

Social Environment

Solution 1.a:

There are two types of components of the environment – biotic and abiotic.

1. **Biotic components:** All living organisms such as animals, plants and microorganisms constitute the biotic components of the environment.
2. **Abiotic components:** All non-living things such as water, sunlight, soil, air etc. constitute the abiotic components of the environment.

Solution 1.b:

Water is used on a large scale for the following purposes:

1. Drinking and cooking
2. Washing clothes, utensils and cattle
3. In industries, for making paper, sugar, steel, medicines
4. Irrigation

Solution 1.c:

Factories and industries release large quantities of waste water into nearby reservoirs. Such water may also contain some harmful chemicals. This contaminates the water in a reservoir which may be harmful for human health. Some people throw garbage and scrap from their houses into the reservoirs. Some of this waste matter decomposes and spoils the taste and smell of the water. Such water becomes unfit for consumption.

Solution 1.d:

When garbage containing rubber or plastic is collected and burnt, it emits harmful smoke. The smoke and poisonous substances given out by factories mix with the air in the surroundings and thereby pollute it. Automobiles also cause air pollution by exhaust emissions. Burning of wood, coal and petroleum and combustion of other fossil fuels cause air pollution.

Solution 1.e:

Effects of a polluted environment:

1. Air pollution increases the temperature of the atmosphere, thereby causing global warming.

2. The smoke released by burning of fuels, rubber and plastic pollutes the air.
3. Contaminated drinking water causes diseases such as typhoid and cholera.
4. Waste water mixes with drinking water and spoils the taste and smell of the water, making it unfit for consumption.
5. Stagnant water forms breeding grounds for mosquitoes which cause diseases such as malaria and dengue.

Solution 1.f:

Previously, the garbage of a village or town would be collected and dumped in open spaces outside them. At that time, the population of the villages was quite small, and so, the amount of garbage generated was not much. Most of the materials in the garbage would readily decompose in the soil.

Solution 2.a:

The following steps can be taken to reduce the problem of garbage disposal:

1. The biodegradable and non-biodegradable substances in the garbage should be separated.
2. Materials such as paper, empty bottles, plastic and glass should be reused and recycled.
3. Hospital wastes should be disposed of with great care.
4. Substances such as plastic and rubber should not be burnt to prevent air pollution.
5. Garbage should not be thrown in open places or reservoirs.
6. All citizens must wholeheartedly and consistently co-operate with these plans in order to maintain good social health.

Solution 2.b:

The following care should be taken to prevent contamination of the town or village water supply:

1. We should take care to keep public places such as railway stations, bazaars, playgrounds and open spaces clean and free from pollution.
2. We should avoid making a place dirty or leaving behind litter.
3. People living in slums around water sources make their surroundings dirty as they have no proper water supply or drainage. Plans should be made and implemented to provide them the required facilities.
4. Water from industries or sewage should not be released into water bodies directly without proper treatment.

Solution 2.c:

The adverse effects of the increasing population on the problem of garbage disposal are as follows:

1. An increasing population means an increase in the quantity of garbage.
2. It results in increased medical waste and industrial waste and greater problem of disposal.
3. There are less open spaces for dumping of biodegradable wastes.
4. Greater air pollution due to burning of garbage.

Solution 2.d:

In order to maintain good social health in a village or town, we should take care of the following measures:

1. Availability of clean and potable water in plenty.
2. The surroundings should be clean without any garbage heaps.
3. The parks and gardens should be maintained for recreation.
4. There should be playgrounds for children.
5. There should be hospitals and dispensaries for sick people.
6. People should be happy, healthy and well-contented.

Solution 3.a:

Waste water should not be allowed to stagnate in puddles as the surrounding area becomes dirty and foul smelling. Mosquitoes breed in large numbers in stagnant water which spread diseases such as malaria and dengue. Public health and environment also get affected if waste water remains stagnated.

Solution 3.b:

Factories release poisonous substances which mix with potable water and contaminate it. Many people fall prey to various diseases by drinking such contaminated water. It may even result in their death. It is a threat to public health and environment. Therefore, waste water from a factory should not be allowed to mix with drinking water.

Solution 3.c:

Rubber and plastic should not be burnt as they emit harmful smoke if burnt. This smoke contains poisonous substances which cause air pollution and disturb public health and environment.

Solution 3.d:

The quantity and types of garbage generated have increased due to increased population, increased number of factories, advanced medical technology and increased medical waste. The quantity of garbage has also increased because of the gradual increase in the use of disposable articles. As a result, the nature of garbage is also undergoing a big change.

Solution 4:

(a) Factories which use water on a large scale – Paper, sugar, steel, medicine factories

(b) Effects of contaminated water – Foul smell and spoilage of taste of water which makes it unfit for drinking, spread of diseases due to consumption of contaminated water

(c) Factors connected with good social health – Sufficient and satisfactory facilities for medical treatment, gardens and parks for recreation, playgrounds for children

(d) Diseases caused by mosquitoes – Malaria, dengue

(e) Garbage that does not decompose – Plastic, rubber, thermocol