

PPSC Chemistry Full Book Test

Sr	Questions	Answers Choice
1	Which one of following is paramagnetic and has the bond order equal to 0.57	A. N ₂ B. H ₂ ⁺ C. O ₂ D. F ₂
2	Of the molecules, SF ₄ , XeF ₄ , and CF which has square planar geometry.	A. SF ₄ , XeF ₄ and CF ₄ B. SF ₄ only C. CF ₄ only D. XeF ₄
3	Which of the following is planar?	A. CH ₂ Cl ₂ B. CHCl ₃ C. CCl ₄ D. C ₂ H ₂
4	Which of the following does not apply to metallic bond.	A. Overlapping valence orbitals B. Mobile valency electron C. Delocalized electrons D. Highly directed bonds
5	Strength of H bond in intermediate between	A. Van der Waals forces and covalent bond B. Ionic and covalent bond C. Ionic and metallic bond D. Metallic and covalent
6	An sp ³ hybrid orbital contains	A. 1/4 s character B. 1/2 s character C. 2/3 s character D. 3/4 s character
7	Bond angle is minimum in	A. H ₂ O B. CO ₂ C. NH ₃ D. CH ₄
8	Among LiCl, BeCl ₂ , BCl ₃ , and CCl ₄ the covalent bond character follows the order.	A. LiCl < BeCl ₂ < BCl ₃ < CCl ₄ B. LiCl > BeCl ₂ > BCl ₃ > CCl ₄ C. LiCl < BeCl ₂ < BCl ₃ < CCl ₄ D. LiCl > BeCl ₂ > BCl ₃ > CCl ₄
9	The pair of molecules or ions having identical geometry is.	A. BCl ₃ , PCl ₃ B. BF ₃ , NH ₃ C. CHCl ₃ , CCl ₄ D. SiCl ₄ , CCl ₄
10	Which of the following bonds will be non polar.	A. N - H B. O - H C. C - H D. C - Cl
11	In which of the following compounds does hydrogen bonding occur.	A. CCl ₄ B. NaH C. HI D. NH ₃
12	NH ₃ has a net dipole moment while BF ₃ has zero dipole moment This is because.	A. NH ₃ is not a planar molecule while BF ₃ is a planar molecule. B. NH ₃ is a planar molecule, while BF ₃ is a planar molecule. C. Fluorine is more electronegative than nitrogen D. Boron is more electronegative than nitrogen
13	The element having electronic configuration 1s ² , 2s ² , 3s ² , 3p ³ is.	A. Trivalent only B. Tetravalent only C. Trivalent and pentavalent D. Pentavalent only
14	The percentage of s-character in the hybrid orbitals sp, sp ² and sp ³ follows the pattern.	A. sp > sp ² > sp ³ B. sp > sp ² > sp ³ C. sp = sp ² > sp ³ D. sp = sp ² = sp ³

15	The state of hybridization of carbon in CO ₂ is	A. sp ² B. sp C. sp ³ D. dsp ²
16	Which one of the following does not exhibit paramagnetism.	A. NO B. NO ₂ C. ClO ₂ D. ClO ₂ ⁻
17	Which of the following has non zero dipole moment.	A. NH ₃ B. SF ₆ C. BF ₃ D. CO ₂
18	The type of bonding in HCl is	A. Pure covalent B. Polar covalent C. Highly polar D. Hydrogen bonding
19	Which one has a coordinate bond.	A. Al ₂ Cl ₆ B. BF ₃ C. NaCl D. O ₂
20	Which of the following properties is associated with the covalent nature of the compound.	A. It conducts electricity in molten state or aqueous state B. It is a non electrolyte C. It has high m.p. D. It is a compound of a metal and non metal.
21	The unequal sharing of bonded pair of electrons between the two atoms in a molecule causes.	A. Dipole B. Radical formation C. Decomposition of compound D. Covalent compound
22	CCl ₄ has zero dipole moment because of.	A. Planar structure B. Tetrahedral structure C. Similar size of C and Cl atoms D. Similar electron affinity of C and Cl
23	The important condition for the formation of chemical bond is that.	A. Their electron clouds should not diffuse B. Both atoms should have high electron affinities. C. Both atoms should have same electronegativities D. The process should be accompanied by the lowering in potential energy.
24	Example of linear geometry	A. XeF ₂ B. F ₂ and HgCl ₂ C. CdI ₂ AND AgCl ₃ D. All of the above
25	The gap between occupied and the unoccupied orbitals is not very large and the conduction of electricity is negligible at lower temperature and appreciable at high temperatures then it will be.	A. Good conductor B. Non conductor C. Semi conductor D. None of the above
26	The energy gap between two bands so large that it effectively prevents the promotion of electron from the lower to the higher band such energy gap is called.	A. Ionization zone B. Dissociation zone C. Distinction zone D. Forbidden zone
27	A combination of atomic orbitals produces a large number of closely spaced energy states known as.	A. Packet of energy B. Band of energy C. Both a and b D. None of the above
28	Metallic bond is treated essentially as in character	A. Ionic B. Covalent C. Polar D. Non polar
29	Electron gas theory fails to explain	A. Specific heat of metals B. Electrical and thermal conductivity C. Paramagnetic behavior of metals D. All of the above
30	Electron gas theory is able to explain	A. Metallic lustre and optical properties B. Malleability and ductility C. High electrical and thermal conductivity D. All of the above

