**CHEM 102 Recitation Ch 22 Name**

**Q1**. What is the oxidation number of vanadium, V, in the complex compound K3[V(EDTA)(CN)Br]?

A) +1 B) +5 C) +6 D) +3

**Q2.** What is the coordination number of manganese, Mn, in the complex ion [Mn(en)(C2O4)(CO)2]**-** ?

A) 8 B) 3 C) 4 D) 6

**Q3.** What is the name of the coordination compound [Fe(NH3)3(CO)3](NO3)3?

|  |  |
| --- | --- |
| A) | Iron(III)trisamminetriscarbonyl trinitrate |
| B) | Iron(III) triamminetricarbonyl nitrate |
| C) | Triamminetricarbonyliron(III) nitrate |
| D) | Triamminetricarbonylferrate(III) nitrate |

**Q4.** What is the formula of dichlorobis(ethylenediamine)platinum(IV) sulfate?

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| --- | --- |
| A) | Pt[(en)2Cl2]SO4 |
| B) | [Pt(en)2Cl2]SO4 |
| C) | [Pt(en)2Cl2]2SO4 |
| D) | [Pt(en)2Cl2(SO4)] |

**Q5.** Predict the number of unpaired electrons in the two **octahedral** complex ions [PdI6]3- and [Pd(CO)4(CN)2], respectively? *Note: I- is a weak-field ligand, whereas CO and CN- are strong-field ligands.*

|  |  |
| --- | --- |
| A) | 4, 0 |
| B) | 5, 1 |
| C) | 3, 2 |
| D) | 4, 2 |

**Q6.** How many isomers exist for the **square planar** species Pt(H2O)(NH3)ClBr?

|  |  |
| --- | --- |
| A) | 1 B) 2 C) 4 D) 3 |

**Q7.** Which of the pairs below is an optical isomer pair?

A) (1) and (2) B) (1) and (3) C) (2) and (3) D) (1), (2) and (3)





**(1) (2) (3)**