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DEPARTMENT OF EDUCATION (S)

Government of Manipur

CHAPTER- 7

CONSERVATION OF PLANTS AND ANIMALS

SOLUTIONS:

. EXERCISES

1. Fill in the blank

(a) A place where animals are protected in their natural habitat is called _____.

(b) Species found only in a particular area is known as _____.

(c) Migratory birds fly to far away places because of _____.

Ans: (a). Sanctuary (b) Endemic species (c) Climatic changes

2. Differentiate between the following.

(a) Wildlife sanctuary and biosphere reserve.

Ans.

Sl. No.	Wildlife sanctuary	Sl. No.	Biosphere Reserve
1	Wildlife sanctuary is an area within which protection and suitable living condition are provided to wild animals in their natural habitat.	1	Biosphere Reserve is the areas constructed for conservation of biodiversity and help to maintain the biodiversity and culture of that area.
2	It may be a small area where animals are protected and preserved	2	Biosphere reserve is a large area where flora and fauna are protected and preserved to maintained biodiversity

(b) Zoo and wildlife sanctuary

Sl. No.	Zoo	Sl. No.	Wildlife Sanctuary
1	In zoo animals are kept in an artificially constructed habitat.	1	In wildlife sanctuary animals live in their natural habitat within which protection and suitable living condition are provided.
2	Animals kept here may or may not adapt to the new environmental condition.	2	As the animals are live in their natural habitat itself, they won't have problem with their surroundings.

c) Endangered species and extinct species

Sl. No.	Endangered species	Sl. No.	Extinct species
1	The species whose number have been reduced to a critical level that they are on the verge of extinction are called as Endangered species	1.	The species of animals or plants or microorganism that no longer exist on earth are called Extinct species.
	Example: Sangai(animal), <i>Rhododendrosantuii</i> (plant)		Example: Dodo, Dinosaurs

d)Flora and fauna

Sl. No.	Flora	Sl. No.	Fauna
1	The collective name of the plants found in a particular area is termed as Flora.	1.	The collective name of the animals found in a particular area is termed as Fauna.
	Example: Sal, teak, silver fern from the Pachmarhi Biosphere Reserve		Example :Barking deer, cheetal from the Pachmarhi Biosphere Reserve

3. Discuss the effects of deforestation on the following.

(a) Wild animals

Ans. Deforestation means removal of trees from a particular area and using that land for other purposes. Plants form the integral part of the ecosystem and also form the natural habitats of various animals of that ecosystem. Deforestation will destroy the natural habitats of the wild animals of that particular ecosystem and threaten the existence of animals.

(b)Environment

Ans. Plants absorb CO₂ from the atmosphere during photosynthesis. Due to deforestation, the percentage of CO₂ increase rapidly which lead to global warming as carbon dioxide traps the heat radiation within the earth's atmosphere. This result in the increase in temperature on the earth and disturbs the water cycle and could cause droughts and floods.

(c) Villages (Rural areas)

Ans. Trees prevent soil erosion as the soil particles are held together in place by the roots of the trees. Deforestation lead to increase in soil erosion which result in the removal of top layer of the soil and exposes the lower, hard and rocky layers which is less fertile and contain less humus. Thus the fertile land which is fit for agriculture is converted into desert.

(d) Cities (Urban areas)

Ans. Due to deforestation, the chances of natural calamities such as floods and droughts in urban area is increased. The temperature of the atmosphere is also increased due to global warming. The disturbance in water cycle also affected the urban areas.

(e) Earth

Ans. Deforestation leads to increase the level of CO₂ in the atmosphere resulting in global warming. The risk of occurrence of the natural calamities like desertification, droughts and floods is also increased.

(f) The next generation

Ans. Due to the activities of deforestation, our environment or climate is slowly changing both directly or indirectly. Global warming, desertification, soil erosion, drought, flood etc are caused by deforestation. If we don't control the deforestation in time, ultimately our next generation will face the consequences of deforestation.

4. What will happen if.

(a) we go on cutting trees.

Ans. If we go on cutting trees, the natural habitat of the animals will destroyed which affect the biodiversity of the ecosystem of the affected areas. The increase in temperature of the earth leads to global warming which in turn affects the water cycle. Hence, rainfall pattern may changes leading to drought and floods. There will be increased chances of soil erosion, desertification, green house effect etc.

(b) the habitat of an animal is disturbed.

Ans. Habitat provide all the basic necessities of an animal like food, water, shelter and protection. Disturbing the natural habitat of the animal forces them to move to another place in search of food, water and shelter. During this the animal may get killed or die.

c) the top layer of soil is exposed.

Ans. Removing the top layer of the soil exposes the lower layer of the soil which is hard and rocky in nature and become less fertile due to loss of humus.

5. Answer in brief.

(a) Why should we conserve biodiversity?

Ans. Biodiversity is the variety of plants, animals and microorganisms generally found in an area. All the life forms of an area have a mutual dependence on each other for their survival. If we destruct one life form it will automatically affect the other life forms as they are related to one another. Hence, biodiversity has to be conserved in order to maintain the nature and culture of that area.

(b) Protected forests are also not completely safe for wild animals. Why?

Ans. In protected forest like wildlife sanctuaries people living there are depended on the forest resources in order to fulfill their needs. The wild animals would be threatened by certain human activities such as grazing, poaching, hunting, collection of wood, medicinal plant etc. living nearby them.

(c) Some tribals depend on the jungle. How?

Ans. Some tribal people directly depend on jungle for their livelihood. They get forest products like food from plants and animals, medicines, housing materials, clothing materials, wood as fuels etc from the jungle. They also sell these products to make additional income.

(d) What are the causes and consequences of deforestation?

Ans. Causes of deforestation are as follows:

- i) For expanding urbanization and industrialization, forest areas are cleared and converted in land.
- ii) For agricultural purposes and cattle grazing, forests are cleared.
- iii) Wood for making furniture, firewood and forest product is one of the main reasons for cutting trees.

Some of the consequences of deforestation are as follows:

- i) Global warming
- ii) Disruption of the water cycle
- iii) Droughts

- iv)Floods
- v)Soil erosion
- vi) Loss of biodiversity

(e)What is Red Data Book?

Ans. Red Data Book is the source book which has a record a record of all the endangered animals and plants. It is maintained internationally by an organization called International Union for Conservation of Nature and Natural Resources (IUCN).

(f) What do you understand by the term migration?

Ans. Migration is the periodic shifting of the animal species from their natural habitat to another place every year during a particular time. The reason of migration may be of inhospitable condition in their natural habitat due to climatic changes or for the process of breeding.

.6.In order to meet the ever-increasing demand in factories and for shelter, trees are being continually cut. Is it justified to cut trees for such projects? Discuss and prepare a brief report.

Ans.It is not at all justified to cut trees for human greed. In an ecosystem a vast number of living organisms like wild animals, trees, insects, birds, microorganism living in the forest are mutually depended on each other and balancing the ecosystem. As plants give out Oxygen and consume harmful Carbon dioxide through the process of respiration making a pollution free atmosphere for both animals and human. These keep the green house gases and global warming under control. The roots of the flora of the forests help in holding the soil particles together in a place thus preventing soil erosion. Clearing of forest for the land and its product in order to satisfy the ever-increasing demand in factories and for shelter leading to many long-term problem like Soil erosion, Green house effect, Global warming, Floods, Droughts, Desertification.

Thus, the balance of ecosystem is disturbed by the destruction of trees. Hence, it is most important to conserve forest.

7. How can you contribute to the maintenance of green wealth of your locality? Make a list of actions to be taken by you.

Ans. Actions to be taken in our locality for the maintenance of green wealth are as follows:

- i) Awareness program on the importance of plant in our life will be conducted in our society so that it can motivate the people of our society to plant more trees and take care of the existing trees.
- ii) Along with youth and club members of our locality observation of World Environment Day will be organized every year on 5th June by planting trees.
- iii) After planting trees, the volunteers and I would give water and look after the trees.

8. Explain how deforestation leads to reduced rainfall.

Ans. Clearing of forest by cutting trees from a particular area and using that land for other purposes like construction of industries, agriculture, urbanization etc. is known as Deforestation. In plant, during photosynthesis, absorption of Carbon dioxide (CO_2) from the earth's atmosphere is taking place. But when the trees are destroyed, the Carbon dioxide (CO_2) levels in the atmosphere increase leading to traps the heat radiation reflected by the earth which causes Global warming. This rise in temperature will disturb the water cycle and may reduce rainfall and could cause droughts.

9. Find out about national parks in your state. Identify and show their location on the outline map of India.

Ans.

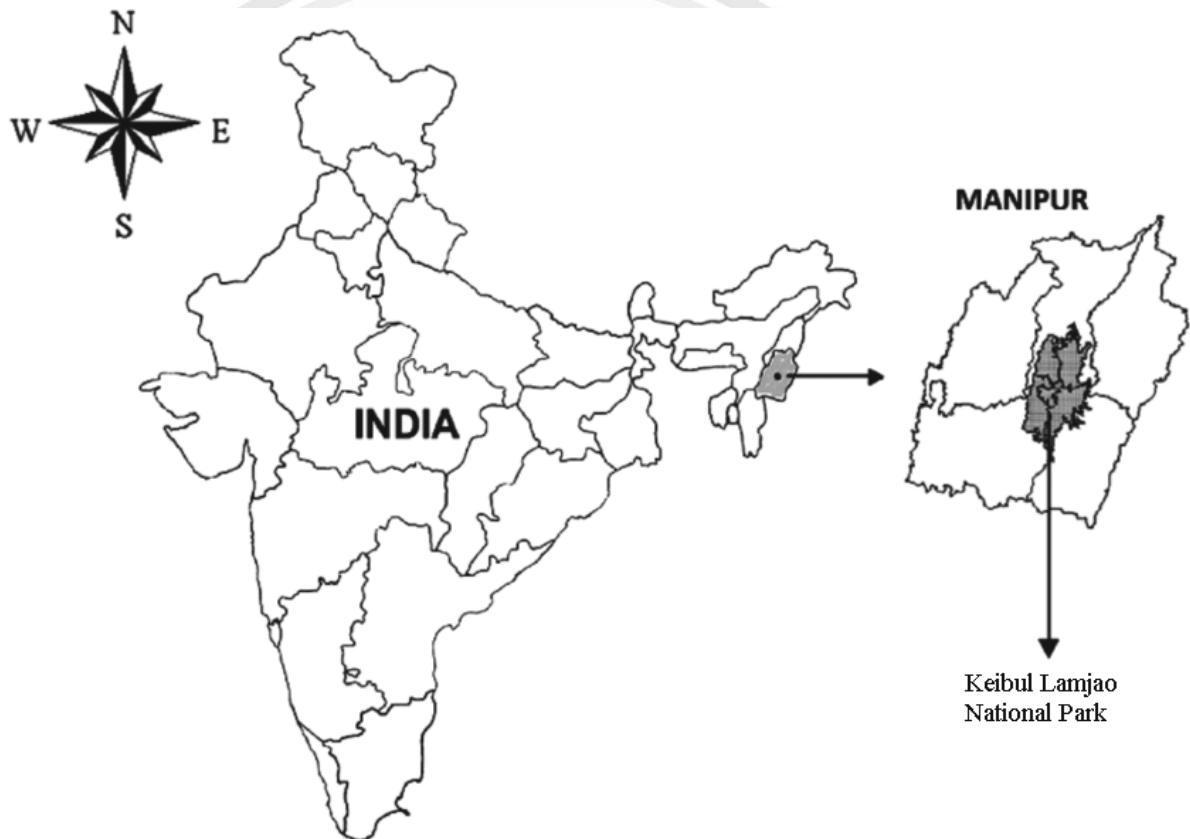


Fig. Outline map of India showing KeibulLamjao National Park in Manipur

10. Why should paper be saved? Prepare a list of ways by which you can save paper.

Ans. We should saved paper in order to save trees. Seventeen (17) full grown trees are required to produce 1 ton of white paper.

Ways to save paper are as follows:

- i) We should recycle the used paper as much as it can.
- ii) Proper use of paper should be taught among school children.
- iii) We should use both sides of the paper.
- iv) We should store our notes, homework etc. in computers whenever possible instead on note books.

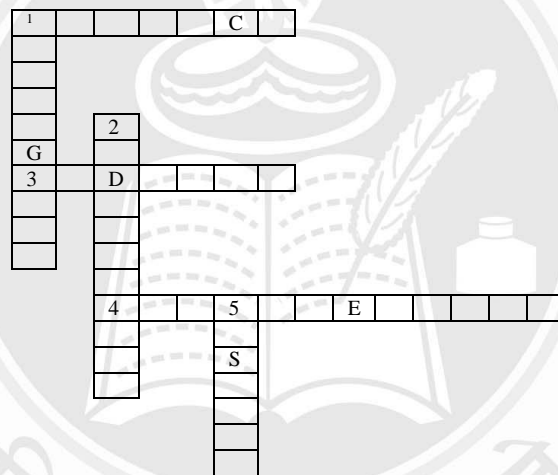
11. Complete the word puzzle

Down

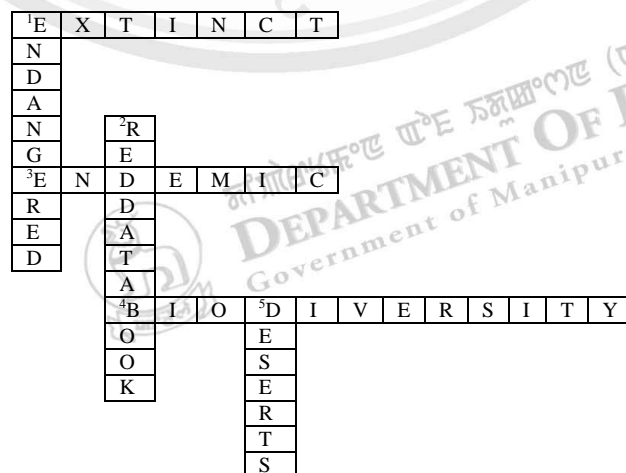
1. Species on the verge of extinction.
2. A book carrying information about endangered species.
5. Consequence of deforestation.

Across

1. Species which have vanished.
3. Species found only in a particular habitat.
4. Variety of plants, animals and microorganisms found in an area.



Ans:





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