



21103162

QP CODE: 21103162

Reg No : .....

Name : .....

**B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS,  
DECEMBER 2021  
Second Semester**

**Complementary Course - CH2CMT02 - CHEMISTRY - BASIC ORGANIC CHEMISTRY**

(Common for B.Sc Botany Model I, B.Sc Botany Model II Environmental Monitoring And Management, B.Sc Botany Model II Food Microbiology, B.Sc Botany Model II Horticulture and Nursery Management, B.Sc Family & Community Science Model I, B.Sc Food Science & Quality Control Model III, B.Sc Geology Model I, B.Sc Physics Model I, B.Sc Zoology Model I, B.Sc Zoology Model II Aquaculture, B.Sc Zoology Model II Food Microbiology, B.Sc Zoology Model II Medical Microbiology, B.Sc Geology and Water Management Model III, B.Sc Botany Model II Plant Biotechnology, B.Sc Food Technology & Quality Assurance)

2017 ADMISSION ONWARDS

AFDE30C4

Time: 3 Hours

Max. Marks : 60

**Part A**

*Answer any **ten** questions.*

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

1. What is homologous series?
2. What is Tautomerism?
3. Using the curved arrow notation, show the formation of reactive intermediates when  $\text{CH}_3\text{CN}$  undergoes heterolytic cleavage.
4. Define polar covalent bond.
5. Aniline or ammonia which is more basic? Give reason for your answer
6. Why mesitoic acid doesnot undergoes esterification reaction under ordinary conditions?
7. What are enantiomers?
8. What is conformers and conformational isomers?
9. Draw the chair and boat form of cyclohexane.
10. Mention any two uses of HDPE.





11. How chloroprene is prepared?
12. What is meant by biopol?

(10×1=10)

### Part B

Answer any **six** questions.

Each question carries **5** marks.

13. Give the structural formula of following compounds
  - (i) 3-butynoic acid
  - (ii) 2,4-dimethyl-3-hexanone
  - (iii) 2-hydroxybenzaldehyde
  - (iv) 2-propanamine
  - (v) 1-iodo-3-methylbutane
14. Write a note on generation, structure and stability of carbocation.
15. Differentiate between  $S_N1$  and  $S_N2$  mechanism.
16. Predict the product/ products (indicate the major) for the following reactions:
  - (i) 2- butene + HBr  $\rightarrow$
  - (ii) 1- butene + HBr  $\rightarrow$
  - (iii) 1- propene + HBr +  $(C_6H_5COO)_2O \rightarrow$
  - (iv) 1- propene + HCl +  $(C_6H_5COO)_2O \rightarrow$
  - (v) 2-butene +  $Br_2 \rightarrow$
17. (i) How will you convert 2- bromo-2-methylpropane to:
  - (a) 2-methyl prop-1-ene
  - (b) 2-methyl propan-2-ol(ii) Briefly explain the mechanism of both the above conversions.
18. Write a note on structural isomerism.
19. Suggest a method to distinguish cis- trans isomers.
20. Explain racemic modification with suitable examples.
21. Name the four important marketable forms of natural rubber.

(6×5=30)

### Part C

Answer any **two** questions.

Each question carries **10** marks.





22. Write a note on different types of organic reactions.
23. Give the mechanism of Friedel Crafts alkylation reaction and halogenation of benzene.
24. Write an essay on cis-trans isomerism with suitable examples.
25. What are polymers ? How are they Classified?

(2×10=20)

