

CHAPTER – 1 ENVIRONMENT

INTRODUCTION

Environment is our basic life support system. It provides the air we breathe, the water we drink, the food we eat and the land where we live more explanation and introduction to be given to the students.

PRE – KNOWLEDGE QUESTIONS

Ques.1 What are the two components of the environment?

Ans. Natural and human-made.

Ques.2 What is the atmosphere?

Ans. The atmosphere is the thin blanket of air that surrounds the earth.

Ques.3 Which day is celebrated as World Environment Day?

Ans. 5th June is celebrated as World Environment Day.

VERY SHORT QUESTION ANSWER

Ques.1 Give four examples of human made environment?

Ans. Buildings, parks, bridges roads are the examples of human- made environment.

Ques.2 What do you mean by natural environment?

Ans. Land, water, air, plant and animals comprises the natural environment.

Ques.3 Which are the two major components of biotic environment?

Ans. Plants and animals are the two major components of biotic environment.

SHORT QUESTION ANSWER

Ques.1 What is an eco-system?

Ans. it is a system formed by the interaction of all living organism with each other and with the physical and chemical actor of environmental in which they live, all linked by the transfer of energy and material.

Ques.2 What is lithosphere?

Ans. Lithosphere is 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 is an irregular surface with various landforms such as maintains plains, plateaus and valleys.

Ques.3What is biosphere?

Ans. Biosphere is the narrow zone of earth where land, water and air interact with each other to support life. Where.

A. Plant and animal kingdom together make biosphere.

LONG QUESTIONS ANSWERS

Ques.1 Which are the major components of the environment?

Ans. The components of environment are the natural environment and the human environment. The natural environment can be subdivided into the physical elements or biotic environment and the biological elements or biotic environment. The human environment consists of the elements that developed as a result of interaction between human beings and nature.

GIVE REASONS:

Ques.1 Man modifies his environment.

Ans. Man modifies his environment to meet his various needs. For Example: he clears forests for obtaining land for agriculture & for making shelter. He extracts

minerals from the earth for making various things. He makes dams for producing electricity. These are the few of the ways in which man modifies his environments.

Ques.2 Plants & animals depend on each other.

Ans. Animals, whether carnivores or herbivores, ultimately depend on plants for their food. Also, plants provide fresh oxygen to animals to breath in. These keep the environment clean & provide shelter to a number of animals on the other hand; animals provide shelter to a number of animals provide carbon dioxide which plants use for making their food. Dead and decaying matter of animals provide nutrients to plants to help them grow.

TICK THE CORRECT ANSWER

1. Which is not a natural eco system?

- a. Desert b. Aquarium c. Forest

2. Which is not a component of human environment?

- a. Land b. Religion c. Community

3. Which is a human made environment?

- a. Mountain b. Sea c. Road

4. Which is a threat to environment?

- a. Growing plant b. Growing population c. Growing crops.

5. Which is a threat to environment?

- a. growing plant
b. growing crops.
c. growing population

Ans. 1(b), 2(a), 3(c), 4(b), 5(b).

MATCH THE FOLLOWING

COLUMN A

1. Biosphere
2. Atmosphere
3. Hydrosphere
4. Environment

COLUMN B

- Domain of water. (3)
Our surroundings. (4)
Narrow zone where land, water, air interact.(1)
Blanket of air which surrounds the earth.(2)

FILL IN THE BLANKS

1. On 5th June every year world environment day is celebrated.
2. Human being interacts with the environment and modified it according to their need.
3. The relation between the organism and surrounding form an ecosystem.
4. Plants and animal kingdom together make biosphere.

HOTS QUESTION ANSWERS

Ques.1 How does man interfere with the equilibrium of the ecosystem?

Ans. HUMAN-ENVIRONMENT INTERACTION

The environment is the source of all resources which humans need to prosper and survive. However, human beings are the only living things who have transformed the environment to a large extent to fulfill their needs. They have developed remarkable abilities that has given them a distinct advantage over the other species of the environment. The early humans lived in harmony with nature but with the development of science and technology, spread of agriculture, rapid industrialization, urbanization and overpopulation took place. Human activities such as farming, grazing, mining, lumbering, industry, construction, etc., became unsustainable with the passage of time, and this has accelerated the environmental degradation. ' If this trend continues, our very survival on this planet will become difficult. Thus, there has been a shift towards adopting more

sustainable ways of life so as to conserve the natural systems on which all life depends. Human beings must work towards sustainable development which means the development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Creating a society based on sustainable development involves several steps, some of them include controlling population growth, wise use of resources, recycling, using renewable energy, etc.

VALUE BASED QUESTION

Ques.1 During summer, the Marine beach in Chennai is crowded. The people who come to the beach make it dirty when they go. A small group of school and college students volunteer to clean the beaches. What values do these volunturs endorse?

Ans. During summer the Marine beach each in Chennai is crowded the small group of school and college students volunteer to clean the beaches by showing their cooperation team work and interest towards cleanliness. It also shows their respect towards society

ACTIVITY

Look at the picture given below. Given O the things that are safe for the environment with **green**, and cross (X) the things that are unsafe for the environment with **red**.



Ans.



CHAPTER – 2 INSIDE OUR EARTH

INTRODUCTION

The earth is made up of several concentric layers with one inside another we can compare it with onion. The uppermost layer over the earth's sweater is called crust. It is the thinnest at all the layers. It is about 53 km just beneath the earth is the mantle which extends up to is core with a radius of about 5300 km. The earth's crust is made up various types of rocks.

The earth, our homeland is a dynamic. It is constantly undergoing changes inside and inside. Just like an onion, the earth is made up of several concentric layers with one inside another.

More explanation needs to be given to the students.

PRE -KNOWLEDGE QUESTION

Ques.1 On which planet in the solar system life is possible?

Ans. The earth.

Ques.2 What is the shape of the Earth?

Ans. The shape of the earth is round.

Ques.3 What are the physical features of the earth?

Ans. Plain, water bodies, plateaus etc.

VERY SHORT QUESTION ANSWER

Q1. What are the three layers of the earth?

Ans. The three layers of the earth are: crust, mantle & core.

Q. What is a rock?

Ans. Any natural mass of mineral matter that makes up the earth's crust is called a rock.

Q2. Name three types of rock.

Ans. The three types of rocks are: **(a).** Igneous rocks, **(b).** Sedimentary rocks, **(c).** Metamorphic rocks

Ques.3 What are Metamorphic rocks?

Ans. The type of rocks formed when igneous & sedimentary rocks undergo heat & pressure are called metamorphic rocks

SHORT QUESTION ANSWERS

Ques.1 How are extrusive & intrusive rock formed?

Ans. Extrusive rocks are formed due to the rapid cooling & solidification of molten magma on the earth's surface.

Intrusive rocks are formed when molten magma cools down deep inside the earth's crust

Ques.2 What do you mean by a rock cycle?

Ans. The change of one type of rocks into another under certain conditions in a cyclic manner is called a rock cycle.

Ques.3 What are the uses of rocks?

Ans. Following are some uses of rocks-

- (a).** They are used as fuels.
- (b).** They are used in industries.
- (c).** They are used in medicines.
- (d).** They are used in fertilizers.

LONG QUESTION ANSWERS

GIVE REASONS.

Q1. We cannot go to the centre of the earth.

Ans. The radius of the earth is more than 6000 km. To reach the centre of the earth. We have to dig a hole to this depth, which is impossible.

Q2. Sedimentary rocks are formed from sediments?

Ans. Rocks break down into small fragments under various conditions. These fragments called sediments are transported by wind & water. Layers of sediments are formed when loose sediments are compressed & hardened. These layers of sediments thus form sedimentary rocks.

Q3. Limestone is changed into marble.

Ans. Igneous & sedimentary rocks change their form under great pressure & temperature conditions to form metamorphic rocks. The same thing happens with limestone, which under the effect of heat & pressure changes into marble. Which is an example of metamorphic rocks.

Derived from the Latin word ignis meaning fire. It is formed through the cooling and solidification of magma or lava. It may form with or without crystallization.

Sedimentary rocks: - sedimentary rock is derived from the Latin word sedimentum meaning settle down. The cracks that hit each other end are broken into small fragments. They are transported and deposited by wind, water.

Metamorphic rocks: - Metamorphic rocks arise from the transformation of existing rock types in a process called metamorphism which means "change in form". The original rock is subjected to heat and pressure.

TICK THE CORRECT ANSWER

1. The rock which is made up of molten magma is

- a. Igneous b. sedimentary c. Metamorphic

2. The innermost layer of earth is-

- a. Crust b. Core c. Mantle

3. Gold, petroleum and coal are examples of:

a. Rocks

b. Minerals

c. Fossil fuels

4. Rocks which contain fossils are:

a. Sedimentary Rocks
rocks

b. Metamorphic rock

c. Igneous

5. The thinnest layer of the earth is:

a. Crust

b. Mantle

c. Core

Ans. 1(a), 2(b), 3(b), 4(a), 5(a).

MATCH THE FOLLOWING

COLUMN A

1. Core
2. Minerals
3. Rocks
4. Clay
5. Soil

COLUMN B

- Made of silicon and alumina.(5)
Changes into slates (4)
Has definite Chemical composition (2)
Innermost layer (1)
Used for roads and buildings(3)

HOTS QUESTION ANSWERS

Ques.1 Which ores are used by us in our daily life?

Ans. Iron, gold, silver, copper, lead zinc, mercury and platinum are all metallic minerals we use in our daily life. During the stone Age, the early humans used rocks as tools. With passage of time, humans came to know about different minerals and learnt how to use them in their lives. Periods of history were named after after these minerals like the copper Age, the Bronze Age and the Iron Age. In modern times, with further advancement in science and technology, the uses of various rocks and minerals have increased dramatically.

VALUEBASED QUESTION ANSWERS

Ques.1 Suppose you go to a hill station with your family. You buy a packet of French fries. After you eat them, what will you do with the packet if there is no dustbin around you?

Ans. If there is no dustbin around us we will try to find out the dustbin in near by area and if there is no dustbin at all we will keep that empty packet with us and as soon we will reach at home will throw it in the dustbin.

ACTIVITY

‘With the help of the clues, solve the following word puzzle.

1. A group of silicate minerals.
 2. It comes from a Latin word meaning ‘fire’.
 3. Rock, most commonly used as a building material.
 4. It is formed on the surface of the earth from acidic lava.
 5. A fine-grained igneous rock.
 6. The innermost layer of the earth.
 7. Minerals from which metals can be extracted.
- Hint: 1. Mica; 2. Igneous; 3. Granite;
4. Pumice; 5. Basalt; 6. Core; 7. Ore.

A	C	R	B	M	P	I	U
M	R	E	S	D	Y	G	N
B	A	S	A	L	T	N	R
M	N	C	G	P	H	E	C
I	I	O	R	E	L	O	P
C	T	R	D	J	P	U	L
A	E	E	M	K	C	S	D
P	U	M	I	C	E	T	K

Ans.

A	G	R	B	M	P	I	U
M	R	E	S	D	Y	G	N
B	A	S	A	L	T	N	R
M	N	C	G	P	H	E	C
I	I	O	R	E	L	O	P
C	T	R	D	J	P	U	L
A	E	E	M	K	C	S	D
P	U	M	I	C	E	T	K



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