



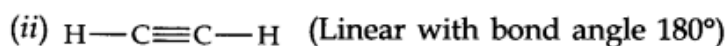
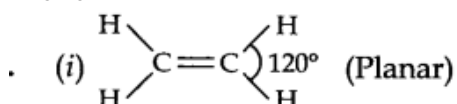
## MORE QUESTIONS SOLVED

### I. Very Short Answer Type Questions

Question 1.

**What are shapes of (i)  $\text{CH}_2=\text{CH}_2$  (ii)  $\text{HC}\equiv\text{CH}$**

Answer:

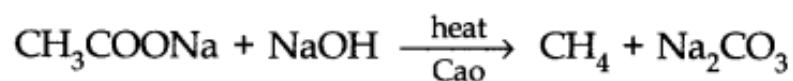


Question 2. What are conformations?

Answer: Conformations are spatial arrangements which are obtained by rotation around sigma bonds.

Question 3. What is decarboxylation? Give an example.

Answer: The process by which carbon dioxide is removed from sodium acetate (or any sodium salt of acid) with the help of sodalime is called decarboxylation.



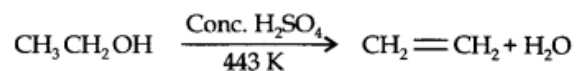
Question 4. What do you mean by pyrolysis?

Answer: The decomposition of a compound by heat is called pyrolysis. This process when applied to alkanes is known as cracking.

Question 5. What happens when ethanol is heated with cone.  $\text{H}_2\text{SO}_4$ ?

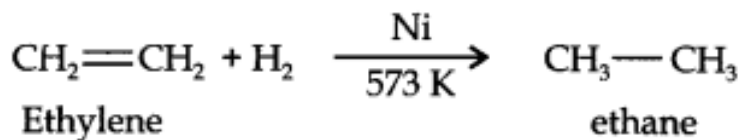
Answer:

**Ethene is formed**



Question 6. Convert ethylene to ethane.

Answer:

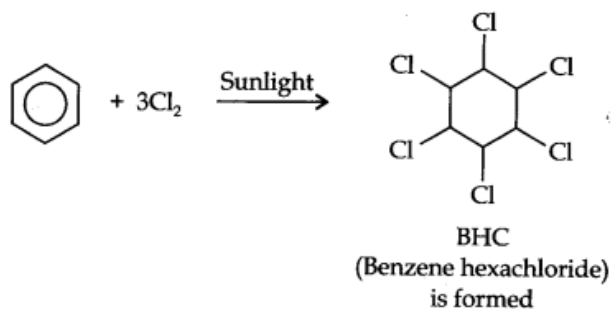


Question 7. What is Lindlar's catalyst? Give its use.

Answer:  $\text{Pd}/\text{BaSO}_4$  is known as Lindlar's catalyst. It is used in the conversion of alkynes to alkenes with the help of  $\text{H}_2$ .

Question 8. What happens when benzene is treated with excess of  $\text{Cl}_2$  in presence of sunlight? Give chemical reaction.

Answer:



Question 9. Why are alkanes called paraffins?

Answer: Paraffins means little affinity. Alkanes due to strong C—C and C—H bonds are relatively chemically inert.

Question 10. Arrange the three isomers of pentane in increasing order of their boiling points.

Answer: 2, 2-Dimethylpropane < 2-methylbutane < pentane.

Question 11. Arrange the following: HCl, HBr, HI, HF in order of decreasing reactivity towards alkenes.

Answer: HI > HBr > HCl > HF

Question 12. Although benzene is highly unsaturated it does not undergo addition reactions. Why?

Answer: It is due to delocalization of  $\pi$  -electrons in benzene it is highly stable.

Question 13. Why are Alkenes called olefins?

Answer: Alkenes are commonly known as olefins because the lower members form oily products on treatment with chlorine or bromine.

Question 14. Which is more acidic: ethene or ethyne and why?

Answer: Ethyne is more acidic than ethene because it has 'sp' hybridised 'C' which is more electronegative.

Question 15. What is Huckel rule?

Answer: Huckel rule states that a compound is said to be aromatic if it has  $(4n + 2)$  n electrons delocalized where n = an integer 0,1, 2, 3,

Question 16. How will you distinguish between propene and propane?

Answer: Pass them through dilute cold KMnO<sub>4</sub> solution (purple) or Br<sub>2</sub> in CCl<sub>4</sub> solution (red). Propene will decolourise both the solutions but propane does not react.

Question 17. How will you distinguish between acetylene and ethylene?

Answer: Acetylene forms precipitate with ammoniacal silver nitrate solution, ethylene does not react with these reagents.

Question 18. What happens when benzene is treated with acetyl chloride in presence of AlCl<sub>3</sub>?

Answer: Acetophenone is formed.

Question 19. Which type of isomerism is exhibited by but-1-yne and but-2-yne?

Answer: Position isomerism.

Question 20. What is electrophile in sulphonation?

Answer: SO<sub>3</sub>.

Question 21. What is the hybridisation of central carbon in 1, 2-propadiene (CH<sub>2</sub>=C=CH<sub>2</sub>)?

Answer: sp.

Question 22. What are Arenes ?

Answer: Arenes are aromatic hydrocarbons.

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