

PPSC Chemistry Part III Inorganic Chemistry Online Test

Sr	Questions	Answers Choice
1	Strong field ligands such as CN	<p>A. Usually produce high spin complexes and small crystal field splitting</p> <p>B. Usually produce low spin complexes and small crystal field splitting</p> <p>C. Usually produce low spin complexes and high crystal field splitting</p> <p>D. Cannot form low spin complexes</p>
2	Consider to violet colored compound. $[\text{Cr}(\text{OH})_2]_6\text{Cl}_3$ and the yellow compound. $[\text{Cr}(\text{NH}_3)_6]\text{Cl}_2$ which of the following statements is false.	<p>A. Both chromium metal ions are paramagnetic with 3 unpaired electrons.</p> <p>B. $[\text{Cr}(\text{NH}_3)_6]^{3+}$ is calculated directly form the energy of yellow light</p> <p>C. For $[\text{Cr}(\text{OH})_2]_6^{3+}$ is less than for $[\text{Cr}(\text{NH}_3)_6]^{3+}$</p> <p>D. The two complexes absorb their complementary colors.</p>
3	How many unpaired electron are there in a strong field iron (II) octahedral complex.	<p>A. 0</p> <p>B. 1</p> <p>C. 2</p> <p>D. 4</p>
4	Which one of the following statements is false with respect to CFT.	<p>A. In an octahedral crystal field, the d electron on a metal ion occupy the e_g orbitals before they occupy the t_{2g} orbitals.</p> <p>B. Diamagnetic metal ions cannot have an odd number of electrons</p> <p>C. Low spin complexes can be paramagnetic</p> <p>D. Low spin complexes contain strong field ligands.</p>
5	A molecule that cannot be superimposed on its mirror image is said to exhibit which of the following.	<p>A. Geometrical isomerism</p> <p>B. Optical isomerism</p> <p>C. Linkage isomerism</p> <p>D. Reactive isomerism</p>
6	What is the oxidation number of the central metal atom in the coordination compound. $[\text{Pt}(\text{NH}_3)_4\text{Cl}_2]\text{Cl}$	<p>A. -1</p> <p>B. 0</p> <p>C. +2</p> <p>D. +3</p>
7	Select the correct IUPAC name for $[\text{Co}(\text{NH}_3)_6]^{2+}$	<p>A. Hexammoniacobaltate (II) ion</p> <p>B. Hexaamminecobaltate (II) ion</p> <p>C. Hexammoniacobalt (II) ion</p> <p>D. Hexaamminecobalt (II) ion</p>
8	Select the correct IUPAC name for $[\text{FeF}_4(\text{OH})_2]^-$	<p>A. Diaquatetrafluoriron (III) ion</p> <p>B. Diaquatetrafluoriferrate (III) ion</p> <p>C. Diaquatetrafluoroiron (I)</p> <p>D. None of these</p>
9	Consider the coordination compound $\text{K}_2[\text{Cu}(\text{CN})_4]$ A coordinate covalent bond exists between	<p>A. K^+ and CN^-</p> <p>B. Cu^{2+} and CN^-</p> <p>C. K^+ and $[\text{Cu}(\text{CN})_4]^{2-}$</p> <p>D. C and N in CN</p>
10	Consider the coordination compound $\text{Na}_2[\text{Pt}(\text{CN})_4]$ the Lewis acid is	<p>A. $[\text{Pt}(\text{CN})_4]^{2-}$</p> <p>B. Na^+</p> <p>C. Pt</p> <p>D. Pt^{2+}</p>
11	In coordination chemistry the donor atom of a ligand is.	<p>A. A Lewis acid</p> <p>B. The counter ion</p> <p>C. The central metal atom</p> <p>D. The atom in the ligand that shares an electron pair with the metal</p>
12	The _____ sphere is enclosed in brackets in formulas for complex species, and it	<p>A. Ligand</p> <p>B. Donor</p>

	includes the central metal ion plus the coordinated group	C. Coordination D. Oxiation
13	Which of the following process is involved in the purification of crude metals.	A. Liquation process B. Oxidation process C. Distillation process D. Electro refining
14	The process in which ore is heated generally in the presence of air, at temperature below their melting points is called.	A. Calcination B. Roasting C. Fourth floatation D. besemerization
15	The process in which ore is heated generally in the absence of air, to expel water from a hydrated oxide at temperature below their melting points is called.	A. calcination B. Roasting C. Froth floatation D. Bessemerization
16	The matrix is usually in the form of.	A. Sand B. Limestone C. Rocks D. All
17	Which of the following method is used for the coventrating of ores.	A. Gravity separation B. Magnetic concentration C. Fourth floatation D. Electrostatic concentration E. All
18	The process of extracting a metal in pure form from its ores is known as.	A. Crushing B. Grinding C. Dressing D. Metallurgy
19	Which of the following is not a property of Cr.	A. it is brilliant silvery metal B. it is malleable C. It can take very high polish D. Its surface is tarnished easily
20	Ferrochrom contains Cr up to	A. 60-70% B. 70-80% C. 80-90% D. 40-50%