

C 60075

(Pages : 2)

Name.....

Reg. No.....

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH 2019

(CUCBCSS)

Polymer Chemistry

PC 6B 01—POLYMER CHEMISTRY—I

Time : Three Hours

Maximum : 80 Marks

Part A

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

1. Give the structure of PVC.
2. Name one plasticizer for PVC.
3. What is natural rubber.
4. Give structure of PS.
5. What is photodegradation ?
6. What is Kevlar ?
7. What is ABS resin, give its properties.
8. What are the monomers of an epoxy resin ?
9. What is gelation ?
10. What is nylon 6, 6 ?

(10 × 1 = 10 marks)

Part B

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

11. What is BUNA ?
12. Give the applications of carbon fibres.
13. How are silicones prepared ?
14. What is meant by compounding ?
15. What are fillers, give examples ?
16. Write note on inorganic polymers.

Turn over

17. What are high temperature polymers ?
18. What is fatigue ?
19. Distinguish between thermoplastics and thermosettings.
20. What are engineering plastics.
21. What is meant by recycling of plastics ?
22. Which polymer is used in making bullet proofs ? Why?

(10 × 2 = 20 marks)

Part C

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

23. Explain blow moulding with diagram.
24. Discuss effect of co-polymerization on mechanical properties
25. How will you distinguish between plastics, fibres and elastomers ?
26. Differentiate between tear, wear and abrasion resistance.
27. Write short note on emulsion polymerization.
28. Discuss cryoscopic method for molecular weight determination.
29. How will you use TGA to study polymer degradation.
30. Give the important uses of polymers in medical field.

(5 × 6 = 30 marks)

Part D

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

31. Explain GPC technique in polymer characterization.
32. Explain light scattering.
33. Give the preparation, properties and uses of Phenolic resins
34. Derive expression for kinetics of stepwise polymerisation.

(2 × 10 = 20 marks)