

8th Conservation of plants and animal Living science solution

For Formative and Summative Assessment

A. 1. b 2. a 3. d 4. b 5. d 6. a 7. c 8. b

B. 1. Biodiversity means the variety of plants, animals and microorganisms generally found in an area.

2. 'Flora' refers to plants. 3. Yes - I agree 4. False 5. Erosion 6. Overgrazing 7. True 8. renewable 9. extinct 10. forest 11. True 12. trees 13. endemic 14. endangered

C.1. Biodiversity is the variety of plants, animals and microorganisms generally found in an area.

2. Flora: Species of all plants found in a particular area is known as flora of that area. Fauna: Species of all animals found in a particular area is known as fauna of that area.

3. Cutting down forests and using the land for other purposes is known as deforestation.

4. Some animals cannot adjust to the environmental changes and begin to die. These animal species become endangered as their population becomes very small.

5. A biosphere reserve is a large protected area set aside for conservation of wildlife, plant, animal and microorganism resources, and the traditional life of the tribals living in that area.

6. Endemic species are those species of plants and animals that are found exclusively in a particular area and are not naturally found anywhere else. For example, the Indian giant squirrel and flying squirrel are endemic to the Pachmarhi Biosphere Reserve area.

7. IUCN prepared Red Data Book to highlight those animals who are threatened with extinction, with the aim of promoting their conservation. Those threatened with extinction.

D.1. Forests are useful to us in the following ways: (i) They yield valuable products, such as timber, wood, wood pulp, latex, etc.

(ii) They protect wildlife, since wildlife depends on forests for food and shelter.

(iii) They help in maintaining the balance between carbon dioxide and oxygen in the atmosphere

(iv) They regulate the temperature of the earth.

(v) They maintain the water cycle in nature.

(vi) They prevent soil erosion.

2. Three main causes of deforestation are:

(i) To build homes, factories, roads and dams

(ii) For farming, as more food is needed to feed the growing population.

(iii) For mining of minerals such as coal, petroleum and other ores.

3. Deforestation causes an increase in soil erosion. As the top soil gets eroded, the lower hard and rocky soil with less humus gets exposed. This soil is less fertile. Over time, continued soil erosion can convert the land into a desert. This is called desertification.

4. Deforestation causes reduction in groundwater due to decreased water absorption capacity of the soil. This in turn can cause floods.

5. Planned harvesting of forest is the cutting of only some of the trees in a forest. The uncut trees prevent erosion and produce seeds so that new trees can grow. In this way, it helps in forest conservation.

6. Wildlife conservation is closely related to forest conservation. When a forest is destroyed, a large number of animals become extinct or endangered. So, to conserve the habitat of endangered animals, it is necessary to protect the forests.

7. Wildlife sanctuaries are protected forests to preserve wildlife providing protection and suitable living conditions for wild animals whereas a biosphere reserve is a large protected area set aside for conservation of wildlife, plant and animal resources, and the traditional life of the tribals living in the area. Biosphere reserve is a broader term than wildlife sanctuaries. A biosphere reserve may have national parks and wildlife sanctuaries within it.

E. 1 Five means of forest conservation are:

(i) Planned harvesting, i.e. cutting only some of the trees in an area. The uncut trees prevent soil erosion and produce seeds so that new trees can grow.

(ii) Afforestation (or Reforestation), which means renewing a forest by planting seedlings or small trees of the same species as found in the forest.

(iii) Protection from forest fires by spraying fire extinguishing solutions from aircrafts.

(iv) Protection from insects and pests by using insecticides and fungicides and removing infected trees

(v) Protection from overgrazing to protect growing plants by providing pastures which can be used by rotation.

2. Some of the consequences of deforestation are listed below:

(i) It causes an increase in soil erosion. As the top soil gets eroded, the lower hard and rocky soil with less humus gets exposed. This soil is less fertile. Over time, continued soil erosion can convert the land into a desert.

(ii) It causes an increase in carbon dioxide in the atmosphere, resulting in global warming.

(iii) It causes reduction in groundwater due to decreased water absorption capacity of the soil.

3. The steps necessary for wildlife conservation are:

(i) Habitat preservation: Preserving the habitat of wildlife helps in their conservation. Preventing deforestation is an important method of habitat preservation. Afforestation provides shelter and food for the wildlife.

(ii) Hunting regulations: Government regulations related to hunting and their effective implementation is very important for wildlife conservation. The hunting of endangered species is completely banned.

(iii) Biosphere Reserves, Wildlife Sanctuaries and National Parks: To effectively implement the methods of conserving forests and wildlife, the government has set aside permanent protected areas for conservation of biodiversity in that area. These are known as biosphere reserves.

(iv) National Parks and Wildlife Sanctuaries are protected forests to preserve wildlife. They provide protection and suitable living conditions for wild animals. The animals can breed and multiply in these areas.

F. HOTS Questions

1. 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.

2. In a zoo wild animals are kept in an artificial habitat for public viewing. In wildlife sanctuary animals are allowed to live in their natural habitat without the fear of being hunted.

3. The strategy will not be successful as the saplings will take several years to grow into trees, and by that time most of the forest would have disappeared. They must plan to plant many more trees than they cut down. Also they should only cut down a few trees from one area and then move on to another area.

4. No, their symbiotic relationship can be maintained by allowing them to live peacefully in designated forest areas without interference. Forests are the basic support system for tribals. They provide them employment through harvesting of forests, raising of plantations, and collection and processing of forest product. The forests also supply fuel, fodder and a variety of forest products for subsistence needs of the tribals. The survival and maintenance of forests are also equally dependent on tribals as they are protective of forests.