

PPSC Chemistry Part III Inorganic Chemistry Online Test

| Sr | Questions | Answers Choice |
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| 1 | In the metallurgy of iron, when limestone is added to the blast furnace, the calcium ion ends up in. | A. Slag B. Gangue C. Metallic calcium D. Calcium carbonate |
| 2 | Pick out incorrect statemtn about $K_2Cr_2O_7$ | A. It oxidizes acidified solution of H_2S to S B. It oxidizes KI to I_2 C. It oxidizes HCl to Cl_2 D. It gives oxygen, when treated with cold conc. H_2SO_4 |
| 3 | Pick out the incorrect statement about $K_2Cr_2O_7$ | A. It is thermally stable B. It dissolves in alkali to form chromate C. It oxidizes acidified $FeSO_4$ solution to $Fe_2(SO_4)_3$ D. It is used as cleansing agent for glassware, etc. when mixed with cold conc. H_2SO_4 |
| 4 | The atomic number of potassium is 19 and that of manganese is 25. Although the colour of MnO_4^- is dark violet yet the K^+ is colourless. This is due to the fact that. | A. Mn is a transition element while K^+ is not B. $[MnO_4]^-$ is negatively charged while K^+ has positive charge C. The effective atomic number of Mn is $[MnO_4]^-$ is 26; while for K^+ the atomic number is 18 D. The Mn is a high positive oxidation state allows charge transfer transitions. |
| 5 | The secondary valency of Conc. $CoCl_3 \cdot 6NH_3$. | A. 2 B. 4 C. 6 D. 8 |
| 6 | If the absorbed light is green the transmitted light will be | A. Purple B. Orange C. Violet D. Black |
| 7 | $[Ti(OH_2)_6]^{3+}$ gives colour | A. Green B. Red C. Purple D. Blue |
| 8 | The maximum absorption in $[Ti(OH_2)_6]^{3+}$ takes place at wavelength of. | A. 4000 Å B. 5000 Å C. 6000 Å D. 10000 Å |
| 9 | The solution of the transition metal complexes having one or more unpaired electrons in the d-orbital are. | A. Coloured B. Colourless C. White D. None of above |
| 10 | When metal orbitals are rotated in octahedral field the following representation is obtained. | A. $t_{2g} + e_g$ B. a_{1g} C. t_{1u} D. All above |
| 11 | CFSE for d^7 ion is. | A. 0.8 B. -0.8 C. -1.8 D. 1.8 |
| 12 | Which are not considered members of d-block elements. | A. Zn B. Cd C. Hg D. All above |
| 13 | The common ligands can be arranged in order of their increasing splitting power to cause d-orbitals splitting. This series is called as. | A. Electro-chemical B. Spectro-chemical C. Physico-chemical D. None of these |

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| | | D. Spectro -electrical |
| 14 | Δ^0 or 10 Dq is called crystal field. | A. Energy B. Splitting energy C. Stabilization energy D. None of above |
| 15 | The energy gap between t_{2g} and e_g sets in denoted by | A. Δ B. 10 Dq C. Both A and B D. None of above |
| 16 | In group theory the triple degenerate set is denoted by | A. e_g B. t_{2g} C. e_{2g} D. t_g |
| 17 | CFT can very well explain | A. Color B. Magnetic properties C. Spectra of transition metal D. All |
| 18 | On the basic of CFT the bonding between the metal and ligand is totally | A. Ionic B. Covalent C. Coordinate D. Metallic |
| 19 | In 1952 who popularized the use of CFT for inorganic chemist | A. Bethe B. Orge C. Van Vleck D. Werner |
| 20 | CFT was originally applied to. | A. Ionic crystal B. Liquid crystal C. Solid crystal D. All above |