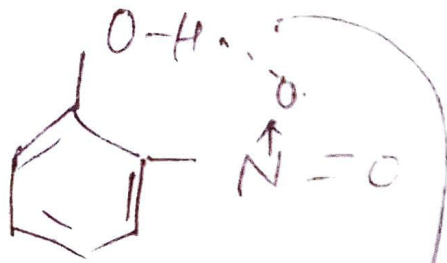




Intramolecular H-bond or chelation

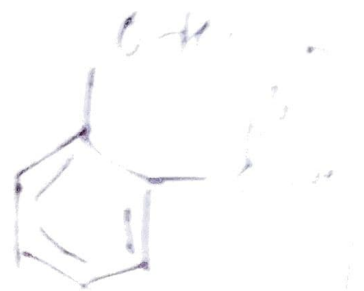
Chelation \rightarrow formation of a cycle by the atoms of same molecule is called intramolecular H-bond.

eg. (i) O-nitrophenol



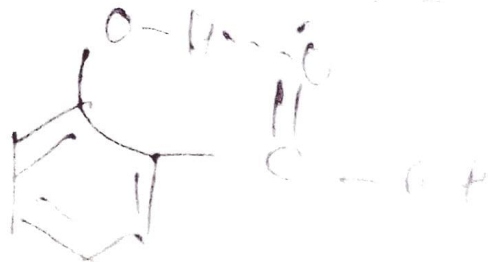
Intramolecular
H-bond

(ii) salicylaldehyde



Intramolecular
H-bond

(iii) salicylic acid



Consequences of H-bond



Covalent compound

↓
 Intermolecular force

↙
 Van der Waals force

↘
 Hydrogen bond

Density of a compound \propto mol wt

\propto Intermolecular force of attraction

Due to intermolecular H-bond, a covalent compound exists as solid or liquid at room temperature.

Q: Explain why H_2O is liquid but H_2S is gas at room temperature!

Ans:

	H_2O	H_2S
mol wt	18	34

In H_2O , there is intermolecular H-bond which may be shown as follows:

