



23123509

QP CODE: 23123509

Reg No : .....

Name : .....

**B.Sc DEGREE (CBCS) REGULAR EXAMINATIONS, MAY 2023****Fourth Semester****CORE COURSE- CH4CRT04 - ORGANIC CHEMISTRY-II**

(Common for B.Sc Chemistry Model I ,B.Sc Chemistry Model II Industrial Chemistry, B.Sc Chemistry Model III Petrochemicals)

2021 Admission Only

86212F96

Time: 3 Hours

Max. Marks : 60

**Part A***Answer any **ten** questions.**Each question carries **1** mark.*

1. What is the reactant used with Grignard reagent to produce a tertiary alcohol ?
2. What is the action of alkaline  $\text{KMnO}_4$  on allyl alcohol?
3. Give the IUPAC name of the white precipitate obtained by the reaction of Phenol and Bromine water
4. What is the product obtained when ethers react with Con.  $\text{H}_2\text{SO}_4$  ?
5. The  $\alpha$ - hydrogens of carbonyl are acidic. Why?
6. Suggest a method for the synthesis of ethanol from formaldehyde.
7. How will you prepare crotonaldehyde from acetaldehyde?
8. What is iodoform reaction?
9. What happens when ethyl magnesium bromide is subjected to carbonation?
10. Which is more acidic? Acetic acid or formic acid. Why?
11. How will you synthesise fumaric acid from malonic acid?
12. What is Hinsberg reagent?

(10×1=10)

**Part B***Answer any **six** questions.**Each question carries **5** marks.*

13. How will you convert
- Propanol to Ethanol.
  - Ethanol to propanol
  - Ethanol to Ethyl ethanoate
14. What are the products obtained when Glycol react with Lead tetra acetate and Periodic acid?
15. Explain briefly the Ziesel method for the estimation of alkoxy group.
16. How is benzophenone obtained from benzene? Outline its reaction with a) hydroxyl amine b) Zn-Hg and HCl.
17. Discuss briefly on Cannizzaro reaction with mechanism and examples.
18. Write a note on Mannich reactions.
19. Explain briefly the reaction of acid chloride with
- Lithium Aluminium Hydride
  - Grignard reagent
20. Explain the reaction of oxalic acid with  $\text{PCl}_5$ .
21. Explain how citric acid is formed by reformatsky reaction?

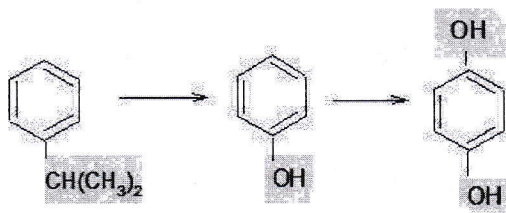
(6×5=30)

### Part C

Answer any **two** questions.

Each question carries **10** marks.

22. How will you carry out the following conversion? Explain the different steps involved in each conversion



23. Explain the mechanism of reduction of
- Carbonyl compounds by  $\text{LiAlH}_4$
  - Wolf-Kishner reduction
  - Carbonyl compounds by Aluminium isopropoxide
24. Convert the following
- Acetic acid to propionic acid
  - Propionic acid to acetic acid
  - Benzaldehyde to cinnamic acid
  - Acetone to 3-methyl, 2- butenoic acid



25. Suggest a method of synthesis for the following compounds from toluene  
a)Chloramine T b) saccharin c)o- and p- toluene sulphonyl chloride

(2×10=20)