

D 40069

(Pages : 2)

Name.....

Reg. No.....

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH/APRIL 2018

(CUCBCSS—UG)

Polymer Chemistry

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

Time : Three Hours

Maximum : 80 Marks

Part A

*Answer all questions.
Each question carries 1 mark.*

1. Give the name of a plasticizer.
2. Who is the father of polymer science ?
3. Give an example for a synthetic rubber.
4. Give the name of a cellulose derivative.
5. What is curing ?
6. Name a cationic initiator ?
7. Give an example of a filler.
8. Name a polymer industry.
9. Give an example for thermoplastic.
10. What is used to store rubber latex ?

(10 × 1 = 10 marks)

Part B

*Answer any ten questions.
Each question carries 2 marks.*

11. What is meant by impact strength ?
12. What is nitrile rubber, give the uses ?
13. What is meant by melt flow index ?
14. What are blowing agents ?
15. What is meant by modulus ?
16. Write on vulcanisation.
17. What is mastication ?
18. Explain latex spreading.

Turn over

19. What is transfer moulding ?
20. What is milling ?
21. How will you prepare rayon ?
22. What is meant by lamination ?

(10 × 2 = 20 marks)

Part C

*Answer any five questions.
Each question carries 6 marks.*

23. Explain ASTM standard values for tensile strength of three polymers.
24. Discuss the use of plasticizers and colorants in rubber processing.
25. How will you test elastic properties ?
26. Write short notes on Scorch cure time and optimum cure time.
27. Distinguish between tensile strength, modulus and elongation at break.
28. Write short notes on viscometers and plastimeters.
29. How will you determine density of polymers ?
30. What are friction properties ?

(5 × 6 = 30 marks)

Part D

*Answer any two questions.
Each question carries 10 marks*

31. Discuss testing of polymers.
32. Explain compounding in rubber processing
33. Compare and contrast blow moulding, transfer moulding and rotational moulding.
34. Write short notes on processing aids.

(2 × 10 = 20 marks)