M.Tech. / Sem. VI
CHEMICAL SYNTHESIS AND PROCESS TECHNOLOGIES
Paper - Module 26 : Polymer Chemistry and Processing

Time: 2 hours
Maximum Marks: 38

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt all questions.

Q1. Why (any four)
A. Tg value of polystyrene is less than Tg value of poly α-methylstyrene
B. Plasticizers make the polymer flexible and rubbery.
C. Light scattering is a highly useful technique in polymer science.
D. Natural rubber needs vulcanization.
F. Polymers like polyaCRYlonitrile, polyacrylates are often prepared by anionic polymerization.

Q2. Define the following terms with suitable example (any four)
A. Degree of polymerization
B. Tacticity
C. Copolymerization
D. Glass transition temperature
E. Reinforcement

Q3. A. What are the differences between thermoplastic and thermosetting resin.
B. Explain Compression Moulding

Or
A. What are the differences between addition polymerization and condensation polymerization?
B. Explain the mechanism of coordination polymerization.

Q4. Write short note any three
A. Emulsion polymerization
B. Vulcanization
C. Classify polymers on the basis of monomeric unit.
D. Dendrimer

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