

Chapter 14. Environmental Chemistry

- Which of the following is a sink for CO?
(a) Microorganisms present in the soil
(b) Oceans (c) Plants
(d) Haemoglobin (NEET 2017)
- Which one of the following is not a common component of Photochemical smog?
(a) Ozone
(b) Acrolein
(c) Peroxyacetyl nitrate
(d) Chlorofluorocarbons (2014)
- Which one of the following statements is not true?
(a) Clean water would have a BOD value of 5 ppm.
(b) Fluoride deficiency in drinking water is harmful. Soluble fluoride is often used to bring its concentration upto 1 ppm.
(c) When the pH of rain water is higher than 6.5, it is called acid rain.
(d) Dissolved Oxygen (DO) in cold water can reach a concentration upto 10 ppm.
(Karnataka NEET 2013)
- Which one of the following statements regarding photochemical smog is not correct?
(a) Carbon monoxide does not play any role in photochemical smog formation.
(b) Photochemical smog is an oxidising agent in character.
(c) Photochemical smog is formed through photochemical reaction involving solar energy.
(d) Photochemical smog does not cause irritation in eyes and throat. (2012)
- Which one of the following statement is not true?
(a) pH of drinking water should be between 5.5 – 9.5
(b) Concentration of DO below 6 ppm is good for the growth of fish.
(c) Clean water would have a BOD value of less than 5 ppm.
(d) Oxides of sulphur, nitrogen and carbon, are the most widespread air pollutant. (2011)
- Green chemistry means such reactions which
(a) are related to the depletion of ozone layer
(b) study the reactions in plants
(c) produce colour during reactions
(d) reduce the use and production of hazardous chemicals (2008)
- Which one of the following is responsible for depletion of the ozone layer in the upper strata of the atmosphere?
(a) Polyhalogens (b) Ferrocene
(c) Fullerenes (d) Freons

Answer Key

1. (a, d) 2. (d) 3. (c) 4. (d) 5. (b) 6. (d) 7. (d)
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EXPLANATIONS

1. **(a, d)** : Microorganisms present in the soil consume atmospheric CO. Haemoglobin has higher affinity for CO and it combines with CO to form carboxyhaemoglobin.

2. **(d)**

3. **(c)** : When pH of rain water drops below 5.6 it is called acid rain.

4. **(d)**

5. **(b)** : Fish dies in water bodies polluted by sewage due to decrease in dissolved oxygen (D.O).

6. **(d)** : Green chemistry is the design, development, and implementation of chemical products and processes to reduce or eliminate the use and generation of substances hazardous to human health and the environment. Green chemistry also refers to

the redesign of chemical products and processes with the goal of reducing or eliminating any negative environmental or health effects.

7. **(d)** : Fluorocarbons such as freon-1 (CFCl_3) and freon-12 (CF_2Cl_2) emitted as propellants in aerosol spray cans, refrigerators, fire fighting reagents etc. are stable compounds and chemically inert. They do not react with any substance with which they come in contact and thus float through the atmosphere unchanged and eventually enter the stratosphere. There they absorb UV radiations and break down liberating free atomic chlorine which causes decomposition of ozone. This results in the depletion of the ozone layer.

