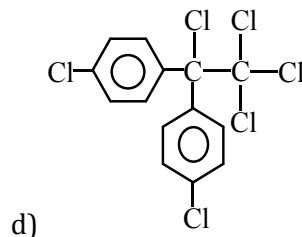
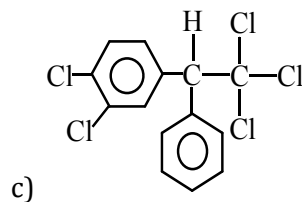
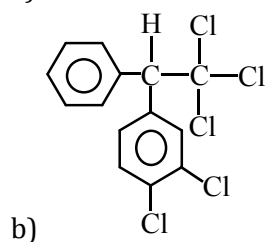
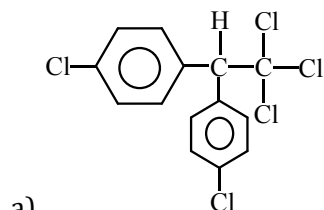


Topic :-ORGANIC CHEMISTRY - SOME BASIC PRINCIPLES AND TECHNIQUES

- The name formic acid was given for HCOOH because it was prepared from :
 a) Acetum b) Ant c) Wood d) Oxalis plant
- 2, 3-dimethyl hexane contains tertiary secondary andprimary carbon atoms, respectively
 a) 2, 2, 1 b) 2, 4, 3 c) 4, 3, 2 d) 3, 2, 4
- Which one of the following is the correct formula for dichlorodiphenyltrichloro ethane?



P

E

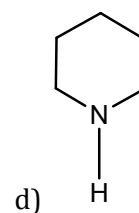
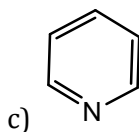
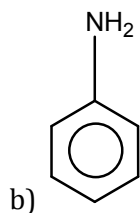
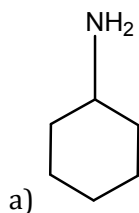
- How many sigma and pi bonds are there in the molecule of di cyano ethane (CN – CH = CH – CN)?
 a) 3 sigma and 3 pi b) 5 sigma and 2 pi c) 7 sigma and 5 pi d) 2 sigma and 3 pi
785. Out of the following, the alkene that exhibits optical isomerism is

- a) 3-methyl-2-pentene b) 4-methyl-1-pentene c) 3-methyl-1-pentene d) 2-methyl-2-pentene
6. The species which use sp^2 -hybrid orbitals in its bonding :
- a) PH_3 b) NH_3 c) CH_3^+ d) CH_4
7. Carbanion can undergo :
- a) Rearrangement
b) Combination with cation
c) Addition to a carbonyl group
d) All of the above are correct
8. An organic compound $\text{C}_5\text{H}_{11}\text{X}$ on dehydrohalogenation gives pentene-2 only. What is halide?
- a) $\text{CH}_3\text{CH}_2\text{CHXCH}_2\text{CH}_3$ b) $(\text{CH}_3)_2\text{CHCHXCH}_3$ c) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CHXCH}_3$ d) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{X}$
9. Percentage composition of an organic compound is as follows
C=10.06, H=0.84, Cl=89.10
Which of the following corresponds to its molecular formula if the vapour density is 60.0?
- a) CH_3Cl b) CHCl_3 c) CH_2Cl_2 d) None of these
10. Which of the following is most reactive towards nucleophilic substitution reaction?
- a) $\text{CH}_2 = \text{CH} - \text{Cl}$ b) $\text{C}_6\text{H}_5\text{Cl}$ c) $\text{C}_6\text{H}_5\text{CH}_2\text{Cl}$ d) $\text{ClCH}_2 - \text{CH} = \text{CH}_2$
11. Which among the following statements is correct with respect to the optical isomers?
- a) Enantiomers are non-superimposable mirror images.
b) Diastereomers are superimposable mirror images.
c) Enantiomers are superimposable mirror image.
d) *Meso* forms have no plane of symmetry.
12. Consider thiol anion (RS^\ominus) and alkoxy anion (RO^\ominus). Which of the following statement is correct?
- a) RS^\ominus is less basic and less nucleophilic than RO^\ominus
b) RS^\ominus is less basic but more nucleophilic than RO^\ominus
c) RS^\ominus is less basic and more nucleophilic than RO^\ominus
d) RS^\ominus is more basic but less nucleophilic than RO^\ominus
13. The maximum number of alkene isomers for an alkene with molecular formula C_4H_8 is :
- a) 2 b) 3 c) 4 d) 5
14. The IUPAC name of the compound $(\text{CH}_3)_2\text{CH} - \text{CH} = \text{CH} - \text{CHOH} - \text{CH}_3$ is
- a) 5-methyl-hex-3-en-2-ol b) 2-methyl-hex-3-en-5-ol
c) 2-hydroxy-5-methyl-3-hexene d) 5-hydroxy-2-methyl-3-hexene
15. The number of isomers in $\text{C}_4\text{H}_{10}\text{O}$ are
- a) 7 b) 8 c) 6 d) 5

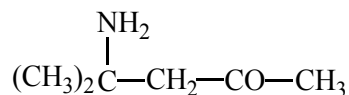
16. Which alkyl halide is preferentially hydrolysed by S_N1 mechanism?

- a) $(CH_3)_3C.Cl$ b) $CH_3CH_2CH_2Cl$ c) CH_3CH_2Cl d) CH_3Cl

17. Which of the following is most basic?

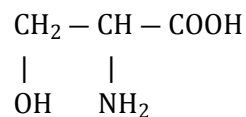


18. The given compound in IUPAC may be called,



- a) Diacetone
b) Acetoneamine
c) Diacetoneamine
d) 4-amino-4-methylpentan-2-one

19. The IUPAC name of the compound,



- a) 2-amino-3-hydroxy propanoic acid b) 1-hydroxy-2-amino propan-3-oic acid
c) 1-amino-2-hydroxypropanoic acid d) 3-hydroxy-2-amino propanoic acid

20. Which of the following compounds is not chiral?

- a) 1-chloro-2-methyl pentane b) 2-chloropentane
c) 1-chloropentane d) 3-chloro-2-methyl pentane