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B.Sc Part III

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Properties of hydrogen bonding:-

- (i) Solubility:- alcohols are soluble in water due to hydrogen bonding.
- (ii) Volatility:- The molecule having high boiling point, they are less volatile.
- (iii) viscosity and surface tension:- The molecule which contain hydrogen bonding exist as associated molecules. So their flow becomes comparatively difficult. because they have high viscosity and surface tension.
- (iv) The density of ice is lower than water. In solid ice, hydrogen bonding gives rise to a cage like structure of water molecule. The water molecule is linked tetrahedral to four water molecules. These water molecules are not as closely packed. when ice melts i.e. cage-like structure collapses, and the molecules come closer to each other. Thus same mass of water, the volume decreases and density increases. therefore, ice has a lower density than water.