

QP CODE: 25024588



Reg No :

Name :

M.Sc DEGREE (CSS) EXAMINATION, APRIL 2025
Fourth Semester
M Sc CHEMISTRY
ELECTIVE - CH800402 - ADVANCED ORGANIC CHEMISTRY
2019 ADMISSION ONWARDS
72454456

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

Answer any **eight** questions.

Weight **1** each.

1. Explain cation binding hosts with suitable example.
2. Write the role of Rhodopsin as supramolecular photonic device.
3. Write a note on green solvents.
4. How is mevalonic acid produced?
5. What are 'chiral auxiliaries? Give one example.
6. How will you synthesise camphor from alpha -pinene?
7. Outline the method of synthesis of cyanin.
8. What are the main class of drug receptors?
9. Outline the synthesis of hyperbranched polymers.
10. How will you distinguish between comprehensive and classical references?


(8×1=8 weightage)

Part B (Short Essay/Problems)

Answer any **six** questions.

Weight **2** each.

11. Explain the term molecular recognition.
12. Briefly explain montmorillonite K-10 catalysed Pinacol - Pinacolone rearrangement.
13. How is glucose biosynthesis?
14. Write a note on asymmetric Aldol condensation.

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15. Write a note on the tertiary and quaternary structure of proteins.
 16. Give an example of antianginal drug with its mode of action?
 17. Explain how the polymers can be used for medical applications.
 18. Explain the different types of publications in scientific journals.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

*Weight **5** each.*

19. Write a note on anion binding host in supramolecular chemistry.
20. Explain the twelve principles of green chemistry.
21. How does DNA direct protein synthesis in a cell?
22. Discuss the chemistry and significance of dendrimers.

(2×5=10 weightage)