

# DPP

DAILY PRACTICE PROBLEMS

Class : XIth  
Date :

Subject : CHEMISTRY  
DPP No. : 2

## Topic :- Classification of Elements & Periodicity in Properties

- A  $\pi$ -bond is formed by sideways overlapping of:  
a)  $s$ - $s$  orbitals      b)  $p$ - $p$  orbitals      c)  $s$ - $p$  orbitals      d)  $s$ - $p$ - $s$  orbitals
- Which oxide of nitrogen is isoelectronic with  $\text{CO}_2$ ?  
a)  $\text{NO}_2$       b)  $\text{N}_2\text{O}$       c)  $\text{NO}$       d)  $\text{N}_2\text{O}_2$
- In which of the following pairs of molecules/ions, the central atom has  $sp^2$ -hybridization?  
a)  $\text{NO}_2$  and  $\text{NH}_3$       b)  $\text{BF}_3$  and  $\text{NO}_2^-$       c)  $\text{NH}_2^-$  and  $\text{H}_2\text{O}$       d)  $\text{BF}_3$  and  $\text{NH}_2^-$
- Which of the following has largest ionic radius?  
a)  $\text{Cs}^+$       b)  $\text{Li}^+$       c)  $\text{Na}^+$       d)  $\text{K}^+$
- Boron cannot form which one of the following anions?  
a)  $\text{BF}_6^{3-}$       b)  $\text{BH}_4^-$       c)  $\text{B}(\text{OH})_4^-$       d)  $\text{BO}_2^-$
- Most covalent halide of aluminium is:  
a)  $\text{AlCl}_3$       b)  $\text{AlI}_3$       c)  $\text{AlBr}_3$       d)  $\text{AlF}_3$
- The shape of  $\text{ClO}_3^-$  according to VSEPR model is:  
a) Planar triangle      b) Pyramidal      c) Tetrahedral      d) Square planar
- The correct order of increasing bond angles in the following triatomic species is:  
a)  $\text{NO}_2^- < \text{NO}_2 < \text{NO}_2^+$       b)  $\text{NO}_2^+ < \text{NO}_2 < \text{NO}_2^-$       c)  $\text{NO}_2^+ < \text{NO}_2^- < \text{NO}_2$       d)  $\text{NO}_2^- < \text{NO}_2^+ < \text{NO}_2$
- Which of the following pairs has both members from the same group of the Periodic Table?  
a)  $\text{Mg} - \text{Ba}$       b)  $\text{Mg} - \text{Cu}$       c)  $\text{Mg} - \text{K}$       d)  $\text{Mg} - \text{Na}$
- Silicon has 4 electrons in the outermost orbit. In forming the bond:  
a) It gains electrons      b) It loses electrons      c) It shares electrons      d) None of these
- $sp^2$ -hybridization is shown by:  
a)  $\text{BeCl}_2$       b)  $\text{BF}_3$       c)  $\text{NH}_3$       d)  $\text{XeF}_2$

