
#462746

Topic: Biodiversity and conservation

Answer in brief.

- (a) Why should we conserve biodiversity?
- (b) Protected forests are also not completely safe for wild animals. Why?
- (c) Some tribals depend on the jungle. How?
- (d) What are the causes and consequences of deforestation?
- (e) What is Red Data Book?
- (f) What do you understand by the term migration?

Solution

- (a) Biodiversity is the variety of all life forms on Earth and it includes different plants, animals and micro-organisms and the ecosystems of which they are a part. We should conserve the biodiversity because it is very important for all living organisms and also for environment. We should conserve it from being extinct.
- (b) Protected forests are not completely safe for animals as poachers have the access in these areas who kills animals. There is a need to make strict rules against poaching and trespassing.
- (c) Some tribals are still depends on jungle for their food, fuel, wood, shelter etc. They live in forests. Forests are the source of livelihood for them.
- (d) The main cause of deforestation is urbanization and industrialization. The consequences will results in soil erosion, global warming and depletion of ground water which cause ultimate danger to human being.
- (e) Red book data is the source book which keeps a record of all endangered species.
- (f) Migration is movement of species from their own habitat to other habitats for a particular time period for a specific purpose like breeding.

#492290

Topic: Biodiversity and conservation

Answer the following questions in about 30 words.

What is biodiversity? Why is biodiversity important for human lives?

Solution

Biodiversity refers to the immensely rich wildlife and cultivated species (flora and fauna) that exist in a given area. Biodiversity is important for human lives due to the following reasons:

- 1) It provides fresh air, water, food, etc. to human beings.
- 2) Human beings, along with the biodiversity, form a complete ecological system.
- 3) It provides economic benefits, protects human health and provides safety.

#526203

Topic: Biodiversity and conservation

Attempt giving a clear definition of the term species.

Solution

A group of organisms which have the ability to interbreed and produce fertile offspring are called as species. The member of species does not breed with members of other species.

#526307

Topic: Biodiversity and conservation

Name the three important components of biodiversity.

Solution

Biodiversity is the various types of organisms in the ecosystem. Genetic diversity, species diversity and ecosystem diversity are three important components of biodiversity. Genetic diversity takes into account the genetic variations present in a species whereas ecosystem diversity refers to types of ecosystem present on earth. Species diversity refers to species richness.

#526315

Topic: Biodiversity and conservation

Give three hypotheses for explaining why tropics show greatest levels of species richness.

Solution

There are three different hypothesis given by scientist for explaining to show the greatest level of species richness.

- 1) The tropical region has less seasonal variations, and almost constant temperature promotes the specialization, thus, high species richness.
- 2) In the tropical region, more availability of solar energy. This promotes the niche specialization and thus, high species richness
- 3) Temperate regions were subjected to glaciations during the ice age, while tropical regions remained undisturbed which led to an increase in the species diversity in this region.

#526322

Topic: Biodiversity and conservation

What are the major causes of species losses in a geographical region?

Solution

The major causes of losses of species are as follows:

- Loss of habitat
- Over-exploitation and hunting animal species for selfishness.
- Excessive deforestation
- The introduction of exotic or alien species which cause competition between the new species and local species.
- Co-extinction where if one species get extinct then other dependent species will also get extinct.

#526327

Topic: Biodiversity and conservation

How is biodiversity important for ecosystem functioning?

Solution

Biodiversity is the variety of life forms in an ecosystem. An ecosystem which is rich in biodiversity stabilises the net productivity and make the ecosystem more resistant to exol species.

It maintains the ecosystem by maintaining the food chain. Healthy food chain contains a variety of organisms in each trophic level which helps in energy flow in successive trophic level. Therefore, biodiversity is important to the ecosystem.

#526329

Topic: Biodiversity and conservation

What are sacred groves? What is their role in conservation?

Solution

Sacred groves are the smaller areas of religious belief where a particular plant species is grown and is considered sacred. Having religious content, these plants species are protected from the local communities and thereby helps in the conservation of the species. For example, sacred groves of Khejri protected by Bishnoi community of Rajasthan.

#526344

Topic: Biodiversity and conservation

The species diversity of plants (22 percent) is much less than that of animals (72 percent). What could be the explanations to how animals achieved greater diversification?

Solution

Adaptations are the modifications in behavior, physiology, anatomy or any other aspect of living organisms that allow them to inhabit a wide range of habitats. Further, the anir becomes adapted to changing climate more quickly as compared to that of plant species. This results in higher species diversity of animals on earth as compared to that of plants. For example, animals have developed the complex nervous system and endocrinal system to regulate the body function whereas plants have only hormonal regulation

#526347

Topic: Biodiversity and conservation

Can you think of a situation where we deliberately want to make a species extinct? How would you justify it?

Solution

Humans have deliberately eradicated polio virus as it was harmful to us. Likewise, use of pesticides, insecticides, and antibiotics against the harmful pest, insects and bacteria exemplify the human acts aimed at eradication of a species intentionally.

#526380

Topic: Biodiversity and conservation

Discuss the role of women and communities in protection and conservation of forests.

Solution

Local communities in sacred groves have religious sentiments for the local flora. Bishnoi woman named Amrita Devi along with her daughter and several other women of Bishr village laid the foundation of Chipko movement in 1731 by embracing the trees to stop king personnel from cutting them and lost their lives. The Chipko movement, 1974 in the Garhwal region of the Himalayas was another brave step from villagers to prevent cutting the forest by embracing them.