

Environmental Management

Exercise

Q. 1. Reorganize the following food chain. Describe the ecosystem to which it belongs. Grasshopper – Snake – Paddy field – Eagle – Frog.

Answer : Paddy Field-Grasshopper-Frog-Snake-Eagle.

Explanation: Paddy is cultivated on large scale in various states of South India. Paddy fields are frequently attacked by grasshoppers. Similarly, frogs are also present in large number in the mud of paddy fields, to feed upon grasshoppers and snakes are also present there in to feed upon frogs.

Q. 2. Explain the statement- ‘we have got this Earth planet on lease from our future generations and not as an ancestral property from our ancestors.’

Answer : Human existence is totally impossible without the existence of nature. Hence, it is basic responsibility of human being to preserve the nature without disturbing its balance.

It is said that we have got this Earth planet on lease from our future generations and not as an ancestral property from our ancestors. Hence, we should not forget to conserve it for ourselves and for future generations.

Q. 3. A. Write short notes.

Environmental Conservation.

Answer : There is interrelationship between human and environment. Human utilized all the natural resources as much as possible. To live a satisfactory life, human kept on exploiting the nature as much as possible and this lead to increase in problems. There should be large scale participation of the people in environment conservation; environmental protection-conservation becomes an effective Public movement. Laws enacted about environmental conservation:

Forest Conservation Act, 1980. The land reserved for forest conservation has been prohibited to use for any other purpose by this law. Ex. Permission of central government is compulsory for mining activities. Any person who disobeys this law is entitled to imprisonment for 15 days.

Environmental Conservation Act, 1986.

Purpose of this act is to control the pollution and punish the persons or institutes harming the environment. Any person or factory is prohibited by this act from releasing the pollutants in atmosphere beyond a permissible limit. The person breaching this rule

is entitled for either five-year imprisonment or fine up to Rs.1 lakh. National Green Tribunal has been established in 2010 for effective implementation of environment related laws.

Q. 3. B. Write short notes.

Chipko Movement of Bishnoi.

Answer : In the 1970s, an organized resistance to the destruction of forests spread throughout India and came to be known as the Chipko movement. The name of the movement comes from the word 'embrace', as the villagers hugged the trees, and prevented the contractors' from felling them.

The last few centuries many communities in India have helped save nature. One such is the Bishnoi community of Rajasthan. The original 'Chipko movement' was started around 260 years back in the early part of the 18th century in Rajasthan by this community. A large group of them from 84 villages led by a lady called Amrita Devi laid down their lives in an effort to protect the trees from being felled on the orders of the Maharaja (King) of Jodhpur. After this incident, the maharaja gave a strong royal decree preventing the cutting of trees in all Bishnoi villages.

Q. 3. C. Write short notes.

Biodiversity.

Answer : Biodiversity is the richness of living organisms in nature due to presence of varieties of organisms, ecosystems and genetic variations within a species. Biodiversity occurs at three different levels.

Genetic Diversity

Occurrence of diversity among the organisms of same species is genetic diversity. Ex. Each human being is different from other. Possibility of wiping out the species arises if there is decrease in the diversity within the species whose members involve in sexual reproduction.

Species Diversity

Innumerable species of organisms occur in the nature. This is called as species diversity. Species diversity includes various types of plants, animals and microbes.

Ecosystem Diversity

Many ecosystems are present in a region. Ecosystem is formed through the interaction between plants, animals, their habitat and changes in the environment. Each ecosystem has its own characteristic animals, plants, microbes and abiotic factors.

Q. 3. D. Write short notes.

Sacred Groves.

Answer : Sacred groves are the forest conserved in the name of god and considered to be sacred. These are in fact 'sanctuaries' conserved by the society and not by the government forest department. As it has been conserved in the name of god, it has

Special protection. These clusters of thick forests are found not only in Western Ghats of India but in the entire country. More than 13000 sacred groves have been reported in India.

Q. 3. E. Write short notes.

Disaster and its management.

Answer : 1. Destroying a plant is to destroy everything.

2. Practice afforestation to conserve environment.

3. Forest is Wealth.

4. Environmental protection is value education.

5. Provident use of paper is prevention of deforestation.

6. To practice the environmental protection is to development of human society.

7. Pure air, pure water is key to healthy life.

Q. 4. How will you justify that overcoming the pollution is a powerful way of environmental management?

Answer : Several environmental problems have been arisen due to effect of various natural and artificial factors on the Earth. Environmental pollution is one of those main factors. Usually, contamination of any material is its pollution. Unnecessary and

Unacceptable change in the surrounding environment due to natural events or human activities is called as environmental pollution. These are Direct or indirect changes in physical, chemical and biological properties of air, water and soil which will be harmful to human and other living beings is environmental pollution. Various reasons like population explosion, fast industrialization, and indiscriminate use of natural resources, deforestation, and unplanned urbanization are responsible for environmental pollution.

Q. 5. Which projects will you run in relation to environmental conservation? How?

Answer : Several projects are run by people in the society are voluntarily coming together to perform this noble work. Many institutes at state, national and international level are involved in this work.

Voluntary Organizations like: Bombay Natural History Society, Mumbai, CPR environment group, New Chennai, Gandhi Peace Foundation, Environment Cell, Delhi, Chipko Centre, Tehri Garhwal, Centre for Environment Education, Ahmadabad, Kerala Science Literature Council, Trivandrum. Indian Agro Industries Foundation, Pune, Vikram Sarabhai Community Science, Centre, Ahmadabad. Green Peace is world's largest organization engaged in environmental activities. More than 25 lakh people from 26 different countries are members of this organization.

Conserving the available resources

Awareness 1. Education 2. Guidance 3. Awareness 4. Imitation 5. Organization 6. Participation

Prevention 1. Preventing possible harms. 2. Designing new plans 3. Factors harmful to

Environment Preservation 1. Preserving whatever has been leftover. 2. Remedies to prevent further loss. 3. Preserving unknown regions.

Production 1. Revival of harmed factors of environment. 2. Attempting innovation Control 3. Preventing the harm. 4. Stopping the harmful activities. 5. Changing the mindset.

Q. 6. A. Answer the following.

Write the factors affecting environment.

Answer : When some natural factors of environment and some artificial polluted factors harm the environment, it creates imbalance between various factors of the environment and ultimately affects the existence of biotic factors many environmental problems arise due to effect of various natural and artificial factors on the Earth. Environmental pollution is one of those main factors. Various reasons like population explosion, fast industrialization, and indiscriminate use of natural resources, deforestation, unplanned urbanization is responsible for environmental pollution.

Q. 6. B. Answer the following.

Why does the human beings have important place in environment?

Answer : Since human existence, there is interrelationship between human and environment. Human stepped on the Earth long after formation of Earth. On the Earth, human being is superior as compared to other animals with the help of characters like intelligence, memory, imaginary ability, etc. Human dominated over the nature they

utilized all the natural resources as much as possible. To live a satisfactory life, human kept on exploiting the nature this leads to increase in problems, human have crucial role in maintaining the environmental balance. If human has disturbed the environmental balance, then human itself only can conserve and improve the quality of nature. Many times, general public is unknown that its activities are harmful to environment and thereby unknowingly many activities happen.

Q. 6. C. Answer the following.

Write the types and examples of biodiversity.

Answer : The richness of living organisms in nature due to presence of varieties of organisms, ecosystems and genetic variations within a species is called Biodiversity.

Biodiversity occurs at three different levels.

Genetic Diversity

Occurrence of diversity among the organisms of same species is genetic diversity. Ex. Each human being is different from other. Possibility of wiping out the species arises if there is decrease in the diversity within the species whose members involve in sexual reproduction.

Species Diversity

Innumerable species of organisms occur in the nature. This is called as species diversity.

Species diversity includes various types of plants, animals and microbes.

Ecosystem Diversity

Ecosystems are present in each region. The interaction between plants, animals, their habitat and changes in the environment. Each ecosystem has its own characteristic animals, plants, microbes and abiotic factors.

Ecosystems are also of two types are natural and artificial.

Q. 6. D. Answer the following.

How the biodiversity can be conserved?

Answer : Biodiversity can be conserved in following ways –

1. Protecting the rare species of organisms.

2. Establishing national parks and sanctuaries.
3. Declaring some regions as 'bio reserves'.
4. Projects for conservation of special species.
5. Conserving all plants and animals.
6. Observing the rules.
7. Maintaining record of traditional knowledge.

Q. 6. E. Answer the following.

What do we learn from the story of Jadav Molai Peyang?

Answer : Jadav Molai Payeng has been awarded with the prestigious 'Padmashree' award by government of India for this unparalleled work. Born in a nomadic tribe of Assam and working as a forest worker since the age of 16 years. Once, large number of snakes died in the flood of Brahmaputra River flowing by the village. As a preventive measure, Molai planted 20 bamboo plantlets. In 1979, the local Social Forestry Department began a social afforestation project on 200 hectares of land. 'Molai' was one of the few forest workers who were looking after that project. Molai continued to plant the trees even after completion of the project. As a result of his continuous work of planting and caring for the trees, the barren area witnessed the forest cover over the 1360 acres.

Today, this jungle in Kokilamukh of Jorhat district of Assam is the result of the hard work for 30 years. . Now, it is well known as 'Molai Jungle'.

Q. 6. F. Answer the following.

Write the names of biodiversity hot spots.

Answer : The Western Ghat spread over the states of Gujarat, Maharashtra, Goa, Tamilnadu and Kerala, Habitats of Asiatic lion and wild bison of this region have been under threat.

Manas sanctuary of the Assam Tiger, Sunderband sanctuary of West Bengal is reserved for tigers.

34 highly sensitive biodiversity spots are found all over the world. Such areas had once occupied 15.7% area of the Earth. 86% of the sensitive areas are already destroyed. Presently, only 2.3% area of the Earth has been left over with sensitive spots. It includes 1, 50,000 plant species which are 50% of the world count. As far as India is considered, out of 135 species of animals, 85 species are found in the jungles of

eastern region. About 1,500 endemic plant species are found in western ghat. Out of the total plant species in the entire world, 50,000 are endemic.

Q. 6. G. Answer the following.

Which are the reasons for endangering the many species of plants and animals? How can we save those?

Answer : Overhunting or overharvesting

Humans have over hunted and over harvested species, leading to their endangerment, and often, extinction. The Passenger Pigeon is an example over hunted a species, leading to the extinction of the entire species.

Habitat loss

Many species are becoming endangered due to a loss of their primary habitat. For species that are not able to adapt well to changing conditions, habitat loss is particularly challenging to their survival.

Highly specialized species

Highly specialized species that have very specific habitat requirements do not faced with a changing environment, such as a changing climate, or to a loss in habitat.

Pollution

Pollution can harm species, sometimes even killing them. When enough members of a species are negatively impacted by pollution, that species may become threatened.

New species introduction and competition

When exotic species are introduced into a new environment because they do not have any predators there. Because these introduced tend to do so well, they will often outcompete native species that exist within the same niche that they do, and they can become invasive.

Q. 7. What are the meanings of following symbols? Write your role accordingly?



Answer : (a) Recycle

Recycling is the process of converting waste materials into new materials and object, an alternative to "conventional" waste disposal that can save material and help lower greenhouse gas emissions.

(b) Save water

Water is essential for life, don't leave the tap running needlessly,

Make sure every tap in your home has a high efficiency faucet aerator, make sure every tap in your home has a high efficiency faucet aerator.

(c) Solar energy

Conservation of Resources, Preservation of Habitats Affected Mining, Reducing the Need for Nuclear Power, Reducing the Financial Costs of Electricity.