

Maulana Azad National Institute of Technology (MANIT) - Bhopal

Assignment Problems: Materials

Course Name: Engineering Chemistry

Subject Code: CHY 24107

Section G

B.Tech (First Year)- Semester-I 2024-25

Name of Faculty: Dr. Amit Dubey

- (1) What is the thermodynamically criteria for monomers to undergo polymerization process? Explain with proper justification.
- (2) Write the mechanism of coordination polymerization by choosing ANY MONOMER of your choice.
- (3) Can aromatic hydrocarbons (as monomer) undergo radical/addition mechanism? If yes, justify your answer by writing the mechanism for the same.
- (4) How do you define term atacticity and isotacticity in polymerization by taking any example of organic monomer?
- (5) Explain the physical significance of lime saturation factor and silica modulus in cement industry.
- (6) What is the major difference between free radical and cationic polymerization mechanism? Write the mechanism by highlighting the different points.
- (7) What can be the maximum percentage of sulphur present in the vulcanized rubber? Explain with all the chemical equations involved in the vulcanization of rubber.