

PROGRAMME NAME: M.Sc. (CHEMISTRY)

YEAR: I

SEMESTER-I

COURSE NAME: PHYSICAL CHEMISTRY-I

Note:-attempt all questions.

- 1 Explain the Carnot cycle? Describe the efficiency of heat engine?
- 2 Derivation of Maxwell relation?
- 3 Derive Duhem- Margules equation?
4. What is Ideal solutions and non ideal solution? Different between Ideal and non ideal solution.
5. Explain experimental verification of the distribution law?
6. What is postulates of Kinetic theory of gases? Explain Kinetic theory of viscosity and diffusion.
7. What is polymerization? Explain mechanism of polymerization?
8. Write the method of determining molecular weights of polymerization?
9. Explain partition of iodine between water and carbon tetrachloride.
10. What is phase rule? Write the Association of benzoic acid in Naphthalene.