Our Environment: Exercise Questions

Q.1 Which of the following groups contain only biodegradable items?

(a) Grass, flowers and leather (b) Grass, wood and plastic
(c) Fruit peels, cake and lime (d) Cake, wood and grass

Sol. (a), (c) and (d)

Q.2 Which of the following constitute a food chain?

(a) Grass, wheat and mango (b) Grass, goat and human
(c) Goat, cow and elephant (d) Grass, fish and goat

Sol. (b) Grass, goat and human

Q.3 Which of the following are environment-friendly practices?

(a) Carrying cloth bags to put purchases in while shopping.
(b) Switching off unnecessary lights and fans.
(c) Walking to school instead of getting your mother to drop you on her scooter.
(d) All of the above.

Sol. (d) All of the above.

Q.4 What will happen if we kill all the organisms in one trophic level?

Sol.

If we kill all the organisms in one trophic level then transfer of food and energy to next level will stop and imbalance the ecosystem.
Example: The food chain
Plants----------> Grasshopper----------> frog---------> snakes ----------> hawk

If, in the above food chain, we kill the grasshoppers then transfer of for and energy from plants to frog will stop.

Q.5 Will the impact of removing all the organisms in a trophic level be different for different trophic levels? Can the organisms of any trophic level be removed without causing any damage to the ecosystem?

Sol.

(a) Yes, the impact of removing all the organisms in a trophic level will be different for different trophic levels.
For example: Plants---------> Deer---------> Tiger

(i) In the above food chain, if we remove all the tigers at the third trophic level, then the number of deer will increase and these deer will eat up all the grass and forest becomes desert.

(ii) If we remove all the deer at the second trophic level, then tigers will not get food and energy. They will die due to starvation.
And, also the number of grass or plants increase.

(b) No, all the organisms of any trophic level cannot be removed without causing any damage to the ecosystem.

Q.6 What is biological magnification? Will the level of this magnification be different at different levels of the ecosystem?

Sol.

In a food chain, when concentration of harmful chemicals like DDT increases gradually at each trophic level. This phenomenon is called Biological magnification.
Yes, the level of biological magnification is different in different trophic level. In trophic level I concentration of harmful chemical is very less than other trophic level and in top level concentration of

harmful chemical is high.

Q.7 What are the problems caused by the non-biodegradable wastes that we generate?

Sol. The problems caused by the non-biodegradable wastes that we generate are:

(i) If the non-biodegradable wastes enter in food chain, damage the organisms of highest trophic level.

(ii) The non-biodegradable wastes may cause pollution like soil pollution, water pollution and air pollution in the environment.

(iii) It reduces crop yield.

(iv) The increment of non-biodegradable wastes in environment will cause imbalance of ecosystem.

Q.8 If all the waste we generate is biodegradable, will this have no impact on the environment?

Sol. If all the waste we generate is biodegradable, it will have an impact on the environment. Because large quantity of biodegradable waste cannot be broken down into simpler substances at the right time by the decomposers. Due to this, accumulation of the biodegradable wastes will increase in the environment and act as pollutants. This will create harmful effects on the environment. Example: the rotting biodegradable waste act as a place where breeding of flies, mosquito and cockroaches, etc., which spread diseasesss.

Q.9 Why is the damage to the ozone layer a cause for concern? What steps are being taken to limit this damage?

Sol. Ozone layer protects life on earth from harmful ultra violet rays of sun by absorbing it. Due to damage of ozone layer these harmful rays reach to earth's surface and cause harmful effects on us, so it is necessary to control this damage.

The steps are being taken to limit this damage:

(i) To stop the ozone layer depletion, the United Nations environment program forged an agreement among its member countries to freeze CFC production at 1986 levels.

(ii) Chlorofluoro carbons are now being replaced by hydro-fluorocarbons which do not reduce the ozone layer.