

CLASS : XIIth

DATE :

SUBJECT : CHEMISTRY

DPP NO. : 8

Topic :-ORGANIC CHEMISTRY - SOME BASIC PRINCIPLES AND TECHNIQUES

- Glycerol can be separated from spent-lye in soap industry by
 - Steam distillation
 - Fractional distillation
 - Distillation under reduced pressure
 - Ordinary distillation
- The IUPAC name of
$$\begin{array}{c} \text{H}_3\text{C}-\text{CH}-\text{C}_3\text{H}_7 \\ | \\ \text{OC}_3\text{H}_7 \end{array}$$
 - 4-propoxy pentane
 - Pentyl-propyl ether
 - 2-propoxy pentane
 - 2-pentoxy propane
- Correct gradation of basic character
 - $\text{NH}_3 > \text{CH}_3\text{NH}_2 > \text{NF}_3$
 - $\text{CH}_3\text{NH}_2 > \text{NH}_3 > \text{NF}_3$
 - $\text{NF}_3 > \text{CH}_3\text{NH}_2 > \text{NH}_3$
 - $\text{CH}_3\text{NH}_2 > \text{NF}_3 > \text{NH}_3$
- An organic compound contains 49.3% carbon, 6.84% hydrogen and its vapour density is 73. Molecular formula of compound is
 - $\text{C}_6\text{H}_9\text{O}_3$
 - $\text{C}_4\text{H}_{10}\text{O}_2$
 - $\text{C}_3\text{H}_5\text{O}_2$
 - $\text{C}_3\text{H}_{10}\text{O}_2$
- Vital force theory of the origin of organic compounds was discarded by :
 - Kolbe's synthesis
 - Haber's synthesis
 - Wöhler's synthesis
 - Berthelot's synthesis
- In the presence of peroxide, hydrogen chloride and hydrogen iodide do not give anti-Markownikoff addition to alkenes because :
 - Both are highly ionic
 - One is oxidizing and the other is reducing
 - One of the steps are exothermic in both the cases
 - All the steps are exothermic in both the cases
- Which of the following does not have a resonance structure?
 - Benzene
 - Benzaldehyde
 - Acetaldehyde
 - Benzylamine

8. Which of the following is the correct order of stability of different conformations of butane?
- Staggered > Gauche > Partially eclipsed > Fully eclipsed
 - Gauche > Staggered > Partially eclipsed > Fully eclipsed
 - Staggered > Fully eclipsed > Partially eclipsed > Gauche
 - None of the above

9. Glucose and fructose are :

- Chain isomers
- Position isomers
- Functional isomers
- Optical isomers

10. The enol form of acetone after treatment with D_2O gives :

- $CH_3-\overset{OD}{\underset{|}{C}}=CH_2$
- $CH_3-\overset{O}{\underset{||}{C}}=CD_3$
- $CH_2=\overset{OH}{\underset{|}{C}}-CH_2D$
- $CD_2=\overset{OD}{\underset{|}{C}}-CD_3$

11. Eclipsed and staggered forms of *n*-butane are called a pair of :

- Diastereomers
- Conformers
- Isomers
- Enantiomers

12. Arrange the following in order of increasing dipole moment (I) Toluene (II) *m*-dichlorobenzene (III) *o*-dichlorobenzene (IV) *p*-dichlorobenzene :

- $I < IV < II < III$
- $IV < I < II < III$
- $IV < I < III < II$
- $IV < II < I < III$

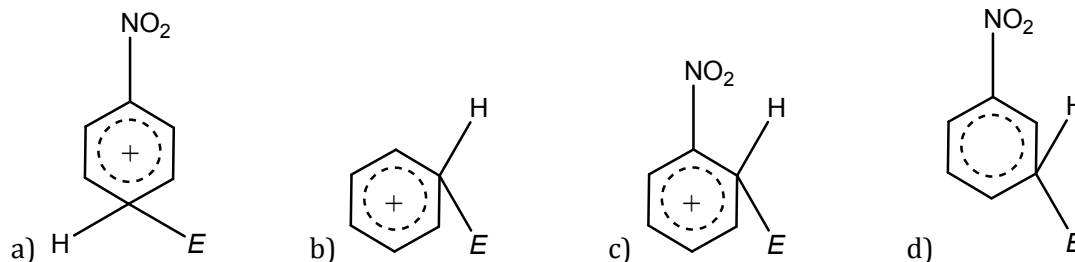
13. In butane, which of the following forms has the lowest energy?

- Gauche form
- Eclipsed form
- Staggered form
- None of these

14. Molecular mass of a volatile substances may be obtained by

- Beilstein method
- Lassaigne method
- Victor Mayer's method
- Leibig's method

15. The electrophile, E^{\oplus} attacks the benzene ring to generate the intermediate σ – complex. Of the following, which σ – complex is of lowest energy?



16. Which is not deflected by a non-uniform electrostatic field?

- Water
- Chloroform
- Nitrobenzene
- Hexane

17. The reaction $C_2H_5I + KOH \rightarrow C_2H_5OH + KI$ is called
- a) Hydroxylation substitution
 - b) Electrophilic substitution
 - c) Nucleophilic substitution
 - d) dehydroiodination
18. Correct order of nucleophilicity is
- a) $I^- > Br^- > Cl^- > F^-$
 - b) $F^- > Cl^- > Br^- > I^-$
 - c) $Cl^- > F^- > Br^- > I^-$
 - d) $I^- > Cl^- > Br^- > F^-$
19. Due to the presence of an unpaired electron free radicals are
- a) Cations
 - b) Anions
 - c) Chemically inactive
 - d) Chemically reactive
20. Which of the following will have *meso* isomers also?
- a) 2-hydroxy propanoic acid
 - b) 2,3-dichlorobutane
 - c) 2,3-dichloropentane
 - d) 2-chlorobutane

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