**Karan Arora** **R.L. Institute M: 9416974837**

**Max Time : 1 hr** **Class = 11th Chemistry Test**  **Max Marks : 25**

**Chemical Bonding**

1. Why NaCl is a bad conductor of electricity in solid state? [ 1 ]
2. Define Bond length. [ 1 ]
3. Define Lattice energy. How is it related to the stability of an ionic compound? [ 2 ]
4. Out of Sigma and Pia bonds, which one is stronger and why? [ 2 ]
5. Is there any change in hybridization of B and N atoms as a result of the reaction, [ 2 ]

BF3 + NH3 F3B . NH3

1. What is the total number of sigma and pi bonds in the following : (a) C2H2 (b) C2H4­ [ 2 ]
2. Use molecular orbital theory to explain why the Be2 molecule does not exist. [ 2 ]
3. Arrange the following in order of decreasing bond angles: [ 3 ]

(a) CH4 , NH3 , H2O , BF3 , C2H2 (b) NH3 , ,

1. Define Lewis acid and Lewis base with example. [ 3 ]
2. Draw M.O. diagram of O2­ and write its electronic configuration and Bond order. [ 3 ]
3. Draw the shape of any four of the following and also find Hybridization. [ 1 x 4 = 4 ]

(a) XeO3F2 (b) XeF4 (c) SF4 (d) (e)

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