

1. Explain how animals dwelling in the forest help it grow and regenerate.

Sol. Animals in the forest help it grow and regenerate in many ways like:

- Animals help in the dispersal of seeds.
- Microorganisms supply nutrients for growth.
- Many seedlings growing in a decaying heap on animal droppings.

2. Explain how forests prevent floods.

Sol. Forests absorb rainwater and allow it to seep naturally. Its leaves and branches prevent rain to hit the ground directly.

3. What are decomposers? Name any two of them. What do they do in the forest?

Sol. The micro-organisms which convert the dead plants and animals to humus are known as decomposers like Fungi and bacteria. They convert dead leaves and dead animals into

humus

4. Explain the role of forests in maintaining the balance between oxygen and carbon dioxide in the atmosphere.

Sol. During respiration plants and animals take in oxygen and release carbon dioxide.

During photosynthesis, plants take in carbon dioxide and release oxygen. So plants help to maintain the oxygen and carbon dioxide balance in the atmosphere. This is why forests are called green lungs.

5. Explain why there is no waste in a forest.

Sol. Some several organisms and micro-organisms that live in the soil convert waste into useful nutrients called humus. This is why there is no waste in the forest.

6. List five products we get from forests?

Sol. We get several useful products from forests like wood, spices, gum, oils, honey, sealing wax, catechu, fodder for animals, medicinal plants, etc.

7. What is the importance of forests?

Sol. Forests provide us with oxygen. They protect soil and provide habitat to a large number of animals. Forests help in bringing good rainfall to neighboring areas. They are a source of medicinal plants, timber, and many other useful products.

8. Why should we worry about the conditions and issues related to forests far from us?

Sol. The conditions and issues we have to face when forests disappear are

Soil erosion: Trees in a forest hold soil with their roots. If trees are gone, the soil will be washed away.

(a) Landslides: Without trees, the land will be very unstable and easily down the slope

(b) Water pollution: Without tree roots holding the soil in a forest, the soil will run into the river.

(c) Temperature increase

(d) Loss of biodiversity: Plants and animals will lose their food and shelter

(e) Floods: Bald hills and mountains can no longer hold back sudden flows of water, which cause floods.

(f) Increase in carbon dioxide: Depletion of forests increases carbon dioxide, which will cause global warming.

9. Explain why there is a need for a variety of animals and plants in a forest?

Sol. Animals and plants in a forest are dependent on the other for food. So there is a need for a variety of animals and plants in a forest. Many food chains can be found in the forest like Grass→insects→ frogs→snaked eagles.

10. Explain why there would be the chances of an increase in carbon dioxide with the decrease in a number of forests?

Sol. The forest plays an important role in maintaining the balance between oxygen and carbon dioxide in the atmosphere. As we know plants for their food nutrition requirement make use of the process of photosynthesis, in which they consume

Carbon Dioxide, released by the living organism from the environment. As a result of photosynthesis, plants release oxygen which is again consumed by living beings for respiration and this cycle goes on. However, with the increasing pollution, the level of carbon dioxide is rising in the atmosphere. Therefore, with the decrease in a number of forests, it is feared that the natural balance might be lost.

- 11.** How water pollution will be affected by the depletion of the forest?

Sol. Without tree roots holding the soil in a forest, the soil will run into the river and will cause water pollution.

- 12.** Explain how forest affects our food chain.

Sol. The grass is eaten by insects, which in turn, is taken by the frog. The frog is consumed by snakes.

This is said to form a food chain:

Grass → insects → frog → snake → eagle.

Many food chains can be found in the forest. All food chains are linked. If any food chain is disturbed, it affects other food chains. These food chains produce a lot of supplementary products which are vital for plant growth. The micro-organisms which convert the dead plants and animals to humus are known as decomposers.

- 13.** Why forest floor seemed to be dark-colored?

Sol. The forest floor seemed dark-colored as it is covered with a layer of dead and decaying matter like leaves, fruits, seeds, twigs, and small herbs.

- 14.** Define the following:

Crown

Understory:

Sol. Crown: The branched part of the tree above the stem is called a crown.

Understory: Trees have crowns of different types and sizes, these create different horizontal 'layers' in the forest, which are known as an understory.

15. What do you mean by canopy?

Sol. Tall trees look like a roof over the other plants in the forest, this is called a canopy.

16. What is the interrelationship between plants, soil, and decomposers?

Sol. Decomposers break down fallen leaves, branches, etc. into materials that plants can use. This also amends the soil so that it holds more water for longer periods of time. Soil is a living entity, made up of dirt (inorganic sand, clay, etc.), nutrients, and microbes. The decomposers live in the soil, which is enriched by dead forest material.

17. What happens if an animal dies in the forest?

Sol. The dead animals become food for vultures, crows, jackals, and insects and in this way, nutrients are cycled, thus we say nothing goes to waste in the forest.

18. Why even after heavy rainfall, the ground in the forest remains dry?

Sol. The upper layer of the forest canopy intercepts the flow of raindrops and most of the water comes down through the branches and the stems of the tree, from the leaves rainwater, drips slowly over branches of the shrubs and herbs, thus the ground does not wet at all.

19. What are the benefits of residing in a nearby forest area?

Sol. Following are the benefits of residing in a nearby forest area:

- a) Pleasant weather
- b) Less noise pollution
- c) Good rainfall

20. Explain the reasons behind deforestation.

Sol. Population explosion: Large areas of forests have been cleared for agriculture, factories, road and rail tracks, industries, mining, and quarrying have seriously affected the forest. Expanding agriculture is one of the most important causes of deforestation. As demands on agricultural products rise more and more land is brought under cultivation for which forests are cleared, grass-lands plowed, uneven grounds leveled, marshes drained, and even land underwater is reclaimed. Forest fires also destroy trees, seeds, and animal life. Apart from these Grazing and gnawing mammals trample the young plants, and damage their trunks and roots. Deforestation can endanger our life and the environment