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C 40519 (Pages : 2) Name.....

Reg. No.....

SIXTH SEMESTER U.G. DEGREE EXAMINATION, MARCH 2023

(CBCSS–UG)

Chemistry

CHE 6B 13 (E2)—POLYMER CHEMISTRY

(2019 Admission onwards)

Time : Two Hours Maximum : 60 Marks

Section A (Short Answers)

Answer **all** *questions.*

Each question carries 2 *marks.*

1. What is an elastomer ?
2. Differentiate between addition and condensation polymerization.
3. Briefly explain coordination polymerization
4. Briefly explain what is ring opening polymerization?
5. What are initiators ? Give two examples.
6. Give some factors that influence glass transition temperature of a polymeric material.
7. Briefly explain suspension polymerization.
8. What is PMMA ? State its properties
9. What are polycarbonates ? How they are produced ?
10. Briefly explain what do you mean by vulcanization of rubber.
11. Explain why aromatic polyesters are preferred over aliphatic polyesters.
12. Explain how LDPE is produced.

(Ceiling 20 marks)

Section B (Paragraph)

Answer **all** *questions.*

Each question carries 5 *marks.*

13. How can you measure molecular weight of a polymer by viscosity method ?
14. Write a note on oxidative degradation of polymers.

Turn over

15. Write a short note on molecular weight distribution in polymers.
16. Explain Thermoforming.
17. Explain injection moulding process.
18. Write short notes on Urea formaldehyde resin.
19. Write short note on pollution due to plastics and how it can be controlled.

(Ceiling

Section C

Answer any **one** *question.*
The question carries 10 *marks.*

20. Explain Zeigler Natta polymerization with mechanism
21. Write short notes on any three polymerization techniques.

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