

# DPP

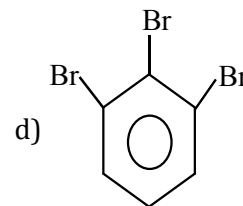
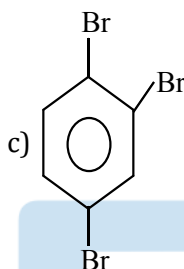
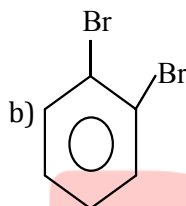
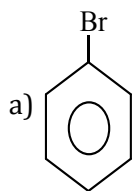
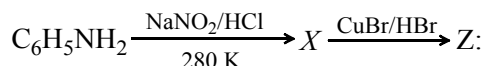
DAILY PRACTICE PROBLEMS

Class : XII<sup>th</sup>  
Date :

Subject : CHEMISTRY  
DPP No. : 8

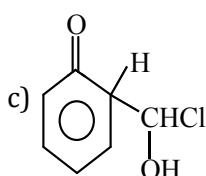
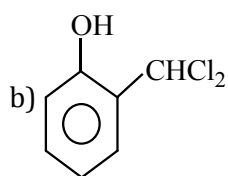
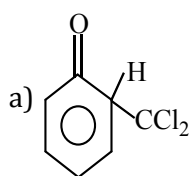
## Topic :- Coordination Compounds

1. Identify 'Z' in the change;



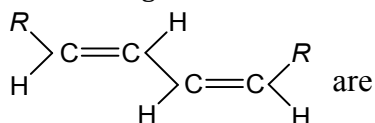
2. Which of the following is most acidic?  
a) *p*-cresol                      b) *p*-chlorophenol                      c) *p*-nitrophenol                      d) *p*-aminophenol
3. Benzoylacetato beryllium exhibit isomerism of the type  
a) Structural                      b) Geometrical                      c) Optical                      d) Conformational
4. Which one of the following has a square planar geometry?  
(At. No. Fe=26, Co=27, Ni=28, Pt=78)  
a)  $[\text{CoCl}_4]^{2-}$                       b)  $[\text{FeCl}_4]^{2-}$                       c)  $[\text{NiCl}_4]^{2-}$                       d)  $[\text{PtCl}_4]^{2-}$
5. The number of ions formed on dissolving one molecule of  $\text{FeSO}_4(\text{NH}_4)_2\text{SO}_4 \cdot 6\text{H}_2\text{O}$  in water is:  
a) 4                      b) 5                      c) 3                      d) 6
6. A solution of potassium ferrocyanide would contains-ions  
a) 2                      b) 3                      c) 4                      d) 5
7. Which of the following is not considered as an organometallic compound?  
a) Grignard reagent                      b) *cis*-platin                      c) Zeise's salt                      d) Ferrocene

8. When phenol is reacted with  $\text{CHCl}_3$  and  $\text{NaOH}$  followed by acidification, salicylaldehyde is obtained. Which of the following species are involved in the above mentioned reaction as intermediates?



d) Both (a) and (b)

9. Number of geometrical isomers for the molecule



a) 2

b) 3

c) 6

d) 5

10. Which statement about coordination number of a cation is true?

- a) Most metal ions exhibit only a single characteristic coordination number  
 b) The coordination number is equal to the number of ligands bonded to the metal atom  
 c) The coordination number is determined solely by the tendency to surround the metal atom with the same number of electrons as one of the rare gases  
 d) For most cations, the coordination number depends on the size, structure and charge of the ligands

11. Among the following, the strongest base is:

- a)  $\text{C}_6\text{H}_5\text{NH}_2$       b)  $p\text{-NO}_2\text{-C}_6\text{H}_4\text{NH}_2$       c)  $m\text{-NO}_2\text{-C}_6\text{H}_4\text{NH}_2$       d)  $\text{C}_6\text{H}_5\text{CH}_2\text{NH}_2$

12. General formula for arenes is:

- a)  $\text{C}_n\text{H}_{2n+6}$       b)  $\text{C}_n\text{H}_{2n+6y}$       c)  $\text{C}_n\text{H}_{2n}$       d)  $\text{C}_n\text{H}_{2n-6y}$

13. Which of the following doesn't have a metal-carbon bond?

- a)  $\text{Al}(\text{OC}_2\text{H}_5)_3$       b)  $\text{C}_2\text{H}_5\text{MgBr}$       c)  $\text{K}[\text{Pt}(\text{C}_2\text{H}_4)\text{Cl}_3]$       d)  $\text{Ni}(\text{CO})_4$

14. How many isomers are possible in  $[\text{Co}(\text{en})_2\text{Cl}_2]$ ?

- a) 2      b) 4      c) 6      d) 1

15. How many carbon atoms in the molecule  $\text{HOOC} - (\text{CHOH})_2 - \text{COOH}$  are asymmetric?

- a) 1      b) 2      c) 3      d) None of these

16. In benzene, there is a delocalisation of  $\pi$ -electrons. Hence, each  $\pi$ -electron is attached by....carbon nuclei.

- a) 2      b) 3      c) 6      d) 4

17. Which can be used to distinguish  $C_6H_5NH_2$  and  $C_6H_5CH_2NH_2$ ?
- Diazotisation followed with coupling with phenol
  - Carbylamine reaction
  - Reimer-Tiemann reaction
  - None of the above
18. When  $RCOCl$  and  $AlCl_3$  are used in Friedel-Craft's reaction, the electrophile is:
- $Cl^+$
  - $RCOCl$
  - $R\overset{+}{C}O$
  - $R^+$
19. Thiophene is separated from benzene by:
- Chlorination of thiophene
  - Sulphonation of thiophene
  - Nitration of thiophene
  - Oxidation of thiophene
20. A complex compound of  $CO^{3+}$  with molecular formula  $COCl_x \cdot yNH_3$  gives a total of 3 ions when dissolved in water. How many  $Cl^-$  ions satisfy both primary and secondary valencies in this complex?
- 3
  - 1
  - 4
  - Zero

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