

Ch-17- Forest: Our Lifeline

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

Answer: The wide variety of animals helps the forest to regenerate and grow. In forest, various types of animals live there. These could be herbivores, carnivores, micro-organisms etc. These play an important role in maintaining the food chains. For example, 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 anyone in food chain is disturbed, it affects other food chains. These food chains produce a lot of supplementary products which are vital for the plants growth. The micro-organisms which convert the dead plants and animals to humus are known as decomposers. Decomposers help in maintaining the supply of nutrients to the growing plants in the forest. Decaying heap of animal dropping are good source of nutrition for plants in the forest. The decaying animal dung also provides nutrients to the seedlings to grow. The animals also disperse the seeds of certain plants and help the forest to grow.

2. Explain how forests prevent floods.

Answer:

The forests prevent floods in many ways. The forest acts as a natural absorber of rainwater. It allows to rain water to seep through. In deep forest, during heavy rain, the raindrops do not hit the forest floor directly. The uppermost layer of the forest canopy intercept the flow of raindrops makes its impact slow. On the ground it is absorbed by heaps of decaying leaves etc. In the absence of trees in the forest, rain may hit the ground directly and may flood the area around it. Heavy rain may also damage the soil. Roots of trees normally bind the soil together, but in their absence the soil is washed away or eroded.

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

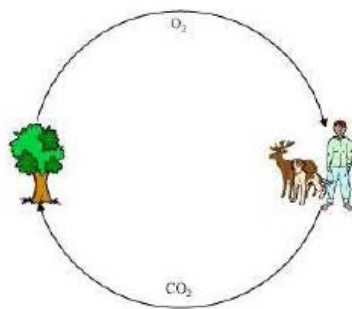
Answer:

Decomposers are micro-organisms that convert the dead plants and animals to humus. These micro-organisms play an important role in the forest. Bacteria and fungi are two types of decomposers. They help in the process of recycling of nutrient by decomposing various dead organisms such as plants and animals to form humus.

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

Answer:

The forest plays an important role in maintaining the balance between oxygen and carbon dioxide in the atmosphere. As we know plants synthesis their own food by the process of photosynthesis. In photosynthesis, plants consume carbon dioxide which is released by the living organism (animals) to the environment. As a result of photosynthesis, plants release oxygen which is again consumed by living beings for respiration.



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

Answer:

The forests are perfect recycling factories of nature. Here nothing goes waste. Forest is a system comprising various plants, animals and micro-organisms. The micro-organisms act on the wastes and convert them to humus. This humus ensures that the nutrients are returned back to the soil.

6. List five products we get from forests?

Answer:

- Edible Fruits , Nuts and spices
- Oil seeds like Sal, Mahua, Karanj, Kusum, Neem, Mango
- Wood for building constructions, making furniture, paper, fuel wood,
- Gums and resins
- Fodder for animals
- Medicinal plants

7. Fill in the blank:

(a) The insects, butterflies, honeybees and birds help flowering plants in _____.

(b) A forest is a purifier of _____ and _____.

(c) Herbs form the _____ layer in the forest.

(d) The decaying leaves and animal droppings in a forest enrich the _____

Answer:

(a) The insects, butterflies, honeybees and birds help flowering plants in pollination.

(b) A forest is a purifier of air and groundwater.

(c) Herbs form the lowest layer in the forest.

(d) The decaying leaves and animal droppings in a forest enrich the soil nutrition in the form of humus.

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

Answer:

We should worry about the conditions and issues related to forests far from us because forests influence climate, water cycle and air quality of planet earth in a big way. These are given as follows:

- A decrease in forest area would lead to an increase in carbon dioxide in atmosphere. This will lead to an increase of the earth's temperature.
- Flood or drought would be more frequent in absence of forests.
- Soil erosion would occur if there are no forests.
- Forest provides shelter and food to animals. When forests are adversely affected, the habitats of wild animals are get affected.

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

Answer:

For a sustainable forest ecosystem, there has to be variety of animals and plants in a forest. A greater of variety of plants and animals in the forest help it to generate and grow. Great variety of plants means more food and habitat for the herbivores. An increase means more food for carnivores. Decomposers help to maintain the supply of

nutrients to the soil and to the plants. This wide variety makes forest a dynamic living entity.

10. In Fig. 17.15, the artist has forgotten to put the labels and directions on the arrows. Mark the directions on the arrows and label the diagram using the following labels:

Clouds, rain, atmosphere, carbon dioxide, oxygen, plants, animals, soil, roots, water table

Answer:

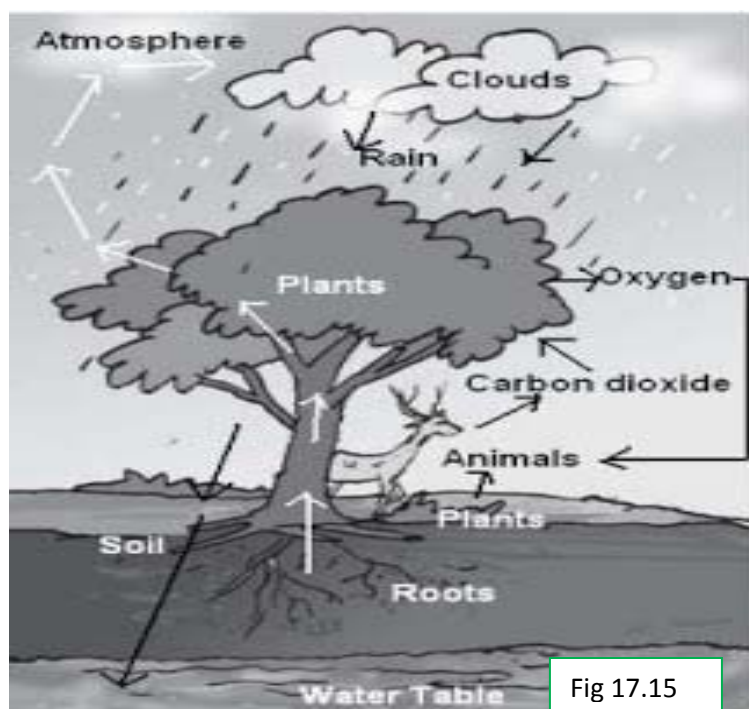


Fig 17.15

11. Which of the following is not a forest product?

- (i) Gum
- (ii) Plywood
- (iii) Sealing wax
- (iv) Kerosene

Answer : (iv) Kerosene

12. Which of the following statements is not correct?

- (i) Forests protect the soil from erosion.
- (ii) Plants and animals in a forest are not dependent on one another.
- (iii) Forests influence the climate and water cycle.

(iv) Soil helps forests to grow and regenerate.

Answer : (ii) Plants and animals in a forest are not dependent on one another.

13. Micro-organisms act upon the dead plants to produce

(i) sand (ii) mushrooms (iii) humus (iv) wood

Answer : (iii) humus