

Raniganj Girls' College  
Chemistry Department

Physical Chemistry Questions for sem III(C-VII)

1. What is Clausius inequality?
2. Write Gibbs-Helmholtz equation and its significance.
3. What is inversion temperature?
4. Show that joule Thomson expt is isoenthalpic process.
5. Define Entropy.
6. Entropy is a measure of randomness- Explain.
7. Establish Gibbs –Duhem equation.
8. What is chemical potential?
9. What is the difference between order and molecularity of a reaction?
10. Establish the rate expression for a first order reaction.
11. Establish the rate expression for a 2<sup>nd</sup> order reaction.
12. For a first order reaction , show that half life period is independent of its initial concentration.
13. For a 2nd order reaction , show that half life period is inversely proportional its initial concentration.
14. Describe Arrhenius equation.
15. Write short notes on pseudo-first order reaction.