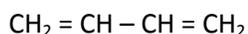


Class: 11
Subject: Chemistry
Topic: Hydrocarbons
No. of Questions: 25

- Q1. Give any two methods for the preparation of methane.
- Q2. What are the terms ortho, meta and para stands for?
- Q3. Compare the rate of nitration under similar conditions of Ph-O-Me and Ph-S-Me. Explain.
- Q4. Write equations for the following chemical conditions:
a) When alkynes burns in air or oxygen.
b) When ethyne reacts with hydrogen in the presence of catalyst (Pt or Ni) at 250°C.
c) When ethyne reacts with chlorine.
d) When ethyne reacts with water in the presence of suitable reagent.
- Q5. Why is Wurtz reaction not preferred for the preparation of alkanes containing odd number of carbon atoms? Illustrate your answer by taking one example.
- Q6. Why is Friedel-Crafts acylation but not alkylation of naphthalene practical?
- Q7. How will you prepare ethane from ethyl iodide? Give the reaction.
- Q8. Is it possible to isolate pure staggered ethane or pure eclipsed ethane at room temperature?
- Q9. Give the IUPAC name of the following compound:



- Q10. What is cracking process? Explain catalytic cracking
- Q11. Which salt on treatment with soda lime gives ethane?
- Q12. Define the following:
(a) Structural isomers
(b) Chain isomers
- Q13. Write the IUPAC names of the products obtained by the ozonolysis of the following compounds:
(i) Pent-2-ene
(ii) 1-Phenylbut-1-ene
- Q14. The hydrocarbon 'A' adds on mole of hydrogen in the presence of platinum to form n-hexane. When 'A' is oxidized vigorously with KMnO_4 , a single carboxylic acid containing three carbon atoms is isolated. Give the structure of 'A' and explain.
- Q15. Complete the following reactions:
- Q16. Give three methods for preparation of alkenes.
- Q17. Account for the greater reactivity and the o, p-orientation in electrophilic substitution of biphenyl despite the electron-attracting inductive effect of the phenyl group.
- Q18. What effect does the branching of an alkane has on its melting point?
- Q19. What types of isomerism is shown by alkenes?
- Q20. What are uses of alkynes?

- Q21. What is Huckel's rule?
- Q22. What are polynuclear aromatic hydrocarbons?
- Q23. Name the two extreme type of conformation of ethane.
- Q24. Trans form of alkene is:
- a) More polar than cis form
 - b) Less polar than cis form
 - c) Less dipole moment
 - d) Both (2) and (3)
- Q25. Aromatic compound containing Benzene Ring are known as:
- a) Non-Benzenoids
 - b) Arenes
 - c) Alkynes
 - d) Benzenoids