

Class 7th Living science solution 2017-18

Chapter: 19. OUR FORESTS

P. 216 Oral Questions For Formative Assessment

1. canopy
2. small trees, shrubs and tall grasses, herbs
3. Rainwater falls on the leaves of trees and plants and then drips slowly onto the forest floor. Thus water does not fall directly on the forest floor and hence does not collect and stagnate there. So even after heavy rains, forest generally do not get flooded.
4. Plants and trees in the forest release water into the air through transpiration. This increases the amount of water vapour or moisture in the air and this increased amount of moisture also cools the air.

220 Oral Questions For Formative Assessment

1. Help in pollination, help in dispersal of seeds, animal excreta and their dead bodies provide nutrients
2. No, consumers are those that depend directly or indirectly on plants for food. So all animals including humans are consumers.
3. The balance of nutrients in the soil must be maintained as the total amount of these nutrients does not change. This happens when the decomposers break down the dead bodies of plants and animals into the nutrients they are made up of and mix, them with the soil.
4. food web
5. In planned harvesting, the uncut trees prevent soil erosion. Again, the fruits of these trees produce seeds so that new trees can grow and thus the forest cover is almost maintained.

221 For Formative and Summative Assessment

1. b 2. c 3. c 4. c 5. d 6. d 7. d 8. b 9. b 10. c

B.1. canopy 2. neem 3. erosion 4. oxygen 5. water vapour 6. secondary consumers
7. sun 8. mushroom 9. web

c. 1. The thick covering of leaves like a roof known as canopy hardly allows any sunlight to come in. Thus, it is quite dark inside a thick forest.

2. When a city is made in place of forest, the water table goes down because people need water for drinking, washing, cooking, cleaning and so on. More construction of houses is needed which uses a lot of water mostly groundwater. Again increase in build-up areas and reduction in open areas causes a decrease in the seepage of water into the ground lowering the water table.

3. Five products that we get from forests are timber, wood pulp (for making paper), turpentine, latex (for manufacture of rubber) and resin.

4. Jackal, vulture. They consume dead animals and dispose them off thus keeping our environment clean.

5. Suppose there is a food chain: plant --> rat ---> snake.

But there are several animals other than the snake that eat rat, for example, cat or owl.

So another food chain can be: plant --> rat --> cat.

Now, as we see, these two food chains are interconnected: plant → rat → cat/snake

6. Forest fires are controlled by spraying fire extinguishing solutions from aircrafts or by changing the direction of wind by using strong blowers.

7. Afforestation is the practice of renewing a forest by planting seedlings or small trees.

D. 1. Two ways in which plants are useful to animals are:

- (i) Plants release oxygen during photosynthesis.
- (ii) Plants provide food to all animals including human beings.

Two ways in which animals are useful to plants are:

- (i) Some animals such as butterfly, honeybee, humming bird, bat and moth help flowers in pollination.
- (ii) Animal excreta and their dead bodies add nutrients to the soil. They act as manure and provide minerals for plant growth.

2. A food chain tells us who eats what in the environment. It shows how energy in the form of food is passed from one organism to other. For example, green plants → deer → lion. This means that green plants are eaten by deer and a deer is eaten by a lion.

3. There are several food chains in nature that are connected to each other. A food web is a web of a number of interconnected food chains.

For example, /small birds plants or grass → grasshopper → frog → snake rat → snake

There are animals other than the grasshopper that eat plants. There are also animals other than the frog that eat grasshoppers.

4. Nature maintains the population of each species of animals in sufficient numbers to maintain a balance. That is why we say that to kill and to be killed, to grow and to die and get decomposed is the law of nature. It is due to these activities that the balance in nature is maintained.

5. The roots of plants bind the soil particles together and prevent soil erosion, and thus maintain the fertility of the soil. Soil erosion is also prevented because raindrops do not fall directly on the forest floor with full force. In this way by conserving forests, we also conserve soil.

6. An efficient way to get wood from forests for our requirements is to cut only some of the trees in an area. The uncut trees prevent erosion. Fruits of these trees produce seeds so that new trees can grow. This way the forest cover is maintained. In this way planned harvesting also helps in conservation.

7. Forests prevent soil erosion. Again forests provide the best habitat for wildlife as food and shelter are available for a large number of wild animals in the forests. So conservation of forests helps in wildlife conservation as well as soil conservation.

8. Five ways in which forests are useful to us are:

- (i) Prevent floods and maintain the water table
- (ii) Prevent soil erosion
- (iii) Supply oxygen and Absorb carbon dioxide
- (iv) Cool the air and increase rainfall
- (v) Yield valuable products such as timber, wood pulp, latex, spices and medicinal plants.

9. Yes, large scale cutting down of forests have an effect on rainfall in the area. Plants in the forest absorb water from the soil and release it into the air through transpiration. This increases the amount of water vapour in the air and helps in cloud formation. This ultimately causes an increase in rainfall.

HOTS Questions

1. If all forests on the earth disappear, most plants and animals would disappear, the carbon dioxide levels in the air would increase, the rain patterns would get adversely affected, and soil erosion would increase. Therefore, survival of life would become more difficult.
2. Banning the cutting down of trees completely is not practical as we need wood for several purposes. Planned harvesting of trees – so that we get our requirements without reducing the forest cover – is a practical method.
3. A forest has no waste. It is true because every bit of it is used in one or other way. Even the dead leaves decay and make compost.
4. If the number of carnivores became more than the number of herbivores, the carnivores will first eat up all the herbivores. Once the herbivores finish, all food chains will get disrupted as transfer of food from plants to animals would not take place. The carnivores will therefore also perish. Thus all animal life would end.