QP CODE: 26022890

26022890

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS)SPECIAL RE APPEARANCE EXAMINATIONS, MAY 2026

(EXCLUSIVELY FOR THE FAILED CANDIDATES OF 2023 ADMISSION)

Sixth Semester

CHOICE BASED CORE COURSE - CH6CBT01 - POLYMER CHEMISTRY

Common for B.Sc Chemistry Model I, B.Sc Chemistry Model II Industrial Chemistry & B.Sc Chemistry Model III Petrochemicals

2023 Admission Only

FE170750

Time: 3 Hours

Max. Marks : 80

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Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. What are organic polymers? Give two examples.
2. What is Ziegler Natta Catalyst?
3. Give any four advantages of Group transfer polymerisation.
4. What are amorphous polymers?
5. How NMR is used to determine crystalline melting point?
6. What is weight average molecular weight?
7. What happens when polyvinyl alcohol reacts with formaldehyde?
8. What is meant by Spinning of polymers?
9. What is LDPE ? How it is obtained?
10. What are poly amides? What are the different types of polyamides?
11. What is Dacron? How is it prepared?
12. Give any two applications of conducting polymers.

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Write any five differences between addition polymerisation and condensation polymerisation.
14. Explain morphology of polymers.
15. Explain the importance of glass transition temperature.
16. Explain substitution reactions of polymers.
17. What is meant by photodegradation of polymers?
18. Give any two vinyl polymers, its method of preparation and uses.
19. What is an epoxy resin? Give its method of preparation.
20. Briefly describe Flame retardant polymers.
21. What are conducting polymers? Explain with suitable examples.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. Explain the mechanisms of any three types of Chain polymerisations.
23. Explain the following techniques of polymerisation:
    (a) Bulk polymerisation
    (b) Suspension polymerisation
    (c) Emulsion polymerisation
24. Explain briefly the following polymer processing techniques:
    (a) Injection moulding
    (b) Compression moulding
    (c) Extrusion moulding
25. Briefly explain the following with examples
    a) Fluorocarbon Polymers
    b) Polymeric Drugs
    c) PDMS

(2×15=30)