

## Topic :- Coordination Compounds

- $[\text{Pt}(\text{NH}_3)_4\text{Cl}_2]\text{Br}_2$  and  $[\text{Pt}(\text{NH}_3)_4\text{Br}_2]\text{Cl}_2$  are related to  
a) Optical isomer      b) Linkage isomers      c) Coordinate isomers      d) Ionization isomers
- Ferrocene is an example of  
a) Sand-wiched complex  
b) Pi-bonded complex  
c) A complex in which all the five carbon atoms of cyclopentadiene anion are bonded to the metal  
d) All of the above
- Which compound is zero valent metal complex?  
a)  $[\text{Cu}(\text{NH}_3)_4]\text{SO}_4$       b)  $[\text{Pt}(\text{NH}_3)_2\text{Cl}_2]$       c)  $[\text{Ni}(\text{CO})_4]$       d)  $\text{K}_3[\text{Fe}(\text{CN})_6]$
- Which of the following compounds is 2, 2, 3-trimethyl hexane?  
a)  $(\text{CH}_3)_3\text{CCH}(\text{CH}_3)\text{CH}_2\text{CH}_3$       b)  $(\text{CH}_3)_3\text{CCH}_2(\text{CH}_3)_2$   
c)  $(\text{CH}_3)_2\text{CHCH}_2\text{CH}_2\text{C}(\text{CH}_3)_3$       d)  $(\text{CH}_3)_3\text{CCH}(\text{CH}_3)\text{CH}_2\text{CH}_2\text{CH}_3$
- The formula of phenoxy benzene is:  
a)  $\text{C}_6\text{H}_5\text{C}_6\text{H}_5$       b)  $\text{C}_6\text{H}_5-\text{O}-\text{C}_6\text{H}_5$       c)  $\text{C}_6\text{H}_5-\text{O}-\text{C}_6\text{H}_6$       d) None of these
- Ziegler-Natta catalyst is an organometallic compound containing  
a) Iron      b) Titanium      c) Rhodium      d) Zirconium
- Ziegler-Natta catalyst is  
a)  $(\text{Ph}_3\text{P})_3\text{RhCl}$       b)  $\text{K}[\text{PtCl}_3(\text{C}_2\text{H}_4)]$       c)  $[\text{Al}_2(\text{C}_2\text{H}_6)_6 + \text{TiCl}_4]$       d)  $[\text{Fe}(\text{C}_2\text{H}_5)_2]$
- The tendency to show complex formation is maximum in ....elements.  
a) s-block      b) p-block      c) d-block      d) f-block
- EDTA has coordination number  
a) 3      b) 4      c) 5      d) 6

10. Which of the following is used in Friedel-Craft's acylation reaction?

- a)  b)  $\text{CH}_3\text{CH}_2\text{Cl}$  c)  $\text{CH}_3\text{COOCH}_3$  d)  $\text{CH}_3\text{Cl}$

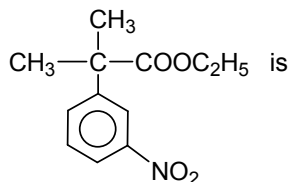
11. The correct IUPAC name of  $\text{Mn}_3(\text{CO})_{12}$  is

- a) Dodacacarbonyl manganate (0) b) Dodacacarbonyl manganate (II)  
c) Didacacarbonyl trimanganese (0) d) Manganic dodecacarbonyl (0)

12. The  $\pi$  – bonded organometallic compound which has ethene as one of its component is

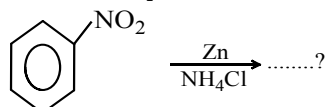
- a) Zeise's salt b) Ferrocene c) Dibenzene d) Tetraethyl tin chromium

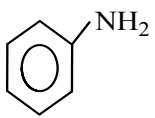
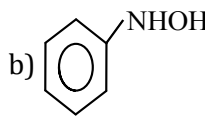
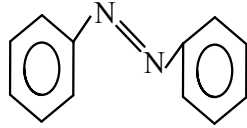
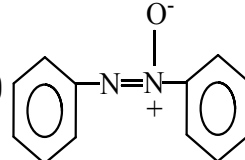
13. IUPAC name of the compound



- a) Ethyl-2-methyl-2-(*m*-nitro) phenyl propanoate b) Ethyl-2-methyl-2-(*o*-nitro) phenyl propanoate  
c) Ethyl-2-methyl-2-(3-nitro) phenyl propanoate d) Ethyl-2-methyl-2-(3-nitro) phenyl propanoic acid

14. What is the product obtained in the following reaction:



- a)  b)   
c)  d) 

15.  $[\text{Co}(\text{NH}_3)_6]\text{Cl}_3$  is called:

- a) Hexaammine cobalt (III) chloride  
b) Amino cobalt chloride (III)  
c) Cobalt chloride hexaammine  
d) Hexaammine trisobalt chloride

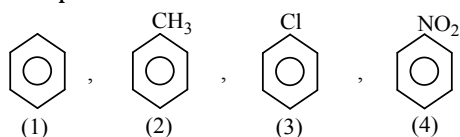
16. The complexes  $[\text{PtCl}_2(\text{NH}_3)_4]\text{Br}_2$  and  $[\text{PtBr}_2(\text{NH}_3)_4]\text{Cl}_2$  are example for isomerism

- a) Geometrical b) Optical c) Ionization d) Linkage

17. Geometrical shapes of the complexes formed by the reaction of  $\text{Ni}^{2+}$  with  $\text{Cl}^-$ ,  $\text{CN}^-$  and  $\text{H}_2\text{O}$ , respectively, are

- a) Octahedral, tetrahedral and square planar      b) Tetrahedral, square planar and octahedral  
c) Square planar, tetrahedral and octahedral      d) Octahedral, square planar and octahedral

18. Identify the correct order of reactivity in electrophilic substitution reactions of the following compounds:



- a)  $1 > 2 > 3 > 4$       b)  $4 > 3 > 2 > 1$       c)  $2 > 1 > 3 > 4$       d)  $2 > 3 > 1 > 4$

19. The centric formula for benzene was proposed by:

- a) Dewar  
b) Armstrong and Baeyer  
c) Ladenberg  
d) Kekule

20. Which is the correct statement?

- a) Benzyl alcohol is more acidic than phenol  
b) Ethanol is a powerful oxidizing agent  
c) Phenol is more acidic than propanol  
d) Ethane has high boiling point than ethanol