
CBSE TEST PAPER 02
CLASS XI CHEMISTRY (Environmental Chemistry)

General Instruction:

- All questions are compulsory.
 - Marks are given alongwith their questions.
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1. List gases which are responsible for green house effect? [1]
2. What is the effect of CFC's on ozone layer? [1]
3. Give one main reason of ozone depletion? [2]
4. Which zone is called ozonosphere? [2]
5. What is 'greenhouse effect'? How does it affects the global climate? [2]
6. Name the factors that are responsible for the depletion of ozone layer? [3]
7. What is greenhouse effect? [1]
8. Which disease is caused due to ozone layer depletion? [1]
9. What are the ill effects of ozone hole? [3]

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[ANSWERS]

Ans 01. Carbon dioxide, methane, water vapors, nitrous oxide, CFC's and ozone are responsible for green house effect.

Ans 02. Chlorofluorocarbon (CFC's) damage the ozone layer and creates holes in ozone layer.

Ans 03. The main reason of ozone depletion is the release of chloroform compounds (CFC's) in the atmosphere also known as Freon.

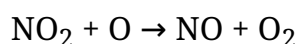
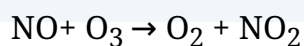
Ans 04. Stratosphere zone is called ozonosphere.

Ans 05. The warming of the earth or global warming due to re-emission of sun's energy absorbed by the earth followed by its absorption by CO₂ molecules and H₂O vapours present in the atmosphere, near the earth's surface and then its radiation back to the earth is called greenhouse effect.

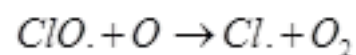
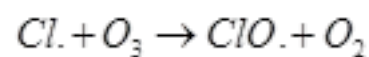
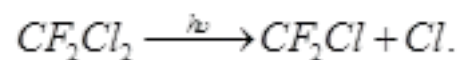
Greenhouse affects the climate. If the rate at which solar radiation are arriving the earth continues, then the entire global climate is going to change drastically.

Ans 06. Due to human activity two types of compounds have been found to be most responsible for depleting ozone layer and creating a hole into it. These two agents are :

(i) Nitric oxide (NO) : NO reacts with ozone decreasing the amount of ozone and forms NO₂ which absorbs energy from sunlight and breaks up in NO.



(ii) Chlorofluorocarbons (CFC's) : In the stratosphere, they first undergo photochemical decomposition to give chlorine atoms



It has been observed that one molecule of CFC can destroy one lakh O₃ molecules in the stratosphere.

Ans 07. Atmosphere traps the Sun's heat near the Earth's surface and keeps it warm. This is Greenhouse effect.

Ans 08. Ultraviolet rays reaching the earth passing through the ozone hole cause skin cancer.

Ans 09. Consequences of Ozone hole:

The ultraviolet rays entering into the earth through ozone hole leads to

- (i) Increase cases of skin cancer
- (ii) It affects plants, chlorophyll, proteins and causes harmful mutation in them.
- (iii) Upset the heat balance of the earth
- (iv) Ecological imbalance, which would adversely affect man and animals.



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