we see surrounding us is our environment. Environment is our basic life support system. It provides the air we breathe, water we drink, the food we eat and the land where we live.
4. Lithosphere is the solid crust or the hard-top layer of the earth. It is made up of rocks and minerals and covered by a thin layer of soil. It is an irregular surface with various landforms such as mountains, plateaus, plains, valleys, etc. Landforms are found over the continents and also on the ocean floors.
5. The atmosphere is the thin layer of air that surrounds the earth. The gravitational force of the earth holds the atmosphere around it. It protects us from the harmful rays and scorching heat of the sun. It consists of a number of gases, dust and water vapour. The changes in the atmosphere produce changes in the weather and climate.



### ➤ Long Answer :

#### 1. Various domains of the environment are:

- i. **Lithosphere:** It is the solid crust or the hard top layer of the earth. It is made up of rocks and minerals and covered by a thin layer of soil. It provides us forests, grasslands and land. It is a source of mineral wealth.
- ii. **Atmosphere:** It is the thin layer of air that surrounds the earth. The gravitational force of the earth holds the atmosphere around it. It protects us from harmful rays and scorching heat of the sun. It consists of various gases, dust and water vapour.
- iii. **Hydrosphere:** It refers to various water bodies such as rivers, lakes, seas, oceans, etc. that exist on the earth.
- iv. **Biosphere:** Biosphere or the living world is comprised of plant and animal kingdom. It is a narrow zone of the earth where land, water and air interact with each other to support life.

2. Human beings from the early times have been interacting with the environment and modifying it according to their needs. Early humans adapted themselves to the natural surroundings. They led a simple life and fulfilled their requirements from the nature around them. But their needs kept on increasing. They became varied also. To fulfil these varied needs, humans learnt to grow crops, tamed animals and began a settled life. The wheel was invented, surplus food was produced, barter system emerged, trade started and commerce developed. Industrial revolution made possible large scale production. By and by transportation became faster. Information revolution made communication easier and speedy across the world. In this way human beings adapted to the environment in order to fulfil their needs.

3.

- Environmental pollution has affected humans, animals, plants and ecosystem. Air, water, land and noise pollution has greatly affected the environment.
  - The depletion of ozone layer due to air pollution allows entering of UV rays from sun into the earth's atmosphere which is associated with a number of health related and environmental issues. The depletion of ozone layer has effects in the form of global warming, which in turn leads to melting of polar ice, which will lead to rising sea levels and climatic changes around the world.
  - Environmental degradation has a host of negative outcomes that effect human beings both directly and indirectly such as increased poverty, famine, weather extremes and species loss.
  - Garbage from households and industrial units causes damage to local ecosystems, and it is a threat to plant and animal life. For example, landfills serve as a popular dining location for birds and other animals, but some of what they eat can cause diseases. Garbage and liquid waste that end up in water bodies negatively change the chemical composition of the water thereby causing water pollution.
4. Human beings interact with the environment and modify it according to their need. Early humans adapted themselves to the natural surroundings. They led a simple life and fulfilled their requirements from the nature around them. With time needs grew and became more varied. Humans learn new ways to use and change environment. They learn to grow crops, domesticate animals and lead a settled life. The wheel was invented, surplus food was produced, barter system emerged, trade started and commerce developed. Industrial revolution enabled large scale production. Transportation became faster. Information revolution made communication easier and speedy across the world.
5. Human beings interact with the environment and modify it according to their needs. Early humans adapted themselves to the natural surroundings. They led a simple life and fulfilled their requirements from the nature around them. Human learnt new ways to use and change environment as times and need grew and became more varied.

They learnt to grow crops, domesticate animals and lead a settled life. The wheel was invented, surplus food was produced, barter system emerged, trade started and commerce developed. Industrial revolution enabled large scale production. Transportation became faster. Information revolution made communication easier and speedy across the world.