

ECAT Chemistry Online Test

Sr	Questions	Answers Choice
1	Interstitial compounds have	A. Half formula B. Fixed formula C. Indefinite formula D. None
2	Bronze is an alloy of Cu and	A. Zn B. As C. Sb D. Sn
3	The color of Cr^{3+} ion is	A. Violet B. Blue C. Pink D. Green
4	Bell metal is an alloy of Sn and	A. Copper B. Iron C. Zinc D. Magnesium
5	$[\text{Zn}(\text{NH}_3)_4]^{3+}$ possess geometry	A. Square planar B. Hexagonal C. Tetrahedral D. None of these
6	Most transition elements show	A. Diamagnetic behavior B. Ferromagnetic behavior C. Paramagnetic behavior D. None of these
7	Out of 110 known elements, transition elements are	A. 40 B. 60 C. 50 D. 80
8	The Mn^{3+} has _____ color	A. Violet B. Green C. Red/brown D. No color
9	$[\text{Cu}(\text{NH}_3)_4]^{+2}$ will form _____ structure	A. Square planar B. Tetrahedral C. Octahedral D. Trigonal bipyramidal
10	The less reactivity of transition metal is due to	A. High heats of sublimation B. High ionization energies C. Low heats of salvation D. All these
11	Cu^{2+} with d^9 electronic configuration appears	A. Yellow B. Pink C. Blue D. Green
12	The colour of the transition metal compounds is due to	A. p-d transition B. d-d transition C. s-p transition D. None of these
13	Transition metals form complexes due to the participation of partially filled	A. f-orbitals B. d-orbitals C. s-orbitals D. p-orbitals
14	The total number of d-block transition element is	A. 10 B. 14 C. 40 D. 30
15	Coordination number of Pt in $[\text{PtCl}(\text{NO}_2)(\text{NH}_3)_4]^{2+}$ is	A. 2- B. 4 C. 1 D. 6

16	The colour of transition metal complexes is due to	<p>A. d-d transitions of electrons</p> <p>B. Para magnetic nature of transition elements</p> <p>C. Ionization</p> <p>D. Loss of s-electrons</p>
17	The percentage of carbon in different types of iron products is in the order of	<p>A. Cast iron > wrought iron > steel</p> <p>B. Wrought iron > steel > cast iron</p> <p>C. Cast iron > steel > wrought iron</p> <p>D. Cast iron = steel > wrought iron</p>
18	Which is the formula of tetra-ammine chloro-nitro platinum (IV) sulphate	<p>A. $[\text{Pt}(\text{NH}_3)_3(\text{NO})\text{SO}_4]$</p> <p>B. $[\text{Pt}(\text{NO})_2\text{Cl}(\text{NH}_3)_3]\text{SO}_4$</p> <p>C. $[\text{Pt}(\text{Cl})(\text{NO})_2(\text{NH}_3)_3]\text{SO}_4$</p> <p>D. $[\text{Pt}(\text{NH}_3)_3(\text{NO})_2\text{Cl}]\text{SO}_4$</p>
19	Group VIB of transition elements contains	<p>A. Zn, Cd, Hg</p> <p>B. Fe, Ru, Os</p> <p>C. Cr, Mo, W</p> <p>D. Mn, Te, Re</p>
20	Which is used to identify Cu^{2+} ions	<p>A. Nitric acid</p> <p>B. Sulfuric acid</p> <p>C. NaOH</p> <p>D. HCl</p>
21	f-Block elements are also called	<p>A. Non typical transition elements</p> <p>B. Outer transition elements</p> <p>C. Normal transition elements</p> <p>D. Inner transition elements</p>
22	Which of the following is a typical transition metal	<p>A. Sc</p> <p>B. Y</p> <p>C. Ra</p> <p>D. Co</p>
23	Which of the following is a non-typical transition elements	<p>A. Cr</p> <p>B. Mn</p> <p>C. Zn</p> <p>D. Fe</p>
24	Which is not a bidentate ligand	A. $\text{C}_2\text{O}_4^{2-}$
25	Steel may be manufacture by two processes which two are correct	<p>A. Open hearth process and besemer process</p> <p>B. Open hearth process and Haber process</p> <p>C. Bassemer process and Haber process</p> <p>D. Contact process and Haber process</p>
26	The geometrical shape of a transition complex is related to the state of hybridizing of the central atom. What is trigonal bipyramidal	<p>A. sp^3</p> <p>B. dsp^2</p> <p>C. dsp^3</p> <p>D. d^2sp^3</p>
27	Potassium hexacyanoferrate (II) has the formula	<p>A. $\text{K}_4[\text{Fe}(\text{CN})_6]$</p> <p>B. $\text{K}_3[\text{Fe}(\text{CN})_6]$</p> <p>C. $\text{K}_2[\text{Fe}(\text{CN})_6]$</p> <p>D. $\text{K}[\text{Fe}(\text{CN})_6]$</p>
28	A transition metal complex can be recognized by various terms. Which is not the proper term	<p>A. Central metal ion</p> <p>B. Coordination number</p> <p>C. Ligand</p> <p>D. Geometry of complex</p>
29	The colour of a transition metal complex is due to d-d transition The colour of the complex is the complementary of the colour absorbed. Thus $[\text{Ti}(\text{H}_2\text{O}_6)]^{3+}$ absorbs yellow light and transmits blue and red colours therefore the solution of titanium complex appears	<p>A. Blue</p> <p>B. Red</p> <p>C. Yellow</p> <p>D. Mixture of blue and red or violet</p>
30	All 3d series elements show variable oxidation states. The one shown by all 3d elements is	<p>A. +2</p> <p>B. +3</p> <p>C. +4</p> <p>D. +5</p>

