



Attempt questions first; check the separate key afterward. Formative-only supplementary topic in CBSE 2026-27. Give mechanisms, examples and numerical working.

A. Very short answers - 1 mark each

1. What is a pollutant?
2. Name the main gas removed by a scrubber in a common textbook example.
3. Name a device removing fine particles using electrical charges.
4. Expand BOD.
5. Name nutrient enrichment leading to excessive algal growth.
6. Name increasing pollutant concentration at higher trophic levels.
7. Name one important greenhouse gas.
8. Name chemicals historically associated with stratospheric ozone depletion.

B. Short answers / practice - 2 marks each

9. Distinguish primary and secondary air pollutants.
10. Explain how particulate pollution can affect respiratory health.
11. Describe an electrostatic precipitator's principle.
12. Explain the function of catalytic converters in vehicle exhausts.
13. Why can high organic sewage load deplete dissolved oxygen?
14. Compare natural and accelerated eutrophication.
15. Describe consequences of pesticide biomagnification.
16. Explain why persistent pollutants differ from rapidly degradable wastes.
17. Compare recycling, composting and disposal in engineered landfills.
18. Why must electronic waste be handled separately from kitchen waste?
19. Explain risks from indiscriminate agrochemical use.

20. Describe integrated pest management as a pollution-reduction strategy.

C. Application / reasoning - 3 marks each

21. BOD decreases from 250 to 50 mg/L after treatment. Find reduction percentage.
22. Waste generation falls from 800 to 600 kg/week. Find percentage reduction.
23. Explain the natural greenhouse effect and enhanced warming.
24. Distinguish global warming from stratospheric ozone depletion.
25. Describe the harmful effects of increased UV-B exposure.
26. Explain why radioactive waste requires isolation and controlled handling.
27. Describe causes and consequences of deforestation.
28. Explain how improper irrigation can cause waterlogging and salinity.
29. Compare afforestation with restoration of a complex natural forest.
30. Can dilution alone remove a persistent pollutant from the environment?
31. Explain the role of citizen participation in environmental management.

D. Extended practice - 5 marks each

32. Describe major air-pollution control methods with diagrams and limitations.
33. Trace eutrophication and biomagnification, and compare their mechanisms.
34. Discuss solid, electronic, agricultural and radioactive waste-management principles.
35. Design an integrated local plan for cleaner air, water, waste reduction and habitat protection.

ANSWER KEY - Numerical / closed questions

- 2) Sulphur dioxide. 3) Electrostatic precipitator. 4) Biochemical oxygen demand. 5) Eutrophication. 6) Biomagnification. 7) CO₂, methane or nitrous oxide. 8) CFCs. 21) 80%. 22) 25%. 30) No.