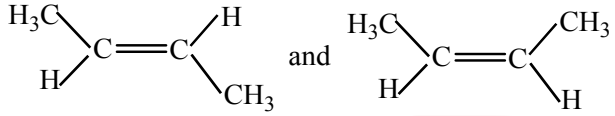
DPP
DAILY PRACTICE PROBLEMS

CLASS : XIIth **SUBJECT : CHEMISTRY**
DATE : **DPP NO. : 6**

Topic :-ORGANIC CHEMISTRY - SOME BASIC PRINCIPLES AND TECHNIQUES

1. If X is halogen the correct order for S_N2 reactivity is :
   a) $R_2CHX > R_3CX > RCH_2X$
   b) $RCH_2X > R_3CX > RCH_2X$
   c) $RCH_2X > R_2CHX > R_3X$
   d) $R_3CX > R_2CHX > RCH_2X$

2. The compound



can be distinguished by their :
   a) Chlorinated products
   b) Products formed by addition of bromine
   c) Reaction with H_2/Ni
   d) None of the above

3. How many stereoisomers does this molecule have?
$CH_3CH = CHCH_2CHBrCH_3$
   a) 6 b) 8 c) 4 d) 2

4. What is the number of possible optical isomers in glucose?
   a) 3 b) 4 c) 12 d) 16

5. In which reaction addition takes place according to Markownikoff's rule?
   a) $CH_3CH = CHCH_3 + Br\rightarrow$ b) $CH_2 = CH_2 + HBr\rightarrow$
   c) $CH_3CH = CH_2 + HBr\rightarrow$ d) $CH_3CH = CH_2 + Br_2\rightarrow$

6. Presence of halogen in organic compounds can be detected using
   a) Leibig's test b) Duma's test c) Kjeldahl test d) Beilstein's test

7. The bond energy for catenation next to carbon is :
   a) N b) S c) Si d) P

8. The hydrolysis of alkyl halides by aqueous NaOH is best termed as :
   a) Electrophilic substitution reaction

b) Electrophilic addition reaction
c) Nucleophilic addition reaction
d) Nucleophilic substitution reaction

9. Which of the following compounds exhibit stereoisomerism?
a) 3-methyl butyne –1
b) 2-methyl butene –1
c) 2-methyl butanoic acid
d) 3-methyl butanoic acid

10. The + I.E.(inductive effect) is shown by :
a) CH_3
b) —OH
c) F
d) $—C_6H_5$

11. In paper chromatography
a) Mobile phase is liquid and stability phase is solid
b) Mobile phase is solid and stationary phase is liquid
c) Both phases are liquids
d) Both phases are solids

12. Which one of the following is not found in alkenes?
a) Chain isomerism
b) Geometrical isomerism
c) Metamerism
d) Position isomerism

13. Select the correct statement :
a) The prefixes are written before the name of compound
b) The suffixes are written after the name of compound
c) The IUPAC name of a compound is always written as one word
d) All of the above

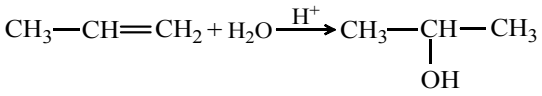
14. A compound contains 2 dissimilar asymmetric carbon atoms. The number of optically active isomers is :
a) 2
b) 3
c) 4
d) 5

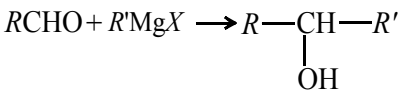
15. The inductive effect
a) Implies the atom's ability to cause bond polarization
b) Increases with increase of distance
c) Implies the transfer of lone pair of electrons from more electronegative atom to the lesser electronegative atom in a molecule
d) Implies the transfer of lone of electrons from lesser electronegative atom to the more electronegative atom in a molecule

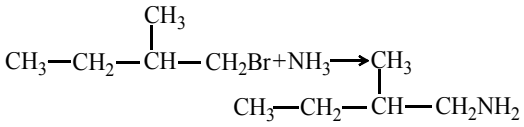
16. IUPAC name of the compound, $ClCH_2CH_2COOH$ is :
a) 3-chloropropanoic acid
b) 2-chloropropanoic acid
c) 2-chloroethanoic acid
d) Chlorosuccinic acid

17. Which one is a nucleophilic substitution reaction among the following?

a) $CH_3CHO + HCN \longrightarrow CH_3CH(OH)CN$

b) 

c) 

d) 

18. If there is no rotation of plane polarised light by a compound in a specific solvent, though to be chiral, it means that :

a) It is certainly *meso*
b) It is racemic mixture
c) It is certainly not chiral
d) No such compound

19. Formation of ethylene from acetylene is an example of

a) Elimination reaction
b) Substitutions reaction
c) Condensation reaction
d) Addition reaction

20. Which of the following is nucleophilic addition reaction?

a) Hydrolysis of ethyl chloride by NaOH
b) Purification of acetaldehyde by $NaHSO_3$
c) Alkylation of anisol
d) Decarboxylation of acetic acid