

G 18000973



Reg. No
Name

M.Sc. DEGREE (C.S.S.) EXAMINATION, MAY 2018

Fourth Semester

Faculty of Science

Branch III: Chemistry-Pure Chemistry

CH 4E 02—ADVANCED ORGANIC CHEMISTRY

(2012 Admission onwards)

Time: Three Hours

Maximum Weight: 30

Section A

Answer any **ten** questions.

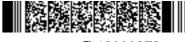
Each question carries a weight of 1.

- 1. What is the mechanism of thiamin catalysed synthesis of benzoin?
- 2. Write short notes on green redox reaction.
- 3. What are calixarenes?
- 4. Explain host guest complex formation with an example.
- 5. Why the concept of reducing chemical waste at source if consider green where as the waste treatment at the end of the chemical reaction? Explain with an example.
- 6. Give two applications of hyper branched polymers.
- 7. Give two applications of Nano materials in Medicine.
- 8. What are Crown Ethers?
- 9. Write a note on protein biosynthesis.
- 10. How alkaloids are classified.
- 11. Give the structure of β carotene.
- 12. What do you mean by chiral pool?
- 13. Explain the classical and comprehensive reference.

 $(10 \times 1 = 10)$

Turn over





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Section B

Answer any **five** questions. Each question carries a weight of 2.

- 14. What are the principles of green chemistry?
- 15. How do you classify nano materials using TEM.
- 16. Explain hyper branched polymers.
- 17. Explain the synthesis of atrophy.
- 18. Write short note on (1) Chloramphenicol and (2) Cephalosporosis.
- 19. Explain the briefly the application of the dendrimes.
- 20. Give the mechanism of green alternative to organic synthesis of pinacol-pinacolene and benzidine rearrangement.
- 21. What do you mean by chiral auxilaries?

 $(5 \times 2 = 10)$

Section C

Answer any **two** questions.

Each question carries a weight of 5.

- 22. Explain the general principles of microwave and ultrasound assisted organic synthesis with suitable example.
- 23. Explain:
 - (a) Assymetric diels alder reaction.
 - (b) Assymetric epoxidation.
- 24. Write notes on:
 - (i) Molecular recognition.
 - (ii) Molecular receptor.
 - (iii) Organic superconductors.
 - (iv) Supramolecular liquid crystals.
- 25. Indicate the manufacture of the cephalosporins and chloranophenol.

 $(2 \times 5 = 10)$

