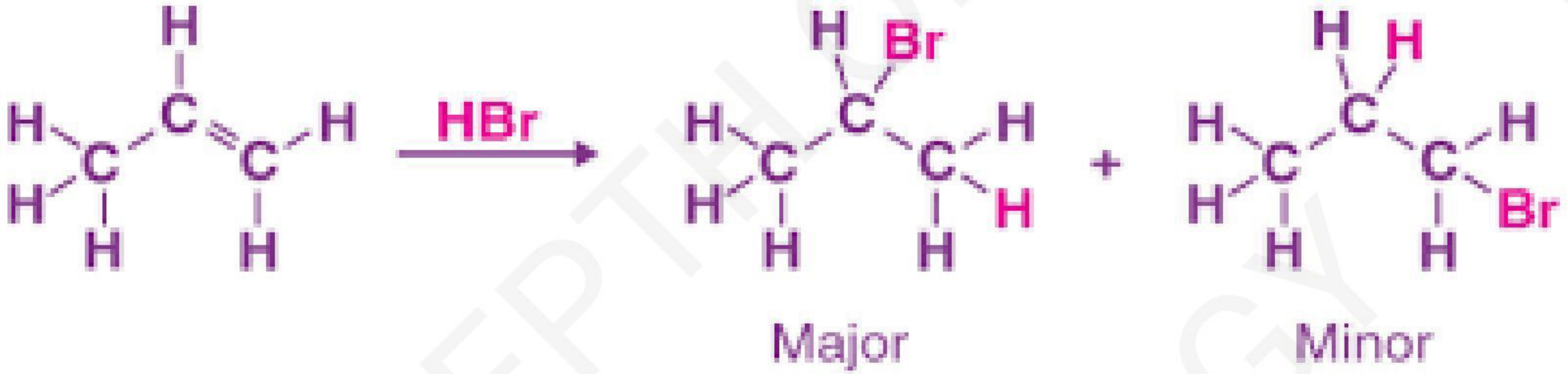
MARKOVNIKOV RULE

- The addition of unsymmetrical reagent such as HX, H2O, HOX etc to unsymmetrical alkene occurs in such a way that the negative part of the addendum (adding molecule) goes to that carbon atom of the double bond which carries lesser number of hydrogen atom

- There should be absence of peroxide and dark atmosphere



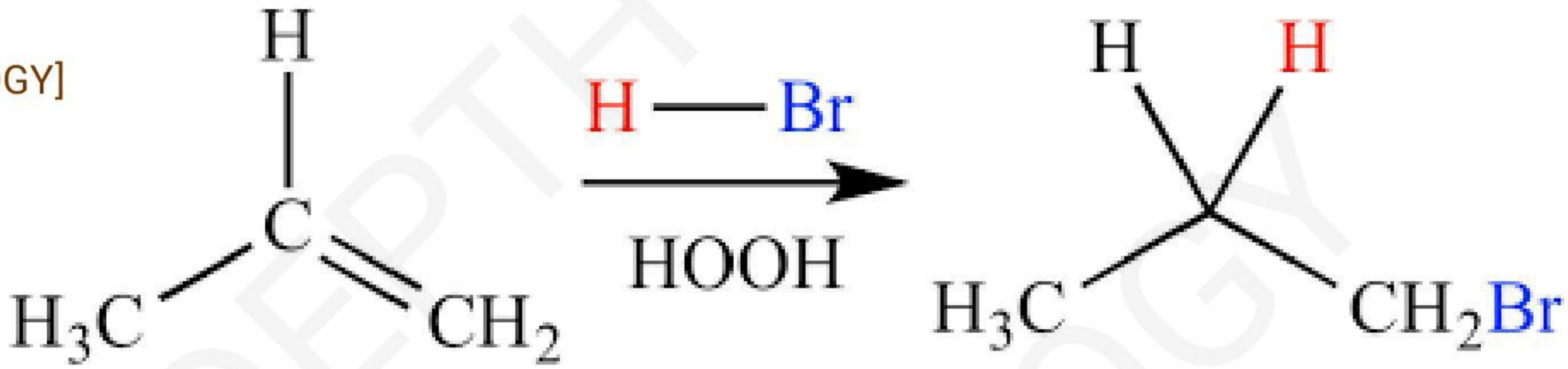
ANTI- MARKOVNIKOV RULE

- In presence of peroxide such as benzoyl peroxides or hydrogen peroxide (H2O2), the addition of HBr to unsymmetrical alkenes takes place contrary to markonikov rule; this is known as peroxide effect or kharash effect/ anti markovnikov's rule

CONDITIONS:

1. Only applicable for HBr
2. Always takes place in presence of peroxide

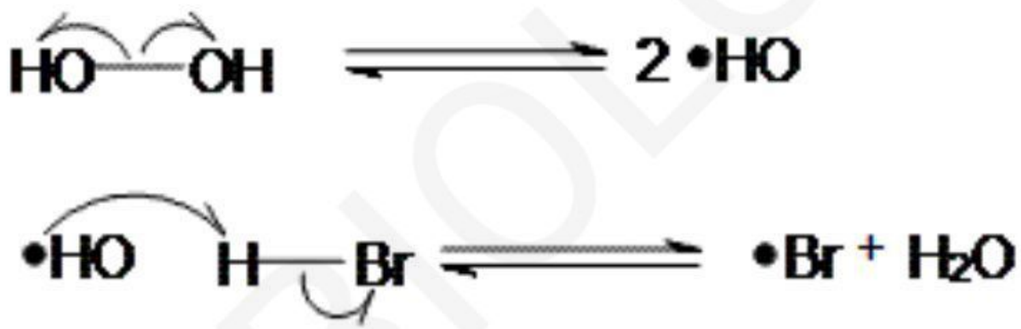
Example



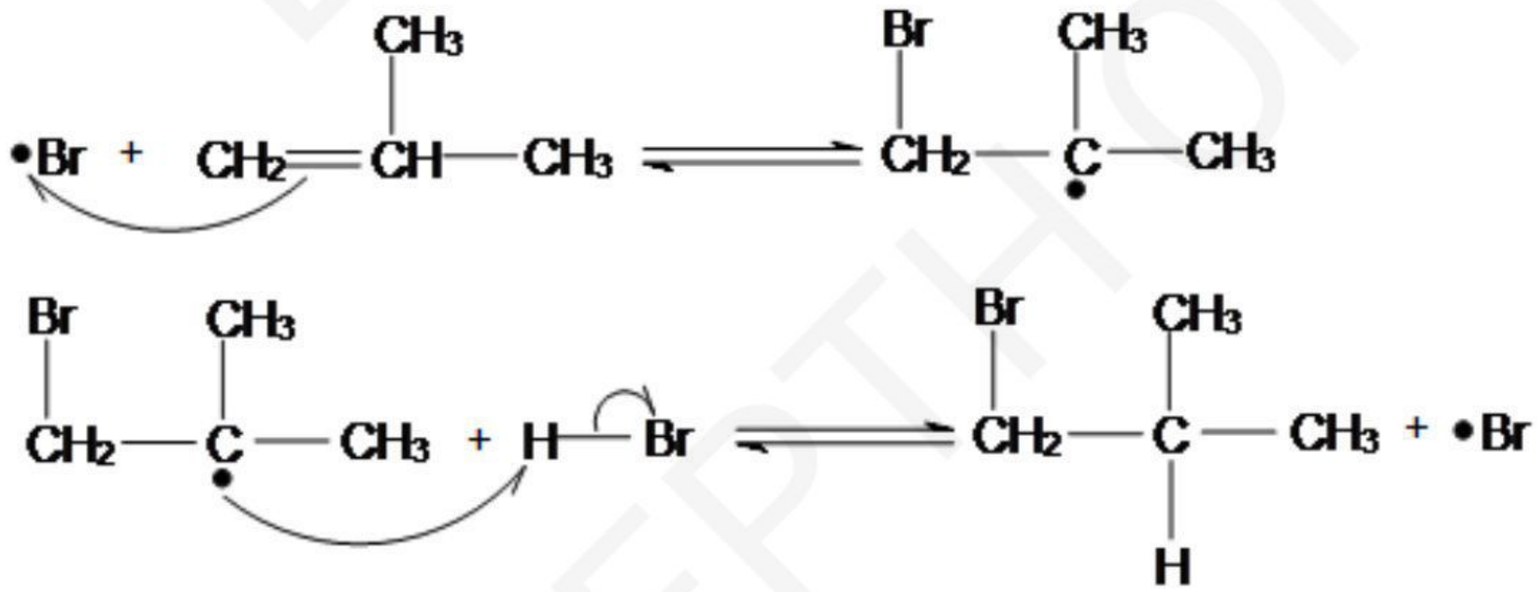
MECHANISM (free radical)

- It takes place in 3 steps

step 1- INITIATION-



step 2- PROPOGATION-



#step 3- TERMINATION

[DEPTH OF BIOLOGY]