ANNAI VIOLET ARTS AND SCIENCE COLLEGE
DEPARTMENT OF CHEMISTRY

CONTINUOUS INTERNAL ASSESSMENT – I (ODD SEM.)
SUBJECT : PHYSICAL CHEMISTRY I

Class : III B.Sc Chemistry **Date :02 .09.2022-FN**

Max.Marks : 50 **Sub. Code:**

PART A (5 × 2 = 10 Marks)
Answer any FIVE questions

1. Mention Lechatelier principle.
2. Define Molar heat capacity
3. What is residual entropy?
4. Distinguish between ideal and non-ideal solutions.
5. State Nernst distribution law.
6. Give the mathematical statement of Raoult's law.
7. What do you mean by degrees of freedom?

PART B – (2 × 5 = 10 Marks)
Answer any TWO questions

8. Derive Gibbs-Duhem equation and mention its significance.
9. Discuss the CST of triethylamine–water system.
10. Describe steam distillation to separate mixtures.

PART C – (3 × 10 = 30 Marks)
Answer ALL questions

11. Discuss Nernst heat theorem.
12. Explain in detail phenol – water system and nicotine – water system.
13. Sketch and explain the phase diagram of water system.

Prepared by
Dr. L. Parimala
Asst.Prof. & Head (Chem)