

# Shivaji University ,Kolhapur.

B.Sc. Part - I Semester-I

Chemistry Paper- I (Set-II)

(Inorganic Chemistry)

Subject Code-71605

Day & Date-07/02/2022, Monday  
PM

Time - 11.00 to 12.00

Total Marks - 50

1. Attempt All Questions.
2. Each question has 2 Marks.

1) Bond order of NO is.....

a)1

b)2

c)2.5

d)3

2) Electrostatic force of attraction between oppositely charged is known as .....bond.

a)Chemical

b)Ionic

c)Covalent

d)Metallic

3) According to Lewis, a covalent bond is formed by,.....

a)Pairing of electrons

b) Overlapping of atomic orbitals

c) Sharing of proton pair

d) Sharing of an electron pair

4) Magnetic quantum number accounts.....of orbitals.

a) Orientation

b) Size

c) shape

d) Energy

5) .....is an ionic compound.

a) NaCl

b) CCl<sub>4</sub>

c) HF

d) Cl<sub>2</sub>

6) sp hybrid orbitals are ..... disposed.

a) Trigonal

b) Diagonally

c) Irregularly

d) Periodically.

7) Shape of 's' orbital is .....

a) Spherical

b) Dumbbell shaped

c) Triangular

d) Square planar.

8) Ionic compounds have .....melting and boiling points.

a) Low

b)High

c)Moderately

d)Very low.

9) In  $\text{BeCl}_2$  beryllium is .....valent.

a)Mono

b)Tri

c)Di

d)Zero

10) Degenerate atomic orbital have .....energy.

a)Different

b)Very low

c)Very high

d)Same

11) Born - Haber cycle is used to calculate .....

a)Lattice energy

b)Electron

c)Heat of formation

d)All of above

12) In  $\text{SiCl}_4$ , Si is .....valent.

a)Mono

b)Di

c)Tri

d)Tetra

13) Which of the following element has highest electronegativity.

a)CS

b)Be

c)Li

d)Hg

14) Ionic compound are .....in nature.

a)Non-polar

b)Polar

c)Covalent

d)Metallic

15) In  $\text{PCl}_5$ , P is .....valent.

a)Tri

b)Tetra

c)Penta

d)Hexa

16) Among the S block elements the most electropositive element.

a)Na

b)K

c)Ca

d)Cs

17) Which of the following shows isomorphism.

a)NaK

b)  $\text{K}_2\text{S}$  &  $\text{MgCl}_2$

c)  $\text{NaF}$  &  $\text{CaCl}_2$

d)  $\text{KCl}$  &  $\text{MgCl}_2$

18) In  $\text{SF}_6$ , S is .....valent.

a)Tri

b) Tetra

c) Penta

d) Hexa

19) Among the S block elements .....has highest B.P.

a) Na

b) Ba

c) Be

d) Cs

20) Which of the following molecule has a zero dipole moment.

a) HF

b)  $\text{CHCl}_3$

c)  $\text{H}_2\text{O}$

d)  $\text{CCl}_4$

21) Which of the following has trigonal bipyramidal structure.

a)  $\text{SF}_6$

b)  $\text{SiCl}_4$

c)  $\text{PCl}_5$

d)  $\text{IF}_7$

22) As atomic size increases, ionisation potential.....

a) Increases

b) Decreases

c) First increases then decreases

d) Remains constant.

23) The polar covalent bond is intermediate between pure covalent bond and.....

a) Polar covalent

b) Pure Ionic

c) Metallic

d) Non-metallic

24) The structure of SF<sub>6</sub> is.....

a) Octahedral

b) Tetrahedral

c) Pentagonal bipyramidal

d) Trigonal bipyramidal

25) Bond order of N<sub>2</sub> molecule is .....

a) 1

b) 2

c) 3

d) 4