M Sc DEGREE (CSS) EXAMINATION, JULY 2021

Fourth Semester

Faculty of Science

M Sc CHEMISTRY

Elective - CH800402 - ADVANCED ORGANIC CHEMISTRY

2019 Admission Onwards

656E2237

Time: 3 Hours   Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. With suitable example explain ion-ion and ion-dipole interactions in supramolecular chemistry.

2. Comment on nitrogen based cyclic hosts? Give an example.

3. Write the advantages of supercitical CO_2.

4. How will you biosynthesise glucose?

5. What is Evan's assymetric aldol condensation?

6. Discuss carboxy peptidase method for structure determination of peptides.

7. What is the concept of central dogma?

8. Discuss mode of action of chloramphenicol.

9. Name any two polymers for medical applications.

10. What are the problems faced by researchers in india ?

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

*Weight **2** each.*

11. Explain the role of Rhodopsin as a supramolecular photonic device.

12. Explain Thiamine catalyzed benzoin condensation reaction.

13. Explain the steps involved in Johnson's Biomimetic Synthesis of the hormone Progesterone.

14. What do you mean by chiral auxiliaries? Explain with examples.

15. Briefly outline DNA sequencing?

16. Write on the phase II drug metabolism.

17. Distinguish between convergent and divergent approaches of dendrimer synthesis.

18. Explain Impact factor ?

<div align="right">(6×2=12 weightage)</div>

Part C (Essay Type Questions)

*Answer any **two** questions.*

*Weight **5** each.*

19. Write a note on anion binding host in supramolecular chemistry.

20. Discuss the biosynthesis of monoterpenoids and sesquiterpenoids.

21. Explain briefly on the synthesis of the following alkaloids (a) quinine (b) atropine and (c) papaverine.

22. Write note on the Structure, Uses, Side effects and Mode of action of a) Warfarin b) Organic nitrates c) Captoril d) Chloroquin.

<div align="right">(2×5=10 weightage)</div>