35

477020

D 100528 (Pages : 2) Name.....

Reg. No.....

SIXTH SEMESTER U.G. (CBCSS—UG) DEGREE EXAMINATION MARCH 2024

Chemistry

CHE 6B 13 (E2)—POLYMER CHEMISTRY

(2019 Admission onwards)

ime : Two Hours Maximum : 60 Marks

Section A (Short Answers)

Answer questions up to 20 marks.

Each question carries 2 marks.

1. What are copolymers ? Give one example.
2. What is group transfer polymerisation ?
3. What do you understand by sedimentation average molecular weight ?
4. What is degree of polymerization ? How it is related to molecular weight of the polymer ?
5. What is unzipping of polymers ?
6. What do you understand by interfacial poly condensation polymerisation ?
7. Comment on the classification of polymers based on their structure.
8. Which catalyst is used in Zeigler-Natta polymerisation ? Write any *two* advantages of this polymerisation process.
9. Anionic polymerisation is known as living polymerisation. Why ?
10. Write the structural formula of PMMA and PAN.
11. How NR and Silicone rubber differ in vulcanisation process ?
12. What is meant by conducting polymer ? Give an example.

(Ceiling of marks : 20)

Turn over

Section B (Paragraph)

Answer questions up to 30 marks.

Each question carries 5 marks.

13. Write short notes on blow moulding and thermoforming.

14. Write a short note on emulsion polymerization.

15. What is the significance of average molecular mass for polymers ? Describe the conc average and weight average molecular mass.

16. What is glass transition temperature (T_g) ? Write any *two* factors affecting (T_g).

17. Explain : (a) Solution polymerization ; and (b) Suspension polymerization.

18. Comment on the preparation, structure, properties and applications of HDPE and L

19. What are recycling codes of plastics ? Explain with suitable examples. What is the s recycling ?

(Ceiling

Section C (Essay)

Answer any **one** *questions.*

The question carries 10 marks.

20. Explain Free radical polymerization with mechanism using suitable example.

21. Write notes on :

    (a) Calandering.

    (b) Compression moulding.

    (c) Injection moulding.

    (d) Poly urethanes.

    (e) Polycarbonates.

(1 x