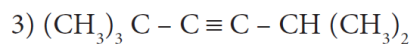
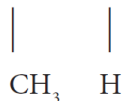
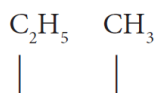
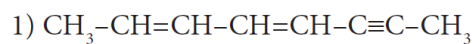


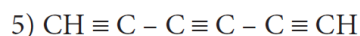
**UNIT- 13 – HYDROCARBONS**

**I. Answer in brief (2/3 marks)**

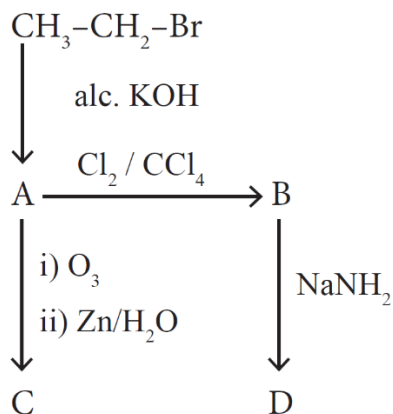
1. Give IUPAC names for the following compounds



4) ethyl isopropyl acetylene



2. Identify the compound A, B, C and D in the following series of reactions



3. Write short notes on ortho, para directors in aromatic electrophilic substitution reactions.

4. How is propyne prepared from an alkylene dihalide?

5. Suggest a simple chemical test to distinguish propane and propene.

**II. Answer in a paragraph (5 marks)**

1. Describe the mechanism of Nitration of benzene.

2. How does Huckel rule help to decide the aromatic character of a compound?

3. Suggest the route for the preparation of the following from benzene.

1) 3 – chloro nitrobenzene

2) 4 – chlorotoluene

3) Bromo benzene

4) m - dinitro benzene

4. How will you convert ethyl chloride in to i) ethane ii) n – butane

5. Describe the conformers of n - butane.

6. Explain Markownikoff's rule with suitable example.