DEPARTMENT OF APPLIED SCIENCES AND HUMANITIES

F.E. SEM-I Year – 2025-26

Sub: Applied Chemistry

Question Bank for IA-II

1. Numerical based on calculations of Weight average molecular mass & Number average molecular mass of polymers.
2. Define and give significance of following properties of polymers:
   a) Impact resistance
   b) Fatigue
   c) Tensile strength
   d) Dielectric strength
   e) Surface resistance
   f) Refractive index
   g) Photoelectric property
3. Explain crystallinity of polymers and effect of crystallinity on properties of polymer with increase in % crystallinity.
4. What is Glass transition temperature of polymers? Give its applications.
5. Explain conventional and green synthesis of Carbaryl and mention which principle of green chemistry it highlights.
6. Explain the trans-esterification method to obtain biodiesel. Also mention its advantages and disadvantages.
7. What is green fuel? Give the advantages and disadvantages of ethanol.
8. How ethanol can be manufactured from molasses? Explain with the help of flow chart and reactions.
9. Write a note on green solvents.
10. Define composites. Give its important characteristics.
11. Give the functions of matrix.
12. Explain sandwich panel composites with labeled diagram.
13. Explain Aramid fiber reinforced composites.
14. On what do the final quality of composites depends?
15. Give the classification of composites and mention its general applications.