CHAPTER

16

Environmental Issues

PRACTICE QUESTIONS

Pollution

1. Pollution is any undesirable change in physical, chemical or biological characteristics of
(a) Air (b) Land (c) Water or soil (d) All of these

2. Agents which cause pollution are known as
(a) Mutants (b) Carcinogens (c) Pollutants (d) Allergens

3. In which year did Government of India pass the Environment (Protection) Act to protect and improve the quality of environment (air, water and soil)?
(a) 1978 (b) 1986 (c) 1981 (d) 1987

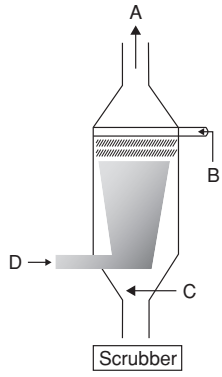
4. What are the effects of air pollution on plants?
(a) Growth retardation (b) Decrease in yield
(c) Premature death (d) All of these

5. Which system of humans and animals are affected mostly by air pollution?
(a) Respiratory system (b) Digestive system
(c) Circulatory system (d) Excretory system

6. Harmful effects of air pollution depends on
(a) Concentration of pollutants (b) Duration of exposure
(c) Type of organism (d) All of these

7. The most widely used and effective device for removing particulate matter is
(a) Arrester (b) Scrubber
(c) Electrostatic precipitator (d) Converters

8. Identify A, B, C and D in the diagram.



(a) A: Dirty air, B: Water line spray, C: Clean air, D: Particulate matter
(b) A: Clean air, B: Water line spray, C: Particulate matter, D: Dirty air
(c) A: Water line spray, B: Particulate matter, C: Clean air, D: Dirty air
(d) A: Particulate matter, B: Dirty air, C: Clean air, D: Water line spray

9. ESP removes approx _____% of particulate matter present in exhaust from a thermal power plant.
(a) 60 (b) 80 (c) 99 (d) 85

10. Which statement is incorrect about ESP (Electrostatic Precipitator)?
(a) Corona produces electrons.
(b) Collecting plates are grounded, so it is used to attract the charged dust particle.
(c) Velocity of air between the plates must be low.
(d) Electrodes wires that are maintained at hundred volts produces corona.

11. Scrubber is used to remove which of the following gas?
(a) SO_2 (b) N_2 (c) O_2 (d) CO_2

12. According to CPCB which particulate size causes greatest harm to human health?
(a) 2.5 μm (b) 3.5 μm (c) 4.5 μm (d) 5.2 μm

13. PM 2.5 or less than that in diameter in air causes
(a) Irritation and inflammation in lungs (b) Damage to lungs
(c) Premature deaths (d) All of these

14. _____ is a major cause of air pollution in metro cities.
(a) Factory (b) Automobiles
(c) Smoking (d) Thermal power plant

15. Automobile pollution is reduced by using
(a) Lead-free petrol or diesel (b) Catalytic converters
(c) Both (a) and (b) (d) None of these

16. The metal used in catalytic converter in automobiles is
(a) Platinum (b) Palladium (c) Rhodium (d) Any of these

17. What is/are done by catalytic converters?
(a) Unburnt hydrocarbons are converted to CO_2 and H_2O.
(b) CO in converted to CO_2.
(c) Nitric oxide is changed to N_2.
(d) All the above

18. Motor vehicle equipped with catalytic converters should use unleaded petrol because
(a) Lead activates the catalyst (b) Lead deactivates catalyst
(c) Lead increases fuel efficiency (d) Lead decreases fuel efficiency

19. Match the columns.

Column–I	**Column–II**
A. Air (Prevention and Control of Pollution) Act	1. 1987
B. Water (Prevention and Control of Pollution) Act	2. 1981
C. Noise added as air pollutant	3. 1974
D. Environment (Protection) Act	4. 1986

(a) A:2, B:3, C:4, D:1 (b) A:2, B:3, C:1, D:4
(c) A:4, B:3, C:2, D:1 (d) A:4, B:3, C:1, D:2

20. Noise is an undesirable high level of sound and causes all of these except
(a) Psychological disorder (b) Increased heart beat
(c) Altered breathing pattern (d) Sleepiness

21. A brief exposes of extremely high sound level, of _____ or more generated by takeoff of jet plane or rocket, may damage ear drums thus permanently impairing hearting ability.
(a) 80 dB (b) 20 dB (c) 150 dB (d) 60 dB

22. Which of these measures can be adopted to control noise pollution?
(a) Areas around hospitals and schools should be made horn-free zones.
(b) Use of loudspeakers should be restricted to a fixed intensity and fixed hours of the day,
(c) Occupational exposure to noise can be reduced by using cotton plugs.
(d) All the above

23. In the 1990s Delhi ranked _____ among the 41 most polluted cities in the world.
(a) 1st (b) 2nd
(c) 3rd (d) 4th

24. CNG is a better fuel than petrol or diesel because CNG
(a) Burns efficiently
(b) Cannot be siphoned off and adulterated
(c) Non-carcinogenic and non-corrosive
(d) All of these

25. According to Euro II norms, sulphur should be controlled at _____ in diesel and _____ in petrol.
(a) 350 ppm, 150 ppm (b) 50 ppm, 150 ppm
(c) 50 ppm, 50 ppm (d) 350 ppm, 50 ppm

26. Four wheelers have to follow the Bharat stage IV in how many mega cities of India since April, 2010?
(a) 11 (b) 12 (c) 13 (d) 14

27. Bharat stage III is applicable to 2 and 3 wheelers throughout the country since
(a) 2008 (b) 2009 (c) 2010 (d) 2011

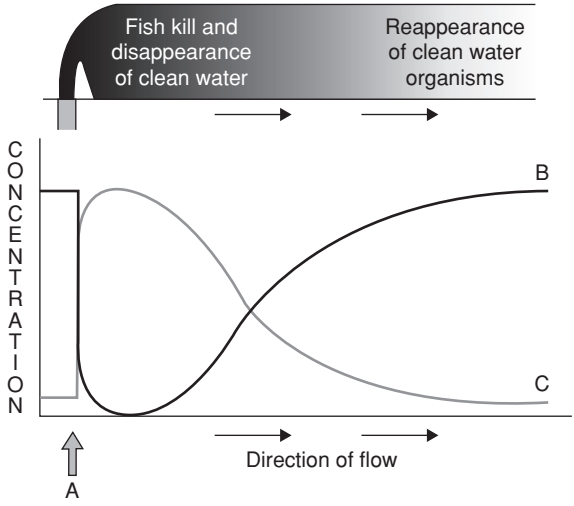
28. What is the minimum percentage of impurity that makes domestic sewage unfit for human use?
(a) 0.1% (b) 1% (c) 3% (d) 10%

29. Match the columns for the composition of waste water which contains 0.1% impurities.

Column–I	**Column–II**
A. Suspended solid	1. Nitrate, NH_3, sodium, calcium and phosphate
B. Colloidal material	2. Fecal matter, bacteria, cloth and paper
C. Dissolved material	3. Sand, silt and clay

(a) A:1, B:2, C:3 (b) A:3, B:2, C:1
(c) A:2, B:3, C:1 (d) A:1, B:3, C:2

30. Identify A, B and C in the figure.



(a) A: Dissolved oxygen, B: BOD, C: Sewage discharge
(b) A: Sewage discharge, B: Dissolved oxygen, C: BOD
(c) A: BOD, B: Sewage discharge, C: Dissolved oxygen
(d) A: Dissolved oxygen, B: Sewage discharge, C: BOD

31. Which of the following is the most difficult to remove from waste water?
(a) Suspended solids (b) Dissolved salts
(c) Biodegradable waste matter (d) All of these

32. Select the incorrect matching.
(a) BOD → Biochemical Oxygen Demand
(b) JFM → Joint Forest Management
(c) DU → Degree of Unsaturation
(d) FOAM → Friends of the Arcata March

33. What happens to sewage water from the point of sewage discharge?
(a) Dissolved oxygen ↓eses (b) Mortality of fish ↑eses
(c) Biological oxygen demand ↑eses (d) All of these

34. World's most problematic aquatic weed is
(a) Terror of Bengal (b) Water hyacinth
(c) *Eichhornia crassipes* (d) All of these

35. Water hyacinth is introduced in India for
(a) High growth rate (b) Beautiful flowers
(c) Disease resistance gene (d) All of these

36. The presence of large amount of nutrients in water causes excessive growth of planktonic (free-floating) algae, called. This is called
(a) Red tide (b) Bio-magnification
(c) Algal bloom (d) Biofortification

37. Which of these diseases is/are caused by contaminated water?
(a) Dysentery (b) Typhoid, jaundice
(c) Cholera (d) All of these

38. Heavy metal in waste water comes from
(a) Petroleum industries (b) Paper manufacturing industries
(c) Metal extraction industries (d) All of these

39. Which of the following are heavy metals (density > 5gm/cc)?
(a) Hg, Cd (b) Cu
(c) Pb (d) All of these

40. Increase in concentration of the toxic substances at successive trophic levels is known as
(a) Biofortification (b) Biowar
(c) Bioinformatics (d) Biomagnification

41. The phenomena of biomagnification in aquatic ecosystem is well-known for the rising presence of
(a) Hg (b) DDT
(c) Both (a) and (b) (d) None of these

42. If the water contains 0.003ppb of DDT then fish eating birds contain what level of DDT?
(a) 0.04 ppm (b) 2 ppm
(c) 0.5 ppm (d) 25 ppm

43. High concentration of DDT causes decline in
(a) Fish population (b) 200 plankton population
(c) Small fish population (d) Bird population

44. Which of these is/are true about DDT?
(a) Undergo biomagnifications in aquatic ecosystem.
(b) Disturbs calcium metabolism in bird.
(c) Causes thinning of eggshell leads to premature breaking.
(d) All the above

45. Natural aging of lake by nutrient enrichment of its water is
(a) Biofortification (b) Biomagnification
(c) Biogeochemical cycle (d) Eutrophication

46. Eutrophication occurs because of
(a) Ca and Mg (b) Nitrogen and phosphorous
(c) Carbon and oxygen (d) Hg and DDT

47. Natural aging of lake depends on
(a) Climatic factors (b) Size of lake
(c) Nutrient content of lake (d) All of these

48. Accelerated aging process of lake, because of pollutants from activities like effluents from the industries and homes, is known as
(a) Cultural eutrophication (b) Accelerated eutrophication
(c) Both a and b (d) Biomagnification

49. Which of the following is/are caused by algal bloom in a water body?
(a) Scum
(b) Unpleasant odour
(c) Robbing the water of dissolved oxygen
(d) All of these

50. Select the correct statement from the following.
(A) Thermal wastewater eliminates or reduces the number of organisms sensitive to high temperature.
(B) In a young lake the water is cold and clear supporting little life.
(C) DDT disturbs calcium metabolism in birds, which causes thinning of eggshell and their premature breaking, eventually causing decline in bird population.
(D) Terror of Bengal grows abundantly in eutrophic water bodies.
(a) A and B only (b) C and D only
(c) A and D only (d) A, B, C and D all

51. Which of these facts are true with regard to wastewater treatment in the town of Arcata, California?
(a) The cleaning occurs in two stages.
(b) In the first stage, conventional sedimentation, filtering and chlorine treatment are given.
(c) In the second stage biologists developed a series of six connected marshes of over 60 hectors of marshland, appropriate plant, algae, fungi and bacteria are seeded in this area, which neutralizes, absorb and assimilates the pollutants.
(d) All the above

52. Dry composting toilet is useful in handling human excreta because this is
(a) Practical and hygienic (b) Efficient
(c) Cost-effective (d) All of these

53. 'EcoSan' toilets have been made effective in many areas of:
(a) Kerala (b) Sri Lanka
(c) Both (a) and (b) (d) None of these

54. Find the incorrect statement.
(a) Sanitary landfills were adopted as the substitute for open burning dumps.
(b) Seepage of chemical from landfills pollutes the underground water resources.
(c) All waste that we generate can be categorized into three types, i.e., bio-degradable, recyclable and non-biodegradable.
(d) Open dumps inhibit breeding of rats and flies.

55. Select the correct statement.
(A) Use of incinerator is crucial to the disposal of hospital waste.
(B) Recycling is the only solution for the treatment of e-waste.
(C) Fish-eating birds containing 2ppm DDT become agents of biomagnifications.
(D) Polybend, is a fine powder of bitumen.
(a) A and B only (b) B and C only
(c) C and D only (d) A, B and C only

56. Road laid by polyblend with bitumen have all of the following properties except
(a) More water repellant (b) Increases road life by a factor of three
(c) Less bleeding in summer (d) Increases the cost of road laying

57. Who prepared polyblend?
(a) Ahmed Khan (b) Ramesh Chand Dagar
(c) Amrita Devi (d) Sunderlal Bahuguna

58. Who created Haryana Kisan Welfare Club?
(a) Ahmed Khan (b) Ramesh Chand Dagar
(c) Amrita Devi (d) Sunderlal Bahuguna

59. Integrated organic farming is a _____ and _____ procedure.
(a) non-cyclical, zero waste (b) cyclical, zero waste
(c) non-cyclical, wasteful (d) cyclical, wasteful

60. Accidental leakage in nuclear plants occurred in
(a) Three mile island (b) Chernobyl
(c) Bhopal (d) Both (a) and (b)

61. The problem with the use of nuclear energy is
(a) Accidental leakage (b) Safe disposal of radioactive waste
(c) Both (a) and (b) (d) None of these

62. Which of these is/are true with regard to nuclear radiation coming from nuclear waste?
(a) It causes mutation at very high rate (b) High dose of radiation is lethal
(c) Low doses causes diseases like cancer (d) All of these

63. How deep should nuclear waste after sufficient pre-treatment be buried (in shielded containers) within the rocks below the earth's surface?
(a) 100 m (b) 200 m (c) 300 m (d) 500 m

Green House Effect and Global Warming

64. Without greenhouse effect the average temperature at surface of Earth would have been _____.
(a) –0°C (b) 15°C (c) –18°C (d) 6°C

65. Earth's present average temperature is
(a) 0°C (b) 15°C (c) –18°C (d) 6°C

66. What part of the incoming solar radiation actually comes through and falls on Earth's surface heating it?
(a) 1/4 (b) 1/2 (c) 1/3 (d) 2/3

67. Which gas contributes the maximum to the greenhouse effect?
(a) CH_4 (b) CO_2 (c) CFCs (d) N_2O

68. What is the contribution of methane gas to the total global warming?
(a) 60% (b) 20% (c) 14% (d) 6%

69. During the past century, the temperature of earth has increased by _____.
(a) 0.6°C (b) 5°C (c) 6°C (d) 1°C

70. Greenhouse gases absorb _____ radiation from the earth and emits it again towards the earth. The cycle continues till the earth's surface has no_____ radiation to emit.
(a) long wave (infrared), long wave (b) short wave (uv), long wave
(c) long wave (infrared), short wave (uv) (d) short wave (uv), short wave (uv)

71. Rise in temperature is leading to deleterious changes in the environment and resulting is odd climatic change such as
(a) Ozone depletion (b) Greenhouse effect
(c) Water logging (d) El Nino effect

72. We can control global warming by the following means except
(a) Cut down use of fossil fuel (b) Slow down growth of human population
(c) Improving efficiency of energy uses (d) Deforestation

73. The thickness of ozone is measured in terms of
(a) BOD (b) D.O.
(c) DU (d) ROP

74. Bad ozone is formed in
(a) Stratosphere (b) Ionosphere
(c) Troposphere (d) Lithosphere

75. Which of the following biomolecule absorbs UV radiation?
(a) DNA (b) Protein
(c) Both (a) and (b) (d) Carbohydrates

76. Good ozone is found in
(a) Stratosphere (b) Ionosphere
(c) Troposphere (d) Lithosphere

77. Ozone degradation is done by
(a) DDT (b) CFCs
(c) CH_4 (d) CO_2

78. In stratosphere, UV rays act on CFCs (Chlorofluoro Carbons) and release which atom leading to ozone depletion?
(a) 'F' atoms (b) 'Cl' atoms
(c) 'H' atoms (d) 'C' atoms

79. Which of these is incorrect about ozone depletion?
(a) CFCs releases 'Cl' atom causes degradation of O_3.
(b) 'Cl' atoms acts as catalyst.
(c) 'Cl' atom is not consumed in the reaction.
(d) It is minimum over Antarctica region

80. Antarctic region has a large area of thinned ozone layer, commonly known as
(a) Dobson unit (b) Ozone hole
(c) Black hole (d) All of these

81. UV-B radiation causes
(a) Damage to DNA (b) Aging of skin
(c) Skin cancer (d) All of these

82. In human eye, cornea absorbs UV- B radiation and a high dose of UV-B causes inflammation of cornea, known as
(a) Night blindness (b) Xerophthalmia
(c) Epicanthus (d) Snow-blindness

83. Which international treaty was signed at Montreal (Canada) in 1987 (effective in 1989) to control the emission of ozone depleting substances?
(a) Kyoto Protocol (b) Earth Summit
(c) Montreal Protocol (d) All of these

84. Ozone hole over Antarctica develops each year between
(a) Late August and early October (b) Late February and early April
(c) Late December and early February (d) Late October and early December

85. In which year did Government of India introduce the concept of Joint Forest Management (JFM)?
(a) 1974 (b) 1980 (c) 1990 (d) 1970

86. 'Chipko movement' was started by which community?
(a) Bishnois (b) Garhwal (c) Sahiwal (d) Jain

87. How many daughters of Amrita Devi were cut down along with trees?
(a) 1 (b) 2 (c) 3 (d) 4

88. Government of India has recently instituted which award for individuals or communities from rural areas that have shown extra-ordinary courage and dedication in protecting wildlife?
(a) Padma Bhushan
(b) Chipko Award
(c) Bharat Ratna
(d) Amrita Devi Bishnoi Wildlife Protection Award

89. According to an estimate, almost _____ per cent forests have been lost in the tropics, compared to only _____ per cent in the temperate region.
(a) 40, 10 (b) 60, 20 (c) 40, 1 (d) 20, 1

90. National Forest Policy (1988) of India has recommended _____ per cent forest cover for the plains and _____ per cent for the hills.
(a) 60, 40 (b) 33, 67 (c) 40, 60 (d) 67, 33

91. By the end of 20th century India lost how much forest cover?
(a) 30% (b) 19.4% (c) 33% (d) 10.6

92. Jhum cultivation (slash and burn agriculture) is found in which part of India?
(a) North-eastern state (b) Western state
(c) Southern state (d) Desert state

93. Which of these statements is/are true about slash and burn agriculture?
(a) Farmers cut down trees of the forest and burn the plant remains.
(b) Ash is used as fertilizer.
(c) Land is used for farming or cattle grazing.
(d) All the above

94. Deforestation causes all of these except
(a) Soil erosion and loss of biodiversity
(b) Desertification
(c) Increase CO_2, concentration in atmosphere
(d) Undisturbed hydrological cycle

95. Which of these statements is/are true about reforestation?
(a) It is a process of restoring forest
(b) It may occur naturally
(c) It can be sped up by planting trees
(d) All of these

96. Soil erosion occurs because of
(a) Over-cultivation
(b) Unrestricted grazing
(c) Deforestation and poor irrigation practice
(d) All of these

97. Problems which came with Green Revolution are
(a) Water logging
(b) Increased soil salinity
(c) Both (a) and (b)
(d) None of these

98. Irrigation without proper drainage leads to
(a) Decreased soil salinity
(b) Water logging
(c) Increased yield of crop
(d) Increased aeration in soil

99. Desertification is a major problem nowadays, mainly due to
(a) Over grazing
(b) Over-cultivation
(c) Increased urbanization
(d) Water logging

100. Match the columns.

Column–I	Column–II
A. DU	1. Dobson Unit
B. CFCs	2. Chloro Fluoro Carbons
C. BOD	3. Biological Oxygen Demand
D. PIL	4. Public Interest Litigation
E. CNG	5. Compressed Natural Gas

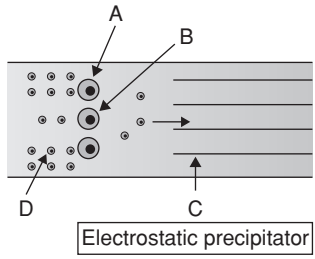
(a) A:1, B:3, C:2, D:4, E:5
(b) A:4, B:3, C:2, D:1, E:5
(c) A:1, B:2, C:3, D:4, E:5
(d) A:1, B:2, C:4, D:3, E:5

101. Select the incorrect match.
(a) El Nino effect—odd climatic changes
(b) Radioactive leakage—Three Mile Island
(c) Biomagnification—Hg and DDT
(d) Haryana Kisan Welfare Club—Ahmed Khan

102. Which among these is the most common source of pollution of water bodies?
(a) Waste from thermal power plant
(b) Effluents from chemical factories
(c) Hospital waste
(d) Domestic sewage

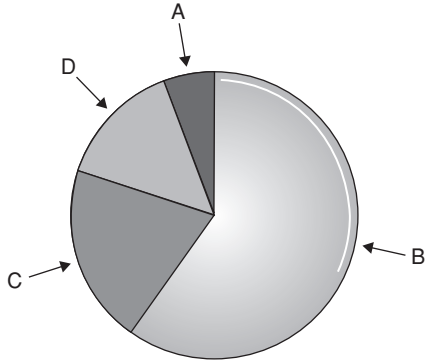
103. Air pollution primarily results from
(a) Deforestation
(b) Forestation
(c) Burning of fossil fuel
(d) Eutrophication

104. Identify A, B, C and D in this figure.



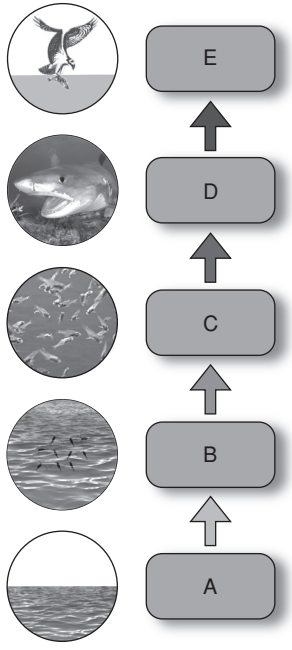
(a) A: Discharge corona, B: Negatively charged wire, C: Collection plate grounded, D: Dust particles
(b) A: Dust particles, B: Discharge corona, C: Negatively charged wire, D: Collection plate grounded
(c) A: Negatively charged wire, B: Discharge corona, C: Collection plate grounded, D: Dust particles
(d) A: Collection plate grounded, B: Dust particles, C: Negatively charge wire, D: Discharge corona

105. What is the relative contribution (A, B, C, D) of various greenhouse gases according to the given pi-chart?



(a) A: N_2O (6%), B: Carbon dioxide (60%), Methane (25%), D: CFCs (14%)
(b) A: Methane (25%), B: CFCs (14%), C: N_2O (6%), D: Carbon dioxide (60%)
(c) A: Carbon dioxide (6%), B: N_2O (6%), C: Methane (25%), D: CFCs (14%)
(d) A: CFCs (14%), B: Carbon dioxide (60%), C: Methane (25%), D: N_2O (6%)

106. What is the concentration of DDT in stages A, B, C, D and E in the figure?



The above diagram shows the biomagnification of DDT:

(a) A: Water (DDT 0.003 ppm), B: Fish-eating birds (DDT 25 ppm), C: Small fish (DDT 0.5 ppm), D: Large fish (DDT 2 ppm), E: Zooplankton (DDT 0.04 ppm)

(b) A: Fish-eating birds (DDT 25 ppm), B: Large fish (DDT 2 ppm), C: Small fish (DDT 0.5 ppm), D: Zooplankton (DDT 0.04 ppm), E: Water (DDT 0.003 ppb)

(c) A: Water (DDT 0.003 ppb), B: Zooplankton (DDT 0.04 ppm), C: Small fish (DDT 0.5 ppm), D: Large fish (DDT 2 ppm), E: Fish-eating birds (DDT 25 ppm)

(d) A: Small fish (DDT 0.5 ppm), B: Large fish (DDT 2 ppm), C: Zooplankton (DDT 0.04 ppm), D: Water (DDT 0.003 ppm), E: Fish-eating birds (DDT 25 ppm)

ASSERTION AND REASON QUESTIONS

*Read the **assertion** and **reason** carefully to mark the correct option out of the options given below:*

(a) If both the assertion and the reason are true and the reason is a correct explanation of the assertion.

(b) If both the assertion and reason are true but the reason is not a correct explanation of the assertion.

(c) If the assertion is true but the reason is false.

(d) If both the assertion and reason are false.

107. **Assertion:** Noise is nothing but undesirable high level of sound.
Reason: Noise causes psychological and physiological disorder in humans.

108. **Assertion:** CNG is better fuel than diesel.
Reason: CNG burns most efficiently and is cheaper than petrol.

109. **Assertion:** Presence of large amounts of nutrients in waters also causes excessive growth of planktonic (free-floating) algae, called algal bloom.
Reason: Algal bloom imparts a distinct colour to the water bodies.

110. **Assertion:** Water hyacinth is an aquatic weed.
Reason: They grow abundantly in eutrophic water bodies.

111. **Assertion:** DDT and Hg undergoes biological magnification.
Reason: Hg and DDT are not metabolized and excreted by the body of organisms.

112. **Assertion:** Sanitary landfills is also not a good method for disposal of solid wastes.
Reason: These landfills causes pollution of underground water resources due to seepage of chemicals.

113. **Assertion:** Nuclear energy is a non-polluting way for generating electricity.
Reason: Nuclear waste is not at all dangerous for organism.

114. **Assertion:** UV rays are highly injurious to living organism.
Reason: DNA proteins of living organism preferentially absorb UV rays and its high energy breaks the chemical bonds within these molecules.

115. **Assertion:** Large area of thinned ozone layer particularly marked over the Antarctic region is known as ozone hole.
Reason: CFCs causes ozone depletion.

116. **Assertion:** Deforestation may cause desertification.
Reason: It causes, loss of biodiversity, disturbs hydrological cycle, causes soil erosion, may lead to desertification in extreme cases.

117. **Assertion:** Water logging and soil salinity are some of the problems arises in the wake of green revolution.
Reason: Increased urbanisation is also responsible for desertification.

118. **Assertion:** UV-Radiation can cause skin cancer.
Reason: UV-B can cause mutation in skin cell.

119. **Assertion:** Ozone in stratosphere is called good ozone.
Reason: This ozone absorb UV-radiation coming from sun, thus act as shield.

120. **Assertion:** Integrated organic farming is cyclical zero waste procedure.
Reason: In integrated organic farming waste product from one process is cycled as nutrients for other process.

121. **Assertion:** Irreparable computers and other electronic goods are known as electronic wasters (e-wastes)
Reason: Recycling is the only solution for treatment of e-waste.

122. **Assertion:** Dry composting toilets reduce the need for chemical fertilizers.
Reason: By composting method human excreta can be reduced into natural fertilizers.

123. **Assertion:** Sewage agriculture and industrial waste accelerate the process of eutrophication.
Reason: Thus waste contains nitrates and phosphates, which acts as plant nutrient.

124. **Assertion:** Use of DDT as insecticide cause decline in bird population.
Reason: DDT disturb calcium metabolism in birds, which cause thinning of eggshell and their premature breaking.

125. **Assertion:** Catalytic converter is useful for reducing emission of poisonous gases from automobiles.
Reason: Catalytic converter converts unburnt HCs in CO_2 and water and CO and NO into CO_2 and N_2.

PREVIOUS YEAR QUESTIONS

1. A renewable exhaustible natural resource is
[AIPMT PRE 2010]

(a) Coal (b) Petroleum
(c) Minerals (d) Forest

2. dB is a standard abbreviation used for the quantitative expression of
[AIPMT PRE 2010]

(a) The density of bacteria in a medium (b) A particular pollutant
(c) The dominant bacillus in a culture (d) A certain pesticide

3. The two gases making highest relative contribution to the greenhouse gases are
[AIPMT PRE 2010]

(a) CO_2 and CH_4 (b) CH_4 and NO_2
(c) CFCs and N_2O (d) CO_2 and N_2O

4. 'Good ozone' is found in the
[AIPMT MAINS 2011]

(a) Mesosphere (b) Troposphere
(c) Stratosphere (d) Ionosphere

5. Which one of the following pairs of gases are the major cause of 'Green house effect'?
[AIPMT PRE 2011]

(a) CO_2 and CO (b) CFCs and SO_2
(c) CO_2 and N_2O (d) CO_2 and O_3

6. Which one of the following expanded forms of the following acronyms is correct?
[AIPMT PRE 2011]

(a) UNEP United Nations Environmental Policy
(b) EPA Environmental Pollution Agency
(c) IUCN International Union for Conservation of Nature and Natural Resources
(d) IPCC International Penal for Climate Change

7. Which one of the following statements is wrong in case of Bhopal gas tragedy?
[AIPMT PRE 2011]

(a) Thousands of human beings died.
(b) Radioactive fallout engulfed Bhopal.
(c) It took place in the night of December 2/3, 1984.
(d) Methyl isocyanate gas leakage took place.

8. Eutrophication is often seen in
[AIPMT PRE 2011]

(a) Fresh water lakes (b) Ocean
(c) Mountains (d) Deserts

9. In an area where DDT had been used extensively the population of birds declined significantly because
[AIPMT PRE 2012]

(a) Birds stopped laying eggs.
(b) Earthworms in the area got eradicated.
(c) Cobras were feeding exclusively on birds.
(d) Many of the birds eggs laid, did not hatch.

10. Which one of the following is a wrong statement?
[AIPMT PRE 2012]

(a) Most of the forests have been lost in tropical areas.
(b) Ozone in upper part of atmosphere is harmful to animals.
(c) Greenhouse effect is a natural phenomenon
(d) Eutrophication is a natural phenomenon in freshwater bodies.

11. Measuring Biochemical Oxygen Demand (BOD) is a method used for
[AIPMT PRE 2012]

(a) Estimating the amount of organic matter in sewage water.
(b) Working out the efficiency of oil driven automobile engines.
(c) Measuring the activity of saccharomyces cerevisiae in producing curd on a commercial scale.
(d) Working out the efficiency of RBCs about their capacity to carry oxygen.

12. Kyoto Protocol was endorsed at
[AIPMT 2013]

(a) CoP-3 (b) CoP-5
(c) CoP-6 (d) CoP-4

13. Global warming can be controlled by
[AIPMT 2013]

(a) Reducing deforestation, cutting down the use of fossil fuel.
(b) Reducing reforestation, increasing the use of fossil fuel.
(c) Increasing deforestation, slowing down the growth of human population.
(d) Increasing deforestation, reducing the efficiency of energy usage.

14. The Air Prevention and Control of Pollution Act came into force in
[AIPMT 2013]

(a) 1975 (b) 1981
(c) 1985 (d) 1990

15. The zone of atmosphere in which the ozone layer is present is called [AIPMT 2014]

(a) Ionosphere (b) Mesosphere
(c) Stratosphere (d) Troposphere

16. A scrubber in the exhaust of a chemical industrial plant removes [AIPMT 2014]

(a) Gases like sulphur dioxide.
(b) Particulate matter of the size 5 micrometre or above.
(c) Gases like ozone and methane.
(d) Particulate matter of the size 2.5 micrometre or less.

17. Rachel Carson's famous book '*Silent Spring*' is related to [AIPMT 2015]

(a) Pesticide pollution (b) Noise Pollution
(c) Population explosion (d) Ecosystem management

18. Which of the following is not one of the primary health risks associated with greater UV radiation through the atmosphere due to depletion of stratospheric ozone? [AIPMT 2015]

(a) Increased skin caner
(b) Reduced immune system
(c) Damage to eyes
(d) Increased liver cancer

19. The UN conference of Parties on climate change in the year 2011 was held at [AIPMT 2015]

(a) Poland (b) South Africa
(c) Peru (d) Qatar

20. The UN conference of Parties on climate change in the year 2012 was held at [RE-AIPMT 2015]

(a) Doha (b) Lima
(c) Warsaw (d) Durban

21. Acid rain is caused by the increase in the atmospheric concentration of [RE-AIPMT 2015]

(a) SO_3 and CO (b) CO_2 and CO
(c) O_3 and dust (d) SO_2 and NO_2

22. Increase in the concentration of the toxicant at successive trophic levels is known as [RE-AIPMT 2015]

(a) Biodeterioration (b) Biotransformation
(c) Biogeochemical cycling (d) Biomagnification

23. Which of the following are the most suitable indicators of SO_2 pollution in the environment? [RE-AIPMT 2015]

(a) Conifers (b) Algae
(c) Fungi (d) Lichens

24. Eutrophication of water bodies leading to killing of fishes is mainly due to non-availability of: [RE-AIPMT 2015]
(a) Light (b) Essential minerals
(c) Oxygen (d) Food

25. Joint Forest Management Concept was introduced in India during: [NEET - I, 2016]
(a) 1960s (b) 1970s
(c) 1980s (d) 1990s

26. Depletion of which gas in the atmosphere can lead to an increased incidence of skin cancers: [NEET - I, 2016]
(a) Nitrous oxide (b) Ozone
(c) Ammonia (d) Methane

27. A river with an inflow of domestic sewage rich in organic waste may result in: [NEET - I, 2016]
(a) Drying of the river very soon due to algal bloom
(b) Increased population of aquatic food web organisms
(c) An increased production of fish due to biodegradable nutrients
(d) Death of fish due to lack of oxygen

28. Biochemical Oxygen Demand (BOD) may not be a good index for pollution for water bodies receiving effluents from [NEET - II, 2016]
(a) Dairy industry (b) Petroleum industry
(c) Sugar industry (d) Domestic sewage

29. A lake which is rich in organic waste may result in [NEET - II, 2016]
(a) Drying of the lake due to algal bloom
(b) Increased population of fish due to lots of nutrients
(c) Mortality of fish due to lack of oxygen
(d) Increases population of aquatic organisms due to minerals

30. The highest DDT concentration in aquatic food chain shall occur in [NEET - II, 2016]
(a) Seagull (b) Crab
(c) Cell (d) Phytoplankton

NCERT EXEMPLAR QUESTIONS

1. Non-biodegradable pollutants are created by
(a) Nature (b) Excessive use of resources
(c) Humans (d) Natural disasters

2. According to the Central Pollution Control Board, particles that are responsible for causing great harm to human health are of diameter
(a) 2.50 micrometre (b) 5.00 micrometre
(c) 10.00 micrometre (d) 7.5 micrometre

3. The material generally used for sound proofing of rooms like a recording studio and auditorium, etc., is
(a) Cotton (b) Coir (c) Wood (d) Styrofoam

4. Compressed Natural Gas (CNG) is
(a) Propane (b) Methane (c) Ethane (d) Butane

5. The world's most problematic aquatic weed is
(a) *Azalia* (b) *Wolffia* (c) *Eichhornia* (d) *Trapa*

6. Which of the following causes biomagnification?
(a) SO_2 (b) Mercury (c) DDT (d) Both (b) and (c)

7. The expanded form of DDT is
(a) Dichloro diphenyl trichloroethane (b) Dichloro diethyl trichloroethane
(c) Dichlorodiphenyltrichloroethane (d) Dichloro diphenyl tetrachloroacetate

8. Which of the following material takes the longest time for biodegradation?
(a) Cotton (b) Paper (c) Bone (d) Jute

9. Choose the incorrect statement.
(a) The Montreal protocol is associated with the control of emission of ozone depleting substances.
(b) Methane and carbon dioxide are greenhouse gases.
(c) Dobson units are used to measure oxygen content.
(d) Use of incinerators is crucial to the disposal of hospital wastes.

10. Among the following which one causes more indoor chemical pollution?
(a) Burning coal (b) Burning cooking gas
(c) Burning mosquito coil (d) Room spray

11. The green scum seen in the fresh water bodies is
(a) Blue green algae (b) Red algae
(c) Green algae (d) Both (a) and (c)

12. The loudness of a sound that a person can withstand without discomfort is about
(a) 150 dB (b) 215 dB (c) 30 dB (d) 80 dB

13. The major source of noise pollution, worldwide is due to
(a) Office equipment (b) Transport system
(c) Sugar, textile and paper industries (d) Oil refineries and thermal power plants

14. Match correctly the following and choose the correct option:

i.	Environment Protection Act	A. 1974
ii.	Air Prevention and Control of Pollution Act	B. 1987
iii.	Water Act	C. 1986
iv.	Amendment of Air Act to include noise	D. 1981

The correct matches is
(a) i-C, ii-D, iii-A, iv-B (b) i-A, ii-C, iii-B, iv-D
(c) i-D, ii-A, iii-B, iv-C (d) i-C, ii-D, iii-B, iv-A

15. Catalytic converters are fitted into automobiles to reduce the emission of harmful gases. Catalytic converters change unburnt hydrocarbons into
(a) Carbon dioxide and water (b) Carbon monoxide
(c) Methane (d) Carbon dioxide and methane.

16. Why is it necessary to remove sulphur from petroleum products?
(a) To reduce the emission of sulphur dioxide in exhaust fumes.
(b) To increase the efficiency of automobiles engines.
(c) To use sulphur removed from petroleum for commercial purposes.
(d) To increase the life span of engine silencers.

17. Which one of the following impurities is the easiest to remove from wastewater?
(a) Bacteria (b) Colloids
(c) Dissolved solids (d) Suspended solids

18. Which one of the following diseases is not due to contamination of water?
(a) Hepatitis-B (b) Jaundice (c) Cholera (d) Typhoid

19. Nuisance growth of aquatic plants and bloom-forming algae in natural waters is generally due to the high concentrations of
(a) Carbon (b) Sulphur (c) Calcium (d) Phosphorus

20. Algal blooms impart a distinct colour to water due to
(a) Their pigments
(b) Excretion of coloured substances
(c) Formation of coloured chemicals in water facilitated by physiological degradation of algae.
(d) Absorption of light by algal cell wall.

21. Match the items in column-I and column-II and choose the correct option:

Column-I	**Column-II**
A. UV	i. Biomagnification
B. Biodegradable organic matter	ii. Eutrophication
C. DDT	iii. Snow blindness
D. Phosphates	iv. BOD

The correct match is:
(a) A-ii, B-i, C-iv, D-iii (b) A-iii, B-ii, C-iv, D-i
(c) A-iii, B-iv, C-i, D-ii (d) A-iii, B-i, C-iv, D-i

22. In the textbook you came across the 'Three Mile Island' and 'Chernobyl' disasters associated with the accidental leakage of radioactive wastes. In India we had Bhopal gas tragedy. It is associated with which of the following?
(a) CO_2 (b) Methyl isocyanate (c) CFC's (d) Methyl cyanate

Answer Keys

Practice Questions

1. (d)	2. (c)	3. (b)	4. (d)	5. (a)	6. (d)	7. (c)	8. (b)	9. (c)	10. (d)
11. (a)	12. (a)	13. (d)	14. (b)	15. (c)	16. (d)	17. (d)	18. (b)	19. (b)	20. (d)
21. (c)	22. (d)	23. (d)	24. (d)	25. (a)	26. (c)	27. (c)	28. (a)	29. (b)	30. (b)
31. (b)	32. (c)	33. (d)	34. (d)	35. (b)	36. (c)	37. (d)	38. (d)	39. (d)	40. (d)
41. (c)	42. (d)	43. (d)	44. (d)	45. (d)	46. (b)	47. (d)	48. (c)	49. (d)	50. (d)
51. (d)	52. (d)	53. (c)	54. (d)	55. (a)	56. (d)	57. (a)	58. (a)	59. (b)	60. (d)
61. (c)	62. (d)	63. (d)	64. (c)	65. (b)	66. (b)	67. (b)	68. (b)	69. (a)	70. (a)

71. (d) 72. (d) 73. (c) 74. (c) 75. (c) 76. (a) 77. (b) 78. (b) 79. (d) 80. (b)
81. (d) 82. (d) 83. (c) 84. (a) 85. (b) 86. (b) 87. (c) 88. (d) 89. (c) 90. (b)
91. (d) 92. (a) 93. (d) 94. (d) 95. (d) 96. (d) 97. (c) 98. (b) 99. (c) 100. (c)
101. (d) 102. (d) 103. (c) 104. (a) 105. (a) 106. (c)

Assertion and Reason Questions

107. (b) 108. (a) 109. (b) 110. (a) 111. (a) 112. (a) 113. (d) 114. (a) 115. (b) 116. (a)
117. (b) 118. (a) 119. (a) 120. (a) 121. (b) 122. (a) 123. (a) 124. (a) 125. (a)

Previous Year Questions

1. (d) 2. (b) 3. (a) 4. (c) 5. (c) 6. (c) 7. (b) 8. (a) 9. (d) 10. (b)
11. (a) 12. (a) 13. (a) 14. (b) 15. (c) 16. (a) 17. (a) 18. (d) 19. (b) 20. (a)
21. (d) 22. (d) 23. (d) 24. (c) 25. (c) 26. (b) 27. (d) 28. (b) 29. (c) 30. (a)

NCERT Exemplar Questions

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