

## Chemistry Worksheet Class 11 on Chapter 13

### Hydrocarbons - Set 4

**Q-1:** Which of the following reactions is used to determine the double bond position in unsaturated compounds?

- a) Pyrolysis
- b) Aromatisation
- c) Hydrogenation
- d) Ozonolysis

**Q-2:** Conformation arises due to rotation around

- a) C-C double bond
- b) C-C single bond
- c) C-C triple bond
- d) All of the above

**Q-3:** Which of the following happens in the Kharasch effect?

- a) Free radical substitution
- b) Electrophilic addition
- c) Free radical addition
- d) Nucleophilic addition

**Q-4:**  $C_6H_6 + X + AlCl_3 \rightarrow$  Toluene, X is

- a) Acetic acid
- b) Chloromethane
- c) Acetone
- d) Acetic anhydride

**Q-5:** Describe the procedure for making dihydrogen gas for industrial applications.

**Q-6:** Why are electrophilic reagents able to attack alkenes so quickly?

**Q-7:** How are alkynes distinguished from alkenes and alkanes? Describe using the reactions as support.

**Q-8:** Why are naphthalene balls used in toilets and for clothing preservation?

**Q-9:** a) Write the general formula for alkynes.

b) Write down the IUPAC name and structures of all alkynes having the molecular formula  $C_5H_8$ .

**Q-10:** What is the end result of passing propyne through a hot iron tube at 873 K?

**Q-11:** Which of the following is aromatic in nature?



**Q-12:** Write the products of the following reaction.

- Hydrogenation of benzene at high temperatures and pressures in the presence of a Ni catalyst.
- Chlorination of benzene in the presence of ultraviolet light.
- Chlorination of benzene in the dark.

**Q-13:** Give any two methods for preparing ethyne.

**Q-14:** How do structural isomers and stereoisomers differ from each other?

**Q-15:** Why does cis isomer have a lower melting point than trans isomer?

**Q-16:** How can we discuss geometrical isomerism in the compounds where distinct atoms or groups of atoms are bound to the double-bonded carbon atoms?

**Q-17:** State the Saytzeff rule.

**Q-18:** What is Wurtz reaction? Give an example of the reaction.

**Q-19:** Define aromaticity using a few examples.

**Q-20:** a) Which polymer can be used as electrodes in batteries? And why?

b) What happens when acetylene is passed through dil.  $\text{H}_2\text{SO}_4$  in the presence of  $\text{HgSO}_4$ ?