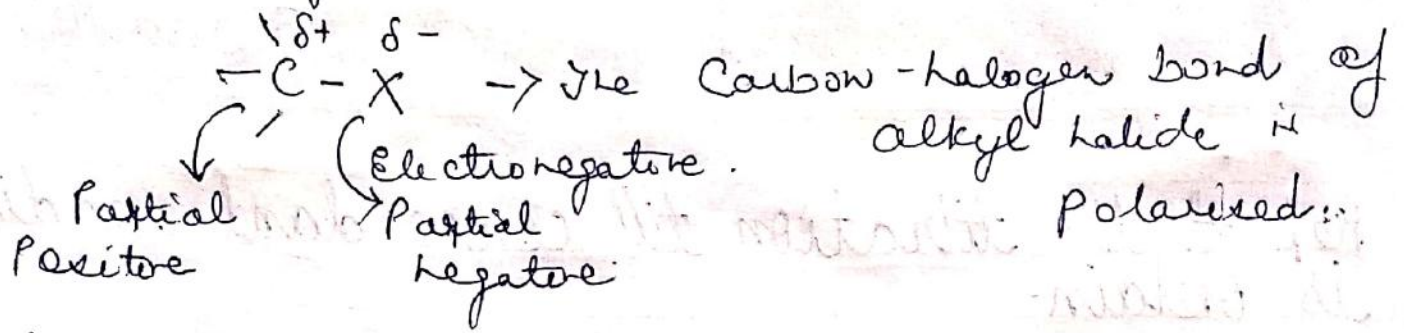


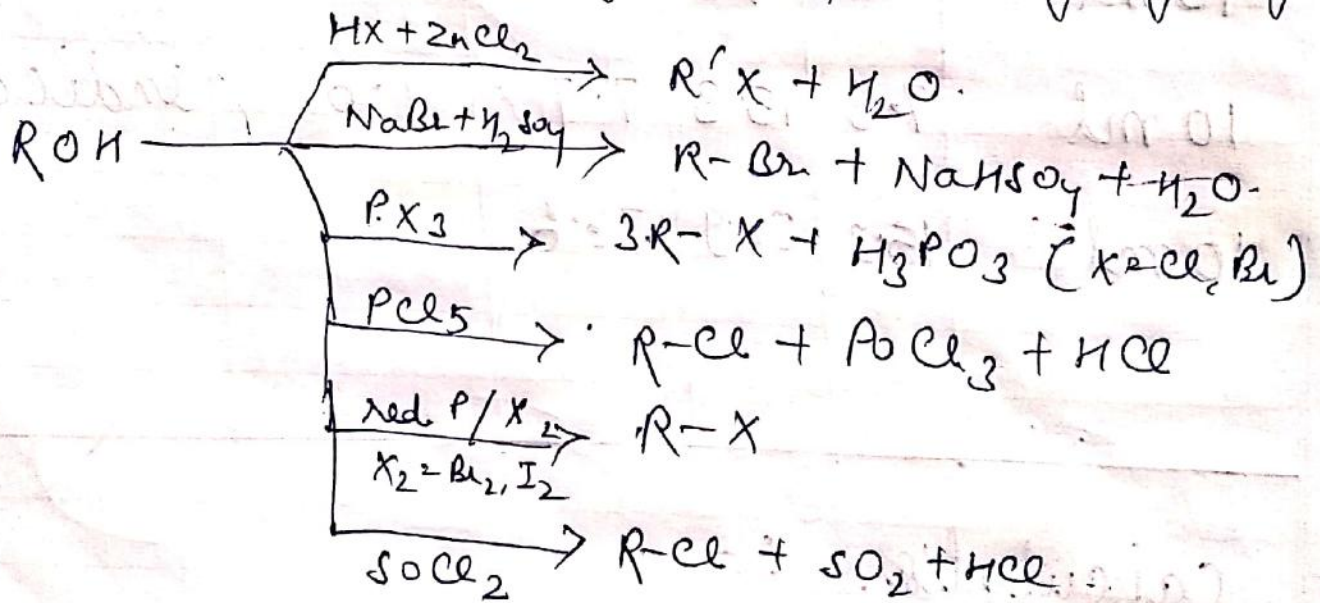
1.2) Nature of C-X Bond.



Since the size of halogen atom increases as we go down the periodic table, C-X bond length also increases from C-F to C-I.

1.3) Methods of Preparation

\Rightarrow From alcohols \rightarrow -OH group replaced by hydrogen.



- a) Among halogen acids, phosphorus halides or thionyl chloride, thionyl chloride is preferred because the other two products are escapeable gases.
- b) The reactions of primary and secondary alcohols

with HX requires the presence of catalyst ZnO_2 .
c) With tertiary alcohols, the reaction is easily conducted by simply shaking with conc. HCl at room temperature.