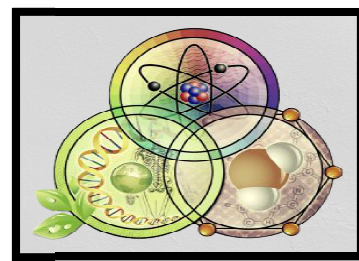


National Institute of Open Schooling
Senior Secondary Course : Chemistry
Lesson 32 : Environmental Chemistry
Worksheet- 32



1. Ozone is a toxic gas and is a strong oxidizing agent even then its presence in the stratosphere is very important. Explain what would happen if ozone from this region is completely removed?
2. During an educational trip, a student of botany saw a beautiful lake in a village. She collected many plants from that area. She noticed that villagers were washing clothes around the lake and at some places waste material from houses was destroying its beauty. After few years, she visited the same lake again. She was surprised to find that the lake was covered with algae, stinking smell was coming out and its water had become unusable. Can you explain the reason for this condition of the lake?
3. A factory was started near a village. Suddenly villagers started feeling the presence of irritating vapours in the village and cases of headache, chest pain, cough, dryness of throat and breathing problems increased. Villagers blamed the emissions from the chimney of the factory for such problems. Explain what could have happened. Give chemical reactions for the support of your explanation.
4. Oxidation of sulphur dioxide into sulphur trioxide in the absence of a catalyst is a slow process but this oxidation occurs easily in the atmosphere. Explain how does this happen. Give chemical reactions for the conversion of SO_2 into SO_3 .
5. Carbon monoxide gas is more dangerous than carbon dioxide gas. Why?
6. Write down the reactions involved during the formation of photochemical smog.
7. What would have happened if the greenhouse gases were totally missing in the earth's atmosphere? Discuss.
8. A large number of fish are suddenly found floating dead on a lake. There is no evidence of toxic dumping but you find an abundance of phytoplankton. Suggest a reason for the fish kill.
9. For your agricultural field or garden you have developed a compost producing pit. Discuss the process in the light of bad odour, flies and recycling of wastes for a good produce.
10. How can domestic waste be used as manure?