

**Q1: Fill in the blanks:**

- a) A place where animals are protected in their natural habitat is called a sanctuary.
- b) Species found only in a particular area are known as endemic.
- c) Migratory birds fly to far away places because of climatic changes.

**Q2: Differentiate between the following.**

(a)

<b>Wildlife sanctuary</b>	<b>Biosphere reserve</b>
It is an area within which animals are protected from possible dangers such as hunting. Their habitat is also conserved in this area.	It is a large protected area constructed for the conservation of biodiversity.
It provides protection and suitable living conditions to wild animals.	It helps in the conservation of various life forms such as plants, animals, and micro-organisms.
Human activities are not allowed in this area e.g building of houses.	Such human activities are allowed in its outermost zone.
It conserves genetic diversity of all the existing species.	It preserves traditional life styles of tribals.
Pachmarhi sanctuary is a wildlife sanctuary.	Pachmarhi biosphere reserve is a popular biosphere reserve.

(b)

<b>Zoo</b>	<b>Wild life sanctuary</b>
It is a facility in which animals are kept for public exhibition.	It is an area within which animals are protected from possible dangers such as hunting. Their habitat is also conserved in this area.
Animals and birds are brought from different places of the	It contains wild birds and animals found locally.

world.	
It is an artificial habitat.	It conserves the natural habitat of animals.
Animals are dependent on the authorities for their food and daily care.	Animals consume food from their natural environment.

(c)

<b>Endangered species</b>	<b>Extinct species</b>
It is a population of species that is on the verge of becoming extinct.	It is a population of species that no longer exists. Hence, it is extinct.
The number of members of the species is fewer because of destruction of natural habitat or by illegal hunting of animals e.g. snow leopard, hangul.	The species become extinct when the last member of that species dies. E.g. Dinosaur, dodo
Blue whale, tiger, leopard, etc. are examples of endangered species.	Dodo, passenger pigeon, etc. are examples of extinct species.

(d)

<b>Flora</b>	<b>Fauna</b>
It refers to all living plants in a particular area.	It refers to all animals living in a particular area.
Sal, teak, mango, etc. form the flora of Pachmarhi biosphere reserve.	Leopard, wolf, wild dog, etc. form the fauna of Pachmarhi biosphere reserve.

**Q3: Discuss the effects of deforestation on the following.**

**(a) Effects of deforestation on wild animals:**

Forests provide natural habitats to wild animals. When trees are rapidly cut down, their habitat gets many destroyed. Trees and other vegetation form

the habitat of many animals. Hence, if the habitat of wild animals is destroyed, then their numbers would automatically decline. The survival of animals will be difficult because of the drought and the rise in temp.

**(b) Effects of deforestation on the environment:**

Plants absorb CO<sub>2</sub> from the atmosphere to perform photosynthesis. If plants are destroyed, then the level of CO<sub>2</sub> in the atmosphere will rise. As a result, CO<sub>2</sub> will trap more heat radiations, thereby adding to global warming. An increase in the temperature of the Earth will disturb the natural water cycle. As a result, there will be a change in the rainfall pattern. This could lead to floods or droughts. It also leads to desertification i.e. formation of barren land.

**(c) Effects of deforestation on villages:**

- i. Roots of plants hold soil particles together. In the absence of plants, the top layer of the soil will be easily removed by the action of high speed winds or water flow. Thus, deforestation increases the chances of soil erosion. As a result, soil loses humus and become less fertile barren and unproductive. Hence, a fertile land, which is a source of living for farmers in villages, gets converted into a desert.
- ii. As wild animals will also loose their natural habitat, they will tend to move towards the villages causing damage to the lives of the villagers.

**(d) Effects of deforestation on cities:**

Deforestation in cities can increase the risk of many natural calamities such as floods and droughts in that area. Also, it can lead to global warming due to an increase in the level of CO<sub>2</sub> in the atmosphere as a result of vehicular and industrial pollution. This increase in temperature can disturb the natural water cycle of an area

**(e) Effects of deforestation on the Earth:**

Forests act as the lungs for the earth, as it purifies air by absorbing CO<sub>2</sub> from the atmosphere. Deforestation increases the level of CO<sub>2</sub> in the Earth which leads to an increase in temperature i.e., global problems over exploitation of forests badly affect the other natural resources like water, wild life, biodiversity, soil etc which our future generation can't cherish. As a result, they will have to face severe consequences of deforestation.

**(f) Effects of deforestation on the next generation:**

Deforestation is slowly changing our environmental conditions. It is responsible for global warming, soil erosion, greenhouse effect, drought, floods, and many other global problems. As a result, the next generation will have to face severe consequences of deforestation.

**Q 4: What will happen if:****(a) We go on cutting trees.**

If we go on cutting trees, the natural habitat of many animals will get completely destroyed. As a result, the biodiversity of many areas will be severely affected. Also, there will be an increase in the temperature of the Earth which result in global warming, which can disturb the natural water cycle. As a result, there will be a change in the rainfall pattern. This could lead to floods or droughts. This will also increase the risk of soil erosion, desertification, and natural calamities. Forests maintain the ecological balance [e.g. balance between O<sub>2</sub> and CO<sub>2</sub>]. As trees are known as O<sub>2</sub> factories of the earth because they manufacture O<sub>2</sub> by using CO<sub>2</sub> of the atmosphere. So, when trees are cut down, it leads in the increase of temperature which results in the abnormal rise in the sea level due to rapid melting of polar ice caps leading to a huge loss of life and property.

**(b) The habitat of an animal is disturbed.**

The habitat of an animal provides it with necessities such as shelter, food, and protection. If the habitat of an animal is disturbed, then it will be forced to go to other places in search of food and shelter. The animal could get killed by other animals in this process. The death or killing of wild animals disturb the food chains and food webs which results in undesirable changes in the whole eco – system.

**(c) The top layer of soil is exposed.**

If the top layer of soil is exposed, then it will gradually expose the lower layer of soil, which is hard and rocky in nature. This type of soil is less fertile as it contains less humus. Continued soil erosion will make the land barren or infertile.

**Q5: Answer in brief:****(a) Why should we conserve biodiversity?**

Biodiversity refers to the number and variety of various life forms such as plants, animals, and micro-organisms in an area. Plants and animals depend on each other for survival. This means that the destruction of either of the two will affect the life of the other. If any of the life forms is exploited, it results in its degradation and extinction that disturbs the ecological balance also. Hence, we need to conserve biodiversity to maintain the balance of nature.

**(b) Protected areas forests are not completely safe for the wild animals. Why?**

Protected forests also are not completely safe for wild animals due to the following reasons:

- i. Illegal hunting and poaching of wild animals is being done by the people for their own benefits.
- ii. Population of wild animals is also influenced by the degradation of their habitat by changing climatic. Weather conditions and natural calamities etc.

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

Some tribals live in the outermost zone of the forests. They fulfill the various needs of their life by using the local natural resources without disturbing the substance and conservation of the biodiversity. Jungle area help them preserve their traditional lifestyles and skills.

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

**Causes of deforestation: [Man – Made and Natural]**

**Man – Made:**

- (i) Forests are cleared for accommodating expanding urban areas and for fulfilling their ever-increasing requirements.
- (ii) Forests are destroyed to clear land for crops cattle grazing, constructions of dams, industrialization etc.
- (iii) Trees are cut down to be used, for firewood, sports goods, for making paper.
- (iv) Forest fires and severe droughts are the natural causes of deforestation.

**Consequences of deforestation:**

- (i) Soil erosion
- (ii) Loss of biodiversity
- (iii) Floods and droughts
- (iv) Climate change due to global warming
- (v) Disruption of water cycle
- (vi) Extinction of various species
- (vii) desertification

**(e) What is Red Data Book?**

Red Data Book is a source book that maintains an international list of all endangered animal and plant species. This book is maintained by IUCN (International Union for Conservation of Nature and Natural resources).

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

Migration refers to the movement of an organism or a group of organisms from its natural habitat to another place at a particular time every year. Organisms migrate from one place to another to avoid inhabitable climatic conditions or for breeding.

**Q6: Discuss and prepare a brief report on the cutting down of trees for satisfying increasing demands of industries. It is justified to cut trees for such projects.**

Increase in population has resulted in the increasing demands for constructions, industrialization, establish of factors agriculture lands etc. for which trees are being cut down on large scale blindly. If the same continues for long without implementing reforestation practices, the earth will face some serious consequences like global warming, drastic climatic changes, soil erosion, desertification, ecological imbalance etc. [extinction of species]

So, for any of the reasons, cutting of trees is not justified at all. Thus as result, we are leaving no resources like H<sub>2</sub>O trees, wildlife biodiversity to cherish for future generations thus, making their life difficult to survive.

**Q7: How can you contribute to the maintenance of green wealth of your locality? Make a list of actions to be taken by you.**

I can help in maintaining the green wealth of my locality by taking care of the plants and trees growing in or around my locality. I can plant more and

more trees. I can also encourage the people in my locality to plant more trees by informing them about the importance of growing trees. I can make young children aware of the effects that deforestation has on our environment and on our planet. I believe planting new trees and its conservation is as important as taking care of the existing trees. I encourage the establishment and maintenance of locality parks, dumping parks etc.

**Q8: Explain how deforestation leads to reduced rainfall.**

Deforestation is the removal of trees or other vegetation from an area for industrial, agricultural, or other purposes. Plants or trees absorb CO<sub>2</sub> from the atmosphere. If plants are destroyed, then the level of CO<sub>2</sub> in the atmosphere will rise. The high levels of CO<sub>2</sub> in the atmosphere will trap more heat radiations, leading to global warming. This increase in temperature of the Earth will also disturb the natural water cycle by reducing the rate of transpiration, percolation of rain water into the ground which results in the shortage of surface water (rivers, lakes etc) and ground water. This uneven change in the rainfall pattern cause droughts.

**Q9: Find out about national parks in your state. Identify and show their location on the outline map of India.**

One of the national parks located near Delhi is the Corbett National Park.



**Q10: How to save paper? Why to save paper?**

Paper is made from the woodpulp that is obtained from the trees. So, many trees have to be cut down from the forests to make paper.

