

# Environmental Issues

16.0 Introduction



## 16.1 Air Pollution and Its Control

- 8.** Which one of the following statements is not valid for aerosols?

  - (a) They alter rainfall and monsoon patterns.
  - (b) They cause increased agricultural productivity.
  - (c) They have negative impact on agricultural land.
  - (d) They are harmful to human health.

(NEET 2017)

- 16.** Steps taken by the Government of India to control air pollution include  
(a) compulsory PUC (Pollution under control) certification of petrol driven vehicles which tests for carbon monoxide and hydrocarbons  
(b) permission to use only pure diesel with a maximum of 500 ppm sulphur as fuel for vehicles  
(c) use of non-polluting compressed natural gas (CNG) only as fuel by all buses and trucks  
(d) compulsory mixing of 20% ethyl alcohol with petrol and 20% biodiesel with diesel. (2009)
- 17.** According to Central Pollution Control Board (CPCB), which particulate size in diameter (in micrometers) of the air pollutants is responsible for greatest harm to human health?  
(a) 1.0 or less (b) 5.2 - 2.5  
(c) 2.5 or less (d) 1.5 or less (2008)
- 18.** In a coal fired power plant electrostatic precipitators are installed to control emission of  
(a) NO<sub>x</sub> (b) SPM  
(c) CO (d) SO<sub>2</sub>. (2007)
- 19.** Photochemical smog pollution does not contain  
(a) PAN (peroxyacetyl nitrate)  
(b) ozone  
(c) nitrogen dioxide  
(d) carbon dioxide. (2006)
- 20.** Lead concentration in blood is considered alarming if it is  
(a) 20 mg / 100 mL (b) 30 mg / 100 mL  
(c) 4 - 6 mg / 100 mL (d) 10 mg / 100 mL. (2004)
- 21.** Fluoride pollution mainly affects  
(a) brain (b) heart  
(c) teeth (d) kidney. (2003)
- 22.** What is the intensity of sound in normal conversation?  
(a) 10-20 dB (b) 30-60 dB  
(c) 70-90 dB (d) 120-150 dB (2001)
- 23.** Which of the following is pollution related disorder?  
(a) Silicosis (b) Pneumoniosis  
(c) Fluorosis (d) Leprosis (1999)
- 24.** Which of the following is the use of lichens in case of pollution?  
(a) They promote pollution.  
(b) Lichens are not related with pollution.  
(c) They treat the polluted water.  
(d) They act as bioindicators of pollutions. (1999)
- 25.** The supersonic jets cause pollution by the thinning of  
(a) O<sub>2</sub> layer (b) O<sub>3</sub> layer  
(c) CO<sub>2</sub> layer (d) SO<sub>2</sub> layer. (1998)
- 26.** Carbon monoxide is a pollutant because  
(a) reacts with haemoglobin  
(b) makes nervous system inactive  
(c) it reacts with O<sub>2</sub> (d) it inhibits glycolysis. (1998)
- 27.** How carbon monoxide, emitted by automobiles, prevents transport of oxygen in the body tissues?  
(a) By forming a stable compound with haemoglobin  
(b) By obstructing the reaction of oxygen with haemoglobin  
(c) By changing oxygen into carbon dioxide  
(d) By destroying the haemoglobin (1998)
- 28.** The Taj Mahal is threatened due to the effect of  
(a) oxygen (b) hydrogen  
(c) chlorine (d) sulphur dioxide. (1995)
- 29.** The toxic effect of carbon monoxide is due to its greater affinity for haemoglobin as compared to oxygen approximately by  
(a) 200 times (b) 1000 times  
(c) 2 times (d) 20 times. (1995)
- 30.** Sounds above what level are considered hazardous noise pollution?  
(a) Above 80 dB (b) Above 30 dB  
(c) Above 150 dB (d) Above 120 dB (1994)
- 31.** Ultraviolet radiations from sunlight causes a reaction that produces  
(a) fluorides (b) carbon monoxide  
(c) sulphur dioxide (d) ozone. (1993)
- 32.** Most hazardous metal pollutant of automobile exhausts is  
(a) mercury (b) cadmium  
(c) lead (d) copper. (1992)
- 33.** Which one is not a pollutant normally?  
(a) Hydrocarbon (b) Carbon dioxide  
(c) Carbon monoxide (d) Sulphur dioxide (1992, 1988)
- 34.** Acid rain is due to increase in atmospheric concentration of  
(a) ozone and dust (b) CO<sub>2</sub> and CO  
(c) SO<sub>3</sub> and CO (d) SO<sub>2</sub> and NO<sub>2</sub>. (1991)
- 35.** Major aerosol pollutant in jet plane emission is  
(a) sulphur dioxide (b) carbon monoxide  
(c) methane (d) fluorocarbon. (1990)

36. Acid rains are produced by  
(a) excess  $\text{NO}_2$  and  $\text{SO}_2$  from burning fossil fuels  
(b) excess production of  $\text{NH}_3$  by industry and coal gas  
(c) excess release of carbon monoxide by incomplete combustion  
(d) excess formation of  $\text{CO}_2$  by combustion and animal respiration. (1989, 1988)
44. Rachel Carson's famous book "Silent Spring" is related to  
(a) population explosion  
(b) ecosystem management  
(c) pesticide pollution  
(d) noise pollution. (2015 Cancelled)

## 16.2 Water Pollution and its Control

37. Biochemical Oxygen Demand (BOD) may not be a good index for pollution for water bodies receiving effluents from  
(a) domestic sewage (b) dairy industry  
(c) petroleum industry (d) sugar industry. (NEET-II 2016)
38. A lake which is rich in organic waste may result in  
(a) increased population of aquatic organisms due to minerals  
(b) drying of the lake due to algal bloom  
(c) increased population of fish due to lots of nutrients  
(d) mortality of fish due to lack of oxygen. (NEET-II 2016)
39. The highest DDT concentration in aquatic food chain shall occur in  
(a) phytoplankton (b) seagull  
(c) crab (d) eel. (NEET-II 2016)
40. A river with an inflow of domestic sewage rich in organic waste may result in  
(a) an increased production of fish due to biodegradable nutrients  
(b) death of fish due to lack of oxygen  
(c) drying of the river very soon due to algal bloom  
(d) increased population of aquatic food web organisms. (NEET-I 2016)
41. Eutrophication of water bodies leading to killing of fishes is mainly due to non-availability of  
(a) essential minerals (b) oxygen  
(c) food (d) light. (2015)
42. Increase in concentration of the toxicant at successive trophic levels is known as  
(a) biotransformation  
(b) biogeochemical cycling  
(c) biomagnification  
(d) biodeterioration. (2015)
43. High value of BOD (Biochemical Oxygen Demand) indicates that  
(a) water is less polluted  
(b) consumption of organic matter in the water is higher by the microbes  
(c) water is pure  
(d) water is highly polluted. (2015 Cancelled)
44. Rachel Carson's famous book "Silent Spring" is related to  
(a) population explosion  
(b) ecosystem management  
(c) pesticide pollution  
(d) noise pollution. (2015 Cancelled)
45. In an area where DDT had been used extensively, the population of birds declined significantly because  
(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. (2012)
46. Measuring Biochemical Oxygen Demand (BOD) is a method used for  
(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. (2012)
47. Eutrophication is often seen in  
(a) deserts (b) fresh water lakes  
(c) ocean (d) mountains. (2011)
48. When domestic sewage mixes with river water  
(a) small animals like rats will die after drinking river water  
(b) the increased microbial activity releases micronutrients such as iron  
(c) the increased microbial activity uses up dissolved oxygen  
(d) the river water is still suitable for drinking as impurities are only about 0.1%. (Mains 2010)
49. Biochemical oxygen demand (BOD) in a river water  
(a) has no relationship with concentration of oxygen in the water  
(b) gives a measure of *Salmonella* in the water  
(c) increases when sewage gets mixed with river water  
(d) remains unchanged when algal bloom occurs. (2009)
50. DDT residues are rapidly passed through food chain causing biomagnification because DDT is  
(a) moderately toxic  
(b) non-toxic to aquatic animals  
(c) water soluble  
(d) lipo soluble. (2009)
51. A lake near a village suffered heavy mortality of fishes within a few days. Consider the following reasons for this.



## 16.3 Solid Wastes

74. Polyblend, a fine powder of recycled modified plastic, has proved to be a good material for  
(a) making tubes and pipes  
(b) making plastic sacks  
(c) use as a fertiliser  
(d) construction of roads. (NEET 2019)

## 16.5 Radioactive Wastes

75. Which of the following methods is the most suitable for disposal of nuclear waste?

  - (a) Bury the waste within rocks deep below earth's surface
  - (b) Shoot the waste into space
  - (c) Bury the waste under Antarctic ice-cover
  - (d) Dump the waste within rocks under ocean

(NEET 2019)

- 76.** Which one of the following statements is incorrect in case of Bhopal tragedy?

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

(2011)

77. In 1984, the Bhopal gas tragedy took place because methyl isocyanate  
(a) reacted with DDT  
(b) reacted with ammonia

## 16.6 Greenhouse Effect and Global Warming

- 86.** Climate of the world is threatened by  
 (a) decreasing amount of atmospheric oxygen  
 (b) increasing amount of atmospheric carbon dioxide  
 (c) decreasing amount of atmospheric carbon dioxide  
 (d) increasing concentration of atmospheric oxygen. *(Karnataka NEET 2013)*
- 87.** Which one of the following pairs of gases are the major cause of “greenhouse effect”?  
 (a) CO<sub>2</sub> and O<sub>3</sub>      (b) CO<sub>2</sub> and CO  
 (c) CFCs and SO<sub>2</sub>      (d) CO<sub>2</sub> and N<sub>2</sub>O *(2011)*
- 88.** Which one of the following is correct expanded form of the acronym?  
 (a) IPCC = International Panel for Climate Change  
 (b) UNEP = United Nations Environmental Policy  
 (c) EPA = Environmental Pollution Agency  
 (d) IUCN = International Union for Conservation of Nature and Natural Resources *(2011)*
- 89.** The two gases making highest relative contribution to the greenhouse gases are  
 (a) CO<sub>2</sub> and CH<sub>4</sub>      (b) CH<sub>4</sub> and N<sub>2</sub>O  
 (c) CFCs and N<sub>2</sub>O      (d) CO<sub>2</sub> and N<sub>2</sub>O. *(2010)*
- 90.** Which one of the following is the correct percentage of the two (out of the total of 4) greenhouse gases that contribute to the total global warming?  
 (a) N<sub>2</sub>O 6%, CO<sub>2</sub> 86%  
 (b) Methane 20%, N<sub>2</sub>O 18%  
 (c) CFCs 14%, methane 20%  
 (d) CO<sub>2</sub> 40%, CFCs 30% *(2008)*
- 91.** Which one of the following pairs is mismatched?  
 (a) Fossil fuel burning – release of CO<sub>2</sub>  
 (b) Nuclear power – radioactive wastes  
 (c) Solar energy – greenhouse effect  
 (d) Biomass burning – release of CO<sub>2</sub> *(2005)*
- 92.** Maximum greenhouse gas released by which of the following country?  
 (a) India      (b) France  
 (c) USA      (d) Britain *(2002)*
- 93.** If there was no CO<sub>2</sub> in the earth's atmosphere, the temperature of earth's surface would be  
 (a) higher than the present  
 (b) dependent on the amount of oxygen in the atmosphere  
 (c) same as present  
 (d) less than the present. *(1998)*
- 94.** The CO<sub>2</sub> content by volume, in the atmospheric air is about  
 (a) 3.34%      (b) 4%  
 (c) 0.0314%      (d) 0.34%. *(1997)*
- 95.** The true statement about ‘greenhouse effect’ is that it is  
 (a) caused by combination of many gases  
 (b) caused only by CO<sub>2</sub>  
 (c) caused by CO<sub>2</sub>, CFC, CH<sub>4</sub> and NO<sub>2</sub> gases  
 (d) none of these. *(1996)*
- 96.** Which one of the following gases contributes maximum to the ‘greenhouse effect’ on the earth?  
 (a) Carbon dioxide  
 (b) Chlorofluorocarbon  
 (c) Freon  
 (d) Methane *(1994)*
- 97.** Greenhouse effect is warming due to  
 (a) infra-red rays reaching earth  
 (b) moisture layer in atmosphere  
 (c) increase in temperature due to increase in carbon dioxide concentration of atmosphere  
 (d) ozone layer of atmosphere. *(1991, 1989)*
- ### 16.7 Ozone depletion in the Stratosphere
- 98.** Montreal protocol was signed in 1987 for control of  
 (a) transport of genetically modified organisms from one country to another  
 (b) emission of ozone depleting substances  
 (c) release of greenhouse gases  
 (d) disposal of e-wastes. *(NEET 2020)*
- 99.** Snow-blindness in Antarctic region is due to  
 (a) freezing of fluids in the eye by low temperature  
 (b) inflammation of cornea due to high dose of UV-B radiation  
 (c) high reflection of light from snow  
 (d) damage to retina caused by infra-red rays. *(NEET 2020)*
- 100.** Which of the following protocols did aim reducing emission of chlorofluorocarbons into atmosphere?  
 (a) Geneva Protocol      (b) Montreal Protocol  
 (c) Kyoto Protocol      (d) Gothenburg Protocol *(NEET 2019)*
- 101.** Which of the following statements about ozone is correct?  
 (a) Tropospheric ozone protects us from UV radiations.  
 (b) Stratospheric ozone is ‘bad’.  
 (c) Tropospheric ozone is ‘good’.  
 (d) Stratospheric ozone protects us from UV radiations. *(Odisha NEET 2019)*
- 102.** In stratosphere, which of the following elements acts as a catalyst in degradation of ozone and release of molecular oxygen?  
 (a) Carbon      (b) Cl  
 (c) Fe      (d) Oxygen *(NEET 2018)*

**103.** World Ozone Day is celebrated on

- |                                |                             |
|--------------------------------|-----------------------------|
| (a) 5 <sup>th</sup> June       | (b) 21 <sup>st</sup> April  |
| (c) 16 <sup>th</sup> September | (d) 22 <sup>nd</sup> April. |

(NEET 2018)

**104.** Depletion of which gas in the atmosphere can lead to an increased incidence of skin cancers?

- |                   |                         |
|-------------------|-------------------------|
| (a) Ammonia       | (b) Methane             |
| (c) Nitrous oxide | (d) Ozone (NEET-I 2016) |

**105.** Which of the following is not one of the prime health risks associated with greater UV radiations through the atmosphere due to depletion of stratospheric ozone?

- |                           |  |
|---------------------------|--|
| (a) Damage to eyes        | (b) Increased liver cancer                 |
| (c) Increased skin cancer | (d) Reduced immune system (2015 Cancelled) |

**106.** The zone of atmosphere in which the ozone layer is present is called

- |                  |                         |
|------------------|-------------------------|
| (a) ionosphere   | (b) mesosphere          |
| (c) stratosphere | (d) troposphere. (2014) |

**107.** Kyoto protocol was endorsed at

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

(NEET 2013)

**108.** The second commitment period for Kyoto Protocol was decided at

- |            |             |
|------------|-------------|
| (a) Durban | (b) Bali    |
| (c) Doha   | (d) Cancun. |

(Karnataka NEET 2013)

**109.** "Good ozone" is found in the

- |                  |                 |
|------------------|-----------------|
| (a) mesosphere   | (b) troposphere |
| (c) stratosphere | (d) ionosphere. |

(Mains 2011)

**110.** Global agreement in specific control strategies to reduce the release of ozone depleting substances, was adopted by

- |                                |                    |
|--------------------------------|--------------------|
| (a) Montreal Protocol          | (b) Kyoto Protocol |
| (c) Vienna Convention          |                    |
| (d) Rio de Janeiro Conference. | (2009)             |

**111.** Montreal Protocol aims at

- |  |  |
|--|--|
| (a) biodiversity conservation                |  |
| (b) control of water pollution               |  |
| (c) control of CO <sub>2</sub> emission      |  |
| (d) reduction of ozone depleting substances. |  |

(2009)

**112.** Montreal protocol which calls for appropriate action to protect the ozone layer from human activities was passed in the year

- |          |                  |
|----------|------------------|
| (a) 1985 | (b) 1986         |
| (c) 1987 | (d) 1988. (2006) |

**113.** Identify the correctly matched pair.

- |  |  |
|--|--|
| (a) Basel convention – Biodiversity conservation |  |
| (b) Kyoto protocol – Climatic change             |  |

(c) Montreal protocol – Global warming

- (d) Ramsar convention – Ground water pollution  
(2005)

**114.** In coming years, skin related disorders will be more common due to

- |                              |        |
|------------------------------|--------|
| (a) water pollution          |        |
| (b) depletion of ozone layer |        |
| (c) pollutants in air        |        |
| (d) use of detergents.       | (1997) |

**115.** Formation of ozone hole is maximum over

- |            |                        |
|------------|------------------------|
| (a) Europe | (b) Africa             |
| (c) India  | (d) Antarctica. (1997) |

**116.** Which country has the greatest contribution for the hole formation in ozone layer?

- |            |                    |
|------------|--------------------|
| (a) Russia | (b) Japan          |
| (c) USA    | (d) Germany (1996) |

## 16.8 Degradation by Improper Resource Utilisation and Maintenance

**117.** Prolonged liberal irrigation of agricultural fields is likely to create the problem of

- |              |                            |
|--------------|----------------------------|
| (a) acidity  | (b) aridity                |
| (c) salinity | (d) metal toxicity. (2005) |

## 16.9 Deforestation

**118.** Match the items given in column I with those in column II and select the correct option given below.

### Column I

A. Eutrophication

B. Sanitary landfill

C. Snow blindness

D. Jhum cultivation

### Column II

(i) UV-B radiation

(ii) Deforestation

(iii) Nutrient enrichment

(iv) Waste disposal

A      B      C      D

(a) (ii)    (i)    (iii)    (iv)

(b) (i)    (iii)    (iv)    (ii)

(c) (iii)    (iv)    (i)    (ii)

(d) (i)    (ii)    (iv)    (iii)

(NEET 2018)

**119.** Joint Forest Management Concept was introduced in India during

- |           |            |
|-----------|------------|
| (a) 1980s | (b) 1990s  |
| (c) 1960s | (d) 1970s. |

(NEET-I 2016)

**120.** Which one of the following is a wrong statement?

- |  |        |
|--|--------|
| (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. | (2012) |

ANSWER KEY

1. (d) 2. (d) 3. (b) 4. (a) 5. (c) 6. (d) 7. (b) 8. (b) 9. (c) 10. (c)  
11. (d) 12. (a) 13. (d) 14. (b) 15. (b) 16. (a) 17. (c) 18. (b) 19. (d) 20. (b)  
21. (c) 22. (b) 23. (c) 24. (d) 25. (b) 26. (a) 27. (a) 28. (d) 29. (a) 30. (d)  
31. (d) 32. (c) 33. (b) 34. (d) 35. (d) 36. (a) 37. (c) 38. (d) 39. (b) 40. (b)  
41. (b) 42. (c) 43. (b,d) 44. (c) 45. (d) 46. (a) 47. (b) 48. (c) 49. (c) 50. (d)  
51. (a) 52. (b) 53. (d) 54. (b) 55. (a) 56. (d) 57. (c) 58. (b) 59. (c) 60. (b)  
61. (d) 62. (c) 63. (a) 64. (d) 65. (b) 66. (c) 67. (b) 68. (c) 69. (d) 70. (a)  
71. (a) 72. (d) 73. (b) 74. (d) 75. (a) 76. (c) 77. (d) 78. (b) 79. (a) 80. (b)  
81. (a) 82. (a) 83. (d) 84. (d) 85. (c) 86. (b) 87. (d) 88. (d) 89. (a) 90. (c)  
91. (c) 92. (c) 93. (d) 94. (c) 95. (c) 96. (a) 97. (c) 98. (b) 99. (b) 100. (b)  
101. (d) 102. (b) 103. (c) 104. (d) 105. (b) 106. (c) 107. (c) 108. (c) 109. (c) 110. (a)  
111. (d) 112. (c) 113. (b) 114. (b) 115. (d) 116. (c) 117. (c) 118. (c) 119. (a) 120. (b)  
121. (a) 122. (a) 123. (a) 124. (d) 125. (d)