

PPSC Chemistry Part III Inorganic Chemistry Online Test

| Sr | Questions | Answers Choice |
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| 1 | 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 |
| 2 | The hybridization of sulphur in sulphur dioxide is. | A. sp B. sp ² C. sp ³ D. dsp ² |
| 3 | The hydrogen bond is strongest in. | A. O - HS B. S - HO C. F - HF D. F - HO |
| 4 | Which of the following bonds between carbon -carbon is the strongest. | A. Sigma bond B. Pi bond C. Double bond D. Triple bond |
| 5 | Which one of the following has a linear structure. | A. H ₂ O B. CO ₂ C. NO ₂ D. SO ₂ |
| 6 | Coordinate covalent bond is formed by the | A. Transference of electrons B. Sharing of electrons C. Donation of electrons D. None of these |
| 7 | 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. High ionization energy of the metallic atom and high electron affinity of non metallic atom. |
| 8 | 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 ⁺ |
| 9 | Which of the following is diamagnetic | A. O ₂ B. O ₂ ⁺ C. O ₂ ⁻ D. O ₂ ²⁻ |
| 10 | The order in O ₂ ⁺ is | A. 1.0 B. 1.5 C. 2.0 D. 2.5 |
| 11 | Which one of the following is paramagnetic and has the bond order equal to 0.5 | A. N ₂ B. H ₂ ⁺ C. O ₂ D. F ₂ |
| 12 | Of the molecules, SF ₄ , XeF ₄ , and CF ₄ which has square planar geometry. | A. SF ₄ , XeF ₄ and CF ₄ B. SF ₄ only C. CF ₄ only D. XeF ₄ |
| 13 | Which of the following is planar? | A. CH ₂ Cl ₂ B. CHCl ₃ C. CCl ₄ D. C ₂ H ₂ |

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| 14 | 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 |
| 15 | Strength of H bond is intermediate between | A. Van der Waals forces and covalent bond B. Ionic and covalent bond C. Ionic and metallic bond D. Metallic and covalent |
| 16 | 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 |
| 17 | Bond angle is minimum in | A. H ₂ O B. CO ₂ C. NH ₃ D. CH ₄ |
| 18 | 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 |
| 19 | 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 |
| 20 | Which of the following bonds will be non polar. | A. N - H B. O - H C. C - H D. C - Cl |