
🌱 Chapter 15 – Our Environment (30 Important Q&A)

Basic Concepts

Q1. Define environment.
Ans: The sum of all external conditions (air, water, soil, organisms, sunlight) that affect the life of organisms.

Q2. What is an ecosystem?
Ans: A system where living organisms interact with each other and with their physical environment.

Q3. Components of ecosystem:
Ans: Biotic (plants, animals, microbes) and Abiotic (air, water, soil, temperature).

Q4. Give two natural ecosystems.
Ans: Forest, pond.

Q5. Give two artificial ecosystems.
Ans: Garden, aquarium, crop field.

Food Chain and Food Web

Q6. Define food chain.
Ans: A sequence of organisms showing how energy is transferred from one organism to another.

Q7. Example of a simple food chain in grassland.
Ans: Grass → Grasshopper → Frog → Snake → Hawk.

Q8. Define food web.
Ans: Interconnected food chains in an ecosystem.

Q9. Define trophic level.
Ans: Each step in a food chain is called a trophic level.

Q10. First trophic level always consists of:
Ans: Green plants (producers).

Energy Flow

Q11. What is the main source of energy in ecosystem?
Ans: Sunlight.

Q12. Law of 10% energy transfer (Ten Percent Law):
Ans: Only 10% of energy is transferred to the next trophic level; rest is lost as heat.

Q13. Who proposed 10% law?
Ans: Raymond Lindeman.

Q14. Why is food chain short?
Ans: Because only 10% energy is passed on, so energy decreases at higher levels.

Q15. What happens if all carnivores are removed?
Ans: Herbivore population will increase uncontrollably, disturbing balance.

Waste & Pollution

Q16. What are biodegradable substances?
Ans: Substances decomposed by microorganisms (e.g., food waste, paper, cow dung).

Q17. What are non-biodegradable substances?
Ans: Substances not decomposed by microorganisms (e.g., plastics, metals, pesticides).

Q18. Why are plastics harmful?
Ans: Non-biodegradable, cause pollution, choke animals, block drains.

Q19. What is biological magnification?
Ans: Gradual increase in concentration of harmful chemicals (like pesticides) in food chain.

Q20. Example of biomagnification:
Ans: DDT in aquatic food chain (from plankton → fish → birds → humans).

Ozone Depletion

Q21. What is ozone layer?
Ans: A layer of ozone (O_3) in the stratosphere that absorbs harmful UV radiation.

Q22. Importance of ozone layer:
Ans: Protects living organisms from harmful ultraviolet rays.

Q23. Major cause of ozone depletion:
Ans: CFCs (Chlorofluorocarbons).

Q24. Effects of ozone depletion:
Ans: Skin cancer, eye problems, reduced crop yield.

Q25. In which year was the Montreal Protocol signed?
Ans: 1987 (to control ozone-depleting substances).

Conservation & Awareness

Q26. What are 3Rs of waste management?
Ans: Reduce, Reuse, Recycle.

Q27. Why should we prefer biodegradable substances?
Ans: They decompose naturally, cause less pollution.

Q28. Give one method to manage non-biodegradable waste.
Ans: Recycling (e.g., plastic bottles into new products).

Q29. Define sustainable development.
Ans: Development that meets present needs without compromising future generations.

Q30. Give two ways to protect environment.
Ans: Plant more trees, reduce use of plastics.