Chapter 18: The Environment and Us

CAN YOU TELL? [PAGE 89]

Can you tell? | Q 1 | Page 89

With the help of the questions below, explain what would happen if forests are cleared on a large scale.
Will water and food sources for living things grow or dwindle? Why?

SOLUTION

If deforestation is done on a large scale, there will be a decrease in the water and food sources for resident living organisms. Food chains will be disturbed. Animals which are dependent on each other for food will die due to wanting food. When trees are cut down the sources of water will also deplete. The roots of trees hold the soil particles and water. When forests are cut down there will be soil erosion. There will be a decrease in the rainfall resulting in losses of sources of water. Groundwater levels will also decrease.

Can you tell? | Q 2 | Page 89

With the help of the questions below, explain what would happen if forests are cleared on a large scale.
Will the living things look for shelters elsewhere or stay on? Why?

SOLUTION

Animals staying in forests will migrate elsewhere in search of food and water. Because their shelters are lost. they might also encroach in the surrounding areas in search of shelter.

Can you tell? | Q 3 | Page 89

With the help of the questions below, explain what would happen if forests are cleared on a large scale.
Will the space occupied by the plants and animals increase or decrease? Why?

SOLUTION

Due to deforestation. the plants and shelters of animals will be destroyed completely. The barren space would increase but the space occupied by living things would decrease.

Can you tell? | Q 4 | Page 89

With the help of the questions below, explain what would happen if forests are cleared on a large scale.
Will the number of living things increase or decrease? Why?

SOLUTION

After deforestation, the number of living things would definitely decrease. Due to the loss of forests, there's a loss of habitat. There would be a loss of food and shelter and thus the number of living things will dwindle.

USE YOUR BRAIN POWER ! [PAGE 89]

Use your brain power ! | Q 1 | Page 89

If a dam is built at a particular place, what changes will be seen in the environment?

SOLUTION

When a large dam is constructed, we get ample water. In some parts, there will be a growth of vegetation. But the natural environment which was there previously will be completely lost. The plant cover, trees, etc. which were there will be totally lost. Some animals would be completely displaced. Some will be extinct. Human beings residents of those areas will be displaced and they will have to migrate to some other place. The local environment will be changed forever.

USE YOUR BRAIN POWER ! [PAGE 90]

Use your brain power ! | Q 1 | Page 90

What could be the reasons of air pollution?

SOLUTION

Some natural events may also cause air pollution. E.g. Cyclones. volcanic eruptions. strong winds. But air pollution is caused to a greater extent due to human activities. E.g. Burning of fossil fuel. the toxic gases and particles. etc. emitted from industries and during transport.

Use your brain power ! | Q 2 | Page 90

What are the different purposes for which fuels such as petrol, diesel, kerosene, natural gas, coal, and wood are used?

SOLUTION

Petrol and diesel are used as a fuel in vehicles used for transport. Two wheelers. cars, trucks, and aeroplanes run on these fuels. Kerosene. cooking gas (LPG) and wood are used as fuels for cooking and other domestic use. Coal is used for electricity generation and also in industrial processes. Diesel is also used to run engines and machines in factories.

EXERCISES [PAGE 95]

Exercises | Q 1 | Page 95

What's the solution?

Rivers and lakes are filled with water hyacinth.

SOLUTION

If organic substances mix with water, there is the growth of water plants like water hyacinth. But when they grow excessively, it causes problems for other aquatic organisms. During the daytime, water hyacinth release oxygen but at night time they too require oxygen. This causes depletion of dissolved oxygen in the water and hence many other organisms die due to lack of oxygen. Their dead remains to act as fertilizers and they help the hyacinth to grow more. Such a water body gets filled with water hyacinth. In order to save the environment of such a water body, first of all, the water hyacinth should be removed. This is also called eutrophication. Care should be taken that no organic pollutants enter this water body. Bund may be constructed around a lake or a river so that the land pollutants will not be let out in them. This will arrest the growth of water hyacinth.

Exercises | Q 2 | Page 95

Use your brain power !

What would happen if no kites (birds) are left in a particular region? Which living things would increase in number? Which would decrease?

SOLUTION

Kite is the bird of prey. They kill the smaller rodents and birds. They also eat dead and decaying matter. If kites are not present in nature, then these smaller rodents like animals will increase in their numbers. Kite is a top predator and hence it is not the food for others. Thus even if the kite's number falls, there will be little difference in any other animals' population.

Exercises | Q 3. (a) | Page 95

Answer the following question.

What is meant by migration?

SOLUTION

When animals move temporarily or permanently from one place to another for feeding or breeding it is called migration.

Exercises | Q 3. (b) | Page 95

Answer the following question.

Give two causes of air pollution.

SOLUTION

1. Industries and factories burn fuel and this causes smoke and pollutant gases.
2. Vehicles during transport emit poisonous gases and particles. The slow-burning of fuels produce lots of carbon dioxide.

Exercises | Q 3. (c) | Page 95

Answer the following question.

For what purpose do we use land obtained by clearing forests?

SOLUTION

After clearing the forest. the land which is obtained is used for either building roads, bridges, housing colonies. Even farms were made after clearing the forests in the past. Since the world's human population is rising, therefore, more and more land is required for all such activities.

Exercises | Q 4. (a) | Page 95

Give reasons.

It is important to conserve the living components of the environment.

SOLUTION

If the living components of the environment do not exist, then the food chain and food web will not function. Some species will get extinct. Living things were produced on earth many million years back. It is not possible to get them back by man-made processes. If the balance in nature is disturbed it will affect human beings too. Therefore, it is important to conserve the living components of the environment.

Exercises | Q 4. (b) | Page 95

Give reasons.

The numbers of wild animals are falling day by day.

SOLUTION

Due to human interventions, many food chains and food webs are disturbed. Forests are cleared for making land available. Due to the loss of forests, wild animals are displaced. Due to climate change and global warming, natural cycles are also disturbed causing the survival of wild animals difficult. Hunting and poaching of wild animals have also reduced their numbers significantly. All these factors have led to falling in the number of wild animals.

Exercises | Q 5. (a) | Page 95

True or false?

Dead plants and animals are abiotic components.

1. **True**
2. False

SOLUTION

True

Exercises | Q 5. (b) | Page 95

True or false?

t is necessary to conserve biodiversity.

1. **True**
2. False

SOLUTION

True

Exercises | Q 6.01 | Page 95
Classify the following as natural or man-made.
Soil.

1. **Natural**
2. Man-made

SOLUTION

Soil - Natural.

Exercises | Q 6.02 | Page 95
Classify the following as natural or man-made.
horse.

1. **Natural**
2. Man-made

SOLUTION

horse - Natural.

Exercises | Q 6.03 | Page 95
Classify the following as natural or man-made.
stone.

1. **Natural**
2. Man-made

SOLUTION

stone - Natural.

Exercises | Q 6.03 | Page 95
Classify the following as natural or man-made.
stone.

1. **Natural**
2. Man-made

SOLUTION

stone - Natural.

Exercises | Q 6.04 | Page 95
Classify the following as natural or man-made.
water hyacinth.

1. **Natural**
2. Man-made

SOLUTION

water hyacinth - Natural.

Exercises | Q 6.05 | Page 95
Classify the following as natural or man-made.
book.

1. Natural
2. **Man-made**

SOLUTION

book - Man-made.

Exercises | Q 6.06 | Page 95
Classify the following as natural or man-made.
sunlight.

1. **Natural**
2. Man-made

SOLUTION

sunlight - Natural.

Exercises | Q 6.07 | Page 95
Classify the following as natural or man-made.
dolphin.

1. **Natural**
2. Man-made

SOLUTION

dolphin - Natural.

Exercises | Q 6.08 | Page 95
Classify the following as natural or man-made.
pen.

1. Natural
2. **Man-made**

SOLUTION

pen - Man-made.

Exercises | Q 6.09 | Page 95
Classify the following as natural or man-made.
chair.

1. Natural
2. **Man-made**

SOLUTION

chair - Man-made.

Exercises | Q 6.10 | Page 95
Classify the following as natural or man-made.
water.

1. **Natural**
2. Man-made

SOLUTION

water - Natural.

Exercises | Q 6.11 | Page 95
Classify the following as natural or man-made.
cottonwool.

1. **Natural**
2. Man-made

SOLUTION

cottonwool - Natural.

Exercises | Q 6.12 | Page 95
Classify the following as natural or man-made.
table.

1. Natural
2. **Man-made**

SOLUTION

table - Man-made.

Exercises | Q 6.13 | Page 95
Classify the following as natural or man-made.
trees.

1. **Natural**
2. Man-made

SOLUTION

trees - Natural.

Exercises | Q 6.14 | Page 95
Classify the following as natural or man-made.
brick.

1. Natural
2. **Man-made**

SOLUTION

brick - Man-made.