

HYDROCARBON-1

1. Hydrocarbon which is liquid at room temperature is
 1. Ethane
 2. Butane
 3. Propane
 4. Pentane
2. Which one of the following cannot be prepared by Wurtz reaction?
 1. Butane
 2. Propane
 3. Methane
 4. Ethane
3. Iodination of alkane is carried out in the presence of
 1. Reducing agent
 2. Alcohol
 3. HNO_3 or HIO_3
 4. Benzene
4. Electrolysis of aqueous sodium acetate gives
 1. Methane
 2. Ethane
 3. Ethene
 4. Ethyne
5. Which of the following alkenes will be most stable?
 1. $(\text{CH}_3)\text{CH} = \text{CH}_2$
 2. $\text{CH}_3\text{CH} = \text{CH}_2$
 3. $\text{CH}_3\text{CH} = \text{CHCH}_3$
 4. $(\text{CH}_3)_2\text{C} = \text{C}(\text{CH}_3)_2$
6. Propene is reacted with HBr in the presence of peroxide, the product is
 1. 2-Bromopropane
 2. 3-Bromopropane
 3. 1-bromopropane
 4. None of these
7. The addition of HBr is easiest with
 1. $\text{CH}_2 = \text{CHCl}$
 2. $\text{ClCH} = \text{CHCl}$
 3. $\text{CH}_3 - \text{CH} = \text{CH}_2$
 4. $(\text{CH}_3)_2\text{C} = \text{CH}_2$
8. To distinguish between propene and propyne, the reagent used is
 1. Amm. Silver nitrate solution
 2. Lucas reagent
 3. Schiff's reagent
 4. Grignard reagent
9. Toluene on oxidation with dilute nitric acid or alkaline potassium permanganate gives
 1. Phenol
 2. Nitrotoluene
 3. Benzaldehyde
 4. Benzoic acid
10. Which of the following compounds does not undergo a Friedel –Craft's reaction?
 1. Napthalene
 2. Nitrobenzene
 3. Toluene
 3. Benzene
11. Bakelite is a condensation polymer of
 1. Phenol and Cresol

2. Acetaldehyde and phenol
 3. Phenol and formaldehyde
 4. Urea and formaldehyde
12. The number of acidic hydrogen atoms in 1-butyne is
1. One
 2. Two
 3. Three
 4. Four
13. Alkenes are converted to alkanes by
1. Hydrogenation
 2. Hydrolysis
 3. Halogenation
 4. Dehydration
14. Buna -S is obtained by the co-polymerization of butadiene and
1. Chloroprene
 2. Vinyl chloride
 3. Adipic acid
 4. Styrene
15. Adding chlorine to benzene in the presence of AlCl_3 is an example of
1. Addition reaction
 2. Substitution reaction
 3. Elimination reaction
 4. None of these.
16. Benzene reacts with chlorine to form benzene hexachloride in the presence of
1. Nickel
 2. AlCl_3
 3. Bright sun light.
 4. Zn
17. The compound having only primary hydrogen atoms is
1. Benzene
 2. 2,3 -dimethylbutane
 3. Propyne
 4. Cyclohexane
18. Lindlar's catalyst is
1. Ni supported over CdSO_4
 2. Ni supported over CuSO_4
 3. Hg supported over PbSO_4
 4. Pd supported over BaCO_3
19. Which of the following is the main component of green oil fraction of coal tar?
1. Anthracene
 2. Phenol
 3. Naphthol and cresol
 4. Toluene
20. Which of the following is used for artificial ripening of fruits?
1. Methane
 2. Ethane
 3. Ethene
 4. Propane
21. Addition of HBr to propene proceeds by which type of mechanism
1. Electrolytic addition
 2. Electrolytic substitution
 3. Nucleophilic addition
 4. Free radical addition

22. C_nH_{2n} general formula is obeyed by
1. Alkanes only
 2. Cycloalkanes only
 3. Dienes only
 4. Both 1 and 2
23. X is heated with soda lime and gives ethane. X is
1. Methanoic acid
 2. Ethanoic acid
 3. propanoic acid
 4. None of these.
24. Mustard gas is used as a/an
1. War gas
 2. Mustard oil
 3. Body spray
 4. Artificial sweetner
25. How many molecules of hydrogen are added to one molecule of benzene in the presence of Ni at 200°C ?
1. One
 2. Two
 3. Three
 4. Four

ORGANIC COMPOUNDS CONTAINING OXYGEN -1

- The rate of esterification of alcohols is more for
 - Methanol
 - Ethanol
 - 2-methylpropan-2-ol
 - Propan-2-ol
- Which is maximum soluble in water?
 - Isobutyl alcohol
 - n-butyl alcohol
 - tert-butyl alcohol
 - sec-butyl alcohol
- When wine is put in air, it becomes sour due to
 - Bacteria
 - Oxidation of ethanol to acetic acid
 - Formic acid formation
 - Virus
- Which of the following will react fastest with Lucas reagent?
 - Ethanol
 - Isopropyl alcohol
 - 2-methylpropan-2-ol
 - All react at equal speed
- Which of the following is most acidic?
 - $(\text{CH}_3)_2\text{CHOH}$
 - CH_3OH
 - $(\text{CH}_3)_3\text{COH}$
 - $\text{CH}_3\text{CH}_2\text{OH}$
- Fermentation is an
 - Endothermic reaction
 - Exothermic reaction
 - Reverse reaction
 - None of these
- Oxygen atom in ether is
 - Very active
 - Active
 - Replaceable.
 - Comparatively inert
- How many isomeric ethers are represented by the molecular formula $\text{C}_4\text{H}_{10}\text{O}$?
 - 2
 - 3
 - 4
 - 5
- Williamson's synthesis of ethers is an example of
 - Nucleophilic addition
 - Electrophilic addition
 - Nucleophilic substitution reaction
 - None of these
- The enzyme which can catalyse the conversion of glucose to ethanol is
 - Invertase
 - Maltase
 - Diastase
 - Zymase

11. Ethanol cannot be dried with anhydrous calcium chloride because
1. Ethanol is soluble in water
 2. Ethanol reacts with calcium chloride
 3. Ethanol explodes on drying
 4. Calcium chloride does not absorb water
12. Isopropyl alcohol on passing over heated copper at 300°C gives
1. Propane
 2. Propene
 3. Acetone
 4. Acetaldehyde
13. Which of the following can work as dehydrating agent for alcohols?
1. Al_2O_3
 2. H_3PO_4
 3. H_2SO_4
 4. All
14. The final product of the oxidation of ethyl alcohol is
1. Acetone
 2. Acetic acid
 3. Acetaldehyde
 4. Ethane
15. When ethyl iodide is heated with dry silver oxide, it forms
1. Ethanol
 2. Diethyl ether
 3. Silver ethoxide
 4. None of these
16. Hybrid state of oxygen atom in ether is
1. sp^2
 2. sp^3
 3. dsp^2
 4. sp
17. Which of the following is mixed ether?
1. $\text{C}_6\text{H}_5 - \text{O} - \text{CH}_3$
 2. $\text{CH}_3 - \text{O} - \text{C}_2\text{H}_5$
 3. $\text{C}_6\text{H}_5 - \text{O} - \text{C}_2\text{H}_5$
 4. All the above
18. Alcohols react with dry sodium liberating
1. Hydrogen
 2. Oxygen
 3. Carbon dioxide
 4. Carbon monoxide
19. Alcoholic fermentation of cane sugar is brought about by
1. Ammonium sulphate
 2. Sulphuric acid
 3. Yeast
 4. Diastase
20. The compound with the formula $\text{C}_2\text{H}_6\text{O}$ can be
1. an ether
 2. an alcohol
 3. an aldehyde
 4. Both 1 and 2

21. The reaction $\text{C}_2\text{H}_5\text{ONa} + \text{BrC}_2\text{H}_5 \longrightarrow \text{C}_2\text{H}_5\text{OC}_2\text{H}_5 + \text{NaBr}$
1. Kolbe's synthesis
 2. Wurtz reaction
 3. Williamson's synthesis
 4. Grignard synthesis
22. The product formed when diethyl ether is heated with PCl_5 are
1. Ethyl chloride and POCl_3
 2. Ethyl alcohol and POCl_3
 3. Ethyl alcohol and PCl_3
 4. Ethane
23. The organic product formed when diethyl ether reacts with excess of HI is
1. Ethanol
 2. Ethyl iodide
 3. Water
 4. Hydrogen
24. The $-\text{OH}$ group in alcohol cannot be replaced by $-\text{Cl}$, if we use
1. Cl_2
 2. SOCl_2
 3. PCl_5
 4. $\text{P} + \text{Cl}_2$
25. When vapours of an alcohol are passed over re hot copper, alcohol is converted into alkene, the alcohol is
1. Primary
 2. Secondary
 3. Tertiary
 4. None of these