Course Code: 1MSC3 Course: Physical Chemistry-I Credit: 3 Last Submission Date: April 30 (for January Session) October 31, (for July session)

> Max. Marks:-30 Min. Marks:-11

Note:-attempt all questions.

- Que1. Explain the Carnot cycle? Describe the efficiency of heat engine?
- Que2. Derivation of maxwell relation?
- Que3. Derive Duhm- Margules equation?
- Que4. What is Ideal solutions and nonideal solution? Different between Ideal and nonideal solution.
- Que5. Explain experimental verification of the distribution law?
- Que6. What is postulates of Kinetic theory of gass? Explain Kinetic theory of viscosity and diffusion.
- Que7. What is polymerization? Explain mechanism of polymerization?
- Que8. Write the method of determining molecular weights of polymerization?
- Que9. Explain partition of iodine between water and curbon tetrachloride.
- Que10. What is phase rule? Write the Association of benzoic acid in Naphthalene.