

Page 257

Question 1. Why are some substances biodegradable and some non-biodegradable ?

Answer: Substances that are broken down by biological processes are said to be biodegradable. In our environment, many of the substances are broken easily by decomposers (bacteria and fungi) as they possess specific enzymes for such activity. However, there are other substances also which are not broken down in this manner and are known as non-biodegradable substances. Since these substances are not degraded by bacteria and fungi, so they persist for a long time. These non-biodegradable substances will be acted upon by physical processes like heat and pressure.

Question 2. Give any two ways in which biodegradable substances would affect the environment.

Answer:

- 1. They may produce foul smell during decomposition process.
- 2. They may produce some harmful gases such as ammonia, methane, carbon dioxide, etc., which can further-cause global warming.

Question 3. Give any two ways in which non-biodegradable substances would affect the environment.

Answer:

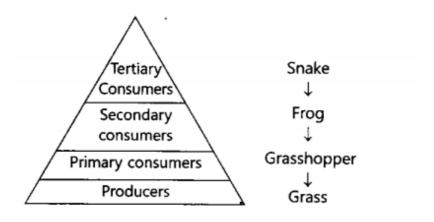
- 1. These inert substances simply persist in the environment. This means that these substances require land area for dumping.
- 2. Excess of fertilizers, pesticides and other chemicals changes soil chemistry and also affects aquatic life.
- 3. Most of these chemicals and heavy metal are easily absorbed by the organisms. This causes biological magnification.

Page: 261

Question 1. What are trophic levels? Give an example of a food chain and state the different trophic levels in it.

Answer: Each step or level of the food chain forms a trophic level.

Consider the following food chain:



Question 2. What is the role of decomposers in the ecosystem? Answer: Role of decomposers in the ecosystem :

- 1. They help in breaking down the complex organic into simple inorganic that go into the soil and are used up by the plants.
- 2. They the nutrient pool of the putting In this way, ad as cleansing agents of nature.
- 3. They help in maintaining the fertility of by adding humus content to it.

Page: 264

Question 1. What is ozone and how does it affect any ecosystem? Answer: Ozone (O_3) is a molecule formed by three atoms of oxygen. At the higher of the atmosphere, it shields the surface of the earth from ultraviolet (UV) radiation from the Sun. It may affect any ecosystem in the following ways :

- 1. At the surface of the earth, it is a deadly poison for all lower forms of life.
- 2. If this layer gets depleted, then it may cause cancer in human beings including other plants and animals.

Question 2. How can you help in reducing the problem of waste disposal? Give any two methods?

Answer:

- 1. By changing our lifestyle and change in attitude will reduce disposable waste.
- 2. Reducing packaging.
- 3. Recycling of waste.
- 4. Preparing compost of biodegradable waste.