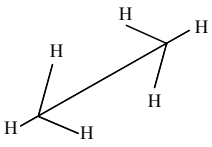
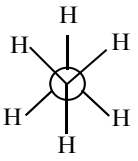
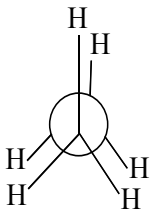
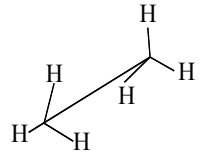
DPP
DAILY PRACTICE PROBLEMS

CLASS : XIIth **SUBJECT : CHEMISTRY**
DATE : **DPP NO. : 5**

Topic :-HYDROCARBONS

1. In the following structures which two forms are staggered conformation of ethane?

1. 
2. 
3. 
4. 

a) 1 and 4 b) 2 and 3 c) 1 and 2 d) 1 and 3

2. A mixture of ethane, ethene and ethyne is passed through ammoniacal $AgNO_3$solution. The gases which remain unreacted are:

a) Ethane and ethene b) Ethane and ethyne c) Ethene and ethyne d) Ethane only

3. In the reaction,

$$C_6H_5CH_3 \xrightarrow{\text{Oxidation}} A \xrightarrow{NaOH} B \xrightarrow{\text{Soda lime}} C$$

The product C is

a) C_6H_5OH b) C_6H_6 c) C_6H_5COONa d) C_6H_5ONa

4. $$A \xleftarrow[(II)H_2O_2,\ OH^-]{(I)\ BH_3.THF} CH_3C \equiv CH \xrightarrow[H_2SO_4]{HgSO_4} B$$

Identify A and B

a) CH_3CHO, CH_3COCH_3 b) CH_3CH_2CHO, CH_3COCH_3
c) CH_3CH_2CHO, $CH_3COCH_2CH_3$ d) $HCHO$, CH_3COCH_3

5. Cyclobutadiene is said to be

a) aromatic b) aliphatic c) non-aromatic d) None of these

6. Acetylene reacts with hypochlorous acid to form

a) Cl_2CHCHO b) $ClCH_2COOH$ c) Cl_3COCl d) $ClCH_2CHO$

7. To enable easy detection of gas leakage from cylinders, the substance added to L.P.G. is:
   a) Glycols b) Phenols c) Thioalcohols d) Glycerols

8. Octane no. of 2,3,3-trimethylbutane has been assumed to be:
   a) 100 b) -45 c) 124 d) Zero

9. C_4H_6 may contain
   a) One double bond b) Two double bond c) One triple bond d) Both (b) and (c)

10. Which of the following compounds can form metallic derivatives?
   a) Ethane b) Propyne c) 2-butyne d) 2-butene

11. Increasing order of volatility of C_2H_6, C_2H_4, C_2H_2 and C_6H_6 is:
   a) $C_6H_6, C_2H_6, C_2H_4, C_2H_2$ b) $C_2H_2, C_2H_4, C_2H_6, C_6H_6$ c) $C_6H_6, C_2H_2, C_2H_4, C_2H_6$ d) $C_2H_2, C_2H_6, C_2H_4, C_6H_6$

12. Octane no. of a fuel can be increased by:
   a) Isomerism b) Alkylation c) Reforming d) All of these

13. 1-propanol on dehydration with H_2SO_4 produces:
   a) $CH_3-CH=CH_2$
   b) $CH_3-CH=CH-CH_3$
   c) $CH_3CH_2CH_2OCH_2CH_2CH_3$
   d) $CH_3CH_2CH_2CH_2CH=CH_2$

14. Propadiene, C_3H_4 molecule contains:
   a) Two $sp^2$and one sp-hybrid carbon
   b) One sp^2 and two sp-hybrid carbons
   c) One sp^2 and three sp-hybrid carbons
   d) None of the above

15. Catalyst used in dimerization of acetylene to prepare chloroprene is:
   a) $HgSO_4 + H_2SO_4$ b) Cu_2Cl_2 c) $Cu_2Cl_2 + NH_4Cl$ d) $Cu_2Cl_2 + NH_4OH$

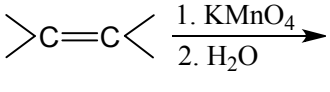
16. Cyclopentene on treatment with alkaline $KMnO_4$ gives:
   a) Cyclopentanol
   b) $trans$-1,2-cyclopentanediol
   c) cis-1,2-cyclopentanediol
   d) 1 : 1 mixture of cis-and $trans$-1,2-cyclopentanediol

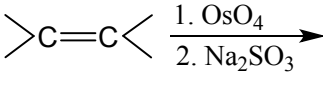
17. $C_7H_8 \xrightarrow{3Cl_2,\ Heat} A \xrightarrow{Fe/Br_2} B \xrightarrow{Zn/HCl} C$

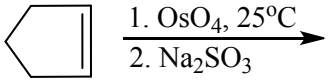
Here, the compound C is
   a) 3-bromo 2,4,5,6-trichlorotoluene b) o-bromo toluene
   c) p-bromo toluene d) m-bromo toluene

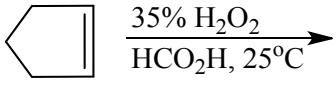
18. Naphalene is an example of
    a) Polynuclear hydrocarbon
    b) alicyclic compound
    c) heterocyclic compound
    d) aliphatic compound

19. Which of the following will give *trans*-diols?

a) 

b) 

c) 

d) 

20. Benzene can react with
    a) Bromine water b) HNO_3 c) H_2O d) CH_3OH