

ENVIRONMENTAL CHEMISTRY - 2

III Acid rains, Depletion of Ozone layer, Global Warming and Green Chemistry:

1. Which is responsible for ozone depletions?

- 1) Hydrocarbons 2) CO_2 3) CO 4) CFC'S

2. In the atmosphere the presence of which can form brown ring with $FeSO_4$

- 1) NO 2) N_2 3) NO_2 4) N_2O

3. Deactivated filter in activated carbon method for de fluoridation can be activated by

- 1) Defluoran-1 and deflouran -2
2) Lime, bleaching powder, alive
3) 4% NaOH and $\frac{1}{2}$ H_3PO_4
4) 4% NaCl and 5% H_2SO_4 solution

4. Acid rain contains

- 1) NaOH 2) KOH
3) H_2SO_4 4) HNO_3, H_2SO_4, HCl

5. The possible hazards of air pollution of air due to

- A) Acid rains
B) An increase in the CO_2 level in the atmosphere
C) Photochemical reaction taking place of stratosphere

- 1) A&B 2) B&C 3) A, B&C 4) C&A

6. Which of the following statement is false?

- 1) O_3 Layer destroyed by CFC's 2) O_3 participate in smog
3) A product of photochemical smog is CO_2 4) Smog reduces visibility

7. Peeling of ozone umbrella is due to

- A) PAN B) Freons C) CO_2 D) NO

The correct answer is

- 1) A & B 2) B & C 3) B & D 4) C & D

8. The excessive use of phosphates of water softners leads to aquatic pollution called

- 1) Denitrification 2) Phosphoylcation
3) Deoxygenaration 4) Eutrophicaction

9. CFCs are effective scavengers for ozone due to

- 1) Photolytic reaction of O_2 producing Cl radicals
2) Photolytic decomposition of O_3 producing O_2
3) Photolytic reactions of oxides of nitrogen
4) Photolytic production of oxides of nitrogen

10. The green house effect is possible is the % of CO_2 is

- 1) 0.01% 2) 0.03% 3) 0.15% 4) 0.02%

11. It is preferred to bleach paper using

- 1) NaCl 2) SO_2 3) Cl_2 4) H_2O_2 + catalyst

12. Ozone in stratosphere can reduce the percentage of rays from sun to the extent of

- 1) 80.4% 2) 90.2% 3) 99.5% 4) 100%

13. The gases evolving from the eruption of valence mainly have

- 1) CO & CO_2 2) Hydrocarbons 3) O_3 + NO_2 4) SO_2 + SO_3

14. When rain is accompanied by a thunder storm, the collected rain water will have a pH value

- 1) Un influenced by occurrence of thunder storm
2) Which depends on the amount of dust is air
3) Slightly lower than that of rain water without thunder storm
4) Slightly higher than that when thunder storm is not there

15. **Ozone layer of stratosphere requires proteins from indiscriminate use of**

- 1) Pesticides
- 2) atomic explosions
- 3) Balloons
- 4) aerosols and high flying jets

16. **Identify the wrong statement in the following**

- 1) CFC's are responsible for ozone layer depletions
- 2) Acid rain is mostly because oxides of nitrogen & Sulphur
- 3) Green house effect is responsible for global warming
- 4) Ozone layer does not permit IR radiation from sun reach earth

17. **Depletion of ozone layer over Antarctica takes place**

- 1) In November
- 2) In Summer
- 3) In the month of October and September
- 4) In the month of October and November

18. **In Antarctica ozone depletion is due to the formation of following compound**

- 1) Acrolein
- 2) SO_2 & SO_3
- 3) Chlorine nitrate
- 4) PAN

19. **Eutrophication of a lake means, it is**

- 1) Low is nutrients
- 2) High is nutrients
- 3) Has excess amount of organic matter
- 4) Has a high temperature

20. **Fish die in water bodies polluted by sewage due to**

- 1) Pathogens
- 2) Reduction of oxygen
- 3) Foul smell
- 4) None of the above

21. **Results of ozone hole is**

- 1) Green house effect
- 2) Global warming
- 3) Acid raid
- 4) UV rays reach the earth

22. **The term acid rain was coined by**

- 1) Robert Boyle
- 2) Robert Augus
- 3) Alfred Noble
- 4) Lavoisier

28. **List-I**
- A) Freons
 - B) Ozone
 - C) Carbon dioxide
 - D) Sulphur dioxide
- List-II**
- 1) Rise, in temperature of earths surface
 - 2) Forms holes in ozone layer
 - 3) Protects life from UV radiation
 - 4) Increase in fluoride ion concentration
 - 5) Acid rain

The correct match is

- 1) A-2, B-3, C-1, D-5
- 2) A-3, B-4, C-5, D-2
- 3) A-1, B-3, C-4, D-2
- 4) A-4, B-2, C-1, D-3

29. **List-I**
- A) Green house effect
 - B) Acid rain
 - C) Depletion of ozone layer
 - D) Photo chemical smog
- List-II**
- 1) Cause skin cancer cataract
 - 2) Corrodes marble painted surfaces
 - 3) Melting of polar ice caps
 - 4) Cause irritation of eyes and mucous membrane
 - 5) Causes headache and decreased vision

The correct match is

- 1) A-2, B-3, C-4, D-5
- 2) A-3, B-2, C-1, D-4
- 3) A-1, B-3, C-2, D-5
- 4) A-4, B-2, C-3, D-1

Note: Each of the following contains Assertion and Reasoning. Each of these question also have four options and only one in correct. You have to select one of the code (1), (2), (3), and (4) given below

- 1) If A & R are correct, and R is the correct explanation of A
- 2) If A & R are correct, and R is not the correct explanation of A
- 3) If A is correct, but R is not correct
- 4) if A & R are in correct

30. **Assertion (A):** The oxides of nitrogen and sulphur combine with rain water and come down as acid rain

Reason (R): Acid rains cause depletion of ozone layer.

31. **Assertion (A):** Acid Rain water normally has a pH of ≤ 5.6

Reason (R): This is due to the presence of H_2SO_4 and HNO_3 produced from oxides of sulphur and nitrogen

32. **Assertion (A):** Acid rain reduces the fertility of the soil

Reason (R): Acid rain has a corroding effect on marble buildings

33. **Assertion (A):** Liquid CO_2 is used in dry cleaning

Reason (R): CO_2 is harmless to ground water

KEY

1. 1	2. 1	3. 3	4. 4	5. 3	6. 3	7. 3	8. 4	9. 2	10. 2
11. 4	12. 3	13. 4	14. 3	15. 4	16. 4	17. 3	18. 1	19. 2	20. 2
21. 4	22. 2	23. 2	24. 2	25. 4	26. 4	27. 1	28. 1	29. 2	30. 3
31. 1	32. 2	33. 1							

HINTS

1) CFC'S are responsible for ozone depletion

7) Peeling of ozone umbrella is due to CO_2

24) 'LOS angel's smog in photochemical smog

33) Liquid CO_2 is harmless to ground water hence it is used in dry cleaning