

C 20566

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Name.....

Reg. No.....

SIXTH SEMESTER U.G. DEGREE EXAMINATION, MARCH 2022

(CBCSS—UG)

Polymer Chemistry

PCH 6B 01—POLYMER CHEMISTRY—I

(2019 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A (Short Answers)*Answer at least **eight** questions.**Each question carries 3 marks.**All questions can be attended.**Overall Ceiling 24.*

1. What is condensation polymerisation ? Give two examples.
2. What is degree of polymerisation ?
3. Give preparation and uses of PAN.
4. Differentiate isotactic and syndiotactic polymers.
5. What is the significance of poly dispersity index ?
6. Distinguish natural and synthetic polymers.
7. What is SBR ? Write its uses.
8. Write down the steps involved in free radical polymerisation.
9. Write down the synthesis and one use of poly urethane.
10. What is step growth polymerization ?
11. Give the preparation of urea formaldehyde resins.
12. Define viscosity average molecular mass.

(8 × 3 = 24 marks)

Turn over

Section B (Paragraph)

*Answer at least **five** questions.*

Each question carries 5 marks.

All questions can be attended.

Overall Ceiling 25.

13. Explain classification of polymers based on intermolecular forces
14. Write a short note on LDPE and HDPE.
15. Write a short note on conducting polymers.
16. Explain number average and weight average molecular weights.
17. Explain briefly thermal degradation process.
18. Give the preparation and uses of any *two* synthetic rubbers.
19. Explain briefly Zeigler- Natta polymerization.

(5 × 5 = 25 marks)

Section C (Essay)

*Answer any **one** question.*

The question carries 11 marks.

20. Explain briefly : (i) Bulk polymerization ; (ii) Solution polymerization ; (iii) Suspension polymerization ; and (iv) Emulsion polymerization
21. Explain cationic and anionic polymerizations with mechanisms.

(1 × 11 = 11 marks)