

PPSC Chemistry Full Book Test

Sr	Questions	Answers Choice
1	According to the VSEPR theory, the shape of the SO ₃ molecule is.	A. Pyramidal B. Tetrahedral C. Trigonal planar D. Distorted totrahedron
2	Valences bond theory was put forward by	A. Pauling and Slatter B. Heitler and London C. Lewis D. Pauli
3	Which of the following is the correct order of interactions.	A. Covalent < hydrogen bonding < Van Der Waal's < dipole -dipole B. Van der Waal's < hydrogen bonding < dipole -dipole < covalent C. Van der Waal's < dipole -dipole < hydrogen bonding < covalent D. Dipole-dipole < Van der Waal's < hydrogen bonding < covalent
4	The shape of SO ₄ ²⁻ ion is.	A. Tetrahedral B. Trigonal planar C. Square planar D. Octahedral
5	Which of the following contains both covalent and ionic bond.	A. CCl ₄ B. NH ₄ Cl C. CaCl ₂ D. H ₂ O
6	Which of the following species have undistributed octahedral structure.	A. SF ₆ B. PF ₆ C. Si F ₆ ²⁻ D. XeF ₆
7	The dipole moments of the given species are such that.	A. BF ₃ > NF ₃ > NH ₃ B. NF ₃ > BF ₃ > NH ₃ C. NHE > NF ₃ > BF ₃ D. NH ₃ > BF ₃ > NF ₃
8	Strongest inter molecular hydrogen bond is formed in	A. H ₂ O B. NH ₃ C. HF D. H ₂ S
9	The interactions in HF are.	A. dipole dipole interasctions B. Hydrogen bonds C. dipole -dipole and dispersion forces D. Hydrogen bond and diapersin forces
10	Which one of following is non polar	A. CH ₂ Cl ₂ B. CCl ₄ C. CHCl ₃ D. CH ₃ Cl
11	Carbon tetra chloried has no net dipole moment because of.	A. Its planar strcture. B. Its regular tetrahedral structures. C. Similar sizes of carbon and chlorine atoms D. Similar electron affinities of carbon and chlorine.
12	Hybridization involves.	A. Orbitals of same atom with slightly different energies. B. Orbitals of different atoms, but with equal energies. C. Orbitals of the same atom but with widely different energies. D. Orbitals of different atoms with different energies.
13	Ground state electronic configuration of valence shell in N ₂ mlecule is written as (a ₂ s) ² ,	A. 1 B. 2 C. 3 D. 4

	(σ^*2s) ² , (π sp) ⁴ , (σ^*2p) ² . Hence, the bond order of N ₂ molecule is.	C. 3 D. 0
14	The correct order of increasing polar character is.	A. H ₂ O < NHE < H ₂ S < HF B. H ₂ S < NH ₃ < H ₂ O < HF C. NHE < H ₂ O < HF < H ₂ O D. HF < H ₂ O < NH ₃ < H ₂ S
15	Type of hybrid orbitals used by the chlorine atom in ClO ₂ is.	A. sp ² B. sp ³ C. sp D. None of these
16	According to Fajns rules, which one of following results in increased ionic nature of the covalent bond.	A. Larger cation and smaller charges on anion B. Larger cation and larger charge on anion C. Smaller cation and smaller charge on anion D. Smaller cation and larger charge on anion
17	The ion that is isoelectronic with CO is	A. CN ⁻ B. O ₂ ⁺ C. CO ₂ ⁻ D. N ₂ ⁺
18	The bond between two identical non metal atoms has a pair of electrons.	A. Unequally shared between the two B. Transferred fully from one atom to another C. With identical spins D. Equally shared between them
19	The attraction which exists between carbon dioxide molecules in solid carbon dioxide is due to.	A. Van der Waal's forces B. Molecule ion forces C. ionic bonds D. hydrogen bonds
20	When two atoms of hydrogen combine to form a molecule of hydrogen gas the energy of the molecule.	A. higher than that of the separate atoms B. Equal to that of the separate atoms C. Lower than that of the separate atoms D. Sometimes lower and sometime higher.
21	On hybridization of one s and one p orbitals we get.	A. Two mutually perpendicular orbitals B. Two orbitals at 180° C. Four orbitals directed tetrahedrally D. Three orbitals in a plane
22	The hybridization of sulphur in sulphur dioxide is.	A. sp B. sp ² C. sp ³ D. dsp ²
23	The hydrogen bond is strongest in.	A. O - HS B. S - HO C. F - HF D. F - HO
24	Which of the following bonds between carbon -carbon is teh strongest.	A. Sigma bond B. Pi bond C. Double bond D. Triple bond
25	Which one of the following has a linear structure.	A. H ₂ O B. CO ₂ C. NO₂ D. SO ₂
26	Co ordinate covalent bond found is formed by the	A. Transference of electrons B. Sharing of electrons C. Donation of electrons D. None of these
27	The most important conditions for the formation of ionic bond are.	A. High ionization energy of the metallic atom and high electron affinity of the non metallic atom. B. Low ionization of the metallic atom and low electron affinity of the non metallic atom. C. Low ionization energy of metallic atom and high electron affinity of the non metallic atom D. SO ₂

non metallic atom

D. High ionization energy of the metallic atom and high electron affinity of non metallic atom.

28 Which of the following have identical bond order.

- A. CN^- and O_2^-
- B. CN^- and NO^+
- C. O_2^- and CN^+
- D. NO^+ and CN^+

29 Which of the following is diamagnetic

- A. O_2
- B. O_2^+
- C. O_2^-
- D. O_2^{2-}

30 The order in O_2^+ is

- A. 1.0
- B. 1.5
- C. 2.0
- D. 2.5