

Date Planned : __ / __ / __	Daily Tutorial Sheet - 13	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	Level - 3	Exact Duration : _____

- 147.** The correct increasing bond angle order is :
- (A)  $\text{BF}_3 < \text{NF}_3 < \text{PF}_3 < \text{ClF}_3$  (B)  $\text{ClF}_3 < \text{PF}_3 < \text{NH}_3 < \text{BF}_3$   
(C)  $\text{BF}_3 = \text{NF}_3 < \text{PF}_3 < \text{ClF}_3$  (D)  $\text{BF}_3 < \text{NF}_3 < \text{PF}_3 < \text{ClF}_3$
- 148.** Identify the false statement.
- (A) Anhyd.  $\text{FeCl}_3$  cannot exist in dimeric form  
(B) Maximum polarisation is brought about by a cation of high charge  
(C) The bond dissociation energy of a metallic bond is greater than that of a hydrogen bond.  
(D) The conversion of  $\text{Na}$  to  $\text{Na}^+$  is an endothermic process
- 149.**  $\text{N}_2\text{CO}$  has three possible structures :  
ONCN (nitrosyl cyanide), ONNC (nitrosyl isocyanide) NOCN (isonitrosyl cyanide). Which of the following structures has lowest potential energy?
- (A) ONCN (B) ONNC (C) NOCN (D) All have same energy
- 150.** Which of the following compounds has least dipole moment ?
- (A)  $\text{PH}_3$  (B)  $\text{CHCl}_3$  (C)  $\text{NH}_3$  (D)  $\text{BF}_3$
- 151.** If two different non-axial d-orbitals having 'xz' nodal plane form  $\pi$  - bond by overlapping with each other, then internuclear axis will be :
- (A) x-axis (B) y-axis (C) z-axis (D) They don't form  $\pi$  - bond
- 152.** Which of the following diatomic molecules would be stabilized by the removal of an electron?
- (A)  $\text{C}_2$  (B)  $\text{CN}$  (C)  $\text{N}_2$  (D)  $\text{O}_2$