

C 20567

(Pages : 2)

Name.....

Reg. No.....

SIXTH SEMESTER U.G. DEGREE EXAMINATION, MARCH 2022

(CBCSS—UG)

Polymer Chemistry

PCH 6B 02 (E1)—POLYMER PROCESSING AND TECHNOLOGY

(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 epoxidized natural rubber ? How is it prepared ?
2. What is crepe rubber ?
3. Write the structure of cellulose acetate ? How is it prepared ?
4. How is latex concentrated by centrifugation ?
5. What is Compounding ?
6. What are Extenders ? Give an example.
7. What are foaming agents ?
8. Mention any two functions of plasticizers.
9. What is the advantage of vulcanization ?
10. What is meant by curing ?
11. Explain melt flow index of polymers.
12. Define tensile strength of a polymer.

(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 the preparation of ribbed smoked sheets.
14. Describe the different methods of concentrating latex.
15. Explain thermoforming.
16. What is Casting ? Explain the method of die casting.
17. Explain the process of mixing in rubber processing.
18. What is meant by mastication ? Explain.
19. Describe stress relaxation of polymers.

(5 × 5 = 25 marks)

Section C (Essays)

*Answer any **one** question.*

The question carries 11 marks.

20. (i) Explain the composition and structure of natural rubber.
(ii) Write notes on the modified forms of natural rubber.
21. What is Moulding ? Describe the different types of moulding methods in polymer processing.

(1 × 11 = 11 marks)