

Shivaji University, Kolhapur.

B.Sc. Part - I Semester-I

Chemistry Paper- I (Set-I)

(Inorganic Chemistry)

Subject Code-71605

Time - 11.00 to 12.00

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

Total Marks - 50

1. Attempt All Questions.

2. Each question has 2 Marks.

1) Spin quantum number account of electron.

a) energy

b) charge

c) spin

d) mass

2) Ionic solid in molten state are

a) Good conductors

b) Insulators

c) Semiconductor

d) Super conductor

3) Geometry of molecule depends on.....

a) Type of overlap

b) Type of hybridisation

c) Nature of overlap

d) Type of orbital

4) Which of the following orbital is dumbbell shaped .

a) s

b) p

c) d

d) f

5) Fajans rule are applicable to account covalent character of

a) Covalent compound

b) **Ionic compound**

c) Metallic compound

d) Network solid.

6) In BeCl_2 bond angle is

a) 90°

b) 72°

c) **180°**

d) 120°

7) Which of the following is not a periodic properties.

a) Atomic radius

b) Ionisation enthalpy

c) Electron affinity

d) **Spectroscopic**

8) Lattice energy represented by symbol.....

a) +I

b) -E

c) **-U**

d)-H

9) In BF_3 bond angle is

a) 90°

b) 72°

c) 180°

d) 120°

10) Atomic radius (size) depends on

a) Number of shell

b) Nuclear charge

c) screening effect

d) All of these

11) Ionic compounds are

a) Conductor of electricity

b) Soluble in non-polar solvent

c) Hard and brittle

d) Liquid

12) Bond angle in SiCl_4 is

a) $109^\circ.28'$

b) 90°

c) 180°

d) 120°

13) Among the S block element which element has highest M.P.

a) Na

b) Be

c) Li

d) Ca

14) Which of the following compound is soluble in polar solvent .

- a) HF
- b) NaCl
- c) CCl₄
- d) KI

15) In PCl₅, type of hybridisation is.....

- a) sp³d
- b) sp²
- c) sp³
- d) sp²d²

16) Atomic number of calcium is

- a) 21
- b) 19
- c) 20
- d) 18

17) Increase inincreases covalent character of an ionic bond.

- a) Polarity
- b) Polarisation
- c) Ionic character
- d) Size

18) In SF₆, equatorial bond angle is

- a) 90°
- b) 72°
- c) 180°
- d) 120°

19) All the five d orbitals have equal energy therefore they are called

- a) Quantized
- b) Symmetrical
- c) Degenerate**
- d) Coplanar

20) Greater the dipole moment of a bond, greater will be its.....character.

- a) Ionic**
- b) Covalent
- c) Metallic
- d) Non-polar

21) In SF_6 , S is inhybridised state.

- a) sp^3d^3
- b) sp^3d^2**
- c) dsp^2
- d) d^2sp^3

22) When $l=0$, the orbital will be

- a) p
- b) s**
- c) d
- d) f

23) Non-directional bond is.....

- a) Covalent
- b) Non-polar covalent bond
- c) Ionic**
- d) Polar covalent bond

24) In IF_7 , I isvalent.

- a) Hexa**

b)Penta

c)Hepta

d)Tetra

25) Element of first group aremetals.

a)Alkali

b)Alkaline

c)Transition

d)Inner transition.