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(Pages : 2)

Name.....

Reg. No.....

SIXTH SEMESTER U.G. DEGREE EXAMINATION, MARCH 2024

(CBCSS—UG)

Polymer Chemistry

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

(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. Write the structure and IUPAC name of the monomer of natural rubber.
2. What are RSS and TSR in rubber ?
3. What is the coagulation of rubber ?
4. Give examples of reinforcing and fibrous fillers.
5. Name the techniques used for making hollow articles.
6. What is the heat distortion temperature ?
7. What are torpedo and parrison in plastic processing ?
8. What is skim rubber ?
9. What are Extenders ?
10. Give examples of organic and inorganic colourants.
11. What is the Modulus ?
12. Name two national standard testing organisations.

(Ceiling of marks : 20)

Turn over

Section B (Paragraph)

Answer questions up to 30 marks.

Each question carries 5 marks.

13. Briefly discuss cellulose based polymers.
14. Write notes on plasticisers and antioxidants.
15. Explain extrusion moulding with a neat diagram.
16. How will you distinguish scorch cure time and optimum cure time.
17. Briefly discuss ASTM, BIS and ISO
18. What do you mean by compounding ? Write notes on any *two* compounding ingredients.
19. What are dipping, moulding and casting in latex processing ?

(Ceiling of marks : 30)

Section C (Essay)

*Answer any **one** question.*

The question carries 10 marks.

20. Discuss the latex collection, treatment, composition and structure of natural rubber.
21. Explain injection moulding, blow moulding and thermo foaming techniques.

(1 × 10 = 10 marks)