

Conservation of Plants and Animals

1. What is Biodiversity?

Ans. The great variety of all living organisms including plants, animals, microorganisms found on earth, their interrelationships and their relationship with the environment is called Biodiversity or Biological Diversity.

2. What is Species?

Ans. A group of populations which are capable of inter breeding with each other and reproduce a fertile or variable offspring within their population is called a a Spices. Members of species have common pharmaceuticals.

3. What is Ecosystem?

Ans. All the living components plants, animals and microorganisms along with non-living components such as climates, soil, river, deltas, etc. and their interactions among themselves and with each other form an ecosystem.

4. What is Wildlife?

Ans. All the animals and plants living in their natural habitats independently away from human population make up the Wildlife.

5. What are called Flora and Fauna?

Ans. The plants and animals found in a particular area are termed Flora and Fauna. Together the Flora and Fauna of a place form the biodiversity of a place.

6. What are Endemic Species?

Ans. Species of plants and animals found exclusively in a particular area are called Endemic Spices.

They are restricted to particular geographic region and are not found naturally anywhere else.

7. What is called Conservation?

Ans. Wise and judicious use of natural resources is known as Conservation.

8. What are the significances of Biodiversity?

Ans. All the components in nature are interdependent. They are always interacting with each other through food chain, food webs etc. There is perfect harmony and balance in these interactions. Any disturbances to the living and non-living components of the ecosystem will cause drastic adverse effects or all other organisms. Therefore, to maintain perfect balance we have to conserve our biodiversity.

9. What are the reasons for loss of Biodiversity?

Ans. Some of the major causes that have resulted in the loss of biodiversity are mentioned below:

- a. The natural habitat of the ecosystem plays a major role in maintaining the ecological balance. Several trees are cut down every year for the construction of industries, highways, settlements and so on to fulfil the human demands. As a result, the species become the target of predation and eventually dies.
- b. Hunting of the wild animals for commercialization of their products has been a major reason for the loss of biodiversity.
- c. The exploitation of the medicinal plants for several laboratory purposes has resulted in the extinction of these species. Also, several animals are sacrificed for various research in science and medicine.
- d. Natural calamities like floods, earthquakes, forest fires also lead to the loss of biodiversity.
- e. Air pollution has a major role in the loss of biodiversity. Rapid cutting down of the trees has resulted in the increase of carbon dioxide in the atmosphere leading to climate change. As a result, there has been an increase in the land and ocean temperature leaving an inimical impact on species.

10. Why conservation of forest and wild life are important?

Ans. It is important that we conserve wildlife and forests which we have inherited because they constitute our most precious wealth.

- Forests are the habitat for wildlife and they are an important constituent of the various food chains and food webs. Forests are needed for the smooth functioning of biogeochemical cycles.
- Forests are necessary for the formation of humus and for maintaining soil fertility. Many industries such as the sport equipment industry paper industry, lac manufacturing industry, the timber industry and furniture industry depend on forests.
- Forests provide a place for the local people for their animals to graze and provide them with many useful products such as fire wood, fishing, hunting and agricultural implements.
- Many fruits, medicines, dyes, sandalwood and bamboo is obtained from forests by the local people.
- Forests provide employment to a large number of people and also help in generating revenue.

11. What are the categories created by International Union of Conservation of Nature and Natural Resources (IUCN) of all the threatened species of world?

Ans. International Union of Conservation of Nature and Natural Resources (IUCN) categorized all the threatened species of world into nine categories. Some of them are as below

- a. **Threatened Species:** Threatened Species are any species (including animals, plants, fungi, etc.) which are vulnerable to endangerment in the near future.
- b. **Endangered Species:** Endangered species can be defined as those species which are under risk or threat of being extinct. In other words, species which are about to extinct. Many factors are responsible for this which may be natural or man-made.

Ex: Asiatic Lion, Blue Whale, Great Indian bustard.

- c. **Vulnerable Species:** A vulnerable species is a species which has been categorized by the International Union for Conservation of Nature as likely to become endangered unless the circumstances that are threatening its survival and reproduction improve.
Ex: Black Buch, Chinkara Deer, Golden Languur etc.
- d. **Rare Species:** A rare species is a group of organisms that are very uncommon, scarce, or infrequently encountered.
EX: Giant Panda, Wild Bactrian camel, Cheetah etc.
- e. **Extinct Species:** These are the species of plants and animals which have been lost forever. And cannot be retrieved.
Ex: Sargandha and Brahmakamal are such plants.

12. What is Red Data Book?

Ans. These are the source books maintained by IUCN which contains a record of all threatened species of plants and animals which are danger of extinction. Around 3000 animals and 20,000 plants are recorded in these books.

13. Write the steps of Conservation.

Ans. Some steps of Conservations are

- a. Awareness should be spread among the people about the importance of wildlife and its conservation.
- b. Special acts and laws should be affected for protecting wildlife.
- c. Deforestation and hunting should be strictly prohibited.
- d. Special protected areas should be developed to protect all types of wildlife.
- e. Plants and animals should be allowed to live freely in their natural habitats.

14. What are the Protected Areas?

Ans. These are the areas created for welfare of wildlife, National Park, Sanctuaries and biosphere reserves. These are the protected areas set up by the government. Government lays down rules, methods and policies to protect and conserve them.

15. What are National Parks?

Ans. A National park is a relatively large area of scenic beauty protected and maintained by the Government to preserve flora and fauna, landscape, historic objects of the area and places of scientific interest.

The human activities like forestry, grazing, cultivation, are prohibited in these areas.

There are 66 National Parks in our country.

Some of them are as below.

1. Bandipur National Park in Karnataka
2. Bandhavgarh National Park in Madhya Pradesh
3. Corbett National Park in Uttarakhand
4. Gir National Park and Sasan Gir Sanctuary in Gujarat
5. Hemis National Park in Jammu & Kashmir
6. Kanha National Park in Madhya Pradesh
7. Kaziranga National Park in Assam
8. Manas National Park in Assam
9. Ranthambore National Park in Rajasthan
10. The Great Himalayan National Park in Himachal Pradesh

16. What are Biosphere reserves?

Ans. A biosphere reserve is a large, protected area of land meant for the conservation of wildlife, biodiversity and the traditional lifestyles of the tribal people living in the area. It is also meant to restore the traditional life of the tribal residing in the area. They obtain useful products from the wildlife and in turn protect the wildlife present in that area.

There are three biosphere reserve zones:

- Core
- Buffer
- Manipulation

Some Common Biosphere reserves in India are

Name of Biosphere Reserves	States
Nilgiri Biosphere Reserve (2000)	Tamil Nadu, Kerala, Karnataka
Sundarbans Biosphere Reserve (2001)	West Bengal
Gulf of Mannar Biosphere Reserve (2001)	Tamil Nadu
Nanda Devi Biosphere Reserve (2004)	Uttarakhand
Simlipal Biosphere Reserve (2009)	Odisha

17. What are Wild Life Sanctuaries?

Ans. Sanctuaries are naturally occurring areas that are meant to protect the endangered species from hunting, poaching and predation. Here the animals are not bred for commercial purposes. It provides a safe, healthy and secured refuge to all the wild animals.

There are 492 sanctuaries in India

Some of these are as below.

1. Dichigam Wildlife Sanctuary
2. Sunderbans Wildlife Sanctuary
3. Manas Wildlife Sanctuary
4. Bharatpur Bird Sanctuary
5. Periyar Wildlife Sanctuary
6. Vedanthangal Bird Sanctuary
7. Mundanthurai Wildlife Sanctuary
8. Annamalai Wildlife Sanctuary
9. Dandeli Wildlife Sanctuary
10. Chinnar Wildlife Sanctuary

18. Which Organizations are making effort for Wildlife Conservation?

Ans. Many Organizations are making effort for wildlife conservation.

Some of them are.

- World Wide Fund for Nature (WWF)
- Indian Board of World Life (IBWL)
- Man and Biosphere Programme (MAB)
- International Union for Conservation of Nature and Natural Resources (IUCN)

19. When Wildlife Act was Passed?

Ans. Wild Life Act was passed in 1972

20. When National policy was passed?

Ans. The National Policy was passed in 1988.

21. What is Tiger Project?

Ans. Project Tiger is a wildlife conservation project initiated in India in 1972 to protect the Royal Bengal Tigers. They were approximately 40,000 tigers in India in 1990 but the tiger census in 1972 revealed only 1827 tigers. A number of Tiger reserves were set up in various states to maintain tiger population in their natural environment.

In 2007 there are 40 Project Tiger wildlife reserves covering an area of 37761 km². Project Tiger helps to increase the tiger population to 3500 in 1990.

In spite of all these measures 2008 census revealed that the tiger population had dropped to 1411 due to illegal poaching. Now, Tiger protection Forest is being set to combat poachers and the efforts are paying off.

Some tiger Reserve Forest in India are:

- a. Jim Corbett Tiger Reserve, Uttarakhand
 - b. Ranthambore Tiger Reserve, Rajasthan
 - c. Sundarbans Tiger Reserve, West Bengal
 - d. Bandhavgarh National Park, Madhya Pradesh
 - e. Panna National Park, Madhya Pradesh
- etc.

22. What is called Migration?

Ans. Migration refers to the regular seasonal journeys undertaken by many animals. Migrations include movement of varied distances made in response to change in food ability, habitat or weather.

They fry for lying eggs when the nature in their natural habitat becomes very cold and inhospitable.

Whales, Fishes, birds are migratory animals.

23. What is Deforestation?

Ans. Deforestation can be defined as the large-scale removal of trees from forests (or other lands) for the facilitation of human activities. It is a serious environmental concern since it can result in the loss of biodiversity, damage to natural habitats, disturbances in the water cycle, and soil erosion. Deforestation is also a contributor to climate change and global warming.

24. What are the causes behind Deforestation?

Ans. The main causes behind Deforestation are:

- I. Procuring land for cultivation.
- II. Increased rate of urbanization.
- III. Utilization of land for industries.
- IV. Multiple use of wood I furniture, paper etc.
- V. Overgrazing by animals.
- VI. Cleaning of forest to build Road.
- VII. Firewood collection.
- VIII. Timber harvesting.
- IX. Shifting cultivation in which land is cultivated for 2-3 years and left after depletion of fertility to move on to other fertile places is also a contributing factor behind deforestation.

25. What is Reforestation?

Ans. Reforestation is the process of regenerating or replanting forest areas that have been destroyed or damaged for the benefits of mankind. Reforestation and afforestation share the same meaning i.e. afforestation is another name given to reforestation. Occasionally forests have the capability to regenerate due to the trees in the surroundings or due to the dispersion of seeds. However, forest lands that are badly degraded cannot be regenerated unless plants have been planted by using native methods.

26. How can we Recycle Paper?

Ans. Wood is required for making paper. It takes about 17 trees to make one tone of paper. No alternate ability to wood is as good as wood itself.

The recycling of paper is the process by which waste paper is turned into new paper products. It has a number of important benefits: It saves waste paper from occupying homes of people and producing methane as it breaks down.

Benefits of Recycling Paper

- a) Paper produced from recycled paper represents an energy saving of 70% compared to the energy needed to produce paper from wood or virgin fibers.
- b) Reduction of the raw material consumed (trees felled)
- c) By recycling, the paper-cardboard industry could be supplied with almost 69% of the resources it needs
- d) Recycling paper saves 80% of water compared to production from virgin fiber.
- e) Paper recycling constitutes a 74% reduction in gas emissions and a 35% reduction in water polluting emissions
- f) Savings in greenhouse gas (GHG) emissions