Chemistry Suggestion Paper - Chemical Bond

Shams Parvez Arka

December 22, 2022

1. Give definition with their properties:

- Ionic bond / Electrovalent bond.
- Covalent bond.
- Co-ordinate Bond
- Metalic bond \rightarrow (Electrical and thermal conductical nature, Luster, Ductility)
- Hydrogen bond \rightarrow (definition, variation and properties of Dipole)
- Vander wall's bond
- Hybridization
- 2. Explain the Ionic character fo Covalent bond.
- **3.** Explain the Covalent character fo Ionic bond.
- 4. Fazan's rule
- 5. Write down the bonding angles of sp^3 hybridized compound.
- 6. Explain these terms below with example:
 - Why NH_3 is a pyramidal structure compound.
 - Why H_2O is a 'V' shape structure compound.
 - sp^3 hybridization for CH_4
 - sp^2 hybridization for $CH_2 = CH_2$
 - sp hybridization for $CH_3 \equiv CH_3$
- 7. Why PCl_5 is possible and NCl_5 is a impossible compound.
- **8.** Why H_2O is liquid and H_2S is gas in natural temperature.
- 9. Explain these compounds solibility in water: AgF, AgCl, AgBr, AsI