DPP
DAILY PRACTICE PROBLEMS

Class : XIIth
Date :

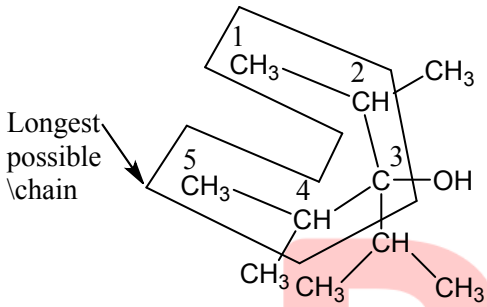
Solutions

Subject : CHEMISTRY
DPP No. : 7

Topic :- Coordination Compounds

1 **(c)**

The structure of alcohol is



2,4-dimethyl-3-(1-methyl) ethyl pentan-3-ol

2 **(c)**

The transition metal cations during complex formation show *d*-*d* transition to give coloured ions.

3 **(a)**

—CH_3 gp. Shows +ve inductive effect and —OH gp. shows resonance effect which increases the electron density on C_6H_6 ring.

4 **(d)**

It produces least number of ions in solution.

6 **(d)**

The process is known as aromatisation or cyclization.

67 **(c)**

$$CH_3-C(CH_3)(CH_3)-CH_3$$

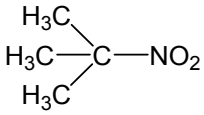
neo-pentane

The structure shows that all the hydrogen atoms are attached to primary C-atoms hence these are primary hydrogens

8 **(a)**

Follow IUPAC rules.

9 **(d)**



has no α-hydrogen. Hence, it will not show tautomerism

10 **(d)**

Both CN^- and NO_2^- are strong field ligands.

11 **(c)**

Prussian blue is $Fe_4^{III}[Fe^{II}(CN)_6]_3$ or $M^IFe^{III}[Fe^{II}(CN)_6]$, where M^I is Na, K, Rb, Li, Cs.

13 **(a)**

Co^{3+}, Fe^{3+} and Cr^{3+} have $6d$-electrons, $5d$-electrons and $3d$-electrons respectively. Mn^{7+} has no d-electron.

14 **(b)**

All complexes of Co(III) have six ligands or coordination number of six and thus, are octahedral in shape.

15 **(d)**

NH_3 is weak as well as strong field ligand.

17 **(c)**

$[Pt(NH_3)_3Br(NO_2)Cl]Cl$

Triamminebromochloronitro platinum (IV) chloride.

18 **(b)**

Both the carbon attached to O are part of aromatic system.

19 **(c)**

Phenol is weak acid.

20 **(d)**

$[EDTA]^{4-}$is a hexadentate ligand because it donates six pairs of electrons to central metal atom in a complex.

ANSWER-KEY										
Q.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
A.	**C**	**C**	**A**	**D**	**C**	**D**	**C**	**A**	**D**	**D**
Q.	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
A.	**C**	**A**	**A**	**B**	**D**	**B**	**C**	**B**	**C**	**D**