

St.Joseph's College of Engineering , Chennai – 119.
St.Joseph's Institute of Technology , Chennai – 119.

Department of Science (Chemistry)

**ASSIGNMENT
Questions**

UNIT – I POLYMER CHEMISTRY

PART – A

1. What is polymerization?
2. What are monomers and polymers?
3. What is degree of polymerization?
4. What is functionality of monomers?
5. What is tacticity? Mention its types.
6. Why thermosetting plastics cannot be remoulded?
7. What are living and dead polymers?
8. Differentiate homogeneous polymerization and heterogeneous polymerization.

PART – B

1. (a) Write the mechanism of free radical polymerization. 10
(b) Distinguish between thermoplastics and thermosetting plastics with examples 7
2. (a) Discuss briefly on the preparation, properties and uses of 22
i) Nylon 6, 6 ii) epoxy resin.
(b) Discuss Bulk polymerization technique. Mention any two polymers synthesized by this technique.
3. (a) Explain cationic polymerization mechanism 13
(b) Write a note on the following polymerization techniques. 19
i) Solution polymerization ii) Suspension polymerization
4. (a) Explain anionic polymerization mechanism 12
(b) Write a note on the following polymer properties: 16
i) Weight average molecular mass ii) Number average molecular mass
iii) Poly dispersity index iv) Glass transition temperature