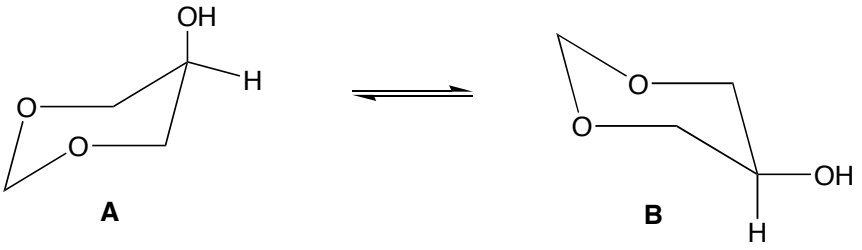
9. (10 pts) Draw structures of all the possible products of the monochlorination of 1-bromo-2-methyl-propane. All products have the formula C_4H_8BrCl.

10. (5 pts) An intramolecular hydrogen bond plays a significant role in the conformational analysis of the compound below. **Circle** the one letter (a-e) which best describes the conformations of this molecule.



a) Both **A** and **B** have the hydrogen bonding, and $K_{eq} > 1$.

b) Only **B** has the hydrogen bonding, and $K_{eq} > 1$.

c) Only **A** has the hydrogen bonding, and $K_{eq} < 1$.

d) Only **B** has the hydrogen bonding, and $K_{eq} < 1$.

e) Both **A** and **B** have the hydrogen bonding, and $K_{eq} = 1$.

$$K_{eq} = \frac{[\ B\ ]}{[\ A\ ]}$$