

CHEMISTRY

CHAPTER 8(XII) (Aliphatic Hydrocarbons)

SHORT QUESTIONS:

1. How would you establish that benzene is a polymer of acetylene?
2. How do you distinguish between 1-Butyne and 2-Butyne?
3. Mention four uses of ethene.
4. How Ammonical solution of AgNO_3 can be used to distinguish between 1-Butyne and 2-Butyne.
5. State Markownikov's rule. Give example.
6. Write mechanism for Kolbe's electrolytic method for preparation of an alkane.
7. Convert methane into **i.** Formaldehyde **ii.** Nitromethane
8. Prepare Ethane from **i.** Ethyl alcohol **ii.** Ethyl chloride
9. Write the chemical equation when alkaline KMnO_4 reacts with ethyne.
10. Alkanes are less reactive than alkenes. Comment.
11. Ethene can be converted to ethyl alcohol. Write equation.
12. Give four uses of Methane.
13. What is Baeyer's test? What is its use?
14. How cis and trans alkenes are produced? Give reactions.
15. How will you synthesize following compounds from ethyne (acetylene).
i. Benzene **ii.** Chloroprene

OR

Convert **(i)** acetylene to benzene **(ii)** vinyl acetylene to chloroprene

16. Convert ethyne into acetaldehyde.
17. Sigma bond is inert. Justify it.

OR

18. Why alkanes are less reactive organic compounds?
19. What happens when vicinal dihalide is treated with Zinc dust?
20. Why alkanes are called Paraffins and alkenes as Olefins?

LONG QUESTIONS:

1. Give one method of preparation of each of Ethane, Ethene and Ethyne.
2. Discuss acidic nature of alkynes with at least two examples.
3. Convert **(i)** acetic acid into methane **(ii)** 1-Propanol to 1-Chloro-2-propanol.
4. How can you convert
 - i.** 2,3-Dibromo butane into 2-Butene
 - ii.** Acetone into propane
 - iii.** Acetylene into vinyl acetylene
 - iv.** Acetylene into Disilver acetylide
5. How can you convert
 - v.** Propyne into acetone
 - vi.** Ethyne into oxalic acid
6. Discuss acidic behaviour of alkynes. What are the main uses of alkynides?
7. How will you distinguish between Ethane, Ethene and Ethyne?
Give comparison of reactivity of alkane, alkene and alkyne.
8. Prepare Ethane from Kolbe's electrolysis?
9. How is ethene prepared by Kolbe's electrolytic method? Write its mechanism.
10. Write a note on Halogenation of alkanes.
11. Write chemical reactions of Ethene with the following.
i. HCl **ii.** Br_2 **iii.** O_3 **iv.** HOX
12. Why are some hydrocarbons called saturated and others unsaturated? Write down their characteristic reactions.
 13. What are the rules for naming alkynes? Give suitable examples.