

DPP

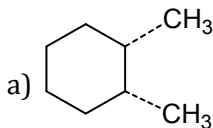
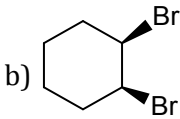
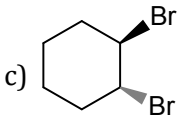
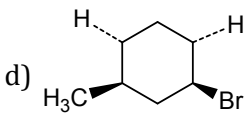
DAILY PRACTICE PROBLEMS

Class : XIIth
Date :

Subject : CHEMISTRY
DPP No. : 2

Topic :- Coordination Compounds

- Which of the following compounds is generally used for hydrogenation of alkenes?
a) $\text{Ni}(\text{CO})_4$ b) $[(\text{C}_6\text{H}_5)_3\text{P}]_3\text{RhCl}$ c) $(\text{CH}_3)_3\text{Al}$ d) $(\text{C}_5\text{H}_5)_2\text{Fe}$
- The end product of the reaction,
 $\text{C}_6\text{H}_6 + \text{Cl}_2 \xrightarrow{\text{Sunlight}}$ is:
a) $\text{C}_6\text{H}_5\text{Cl}$ b) *o*- $\text{C}_6\text{H}_4\text{Cl}_2$ c) $\text{C}_6\text{H}_6\text{Cl}_6$ d) *p*- $\text{C}_6\text{H}_4\text{Cl}_2$
- $[\text{Pt}(\text{NH}_3)_6]\text{Cl}_4$ complex gives
a) 4 ions b) 3 ions c) 2 ions d) 5 ions
- Which does not obey EAN rule?
a) $[\text{Cu}(\text{NH}_3)_4]^{2+}$ b) $[\text{Zn}(\text{OH})_4]^{2-}$ c) $[\text{HgI}_4]^{2-}$ d) $\text{Fe}(\text{CO})_5$
- Oxidation number of Fe in $\text{K}_3[\text{Fe}(\text{CN})_6]$ is:
a) +3 b) +2 c) +10 d) 1
- Which of the following is not an organometallic compound?
a) NaOC_2H_5 b) $(\text{CH}_3)_3\text{Al}$ c) $(\text{C}_2\text{H}_5)_4\text{Pb}$ d) RMgX
- Considering H_2O as weak field ligand, the number of unpaired electrons in $[\text{Mn}(\text{H}_2\text{O})_6]^{2+}$ will be (Atomic no. of Mn=25)
a) Three b) Five c) Two d) Four
- The value of 'spin only' magnetic moment for one of the following configuration is 2.84 BM the correct one
a) d^4 (in weak ligand field) b) d^4 (in strong ligand field)
c) d^3 (in weak as well as in strong field) d) d^5 (in weak ligand field)
- Fluorobenzene ($\text{C}_6\text{H}_5\text{F}$) can be synthesized in the laboratory:
a) By heating phenol with HF and KF
b) From aniline by diazotisation followed by heating the diazonium salt with HBF_4
c) By direct fluorination of benzene with F_2 gas

- d) By reacting bromobenzene with NaF solution
10. Which compound burns with a sooty flame?
- $C_6H_5CH_2OH$
 - C_6H_5COOH
 - CH_3OH
 - $CH_3COC_2H_5$
11. How many EDTA (ethylenediaminetetraacetic acid) molecules are required to make an octahedral complex with a Ca^{2+} ion?
- Six
 - Three
 - One
 - Two
12. Intramolecular rearrangement of phenyl esters to give *o*- and *p*-derivatives in presence of $AlCl_3$ is known as:
- Friedel-Craft's reaction
 - Fries rearrangement
 - Esterification
 - Coupling
13. Which reaction can produce $R-CO-Ar$ species?
- $ArCOCl + H-Ar \xrightarrow{AlCl_3}$
 - $COCl + RMgX \rightarrow$
 - $RCOCl + H-Ar \xrightarrow{AlCl_3}$
 - $R + CrO_3 \rightarrow$
14. Acidic character of phenol is due to:
- Resonance of phenoxide ion
 - Tautomerism occurring in phenol
 - The fact that the electronegativity of oxygen is more than that of hydrogen
 - None of the above
15. In triethylenediamine cobalt(III) chloride the coordination number of cobalt is:
- 3
 - 4
 - 6
 - 7
16. Mark the unidentical compound
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17. A complex compound in which the oxidation number of a metal is zero, is
- $K_4[Fe(CN)_6]$
 - $K_3[Fe(CN)_6]$
 - $[Ni(CO)_4]$
 - $[Pt(NH_3)_4]Cl_2$
18. In the halogenation of aromatic nucleus, the halogen carrier, used to generate the species is:
- Cl
 - Cl^+
 - Cl^-
 - Cl

19. Among $[\text{Ni}(\text{CN})_4]^{2-}$, $[\text{NiCl}_4]^{2-}$ and $[\text{Ni}(\text{CO})_4]$:
- a) $[\text{Ni}(\text{CN})_4]^{2-}$ is square planar and , $[\text{NiCl}_4]^{2-}$, $\text{Ni}(\text{CO})_4$ are tetrahedral
 - b) $[\text{NiCl}_4]^{2-}$ is square planar and $[\text{NiCN}_4]^{2-}$, $\text{Ni}(\text{CO})_4$ are tetrahedral
 - c) $\text{Ni}(\text{CO})_4$ is square planar and $[\text{Ni}(\text{CN})_4]^{2-}$, $[\text{NiCl}_4]^{2-}$ are tetrahedral
 - d) None of the above
20. Benzene is obtained by:
- a) Condensation of three C_2H_2 molecules
 - b) Polymerization of three C_2H_2 molecules
 - c) Addition of three C_2H_2 molecules
 - d) Substitution of three acetylene molecules

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