

Science

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(Chapter – 17) (Forests: Our Lifeline)

(Class – VII)

Exercises

Question 1:

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

Answer 1:

Various types of animals (herbivores, carnivores, omnivores) live in forests and contribute to food chain. Following activities show how animals help forest grow and regenerate.

- Animals help in dispersal of seeds from one part of the forest to other part.
- Animal's excreta and their dead bodies when decomposed into soil act as manure for the plants.
- Microorganisms convert dead plants and leaves into humus which is rich in nutrients. Humus in soil provide necessary minerals for plant growth.

Question 2:

Explain how forests prevent floods.

Answer 2:

Forest acts as a natural absorber of rainwater and allows it to seep. When rainwater falls on leaves of trees and plants, it does not fall directly on the ground. It drips slowly on the forest ground (does not stagnate) and hence prevent floods.

Question 3:

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

Answer 3:

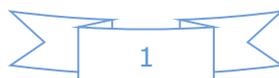
The micro-organisms which convert the dead plants and animals to humus are known as *decomposers*.

Examples: Fungi and Bacteria.

Decomposers recycle and convert the dead matter into humus which mixes with forest soil and provide necessary nutrients to plants. Thus decomposers help in maintaining the necessary nutrient balance in the soil.

Question 4:

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



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Answer 4:

Forests play an important role in maintaining the balance between oxygen and carbon dioxide in the atmosphere. Forest works like a self-sustaining system. Whatever is produced in the forest is utilized by different components of the forest. Animals during respiration take in oxygen and release carbon dioxide. Plants take in carbon dioxide and release oxygen through the process of photosynthesis. Even the waste is converted into beneficial substances in a forest. Due to this, there is no waste in a forest.

Question 5:

Explain why there is no waste in a forest.

Answer 5:

Forests are excellent, perfect and natural recycling factories. All animals, whether herbivores or carnivores, depend ultimately on plants for food. Herbivores eat plants and their products. Carnivores eat herbivores. Dead remains of animals and plants are decomposed by micro-organisms into humus. Whatever is produced in the forest is ultimately utilized by different components of the forest. Forests maintain a network of food chains called food web and hence nothing goes waste in a forest.



Question 6:

List five products we get from forests?

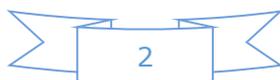
Answer 6:

- Fruits and Vegetables
- Timber and wood
- Turpentine, latex (rubber raw product)
- Spices, resin, gum
- Medicines and herbs

Question 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 _____.



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Answer 7:

- (a) The insects, butterflies, honeybees and birds help flowering plants in *pollination*.
- (b) A forest is a purifier of *air* and *water*.
- (c) Herbs form the *lowest* layer in the forest.
- (d) The decaying leaves and animal droppings in a forest enrich the *soil*.

Question 8:

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

Answer 8:

Forests are very important resources. We should be careful and concerned about the issues related to forest due to following reasons:

- If there are no forests, there would be more floods and more soil erosion.
- Forests affect the global environment in a great way. For example; reduced forest cover in a particular area leads to global warming which affects the whole earth.
- Forests are the dwelling of many animals. Deforestation will endanger our life and environment.
- In the absence of trees and plants, the animals will not get food and shelter.
- Forests provide us large number of useful products including wood, fruits and medicines. These products would not be available in the absence of trees and plants.

Question 9:

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

Answer 9:

Variety of animals and plants living in forests build a rich biodiversity. Different animals and plants play different role in the system of a forest. For example; herbivores are needed to eat green plants and to provide food for the carnivores. Similarly, carnivores are needed to eat the herbivores and check their population. This biodiversity make forests more productive, stable and resilient.

If there is no grass, all herbivores would die. If there are no carnivores, all herbivores would eat up all the plants and there is shortage of food. If there are no decomposers, the dead remains of plants and animals would pollute the environment. Due to such biodiversity a balance in nature is maintained.



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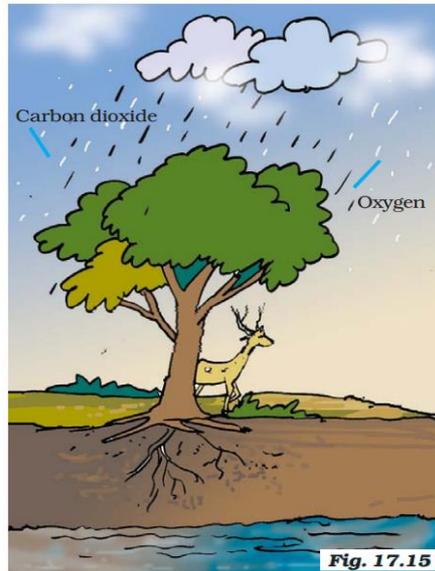
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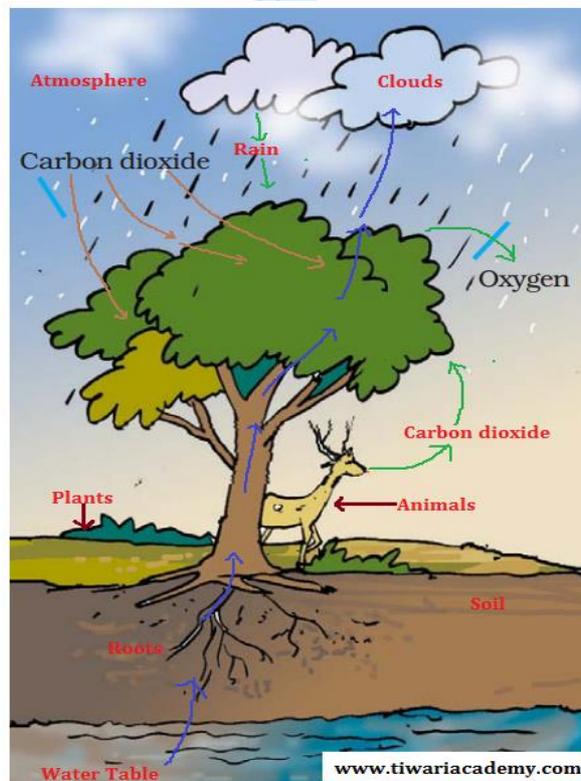
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Question 10:

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 10:



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Question 11:

Which of the following is not a forest product?

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

Answer 11:

- (iv) Kerosene

Question 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 12:

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

Question 13:

Micro-organisms act upon the dead plants to produce

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

Answer 13:

- (iii) humus

