Our Environment

NCERT IN-TEXT QUESTIONS SOLVED

Q1. *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 micro-organisms and are not broken down into simpler substances are called non-biodegradable substances.

Q2. *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.

Q3. *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.

Q4. *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 — I trophic level.

Grasshopper	—	I Consumer (Herbivores)	—	II trophic level.
Frog	—	II Consumer (Carnivores)	—	III trophic level
Snake	—	III Consumer (Carnivores)	—	IV trophic level
Peacock	—	IV Consumer (Carnivores)	—	V trophic level.

Q5. *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.

Q6. *What is ozone and how does it affect any ecosystem?*

Ans. Ozone is a molecule of oxygen with 3 atoms its formula is O_3. The ultra violet radiations split oxygen into free oxygen atoms, these atoms combine with oxygen molecules to form ozone.

$$O_2 \xrightarrow[\text{rays}]{\text{UV}} O + O$$

$$O_2 + O \longrightarrow O_3(\text{Ozone})$$

Ozone in 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.

Q7. *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

Q1. *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*

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

Q2. *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

Q3. *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

Q4. *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 not get food to eat and the entire food chain gets disturbed. At the same time the organisms at the lower trophic level will reproduce and the population will increase in abundance there by disturbing the ecosystem.

Q5. *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.

Q6. *What is biological magnification? Will the levels of this magnification be different at different levels of the ecosystem?*

Ans. The pesticides and chemicals are absorbed by plants 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.

Q7. *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 in nature causing pollution.

(*ii*) They cause diseases.

(*iii*) It also causes biological magnification.

Q8. *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.

Q9. *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 by 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.

MORE QUESTIONS SOLVED

I. MULTIPLE CHOICE QUESTIONS

1. Name the thing in our body which helps us to digest food?
(*a*) hormone (*b*) enzymes
(*c*) stomach (*d*) mouth

2. Which human-made material cannot be broken down by the action of bacteria?
(*a*) human flesh (*b*) flesh of dead animal
(*c*) vegetable peels (*d*) plastic

3. Which of the following is an example biodegradable substance?
(*a*) Glass (*b*) Plants
(*c*) Plastics (*c*) Polythene

4. Which of the following is an example non-biodegradable substance?
(*a*) Virgin plastic (*b*) Plastic
(*c*) Plants (*d*) Plant products

5. Which of the following actions may not affect the environment in worse?
(*a*) Plastic bags buried inside the earth.
(*b*) Planting of trees
(*c*) Excessive use of non-biodegradable pesticides
(*d*) Burning of plastic bags.

6. Which of the following constituents do not form ecosystem?
(*a*) Biotic constituents (*b*) Plastic bags
(*c*) Abiotic constituents (*d*) All of these

7. Which of the following is an example of human made ecosystem?
(*a*) Aquarium (*b*) Sunlight
(*c*) Wind (*d*) Water

8. Which of the following is a functional unit of environment?
(*a*) Ecosystem (*b*) Nitrogen
(*c*) Carbon (*d*) Oxygen

9. Which of the following is an example of producers?
(*a*) Plastic pens (*b*) Plastic cans
(*c*) Polythene (*d*) Green plants

10. Which of the following is an example of herbivores?
(*a*) Cow (*b*) Shark
(*c*) Lion (*d*) Tiger

11. Which of the following is the full form of CFC?
(*a*) Chlorofluorine carbon (*b*) Carbonchlorofluorine
(*c*) Chlorinfluid carbon (*d*) Chlorofluorocarbon

12. Which of the following is not an example of abiotic factors?
(*a*) Light (*b*) Plants
(*c*) Heat (*d*) Temperature

13. Which of the following is the full form of UNEP?
(*a*) United Kingdom of Africa (*b*) United State of America
(*c*) United Nations Environment programme (*d*) Union English programme

14. Which of the following is not a biodegradable pollutant?
(*a*) Paper (*b*) Cotton cloth
(*c*) Cotton (*d*) DDT

15. Which of the following is terrestrial ecosystem?
(*a*) A natural forest (*b*) A lake
(*c*) A pond (*d*) An aquarium

16. Which of the following belong to same trophic level?
(*a*) Cockroach and spider (*b*) Lizard and spider
(*c*) Hawk and spider (*d*) Lizard and hawk.

17. By which way autotrophs convert energy of food?
(*a*) Solar energy to chemical energy (*b*) Bio-gas to chemical energy
(*c*) solar energy to bio-gas (*d*) Chemical energy to solar energy

18. Which of the following is omnivore?
(*a*) Lion (*b*) Hawks
(*c*) Jackal (*d*) Man

19. Which of the following is proper sequence of trophic levels?
(*a*) Producers, Herbivores, Top carnivores, Carnivores
(*b*) Top Carnivores, Carnivores, Herbivores, Producers
(*c*) Carnivores, Top Carnivores, Producers, Herbivores
(*d*) Herbivores, Carnivores, Producers, Top Carnivores

20. Which of the following is an example of food chain?
(*a*) Grass → Deer → Lion (*b*) Algae → Diatoms → Fish
(*c*) Fish → Deer → Algae (*d*) Grass → Frog → Birds

21. Which of the following is the formula of ozone?
(*a*) O_3 (*b*) O_2
(*c*) O_4 (*d*) O_6

22. How many atoms of oxygen are there in ozone?
(*a*) 3 (*b*) 4
(*c*) 2 (*d*) 1

23. What is the nature of ozone?
(*a*) It is deadly poisonous (*b*) It is fragrant
(*c*) It is smooth (*d*) It causes purple smoke

24. It which of the following devices CFC's are not produced?
(*a*) Refrigerators (*b*) Fire extinguishers
(*c*) Pressurized cans (*d*) Pencil

25. Which of the following in not an effect of ultraviolet radiations?
(*a*) Causes skin cancer (*b*) Causes sun burn
(*c*) Causes eye disease (*d*) Causes typhoid

Answers

1. (*b*)	**2.** (*d*)	**3.** (*b*)	**4.** (*b*)	**5.** (*b*)	**6.** (*b*)	**7.** (*a*)
8. (*a*)	**9.** (*d*)	**10.** (*a*)	**11.** (*d*)	**12.** (*b*)	**13.** (*c*)	**14.** (*d*)
15. (*a*)	**16.** (*d*)	**17.** (*a*)	**18.** (*d*)	**19.** (*b*)	**20.** (*a*)	**21.** (*a*)
22. (*a*)	**23.** (*a*)	**24.** (*d*)	**25.** (*d*)			

II. VERY SHORT ANSWER TYPE QUESTIONS (*1 Mark*)

Q1. *Name any two groups of producers.*

Ans. Plants and blue-green algae.

Q2. *Name two decomposers.*

Ans. Bacteria and fungi

Q3. *Write the two raw materials for making food, used by living organisms of first tropic level.*

Ans. CO_2 and Water

Q4. *Which component of sunlight is used for the formation of ozone?*

Ans. Ultra violet radiation.

Q5. *Name 4 abiotic components of any ecosystem.*

Ans. Temperature, rainfall, wind, soil.

Q6. *Name two natural ecosystem.*

Ans. Pond ecosystem and forest ecosystem.

Q7. *Name two artificial ecosystem.*

Ans. Garden and crop-field.

Q8. *What are consumers in the food chain?*

Ans. Those organisms which consume the food produced either directly from producers or indirectly by feeding on other organisms are called consumers.

Q9. *Name the natural cleansing agent in an ecosystem.*

Ans. Decomposers, scavengers

Q10. *Expand UNEP*

Ans. United Nations Environment Programme.

Q11. *Define biological magnification.*

Ans. The accumulation of chemicals in the bodies of the organism that belongs to the top most tropic level is called biological magnification.

Q12. *What is bad Ozone?*

Ans. Ozone at ground level is deadly poisonous and is called as bad Ozone.

III. SHORT ANSWER TYPE QUESTIONS (*2 or 3 Marks*)

Q1. *Why is plastic bag called non-biodegradable while paper is not?*

Ans. Plastic bag is not acted upon by decomposers as it cannot be broken down into simple components, so it is called non-biodegradable while paper gets decomposed.

Q2. *Differentiate between natural and artificial ecosystem.*

Ans.

Natural ecosystem	**Artificial ecosystem**
Naturally occurring ecosystem. *E.g.,* pond, grassland, forest	These are man-made ecosystem. *E.g.,* garden, aquarium, crop-field.

Q3. *Pesticides are useful to farmers yet considered as pollutants. Give reasons.*

Ans. Pesticides kill insects and pests thereby protecting the crops but these pesticides remain on the crops which enter the food chain and gets accumulated in the organisms

and reaches the top most trophic level that causes diseases. When washed away by rain, it causes pollution of water.

Q4. *Why decomposers are necessary in environment?*

Ans. Decomposers act on all biodegradable substances and break them into simple inorganic materials and maintain the balance of materials in the ecosystem and cleanse the environment.

Q5. *Give one advantage and one disadvantage of Ozone.*

Ans. Advantage of Ozone–When it is in the stratosphere it does not allow the ultraviolet radiations to reach the earth, as UV radiations cause skin cancer and cataract.

Disadvantage of ozone: On ground level ozone is poisonous gas.

Q6. *Give one example of grassland ecosystem and one example of pond ecosystem.*

Ans. **Grass land Ecosystem:** Grass → grasshopper → frog → snake → peacock.

Pond Ecosystem : Blue-green algae → small fish → big fish → birds

Q7. *Energy flow in a food chain is unidirectional. Explain.*

Ans. The energy from the sun flows into autotrophs and it passes to herbivores and then to carnivores. The energy does not revert from autotrophs to the solar input or from herbivores back to autotrophs. Hence the flow is unidirectional.

Q8. *State different types of consumers in an ecosystem.*

Ans. The consumers are herbivores, carnivores, omnivores, parasites, saprophytes and decomposers.

Q9. *Differentiate between biodegradable and non biodegradable substances.*

Ans. **Biodegradable:** These substances can be broken down by the action of saprotrophs and other agents, *e.g.,* paper, cloth.

Non biodegradable: These substances cannot be broken down by the action of saprotrophs, *e.g.,* glass, plastics.

Q10. *Define an ecosystem. Explain in detail about its various components.*

Ans. Ecosystem is defined as a well defined unit or area in an environment where biotic and abiotic components interact with each other to maintain balance in nature.

Biotic components – producers, consumers, saprotrophs.

Abiotic components – air, water, sunlight.

Q11. *What is a food chain? List its characteristics features.*

Ans. Food chain is defined as the phenomenon of transfer of energy through series of organisms falling on successive trophic levels.

Example: sun is the ultimate source of energy. Producers or green plants photosynthesize and utilize solar energy. Thereafter the energy is transferred to other successive levels.

Food chain can be depicted as follows:

Plants → grasshopper → frog → snake → decomposers

Q12. *Minimum energy is available at highest trophic level while maximum energy is at lowest level. Explain.*

Ans. Since non-biodegradable substances cannot be broken down into simpler forms hence they keep on accumulating in nature causing ecological imbalance.

Q13. *What is biological magnification?*

Ans. The accumulation of chemicals in the bodies of the organism that belongs to the top most tropic level is called biological magnification. As human beings occupy highest trophic level its maximum concentration was found in human beings only, which resulted in neurological disorders due to damaging of CNS (Central Nervous System).

Q14. *How is ozone layer important to us?*

Ans. Ozone is a pollutant at lower level of atmosphere but is very useful in shielding harmful UV rays. This layer is present in the stratosphere.

In absence of ozone layer heavy damage to organism may occur e.g. skin cancer, cataract etc.

Q15. *What is causing the damage to ozone layer?*

Ans. The CFC emission due to various industrial activities has caused damage to the Ozone layer and has contributed to global warming by allowing a major portion of UV rays to reach the earth's atmosphere through ozone holes.

Q16. *What are the problems caused by the non-biodegradable waste that we generate?*

Ans. Non-biodegradable waste doesn't decompose under the action of bacteria and other microorganisms.

- When these substances, e.g., polythene, plastics are buried under soil render that area barren and leads to soil pollution.
- These wastes don't 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.

Q17. *Why is damage to ozone layer a cause for concern? What steps are being taken to limit this damage?*

Ans. Ozone layer doesn't allow harmful ultra violet rays of the sun to reach the earth's surface.

In order to stop further depletion of ozone layer we must scale down the use of CFC's in form of aerosols, refrigerants etc and check their release in the atmosphere.

Moreover stress should be laid on using eco-friendly techniques and proper disposal of toxic material.

Q18. *Why are bacteria and fungi called decomposers? List any two advantages of decomposers to the environment.* (CBSE 2008)

Ans. Bacteria and fungi are called decomposers as they break down the dead remains and waste of organisms. They convert the organic complex substance into simple inorganic substances that go into the soil and are used up by plants.

Two advantages of decomposers:

1. They return the components back to nature and creates balance in the environment.
2. They act as cleansing agents of the atmosphere.

Q19. (*a*) *Distinguish between producers and decomposers.*

(*b*) *Classify the following as producers and decomposers.*

Green plants, bacteria, fungi, blue-green algae. (CBSE 2008 F)

Ans. (*a*)

Producers	Decomposers
1. Producers convert simple inorganic substances into complex organic substances	Decomposers break the complex organic substances into simple inorganic substances.
2. Producers are autotrophs that can prepare food with CO_2, H_2O, chlorophyll and sunlight *e.g.,* green plants.	Decomposers decompose the complex substances present in the plants, animals *e.g.*, bacteria, fungi.

Q20. *Why is the ozone layer getting depleted at the higher levels of the atmosphere?* (CBSE 2008)

Ans. Ozone is present at higher levels of the atmosphere where CFC – Cholorofluorocarbons reach, chlorine separates and acts on O_3 to split it into O_2 and (O). The conditions required to do this are available at higher levels *i.e.,* clouds and sunlight.

Q21. *Name any two abiotic components of an environment.* (CBSE 2009)

Ans. Water, air.

Q22. *What are the two main components of our environment?* (CBSE 2009)

Ans. Biotic (living components) $\longrightarrow$ Plants, animals

Abiotic (non-living components) $\longrightarrow$ Water, air

Q23. *Which compounds are responsible for the depletion of ozone layer?* (AI CBSE 2009)

Ans. Chlorofluorocarbons (CFC)

Q24. *Why are green plants called producers?* (AI CBSE 2009)

Ans. Green plants can prepare complex organic matter as food from simple inorganic substances like CO_2, H_2O in presence of sunlight and chlorophyll. They produce food and hence called producers.

Q25. *Which disease is caused in human beings due to depletion of ozone layer in the atmosphere?* (CBSE 2009 F)

Ans. Skin cancer, cataract.

IV. LONG ANSWER TYPE QUESTIONS (*5 Marks*)

Q1. *Enlist various categories of consumers giving examples of each.*

Ans. The various categories of consumers are:

Herbivores — Grass eating animals, *e.g.,* deer, rabbit.

Carnivores — Flesh eating animals, *e.g.,* tiger, lion.

Omnivores — Animals that eat both plants and other small animals *i.e.,* flesh *e.g.,* crow, human being.

Parasites — Those organisms which depend on other living organisms and harm them for food, *e.g.,* lice, tapeworm.

Saprophytes — Organisms that depend on dead and decaying matter for their food, *e.g.,* fungi, bacteria.

Q2. *What three informations are obtained from the energy flow diagrams?*

Ans. The information we get are:

(*i*) The energy flow is unidirectional, it flows from sun → autotrophs → herbivores → carnivores → decomposers

(*ii*) The flow of energy is 10% *i.e.*, 90% of the energy is used by a given level of food chain for metabolic activities.

(*iii*) The unwanted chemicals like pesticides gets accumulated in the highest organism in the food chain.

Q3. *Explain the interlink of biotic and abiotic factors in any ecosystem.*

Ans. In an ecosystem biotic and abiotic factors are interdependent and interlinked.

For example: The grass in grassland will grow only if it gets **soil** which can hold **water** and gets **sunlight** with proper temperature hence the grass grows in a place which has all abiotic factors responsible for its growth but in desert these abiotic factors are not available for the growth of grass.

Q4. *Explain the formation of ozone layer and its importance.*

Ans. Ozone is formed when high energy ultra violet radiations split oxygen molecule into oxygen atoms. The oxygen atom combines with oxygen molecules to form a new molecules with three oxygen atoms named ozone.

$$O_2 \xrightarrow{\text{UV rays}} O + O$$

$$O_2 + O \longrightarrow \underset{\text{Ozone}}{O_3}$$

Importance of Ozone: It is very protective when present in stratosphere it does not allow the harmful ultra violet radiations to enter the earth's surface which can cause skin cancer in human beings.

Q5. *What is biological magnification? Explain giving one example.*

Ans. The accumulation of chemicals in the top most organism of the trophic level or food chain is called biological magnification.

Example: Farmer sprays pesticides on the crops which enters the food chain, from crops these pesticides enter into the organisms that feed on it.

grass ⟶ grasshopper ⟶ frog ⟶ snake ⟶ hawk

In this food chain the maximum amount of pesticide will be found in the top most organism *i.e.*, in hawk the chemical keeps accumulating.

Q6. *What are decomposers? How are they important for the ecosystem?*

Ans. Decomposers are the organisms which act on dead organisms to decompose the body so as to release all the elements back to nature.

They act as cleansing agents, hence they are important in the ecosystem.

Q7. *What is the importance of ozone in the environment why is it depleting? What precautions are taken to preserve it?*

Ans. Ozone is present in the stratosphere. It protects the earth from harmful ultraviolet radiations. UV ray causes various diseases to organisms e.g. skin cancer, cataract in human beings.

Ozone layer is depleting because of chlorides and fluorides. They act on ozone molecules and deplete it. Chlorides, fluorides are present in CFC's which are used in refrigerants and fire extinguishers.

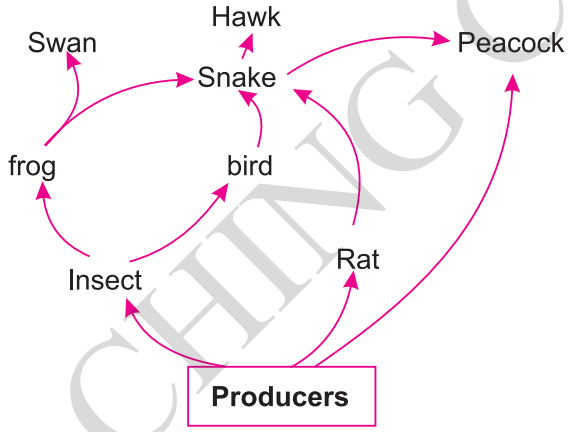
CFC $\longrightarrow$ Chlorofluorocarbon

The precautions taken to preserve the ozone layer is to ban the use of CFC's.

Q8. What are food-chains and food webs? Why are smaller food chains better? What is 10% flow?

Ans. **Food chain:** The flow of food from sun to autotrophs, from autotrophs to herbivores and from herbivores to carnivores is called food chain. A food chain can have two levels or five to six levels also.

Food web: When an organism is eaten by two or more other kinds of organisms, instead of straight chain an interlinked chain is formed, is termed as food web.



Food web

Smaller the food chain the energy available for the next level of consumer in such a chain is more. As the loss of energy at each step takes place and very little energy is left after four trophic levels.

The green plants in terrestrial ecosystem capture about 1% of the sun's energy and convert it into food energy. When green plants are eaten by primary consumers—a great deal of energy is lost for the life processes and only 10% of the energy is available for the next level of consumers.

Q9. *"Damage to the ozone layer is a cause of concern". Justify this statement suggest any two steps to limit this damage.* (CBSE 2008)

Ans. Ozone is a molecule of oxygen with 3 atoms *i.e.,* O_3. It is formed due to sunlight at higher levels with higher wavelength.

$$O_2 \xrightarrow[\text{rays}]{\text{UV}} (O) + (O)$$

$$O_2 + (O) \longrightarrow O_3$$

Ozone is found in stratosphere shielding the earth by protecting it and by not allowing UV rays to reach the earth.

If these rays will reach the earth then many harmful diseases are caused like skin cancer, cataract, it also affects the growth of plants and vegetation.

Two steps to limit the damage of this layer are:

(*i*) Do not use aerosols, or any products which will release CFC (chlorofluorocarbon) in the atmosphere.

(*ii*) Ban on use of CFC as refrigerant and in fire extinguishers.

Q10. *Distinguish between biodegradable and non-biodegradable substances. List two effects of each of them on our environment.* (CBSE 2008)

Ans.

Biodegradable substance	Non-biodegradable substance
1. Substances can be decomposed by micro-organisms	1. Substances cannot be 2. decomposed by micro-organisms.
2. Do not get accumulated in environment.	It gets accumulated in environment.
3. Do not cause any pollution	3. It causes pollution.

Two effects on environment.

(*i*) Releases foul smell while decomposing in surrounding areas.	(*i*) It gets accumulated causing water and soil pollution and causes biological magnification.
(*ii*) It acts as a breeding ground for insects.	(*ii*) It disturbs the ecosystem by interfering in the food chain and killing many animals.

V. VALUE-BASED QUESTION

Q1. *All eco-club students collect the vegetable peels from canteen and use them in compost pit made in their school.*

(a) Name items that can be added in compost pit other than vegetable peels.

(b) What type of reaction is seen in the pit?

(c) State the values seen among eco-club members.

Ans. (*a*) Students can use leftover food and fruit peels, dried leaves.

(*b*) Fermentation i.e., anaerobic decomposition.

(*c*) The eco-club students show team work, collaborative work and good behaviour.

TEST YOUR SKILLS

Q1. *Why is sun considered to be the ultimate source of energy?*

Q2. *In a pond ecosystem all green plants die due to certain chemical. Will the food chain continue?*

Q3. *A dead insect and cockroach are kept covered in the soil. Which organism will decompose first and why?*

Q4. *In a case study an environmentalist states that a place where there were plenty brick kiln has a problem of scarcity of underground water. What could be the reason for the same?*

Q5. *Explain why, when a chemical enters the food chain the maximum concentration of the chemical is found in the highest trophic level?*

Q6. *Explain why, when energy flows in a food chain the maximum energy is found in the lowest trophic level and the least energy is found in the top most trophic level?*

Q7. *Vultures feed on dead animals. It was found that vultures when laid eggs it could not hatch the young ones as some chemical interfered in the food chain. What is this process called?*

Q8. *Which compound is responsible for the depletion of ozone layer?*

Q9. *What are the two main components of our environment?*

Q10. *Expand UNEP.*

Q11. *Define 'biological magnification'.*

Q12. *Name two decomposers.*

Q13. *Differentiate between natural and artificial ecosystem.*

Q14. *Energy flow in a food chain is unidirectional. Explain.*

Q15. *What are the problems caused by the non-biodegradable waste that we generate?*

Q16. *Explain the formation of ozone layer and its importance.*

Q17. *Distinguish between:*

(a) producers and decomposers.

(b) biodegradable and non-biodegradable substances.

Q18. *How can you help in reducing the problem of waste disposal? Give any three methods.*

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