

C 1125

(Pages : 2)

Name.....

Reg. No.....

SIXTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION, MARCH 2021

Polymer Chemistry

PC 6B 01—POLYMER CHEMISTRY-I

Time : Three Hours

Maximum : 80 Marks

Section A

Answer all questions.

Each question carries 1 mark.

1. Give an example for a homo polymer.
2. What are fibers ?
3. Give the structure of PVC.
4. Write any two uses of neoprene.
5. What is PMMA ?
6. Give the structure of glyptal.
7. Give any two examples of synthetic polymers.
8. What is terylene ?
9. Give an example of thermosetting polymer.
10. Give any two uses of polypropylene.

(10 × 1 = 10 marks)

Section B

Answer at least five questions.

Each question carries 4 marks.

All questions can be attended.

Overall Ceiling 20.

11. Differentiate isotactic and syndiotactic polymers.
12. What is addition polymerisation ?
13. Define viscosity average molecular mass.
14. Explain any two factors affecting Tg.
15. What is butyl rubber ? What are its uses ?

Turn over

17	KKASSPO018	KEEKIHANA A A
18	KKASSPO019	NIMISHA K B
19	KKASSPO020	SEETHAL K S

16. Explain step growth polymerization.
17. What is PAN ? Write its uses.
18. What is the significance of poly dispersity index ?
19. Write down the synthesis and use of poly urethane.
20. What is teflon ? What are its uses ?
21. Give the synthesis and uses of PVP.
22. Distinguish natural and synthetic polymers.

(5 × 4 = 20 marks)

Section C

*Answer at least four questions.
Each question carries 7 marks.
All questions can be attended.
Overall Ceiling 28.*

23. Explain the preparation, properties and uses of polystyrene and polythene.
24. Explain the number average and weight average molecular weights.
25. Write a short note on formaldehyde resins.
26. Briefly explain photochemical and thermal degradation process.
27. Write a short note on polymers in medical field.
28. Briefly explain bulk polymerization and solution polymerization.
29. Write a note on high temperature and fire resistant polymers.
30. Give the preparation and uses of any two synthetic rubbers.

(4 × 7 = 28 marks)

Section D

*Answer any two questions.
Each question carries 11 marks.*

31. Explain the classification of polymers based on intermolecular forces, synthesis and structure.
32. Briefly explain different methods of polymer processing.
33. Explain different types of polymerizations with mechanisms.
34. Write down the preparation, properties and uses of any three commercial polymers.

(2 × 11 = 22 marks)