

FACULTY OF ENGINEERING, UNIVERSITY OF LUCKNOW

Assignment 2

Course: B.Tech.

Session: 2019-20

Subject: Engineering Chemistry

Semester: II

Submission Deadline:

Name of Faculty: Dr. R. P. Singh

- Q1. What are conducting polymers? Explain their classification and applications.
- Q2. Write short notes on biodegradable polymer with suitable example.
- Q3. Define organo metallic compounds with suitable example. Write their application in polymerization reaction.
- Q4. Write synthesis and application of Grignard reagent.
- Q5. Write synthesis and application of Nylon-6, Nylon-66, Buna-S, Buna-N and Terylene. Also explain their properties.
- Q6. What are polymeric composites or composite materials? Explain their classification and applications.
- Q7. Give free radical and ionic polymerization reaction with suitable example.
- Q8. Write polymerization reaction mechanism involve transition metal and give their stereo chemical aspect also.
- Q9. What are aramides? Write synthesis and use of Kevlar and Nomex.
- Q10. Explain vulcanization. Write the synthesis of butyl rubber and neoprene.
- Q11. Write the difference between thermosetting and thermoplastic polymers.
- Q12. Write the difference between chain growth and step growth polymerization.
- Q13. Explain terms LDPE and HDPE.
- Q14. Write the synthesis and use of Teflon. Why Teflon have better properties?
- Q15. Define the functionality of monomer and degree of polymerization.
- Q16. Define co-polymerization and homo polymerization.

- Q17. How are synthesized alcohols (primary, secondary and tertiary) and acids by using Grignard reagents.
- Q18. Explain terms weight average and number average molecular weight.
- Q19. Write the synthesis and use of polyethylene, polyvinyl chloride and polystyrene.
- Q20. Write the synthesis and use of phenol-formaldehyde and urea-formaldehyde resins.
- Q21. Write the role of organometallic compound on hydrogenation.