

S.NO: 22N1-UCH

Course Code: BQS3

A.D.M.COLLEGE FOR WOMEN, NAGAPATTINAM

(AUTONOMOUS)

B. Sc. (Chemistry) Degree Examination

V Semester – November – 2022

SBE III – POLYMER CHEMISTRY

Time: 3 hours

Maximum Marks: 75

Section –A

10X2=20

Answer ALL the Questions:

1. Define polymers.
2. How is Teflon prepared?
3. Write the general properties of polymers.
4. What is osmometry?
5. Define homopolymers. Give an example.
6. What is meant by degree of polymerization?
7. Give any two examples synthetic rubbers.
8. How is poly acrylates prepared?
9. Define resins.
10. What are the importances of epoxy resins?

Section -B

5X5=25

Answer **ALL** the Questions:

11. a) How are polymers classified based on molecular forces?

(or)

b) Discuss the chemical bonding in polymers.

12. a) Describe the stereochemistry of isotactic polymers with suitable examples.

(or)

b) Explain the any one methods of molecular weight of polymers.

13. a) Give an account on: graft copolymers.

(or)

b) Explain about the retardation of polymerization.

14. a) Discuss briefly the constitution of natural rubber.

(or)

b) Write any two preparations of acrylic polymers.

15. a) Differentiate between thermoplastic and thermosetting resins.

(or)

b) Write a note on: plasticizers.

Section -C

3 X 10 = 30

Answer any **THREE** Questions:

16. Explain the general methods of preparation of polymers.
17. Discuss the classifications of polymers based on the polymer structure.
18. Describe the kinetics of free radical polymerization with examples.
19. Write notes on: i) silicone rubbers ii) chlorinated rubber.
20. Explain the importances of thermoplastic polyvinyl and cellulose derivatives.