

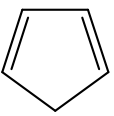
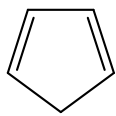
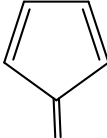
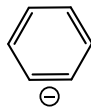
CLASS : XIIth

DATE :

SUBJECT : CHEMISTRY

DPP NO. : 1

Topic :-HYDROCARBONS

1. The presence of unsaturation (olefinic or acetylinic bond) in an organic compound can be tested with:
- a) Schiff's reagent b) Tollen's reagent c) Fehling's solution d) Baeyer's reagent
2. An alkene on reductive ozonolysis gives 2-molecules of $\text{CH}_2(\text{CHO})_2$. The alkene is
- a) 2,4-hexadiene b) 1,3-cyclohexadiene
c) 1,4-cyclohexadiene d) 1-methyl-1, 3-cyclopentadiene
3. A mixture of ethyl iodide and *n*-propyl iodide is subjected to Wurtz reaction. The hydrocarbon that will not be formed is:
- a) *n*-butane b) *n*-propane c) *n*-pentane d) *n*-hexane
4. Which of the following reacts with benzene in presence of anhydrous aluminium chloride and forms acetophenone?
- a) CH_3Cl b) CH_3COOH c) CH_3CHO d) CH_3COCl
5. Oxidation of 1-butene with hot KMnO_4 solution produces
- a) $\text{CH}_3\text{CH}_2\text{COOH} + \text{HCOOH}$ b) $\text{CH}_3\text{CH}_2\text{COOH} + \text{CO}_2$
c) $\text{CH}_3\text{COOH} + \text{CO}_2$ d) $(\text{CH}_3)_2\text{C} = \text{O} + \text{CO}_2$
6. Action of Br_2 on cyclopentene gives:
- a) 1,2-dibromo cyclopentane
b) Cyclopentyl bromide
c) Cyclopentyl dibromide
d) No reaction
7. Which of the following species is aromatic?
- a)  \oplus b)  \ominus c)  d)  \ominus
8. Propene, $\text{CH}_3\text{—CH} = \text{CH}_2$ can be converted into 1-propanol by oxidation. Which set of reagents among the following is ideal to effect the conversion?

- a) Alkaline KMnO_4 b) B_2H_6 and alk. H_2O_2 c) O_3 /zinc dust d) $\text{OsO}_4/\text{CHCl}_3$

9. Compound which gives acetone on ozonolysis

- a) $\text{CH}_3-\text{CH}=\text{CH}-\text{CH}_3$ b) $(\text{CH}_3)_2\text{C}=\text{C}(\text{CH}_3)_2$
c) $\text{C}_6\text{H}_5\text{CH}=\text{CH}_2$ d) $\text{CH}_3\text{CH}=\text{CH}_2$

10. Toluene, when treated with Br_2/Fe , gives p-bromotoluene as the major product because the $-\text{CH}_3$ group

- a) Is *meta* directing b) deactivates the ring
c) activates the ring by hyperconjugation d) None of the above

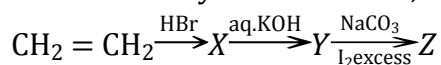
11. Alkynes occur in nature in the:

- a) Free state b) Partially free state c) Not in the free state d) None of the above

12. Which of the following will have least hindered rotation about carbon-carbon bond?

- a) Ethane b) Ethylene c) Acetylene d) Hexachloroethane

13. Identify Z in the series,



- a) $\text{C}_2\text{H}_5\text{I}$ b) $\text{C}_2\text{H}_5\text{OH}$ c) CHI_3 d) CH_3CHO

14. Action of NH_3 over C_2H_2 at high temperature gives:

- a) Amine b) Furan c) Thiophene d) Pyrrole

15. Wurtz reaction converts alkyl halide into alkane when it is made to react with

- a) Na in alcohol b) Na in dry ether c) Zn in alcohol d) Zn in dry ether

16. Polyethylene is a resin obtained by polymerization of:

- a) Butadiene b) Ethylene c) Isoprene d) Styrene

17. Cyclohexane (C_6H_{12}) a hydrocarbon, floats on water because:

- a) It is immiscible with water
b) Its density is less than that of water
c) It is a non-polar substance
d) It is immiscible and lighter than water

18. Which of the following are produced from coaltar?

- a) Synthetic dyes b) Drugs c) Perfumes d) All of these

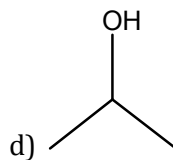
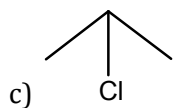
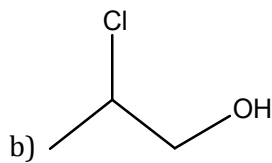
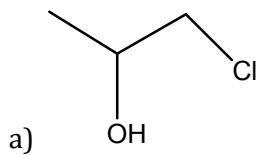
19. The reduction of an alkyne to alkene using lithium metal in liquid ammonia as solvent results into

- a) *cis* addition of hydrogen atoms
b) *trans* addition of hydrogen atoms

c) Both *cis* and *trans* additions of hydrogen atoms. The relative amounts of the two depends on temperature

d) Both *cis* and *trans* additions of hydrogen atoms. The relative amounts depend on the nature of alkyne

20. Propene on reaction with hypochlorous acid to give



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