



KEC

# K Education Centre

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## AS Chemistry

C2: Chemical Bonding and Structure Assignment -2

Assignment Questions

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## Chemical Bonding and Structure Assignment -2

Q1: Explain in terms of intermolecular forces present :

Why Hydrogen fluoride HF , has higher boiling point than Hydrogen chloride , HCl.

Q2: Explain why carbon dioxide is not a polar molecule , even it contains polar bonds.

Q3: For each of the following molecules draw its shape and bond angle.

a) CH<sub>4</sub>

b) PF<sub>5</sub>

Q4: Which of the following structural isomers of C<sub>5</sub>H<sub>12</sub> will have higher boiling point?



Pentane



2- Methylbutane



2,2 dimethyl propane

Explain the reason.

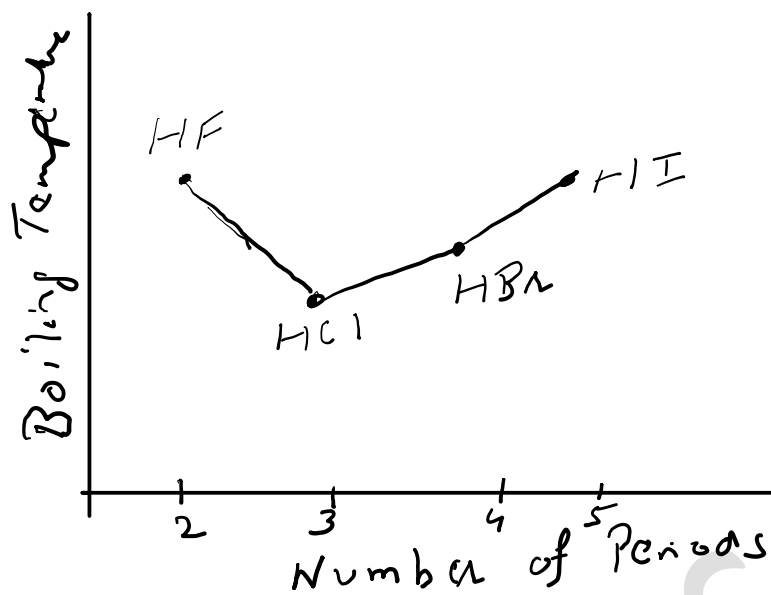
Q5: Diamond and Iodine are both crystalline solids. Explain why melting point of diamond is much higher than Iodine.

Q6: Explain the conditions under which NaCl will conduct electricity.

Q7: With shapes show why tetrachloro methane CCl<sub>4</sub> is non- polar but trichloro methane CHCl<sub>3</sub> is polar.

Q8: Explain how ethanol will form hydrogen bond with water.

Q9: Following is the trend of boiling temperatures of hydrogen halides.



Explain:

- Why HF has the highest boiling temperature.
- The trend from HCl to HI.