

**CHAPTER-1**  
**OUR ENVIRONMENT**  
**2MARKS**

**Q.1. What is environment?**

Ans: Anything that surrounds us is called our environment.

**Q.2. What are the two components of our environment?**

Ans: The two main components of our environment are – Natural and human environment.

**Q.3. What consist of human environment?**

Ans: Human environment consists of human society, culture, economy, political life, religion, etc.

**Q.4. What does natural environment consist of?**

Ans: Natural environment consist of all living things (biotic) and non-living things (abiotic) that occur or have occurred naturally on the earth's surface.

**Q.5. What is biodiversity?**

Ans: The great variety of living organisms in our environment is called biodiversity.

**Q.6. What gives rise to human environment?**

Ans: The relationship between natural environment including its physical natural components and the people in a given area gives rise to human environment.

**Q.7. Distinguish between physical and biological environment?**

Ans: Both physical and biological environment are part of environment. Physical environment consists of atmosphere, lithosphere and hydrosphere while biological environment consists of biosphere. Biosphere is the zone of the contact of all components of physical environment.

**Q.8. Name and explain two categories of living beings of the biosphere?**

Ans: **(i) Autotrophs:** These are those organisms of biosphere which produces their own food.

**(ii) Heterotrophs:** These are those organisms that depend on plants and animals for their food.

**Q.9. What is the importance of hydrosphere for living beings?**

Ans: Hydrosphere refers to water on the earth. Our earth is called blue planet because its 71% of surface is covered with water bodies. It (water) fulfils all the essential requirements of all the living beings; therefore, this sphere is very important.

**Q.10. How does cutting of forests affect the environment?**

Ans: Cutting of forests adversely affect our environment. If forests are cut down to make building, the environment will lose the major producer of the oxygen. Slowly it would affect the human beings as well.

**4MARKS**

**Q.1. Differentiate between Biotic and Abiotic components?**

Ans:

| Biotic  | Abiotic  |
|---|--|
| 1. They are living things.                            | 1. They are non-living things.                 |
| 2. They perform functions of birth, growth and death. | 2. They supply energy to the living things.    |
| 3. They are found in a particular environment.        | 3. They make the environment of living things. |
| 4. <b>Examples</b> : Plants and animals.              | 4. <b>Examples</b> : Fire, water and soil.     |

**Q.2. What is the meaning of Lithosphere? Write about its composition?**

Ans: 'Lithos' is a Greek word, which means rocks. Rocks are the main materials of the earth's crust. They are made up of minerals, which are found in the interior as well as on the earth's surface. Many landforms are formed on the earth's surface as well as on the ocean floor, through decomposition and disintegration of rocks. These are caused by both internal as well as external processes.

**Q.3. Describe in brief the importance of Biodiversity?**

Ans: **Importance of Biodiversity:** The great variety of living organisms in our environment is called biodiversity. It is one of the essential requirements for the balance between natural and human environment. It is the variety and difference among living organisms from all sources including terrestrial, marine and other ecosystems and ecological complexes of which they are a part. Biodiversity is also an integral key to develop sectors like agriculture, livestock, forestry, fishing and tourism.

**Q.4. Write a short note on hydrosphere?**

Ans: 1. It is the domain of water, which comprises of nearly three-fourths of the earth's surface.

2. This includes oceans, rivers, lakes, seas and other water bodies.

3. Various types of landforms on ocean floor are seamounts, trenches, continental slopes, ridges and abyssal plains.

4. The ocean water is also saline as compared to the freshwater found on land.

**Q.5. Describe the evolution of life and landforms?**

Ans: **Evolution of Life:** Evolution means the gradual change and development of lifeforms- plants, animals and microorganisms. It also takes into account the environmental conditions in which they survive.

**Evolution of Landforms:** This interaction and interdependence also leads to the gradual change and development of landforms.

**Q.6. Discuss the relationship between Ecosystem and Environment?**

Ans: Ecosystem is a complex set of relationship that exists between the biotic and the abiotic components and with their environment. Both environment and ecosystem have similar components-Living and Non-living. However, in the case of the environment, they may exist independently, whereas, in the case of ecosystem, they form a system of interaction and interdependence.

**Q.7. Define natural and human environment?**

Ans: The environment which includes both the physical and the biological environment containing biotic and abiotic components is called natural environment. Land, water, air, plants and animals comprise the natural environment.

The environment which consists of human society, culture, economy, political life, religion, etc., besides man-made structures like canals, dams, roads, buildings, etc. is called Human environment.

**7MARKS****Q.1. Describe the main features of interaction and interdependence and how it takes place?**

Ans: It is made possible through the cyclic movement of nutrients and energy among all these realms.

**(i) Lithosphere:** The rock cycle transports rocks of the earth's crust to its interior and again back to the surface. Through this movement, soil on the earth's crust and many other features are formed.

**(ii) Atmosphere:** In atmosphere, the cyclic movement of nutrients and energy takes place through the Bio-geo chemical cycle. Water cycle is one example of these cyclic motions.

**(iii) Hydrosphere:** The horizontal and vertical movement of water in oceans takes place through the great conveyor belt. It transports heat energy between the tropics, the poles and ocean bottoms and back.

**Q.2. Write a descriptive note on ecosystem and environment with their two common components-biotic and abiotic?**

Ans: Natural environment includes both the physical and the biological environment containing biotic and abiotic components.

**Biotic components of environment have following features:**

1. They are living things.

2. They perform functions of birth, growth and death.
3. They are found in a particular environment.

**Examples:** Plants and animals.

**Abiotic components of environment have following features:**

1. They are non-living things.
2. They supply energy to the living things.
3. They make the environment of living things.

**Examples:** Fire, water and soil.

**Q.3. 'Human beings interact with the environment and modify it according to their need'. Explain, how?**

Ans: Human beings interact with the environment and modify it according to their need as 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 become more varied. Humans learned new ways to use and change environment. They learned 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.

**Q.4. Describe the steps taken to protect our environment and ecosystem?**

Ans: One of the most critical needs at present is the protection of our environment and ecosystem, the basic unit of our life systems. Some of the steps towards the protection and preservation of lifeforms are as follows:

**1. Waste Disposal:** Waste, either from household garbage or from industries, are always harmful and need proper management.

**2. Maintenance of Balance in the System:** We must correct our actions to maintain the delicate balance between nature and man, like, to check pollution by using eco-friendly materials.

**3. Afforestation and Check on Poaching:** Proper emphasis should be given to trees and animals as both are vital sources of life, providing us clean water, air, as well as food to eat. Afforestation and reforestation should be put into practice. Poaching of animals should be checked and prohibited to maintain the proper ecological balance on the earth.

**4. Saving Resources and Energy:** Excessive dependence on fossil fuels and mineral resources of the earth has not only caused harm beyond the critical limit but is also holding threat of their exhaustion in the next 2-3 decades. We must think of our future generation and should maintain a balance between the human and natural components of the environment.

**Q.5. Everything in the biosphere is interconnected and interdependent. How?**

Ans: Everything in the biosphere is interconnected and interdependent as,

(i) Forests provide products like timber, fruits, nuts, resins, etc., and medicinal herbs.

(ii) It also provides a natural habitat for various plants and animals.

(iii) Forest helps to moderate atmospheric temperature by absorbing carbon dioxide and adding moisture to air through transpiration.

(iv) Many animals depend on forests and grassland for their food.

**Q.6. How did human interaction in various forms affect the environment? Explain by giving example?**

Ans: **Human interaction in various forms affects the environment as:**

(i) Industrialization causes smoke and other chemical pollutants which go into the air and water around them which cause contamination both in air and water and affect the life of the people.

(ii) Burning of dry leaves, plastic and cracker cause air pollution which is the main reason of asthma and many other problems.

(iii) The drainage of waste from towns and cities causes water pollution. The excessive use of chemical fertilizers and pesticides in agriculture is also a major cause of water pollution.

### **MULTIPLE CHOICE QUESTIONS**

**1. Which of these is not a natural ecosystem?**

- (a) Desert.
- (b) Aquarium.
- (c) Forest.
- (d) Mountains.

Ans: (b) Aquarium.

**2. Which of these is a threat to environment?**

- (a) Growing plant.
- (b) Growing population.
- (c) Growing crops.
- (d) Growing flowers.

Ans: (b) Growing population.

**3. Which of these is not a component of human environment?**

- (a) Land.
- (b) Religion.
- (c) Community.
- (d) Education.

Ans: (a) Land.

**4. The interactive zone between land, air and water is called-**

- (a) Aquarium.
- (b) Lithosphere.
- (c) Biosphere.
- (d) Atmosphere.

Ans: (c) Biosphere.

**5. World Environment Day is celebrated on:**

- (a) 2nd June.
- (b) 5th June.
- (c) 11th June.
- (d) 9th July.

Ans: (b) 5th June.