

Date Planned : __ / __ / __	Daily Tutorial Sheet - 14	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	Level - 3	Exact Duration : _____

- 153.** In the compounds of type  $\text{ECl}_3$  where E = N, P, As or Bi the angles  $\text{Cl} - \text{E} - \text{Cl}$  for different E are in the order:
- (A)  $\text{N} > \text{P} = \text{As} = \text{Bi}$  (B)  $\text{N} > \text{P} > \text{As} > \text{Bi}$  (C)  $\text{N} < \text{P} = \text{As} = \text{Bi}$  (D)  $\text{N} < \text{P} < \text{As} < \text{Bi}$
- 154.** Which of the following is the correct order of increasing bond order?
- (A)  $\text{C}_2^{2-} < \text{He}_2^+ < \text{O}_2^- < \text{NO}$  (B)  $\text{He}_2^+ < \text{O}_2^- < \text{NO} < \text{C}_2^{2-}$
- (C)  $\text{NO} < \text{O}_2^- < \text{C}_2^{2-} < \text{He}_2^+$  (D)  $\text{O}_2^- < \text{NO} < \text{C}_2^{2-} < \text{He}_2^+$
- 155.** The species having bond angle of  $120^\circ$  is:
- (A)  $\text{PH}_3$  (B)  $\text{ClF}_3$  (C)  $\text{NCl}_3$  (D)  $\text{BCl}_3$
- \*156.** The species which contain an odd number of valence electrons and paramagnetic are :
- (A) NO (B)  $\text{NO}_2$  (C)  $\text{ClO}_2$  (D)  $\text{N}_2\text{O}_4$
- \*157.** Which of the following is planar?
- (A)  $\text{CH}_2 = \text{CH}_2$  (B)  $\text{CH}_2 = \text{C} = \text{CH}_2$
- (C)  $\text{CH}_2 = \text{C} = \text{C} = \text{CH}_2$  (D)  $\text{CH}_2 = \text{CH} - \text{C} \equiv \text{CH}$
- 158.** Which of the following molecules does not contain any  $\pi$  bond?
- I  $\text{NO}_2$  II  $\text{CO}_2$  III  $\text{H}_2\text{O}$  IV  $\text{SO}_2$
- (A) Only I and II (B) Only III (C) Only I and III (D) I, II, III, IV