



QP CODE: 26019385



26019385

Reg No :

Name :

M.Sc DEGREE (CSS) EXAMINATION, MARCH 2026

Fourth Semester

M Sc POLYMER CHEMISTRY

ELECTIVE - CH880402 - ADVANCES IN POLYMER SCIENCE AND TECHNOLOGY

2019 Admission Onwards

37633AB8

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. What is the role of critical concentration in liquid crystalline polymers?
2. Explain the term "generation" on the basis of dendrimer.
3. What are epoxy adhesives? Give examples.
4. What are the enhanced properties of a Nano-composite?
5. Explain the features of Distributive mixing.
6. What are interfacial agents? Write appropriate examples.
7. What is a glass fibre? Give suitable examples.
8. What do you mean by preservation of latex?
9. What is the use internal mixers in rubber manufacture?
10. List any 5 important chemistry journals.

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. What is the mechanism in a normal LED? Describe the role of organic material to improve the efficiency of LED.
12. Write a note on the theory of powder coating method.
13. Differentiate between RIM and RRIM in the fabrications of thermoset composites.





14. Briefly explain the properties of different types of polymer blends.
15. Explain the principle and process involved in the die casting technique.
16. What are the features of semi-synthetic fibres from cellulose?
17. Distinguish between natural latex and synthetic lattices.
18. Explain a) Research report b) Thesis

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Describe in detail about interpenetrating network polymers.
20. Discuss in detail about the thermodynamic classification and methods of preparation of polymer blends.
21. Give a detailed explanation of different types of ingredients used for rubber compounding process.
22. Discuss in detail about the sequence of operations involved in latex dipping process.

(2×5=10 weightage)

