**NCERT IN-TEXT QUESTIONS SOLVED**

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

**Ans.** Substances which can be decomposed and broken down to simpler substances by micro-organisms acting on it is called bio-degradable and those substances which cannot be acted upon by microorganisms and are not broken down into simpler substances are called non-biodegradable substances.

**2.**  Give any two ways in which bio-degradable substances would affect the environment.

**Ans.** Two ways in which bio-degradable substances would affect the environment are:

      (i) During decomposition of the substances lot of foul smell spreads in the surrounding areas.

      (ii) The place where these bio-degradable substance are present with some moisture becomes breeding ground for insects like mosquitoes, housefly which are vectors in carrying parasites that cause different diseases.

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

**Ans.** (i) The non-biodegradable substances get accumulated and doesn��t get decomposed hence it remains in the ecosystem and causes pollution, chokes the system of many animals and kill them.

      (ii) These substances due to accumulation cause water and soil pollution e.g., pesticides, detergents, polythene.

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

**Ans.** The various levels or stages in a food chain at which the transfer of food takes place is called trophic level, e.g., food chain.

            Grass → Grasshopper → frog → snake → peacock

            Grass — Producer — trophic level.

            Grasshopper — I Consumer (Herbivores) — II trophic level’.

            Frog — II Consumer (Carnivores) — II trophic level

            Snake — III Consumer (Carnivores) — III trophic level

            Peacock — IV Consumer (Carnivores) — V trophic level.

**5.**  What is the role of decomposers in the ecosystem?

**Ans.** Decomposers breakdown the complex organic substances like plant’s and animal’s dead body and convert them into simpler inorganic substances.

            All the elements that are present in the body on which decomposers act is released back to the nature. Decomposers maintain balance in the nature and plays an important role in the environment.

**6.**  What is ozone and how does it affect any ecosystem?

**Ans.** Ozone is a molecule of oxygen with 3 atoms its formula is O3. The ultra violet radiations split oxygen into free oxygen atoms, these atoms combine with oxygen molecules to form ozone.

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**Ozone Ecosystem:**

           At ground level ozone is poisonous but at higher level it is very useful as it protects all living organisms from harmful UV radiations of the sun. It doesn�t allow , the ultra violet radiations to enter the surface of earth. The UV radiations cause ionizing effect that leads,� to skin cancer in human beings.

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

**Ans.** To reduce the. problem of waste disposal we can

           (i) Segregate the. bio-degradable waste from non-biodegradable waste before dumping it.

           (ii) Remove all materials which can be recycled and send it for recycling. e.g., paper, glass, metal, rubber.

**QUESTIONS FROM NCERT TEXTBOOK**

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

       (d) Cake, wood and grass

**Ans.** (a), (c) and (d).

**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,

**Ans.** (b) Grass, goat and human

**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

**Ans.** (d) All of the above

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

**Ans.** If all the organisms in one trophic level are killed then all the organisms of next trophic level which are dependent on these are killed. Next trophic levels will no!get food to eat and the entire food chain gets disturbed. At the same time thei�organisms at the lower trophic level will reproduce and the population will increase in abundance there by , disturbing the ecosystem.

**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?

**Ans.** The impact of removing all the organisms in a trophic level will be same. If the organisms of any trophic level be removed it will certainly damage the ecosystem.

           For example,

           Grass → Grass hopper Frog → Snake → Peacock

           In this if all grasshoppers are killed/removed frogs will strive and grass will reproduce in abundance.

           If snakes are removed then the number of frogs will increase which will disturb the entire ecosystem.

**6.**  What is biological magnification? Will the levels pf this magnification ,bed different at different levels of the ecosystem?

**Ans.** The pesticides and chemicals are absorbed by plant from the soil and enter the food chain. Being non-biodegradable they accumulate progressively at, each trophic level. As human occupy the top level of any food chain, the maximum concentration of chemicals is found in our bodies. This is called biological magnification.

           The level of magnification will be different at different trophic levels, the maximum concentrations will be at the highest trophic level and the chemical will be less at lower trophic levels.

**7.**  What are the problems caused by the non-biodegradable waste that we generate?

**Ans.** (i) As the non-biodegradable waste cannot be broken down into simpler forms hence they keep on accumulating ins nature causing pollution.

           (ii) They cause diseases.

           (iii) It also causes biological magnification.

**8.**  If all the waste we generate is bio-degradable, will this have no impact on the environment?

**Ans.** If all the waste we generate is bio-degradable and is managed in such a way that it is allowed to decompose then it will have no impact on the environment.

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

**Ans.** Ozone layer in the strastosphere is very helpful in shielding harmful UV rays. In absence of ozone layer heavy damage to organism may occur. It may cause diseases like skin cancer, cataract, reduced crop production etc.

           The damage is limited bye UNEP (United Nations Environment Programme), it has forged an agreement to freeze for CFC production in 1986.

           CFC– Chlorofluorocarbons used as refrigerants and in fire extinguishers.

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