

C 40527

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Name.....

Reg. No.....

**SIXTH SEMESTER U.G. DEGREE EXAMINATION, MARCH 2023**

(CBCSS—UG)

Polymer Chemistry

PCH 6B 01—POLYMER CHEMISTRY—I

(2019 Admission onwards)

Time : Two Hours

Maximum : 60 Marks

**Section A (Short Answers)***Answer questions up to 20 marks.**Each question carries 2 marks.*

1. Differentiate addition and condensation polymerization.
2. What is Glyptal ? Write any *two* uses.
3. What is PAN ? Write its synthesis.
4. What are syndiotactic polymers ?
5. Explain poly dispersity index.
6. Distinguish elastomers and fibers.
7. What is BuNa-S ? Write its uses.
8. What are the uses of Polyaniline ?
9. Write down the synthesis and use of any *one* fluoro polymer.
10. Define viscosity average molecular mass
11. Give the preparation of Melmac.
12. Explain glass transition temperature.

(Ceiling of marks : 20)

**Turn over**

**Section B (Paragraph)**

*Answer questions up to 30 marks.*

*Each question carries 5 marks.*

13. Give the synthesis and uses of Nylon-6 and Nylon-6,6.
14. Explain the synthesis of any *two* formaldehyde resins.
15. Distinguish thermoplastics and thermosetting plastics.
16. Write short note on average molecular weights.
17. Explain Bulk polymerization.
18. Give the preparation and uses of any *two* synthetic rubbers.
19. Write short note on polyethylenes.

(Ceiling of marks : 30)

**Section C (Essay)**

*Answer any **one** questions.*

*The question carries 10 marks.*

20. Explain briefly :
  - (i) Zeigler- Natta polymerization ; and
  - (ii) Solution Polymerisation.
21. Explain different types of polymer degradation.

(1 × 10 = 10 marks)