

VALUE BASED QUESTIONS
(HALOALKANES AND HALOARENES)

Q1. Antiseptic is antimicrobial applied on living tissues. Tincture of iodine is a common example. Rewati had read that iodoform also possesses an appreciable antiseptic property. How will you explain this? Identify the value associated with it.

Ans: Iodoform is used as an antiseptic, particularly for dressing wounds. Actually, on coming in contact with skin it decomposes and slowly loses iodine which accounts for the antiseptic properties of iodoform. Scientific Knowledge and logical thinking.

Q2. Ravi Prasad a farmer has 25 acres of land. He noticed some infection on the leaves of his crops. He called his friend Raghav, who advised him to use DDT. However, Ravi Prasad preferred to use dry powder of neem leaves as an insecticide.

A) Mention reasons why Ravi Prasad prefer using neem powder?

B) In your opinion, who took right decision?

C) Write values associated with above decision?

Ans: a) because neem powder will not harm soil. Whereas DDT is non- biodegradable.

b) Ravi Prasad.

c) Application of scientific knowledge. Environmental concern.

Q3. Gita regularly cleans her artist father's metal table with an organic liquid given by her father due to this regular activity she had eye irritation. After few months she eventually loses vision in one of her eye.

a) What is the effect of chlorination in the presence of sunlight on methane?

b) Why did gita lose her eye sight?

c) List values associated with the above problem.

Ans: a) Methane gets converted to CCl_4

b) Because of release of chlorine vapors in the atmosphere.

c) Appropriate knowledge of organic chemical is essential while handling them.

Q4. A farmer cultivating his land near the village pond was also drawing water from it for irrigation. He used insecticide excessively to protect his crops and improve the harvest, over a period of time his agricultural growth improved vastly. But the pond lost its aquatic life.

a) Give the IUPAC name of the compound used as an insecticide but not a pesticide.

b) Contrast the activity in plants and aquatic life with insecticides.

c) What value got expressed in student's suggestions?

Ans: a) 2, 2-Bis(4-Chlorophenyl)-1,1,1-trichloroethane

b) Plant growth improved because it is a very effective insecticide but aquatic life got destroyed as it is highly toxic to fish.

c) Prompt application of chemistry knowledge, environmental concern.

Q5. A sweet smelling organic compound 'A' is slowly oxidized by air in the presence of light to a highly to a poisonous gas. On warming with silver powder, it carbide on water. Gas 'B' is also used to make metallic objects reusable. Identify A and B. Write the values associated to use the reagent as minimum possible to conduct this chemical reaction.

Ans: Compound A is chloroform, Compound B is ethylene. Chloroform is highly toxic in nature its vapor when inhaled damage the central nervous system. Therefore, it should be handled very carefully.
