

# Environmental Chemistry

## Question1

The first chlorinated organic insecticide prepared is

KCET 2024

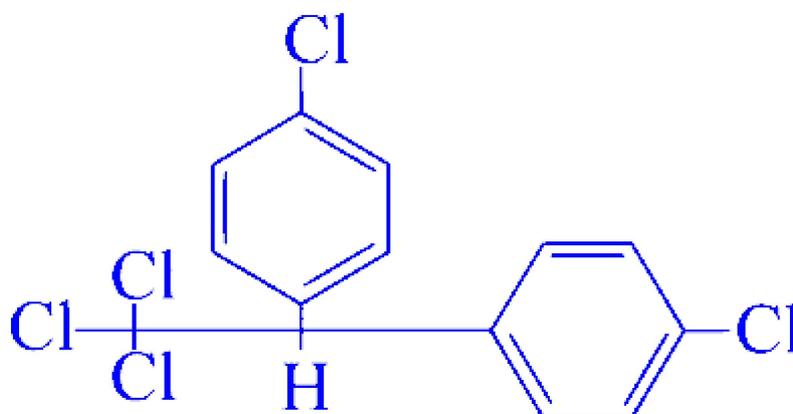
Options:

- A. gammaxene
- B. chloroform
- C.  $\text{COCl}_2$
- D. DDT

Answer: D

Solution:

The first chlorinated organic insecticide was DDT. Dichloro diphenyl trichloroethane.



## Question2

Identify the incorrect statement from the following.

**KCET 2024**

**Options:**

- A. Oxides of nitrogen in the atmosphere can cause depletion of the ozone layer.
- B. Ozone absorbs the intense ultraviolet radiation of Sun.
- C. Depletion of ozone layer is because of its chemical reactions with chlorofluoro alkanes.
- D. Ozone absorbs infrared radiation.

**Answer: D**

**Solution:**

Option D is incorrect.

Ozone primarily absorbs ultraviolet (UV) radiation, particularly in the wavelength range of 240 to 320 nanometers, which helps to protect living organisms from harmful UV rays emitted by the sun. It does not absorb infrared radiation significantly; instead, gases such as carbon dioxide (CO<sub>2</sub>), water vapor (H<sub>2</sub>O), and methane (CH<sub>4</sub>) are primarily responsible for the absorption of infrared radiation, contributing to the greenhouse effect.

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## Question3

Which of the following is not a green house gas?

**KCET 2020**

**Options:**

- A. CFC
- B. CO<sub>2</sub>
- C. O<sub>2</sub>



D. NO<sub>2</sub>

**Answer: C**

**Solution:**

Green house gases are the gases which are forming a layer in the atmosphere and prevent the reflected sun rays going upward and as such are responsible for increasing the temperature. CFC, CO<sub>2</sub> and NO<sub>2</sub> are green house gases while O<sub>2</sub> is not a green house gas.

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## Question4

**Eutrophication causes**

**KCET 2019**

**Options:**

- A. increase of nutrients in water
- B. reduction in water pollution
- C. reduction in dissolved oxygen
- D. decreases BOD

**Answer: C**

**Solution:**

Eutrophication causes reduction in dissolved oxygen. It is a process in which nutrient enriched water bodies support a dense plant population, which kills animal life by depriving it of oxygen and results in subsequent loss of bio diversity.

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## Question5

**Which one of the following is not a common component of photo-chemical smog?**



## KCET 2017

### Options:

A. Ozone

B. Acrolein

C. Peroxy acetyl nitrate

D. Chloroflourocarbons

**Answer: D**

### Solution:

Photochemical smog is a combination of air pollutants that have been chemically transformed into more harmful compounds due to exposure to sunlight. The main components of photochemical smog include ozone, peroxy acetyl nitrate (PAN), nitrogen oxides, and volatile organic compounds (VOCs), among others.

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