



National Institute of Technology Srinagar (J&K)

ASSIGNMENT-I (SPRING-2020)

Course: B. Tech.

Subject: **Engineering Chemistry**

Semester: 2nd

Max. Marks: 20

Submission Date: up to 11th May, 2020

Branches: CHE, MEC, MME, CIV.

Subject Code: (CYL-100)

Session: Spring-2020

Issue Date: 05th May, 2020

Assignment Objective

CO1: To understand the properties and uses of polymeric materials.

Note: Attempt all the questions. Each question carries equal marks.

Q. No.	Questions	Marks	CO
Q. 1.	Taking the example of polyethene, write down the free radical mechanism of addition polymerization. Also, describe the possible ways of chain termination in free radical mechanism.	5	1
Q. 2.	i). Explain why free radical mechanism of addition polymerization gives rise to a low density polymer. ii). How a completely branch free polymer can be obtained. Give the mechanism of the reaction.	5	1
Q. 3.	Write short, but, explanatory notes on any two: i). Tacticity of polymers. ii). Plasticizers and their role in plastics. iii). Mechanism and rearrangement involved in preparation of caprolactum, the monomer of Nylon-6.	5	1
Q. 4.	i). Explain various various steps involved in synthesis of silicones with special reference to silicon rubbers. ii). Discuss the mechanism of conduction and applications of conducting polymers.	5	1