

Class : XIth
Date :

Subject : CHEMISTRY
DPP No. : 2

Topic :- Classification of Elements & Periodicity in Properties

- A π -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 CO_2 ?
a) NO_2 b) N_2O c) NO d) N_2O_2
- In which of the following pairs of molecules/ions, the central atom has sp^2 -hybridization?
a) NO_2 and NH_3 b) BF_3 and NO_2^- c) NH_2^- and H_2O d) BF_3 and NH_2^-
- Which of the following has largest ionic radius?
a) Cs^+ b) Li^+ c) Na^+ d) K^+
- Boron cannot form which one of the following anions?
a) BF_6^{3-} b) BH_4^- c) $\text{B}(\text{OH})_4^-$ d) BO_2^-
- Most covalent halide of aluminium is:
a) AlCl_3 b) AlI_3 c) AlBr_3 d) AlF_3
- The shape of 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) BeCl_2 b) BF_3 c) NH_3 d) XeF_2

