

Class : XIth Date : Subject : CHEMISTRY DPP No. : 2

Topic :- Classification of Elements & Periodicity in Properties

1.	A π -bond is formed by sideways overlapping of:					
	a) <i>s-s</i> orbitals	b) <i>p-p</i> orbitals	c) <i>s-p</i> orbitals	d) <i>s-p-s</i> orbitas		
2.	Which oxide of nitrogen is isoelectronic with CO_2 ?					
	a) NO ₂	b) N ₂ O	c) NO	d)N ₂ O ₂		
3.	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) $\rm NH_2^-$ and $\rm H_2O$	d) BF ₃ and NH_2^-		
4.	Which of the following has largest ionic radius?					
	a) Cs ⁺	b)Li ⁺	c) Na ⁺	d)K ⁺		
5.	Boron cannot form which one of the following anions?					
0.	a) BF_6^{3-}	b) BH ₄	c) B(OH) ₄	d) BO ₂		
6	Most covalent halide of aluminium is:					
0.	a) AlCl ₃	b) AlI ₃	c) AlBr ₃	d)AlF ₃		
7.	The shape of ClO_{2}^{-} according to VSEPR model is:					
	a) Planar triangle	b) Pyramidal	c) Tetrahedral	d) Square planar		
8.	The correct order of increasing bond angles in the following triatomic species is:					
	a) $NO_2^- < NO_2 < NO_2^+$	b) $NO_2^+ < NO_2 < NO_2^-$	c) $NO_2^+ < NO_2^- < NO_2$	d) $NO_2^- < NO_2^+ < NO_2$		
9.	Which of the following pairs has both members from the same group of the Periodic Table?					
	a) Mg — Ba	b) Mg – Cu	c) Mg – K	d) Mg – Na		
10.	Silicon has 4 electrons in the outermost orbit. In forming the bond:					
	a) It gains electrons	b) It losses electrons	c) It shares electrons	d)None of these		
11.	sp^2 -hybridization is sh					
	a) BeCl ₂	b) BF ₃	c) NH ₃	d)XeF ₂		

12. A *p*-block element in which last electron enters into *s*-orbitals of valence shell instead of *p*-orbital is:

$a) \wedge c$	h	c) No such element	ሳንዚላ
ajAS	DJGa	exist	ujne

- 13. Which of the following are not correct?
 a) Lone pair of electrons present on central atom can give rise to dipole moment
 b) Dipole moment is vector quantity
 c) CO₂ molecule has dipole moment
 - d)Difference in electronegativities of combining atoms can lead to dipole moment
- 14. The order of first ionisation energies of the element Li, Be, B, Na is a) Li > Be > B > Na b) Be > B > Li > Na c) Na > Li > B > Be d) Be > Li > B > Na

15.	Differentiating electron	in inner transition elem	nents enters the	orbital.
	a) <i>s</i>	b) <i>p</i>	c) <i>d</i>	d) <i>f</i>

- 16. Which is expected to conduct electricity?a) Diamondb) Molten sulphurc) Molten KCld) Crystalline NaCl
- 17. Elements whose electronegativities are 1.2 and 3.0, form:a) Ionic bondb) Covalent bondc) Coordinate bondd) Metallic bond
- 18. Which is the correct order of ionic sizes?) At. no. : Ce = 58, Sn = 50, Yb = 70 and Lu = 71) a) Ce > Sn > Yb > Lu b) Sn > Yb > Ce > Lu c) Sn > Ce > Yb > Lu d) Lu > Yb > Sn > Ce
- 19. Oxygen is divalent, but sulphur exhibits variable valency of 2, 4 and 6, because:a) Sulphur is less electronegative than oxygen
 - b) Sulphur is bigger atom than oxygen
 - c) Ionisation potential of sulphur is more than oxygen
 - d) Of the presence of *d*-orbitals in sulphur
- 20. In the Periodic Table, going down in the fluorine group
 - a) Stability of hydrides will increases b) Ionic radii will increases
 - c) Electronegativity will increases d) IE will increases