



QP CODE: 23126980



23126980

Reg No :

Name :

**B.Sc DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE
EXAMINATIONS, OCTOBER 2023
Third Semester**

Core Course - CH3CRT03 - ORGANIC CHEMISTRY-I

Common to B.Sc Chemistry Model I, B.Sc Chemistry Model II Industrial Chemistry & B.Sc
Chemistry Model III Petrochemicals

2017 Admission Onwards

49C6BC8A

Time: 3 Hours

Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. What are benzenoid compounds ? Give an example.
2. Define formal charge.
3. Define the term optical isomerism.
4. Why trans 2-butene is stable than cis 2 -butene?
5. Draw the conformations of cyclohexane molecule.
6. Write the decreasing order of stability of various conformations of cyclohexane.
7. Convert 1,2 diphenyl ethanol to stilbene.
8. How alcohols are converted to alkyl halides?
9. What happens when methyl cyanide is treated with excess methyl magnesium bromide?
10. Toluene is nitrated more readily than benzene?
11. Give the commercial method of synthesis of chlorobenzene.
12. How will you convert 1,3-butadiene to cyclohexene?

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*





13. What is dipole moment?
14. What are the different types of addition reactions?
15. Draw the structure of
1) (R)- Glyceraldehyde 2) (S)-Lactic Acid 3) (R)-2 chloro butane 4) (R) Tartaric acid
16. Calculate the angle strain in the following molecules
a) cyclobutane b) cyclopropane c) cyclohexane d) cyclopentane
17. Differentiate Wurtzs reaction and Wurtz Fittig reaction.
18. Explain: Acetylene is more acidic than ethane.
19. What are anti-aromatic and non aromatic compounds ? Give one example for each.
20. Sulphonation of Naphthalene gives Naphthalene-1-sulphonic acid at 80 °C and naphthalene-2-sulphonic acid at 160 ° Why?
21. How will you differentiate between suprafacial and antarafacial addition?

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **10** marks.

22. Give any two methods of preparation of carbenes. Discuss the different types of carbenes and their structure.
23. Explain the stereochemistry of tartaric acid.
24. Discuss the effect of the following on SN_2 reaction
a) Nature of nucleophilic reagent, b) polarity of the solvent, c) concentration of nucleophilic reagent
25. Give the molecular orbital picture of anthracene.

(2×10=20)

