

Board – CBSE

Class – 11th

Topic – Hydrocarbons

- How will you convert the following compounds to benzene?
(i) Acetylene (ii) Benzoic acid (iii) Cyclohexane (iv) Benzene diazonium chloride.
- How will you convert benzene into
(i) p – nitro bromo benzene (ii) m – nitrochloro benzene
(iii) p – Nitro toluene (iv) Acetophenone?
- How would you prepare benzene from lime?
- p-chloro nitro benzene has less dipole moment (2.4 D) than p-nitro toluene (4.4 D). Why?
- The dipole moment of trans 1, 2-dichloroethane is less than the cis – isomer. Explain.
- Explain Wurtz reaction with an example.
- Discuss the hybridization of carbon atoms in alkene C_3H_4 and show the π -orbital overlaps.
- Write IUPAC name of the products obtained by addition reactions of HBr to hex – 1 – ene.
(i) In the absence of peroxide, and (ii) In the presence of peroxide.
- Explain the term polymerization with two examples.
- Write structures of different isomers formed by C_6H_{10} . Also write IUPAC names of the all the isomers.
- Butanone is formed when an alkyne is passed through a dil solution of H_2SO_4 at 330 K in presence of mercuric sulphate. Write the possible structure of the alkyne.
- How will you prepare isobutene?
- Draw the Newman's projection formula of the staggered form of 1, 2-dichloro ethane.
- How would you convert cyclohexane to benzene?
- How is alkene produced by Kolbe's electrolytic method?
- How is alkene prepared from alcohol by acidic dehydration?
- How are trans alkenes formed by alkynes?
- How will you distinguish between butene – 1 and butene – 2?