

Our Environment: In-Text Questions

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

Sol. A series of organisms in which every next organism depends on the one before it for food or energy, is called food chain. Each step or level of any food chain is called trophic level. The organisms which join the food chain are termed as trophic levels.

The food chain:

Plants -----> grasshopper-----> birds-----> hawk
Producers Primary consumers Secondary consumers Top consumers
First Second Third Fourth
Trophic level trophic level trophic level Trophic level

There are four trophic levels:

- (i) First trophic level : Producers (Plants)
- (ii) Second trophic level: Primary consumers.
- (iii) Third trophic level: Secondary consumers.
- (iv) Fourth trophic level: Top consumers.

Q.2 What is the role of decomposers in the ecosystem?

Sol. Decomposers convert the dead bodies and dead parts of plants and animals into simpler harmless smaller substance and clean the environment. So they are called as cleansing agents of environment.

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

Sol. Biodegradable substances are the substances on which decomposers can act and break down them into simpler harmless compounds. Example: biodegradable substances are dead remains of plants and animals and their waste products, paper etc.

While some compounds on which decomposers do not act to decompose them and these compounds are known as non-biodegradable compounds. Example: plastics and metals,

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

Sol. Biodegradable substances would affect the environment in the following ways:

- (i) These substances decomposed by the micro-organisms. Due to this foul smell spreads in the environment.
- (ii) Due to the rotting biodegradable wastes, breeding of insects, flies and mosquitoes occur which may cause diseases to living organisms.

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

Sol. Non-biodegradable substances would affect the environment in the following ways:

- (i) Non-biodegradable substances may cause air, soil and water pollution.
- (ii) If non-biodegradable substances presence in fertile soil or land then it becomes barren.
- (iii) They may cause of bio-magnification in food chain.

Q.1 What is ozone and how does it affect any ecosystem?

Sol. Ozone is a gas consist of three atoms of oxygen i.e. O_3 . Ozone gas forms a layer at the top of the atmosphere known as ozone layer.

This ozone layer absorbs the harmful ultra violet rays of the sunlight and protects life on the earth. So, this layer is very important for the survival and existence the ecosystem on earth.

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

Sol. We can help in reducing the problem of waste disposal by the two ways:

- (i) We should change our life style to reduce the disposable waste and use more and more substances that leave biodegradable wastes.
- (ii) We should reduce the use of non-biodegradable things such as plastics bags, plastic items.