Our Environment - NCERT 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 juice
D Cake, wood and grass
SOLUTION:
Ans. : (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
SOLUTION:
Ans. :(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
SOLUTION:
Ans. : (d) All of the above

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

SOLUTION:
Ans. : It will disturb the food chains and food web which in turn, will decrease the chances of food availability to the succeeding trophic levels and finally result in instability of the ecosystem.

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?

SOLUTION:
Ans. : (i) Yes. The impact of removing all the organisms in a trophic level will be different for different trophic levels, *e.g.*, removal of all the producers (T1) will adversely affect all the types of consumers including herbivores and carnivores, while the removal of all the herbivores will adversely affect only the carnivores but there will be increase in the number of the producers.
(ii) No. Removal of all the organisms of any trophic level will always adversely affect the ecosystem, *e.g.*, the removal of lions and tigers (top carnivores) will cause rapid increase in deer population, which leads to rapid consumption of vegetation resulting in scarcity of vegetation and population crash of deer.

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

SOLUTION:
Ans. : (i) Biological magnification is characterized by the increase in the nonbiodegradable substances (DDT, Hg etc.) in successive trophic levels of a food chain.
(ii) The level of such toxic substances will be different in different trophic levels of a food chain because these substances are accumulated more in higher trophic levels.

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

SOLUTION:
Ans. : Nonbiodegradable waste does not decompose under the action of bacteria and other microorganisms. Due to this, the vital elements trapped in them are not released back to environment in the natural way. Polythene, plastics etc., when buried under soil render that area barren and lead to soil pollution. These wastes do not burn completely in presence of oxygen and release toxic gases which causes air pollution. The substances may be harmful on accumulating in food chain like DDT due to biomagnification.

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

SOLUTION:
Ans. : Even the biodegradable wastes cause the environmental pollution when the rate of their input is more than that of their decomposition. Accumulation of biodegradable wastes is responsible for:
(i) The excess of domestic sewage and nitrates from fertilizers causes excessive growth of phytoplanktons called algal bloom. This results in the depletion of oxygen dissolved in water, which causes suffocation and killing of aquatic animals.
(ii) The heaps of biodegradable solid wastes destroy the natural beauty of the landscape and make the surroundings unhygienic, while decay and decomposition of such wastes produces foul gases and causes air pollution.

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

SOLUTION:
Ans. : (i) The thinning of ozone layer results in an increase in the high energy UV-radiations reaching the earth's atmosphere, which causes increased chances of cataract and skin cancer, decreased functioning of immune system, decreased rate of photosynthesis in the plants, etc.
(ii) In 1987, UNEP (United Nations Environment Programme) succeeded in arriving at an agreement to freeze CFCs production i.e., Montreal protocol. Such preventive measures are being analysed and improved continuously.