Unit -4 – POLYMERS AND COMPOSITES

PART-A

1. Define a polymer and give an example.
2. Explain the difference between addition and condensation polymerization.
3. Describe the structure and properties of natural polymers.
4. Discuss the advantages of using synthetic polymers over natural polymers.
5. Define composites and provide an example.
6. Explain the role of reinforcement in composite materials.
7. Compare thermoplastics and thermosetting polymers.
8. Discuss the environmental impact of polymers and composites.
9. Describe the application of polymers in the automotive industry.
10. Explain the concept of polymer blending and its significance in material design.

PART B

1. Examine how PE, Teflon and Bakelite are prepared and highlight the properties associated with them to be used as engineering plastics.
2. Write the preparation and uses of Nylon 6,6, PVC
3. Relate the usage of Fiber reinforced plastics in engineering field
4. Explain the preparation of organic polymers and their importance in engineering applications.