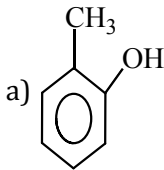
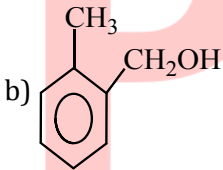
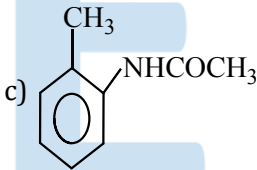
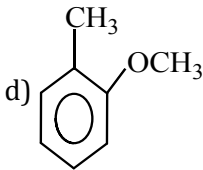
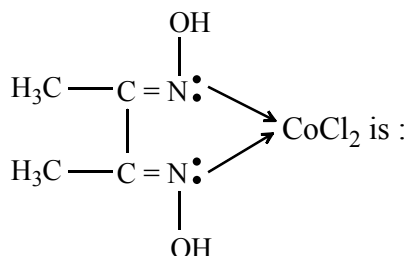


## Topic :- Coordination Compounds

- The correct IUPAC name of alcohol  $[(\text{CH}_3)_2\text{CH}]_3\text{COH}$  is
  - Tri isopropyl carbinol
  - 2, 4-dimethyl-3-isopropyl pentan-3-ol
  - 2,4-dimethyl-3-(1-methyl) ethyl pentan-3-ol
  - None of the above
- Colour of transition metal complexes can be explained by:
  - Completely filled *d*-orbitals
  - Vacant *d*-orbitals
  - d* – *d* transition
  - None of the above
- Which is most reactive towards electrophilic reagents:
  - 
  - 
  - 
  - 
- Pick a poor electrolytic conductor complex in solution:
  - $\text{K}_2[\text{PtCl}_6]$
  - $[\text{Co}(\text{NH}_3)_3](\text{NO}_2)_3$
  - $\text{K}_4[\text{Fe}(\text{CN})_6]$
  - $[\text{Co}(\text{NH}_3)_4]\text{SO}_4$
- Benzene reacts with sulphuric acid only when the acid is:
  - Dilute and cold
  - Dilute and hot
  - Hot and concentrated
  - Mixed with  $\text{HNO}_3$
- In the following reaction the catalyst used is:
$$\text{H}_2\text{C} \begin{array}{c} \diagup \text{CH}_2-\text{CH}_2 \diagdown \\ \diagdown \text{CH}_2-\text{CH}_2 \diagup \end{array} \text{CH}_2 \longrightarrow \text{HC} \begin{array}{c} \diagup \text{HC}=\text{HC} \diagdown \\ \diagdown \text{HC}-\text{CH} \diagup \end{array} \text{CH} + 3\text{H}_2$$
  - $\text{Cr}_2\text{O}_3$
  - $\text{Al}_2\text{O}_3$
  - Zn dust
  - $\text{Cr}_2\text{O}_3$  and  $\text{Al}_2\text{O}_3$
- The alkane which has only primary hydrogen atom is
  - Pentane
  - isopentane
  - neopentane
  - 2, 2-dimethyl butane

8. The correct IUPAC name of the complex;



- a) Dichlorodimethylglyoximato cobalt(II)  
 b) *Bis*(dimethylglyoxime) dichloro cobalt(II)  
 c) Dimethylglyoxime cobalt(II) chloride  
 d) Dichlorodimethylglyoxime-N,N-cobalt(II)

9. Which of the following nitroalkane will not show tautomerism?

- a)  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{NO}_2$
- b)  $\begin{array}{c} \text{CH}_3-\text{CH}-\text{CH}_2\text{NO}_2 \\ | \\ \text{CH}_3 \end{array}$
- c)  $\begin{array}{c} \text{CH}_3\text{CH}-\text{CH}_2\text{CH}_3 \\ | \\ \text{NO}_2 \end{array}$
- d)  $\begin{array}{c} \text{CH}_3 \\ \diagdown \\ \text{CH}_3-\text{C}-\text{NO}_2 \\ \diagup \\ \text{CH}_3 \end{array}$

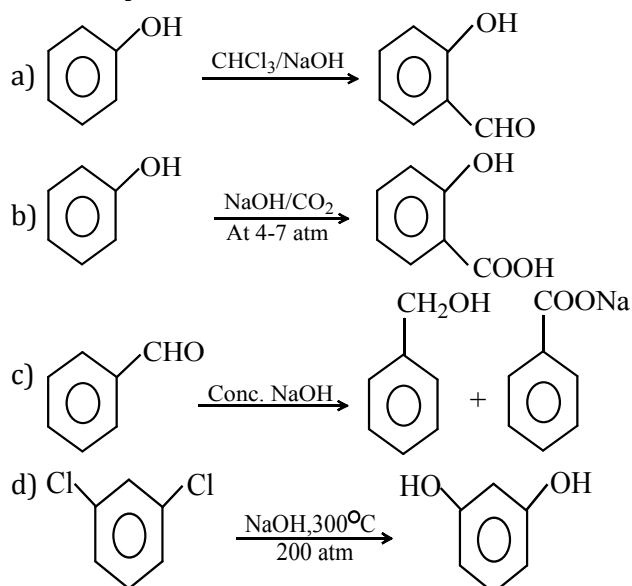
10. Which is low spin complex?

- a)  $[\text{Fe}(\text{CN})_6]^{3-}$       b)  $[\text{Co}(\text{NO}_2)_6]^{3-}$       c)  $[\text{Mn}(\text{CN})_6]^{3-}$       d) All of these

11. The probable formula for Prussian blue is:

- a)  $\text{Fe}_3[\text{Fe}(\text{CN})_6]_2$       b)  $\text{Fe}_2[\text{Fe}(\text{CN})_6]_3$       c)  $\text{Fe}_4[\text{Fe}(\text{CN})_6]_3$       d)  $\text{Fe}_3[\text{Fe}(\text{CN})_6]_4$

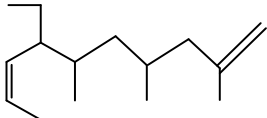
12. Which represents Reimer-Tiemann reaction?



13. The complex ion which has no 'd'-electron in the central metal atom is :  
a)  $[\text{MnO}_4]^-$                       b)  $[\text{Co}(\text{NH}_3)_6]^{3+}$                       c)  $[\text{Fe}(\text{CN})_6]^{3-}$                       d)  $[\text{Cr}(\text{H}_2\text{O})_6]^{3+}$

14. The shape of cobalt hexaammine cation, which has its central cobalt atom surrounded by six ammonia molecules is:  
a) Tetrahedral                      b) Octahedral                      c) Square planar                      d) Trigonal

15. Which ligand is capable of forming low spin as well as high spin complexes?  
a) CO                      b)  $\text{NO}_2^-$                       c)  $\text{CN}^-$                       d)  $\text{NH}_3$

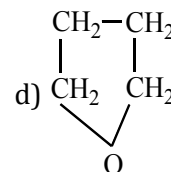
16.  The IUPAC name of \_\_\_\_\_ is

- a) 7-ethyl-2, 4, 5, 6-tetramethyl-deca-1, 9-diene    b) 7-ethyl-2, 4, 5, 6-tetramethyl-deca-1, 8-diene  
c) 4-ethyl-4, 5, 6, 7-tetramethyl-deca-1, 9-diene    d) 7-(1-propenyl)-2, 3, 4, 5-tetramethyl-non-1-ene

17. IUPAC name of  $[\text{Pt}(\text{NH}_3)_3\text{Br}(\text{NO}_2)\text{Cl}]\text{Cl}$  is  
a) Triamminechlorobromonitro platinum (IV) chloride  
b) Triamminebromonitrochloro platinum (IV) chloride  
c) Triamminebromochloronitro platinum (IV) chloride  
d) Triamminenitrochlorobromo platinum (IV) chloride

18. An aromatic ether is not cleaved by HI even at 525 K. The compound is:

- a)  $\text{C}_6\text{H}_5\text{OCH}_3$                       b)  $\text{C}_6\text{H}_5\text{OC}_6\text{H}_5$                       c)  $\text{C}_6\text{H}_5\text{OC}_3\text{H}_7$



19. Phenol does not react with:  
a)  $\text{Na}_2\text{CO}_3$                       b) NaOH                      c)  $\text{NaHCO}_3$                       d) KOH

20.  $[\text{EDTA}]^{4-}$  is a  
a) Monodentate ligand                      b) Bidentate ligand  
c) Quadridentate ligand                      d) Hexadentate ligand