Exam 3 Review Sheet

Here were the conclusions from today's class. It was nice to see you all think like me in terms of key concepts!

Key Concepts from Ch 23-26

1. Phase Diagrams
2. Chemical Potential
3. Gibbs Energy as a Function of T and P
4. Clapeyron and Clausius-Clapeyron Equations
5. Ideal Solutions
6. Raoult's Law and Deviations from the law
7. Henry's Law
8. Activity
9. Colligative Properties
10. Electrolytes
11. Concentration Units (and conversions)
12. Extent of Reaction and Equilibrium
13. Equilibrium Constants – Kp, Kc, and Ka
14. Reaction Quotient
15. Le Chatelier's principle
16. Temperature dependence of equilibrium constants
17. Thermodynamics (ΔG, ΔH, ΔS etc) and relationship to equilibrium
18. Condensed Phases (including solutions) and equilibrium

Equations to Know

Raoult's Law

Henry's Law

Finding Kp (and Qp, Kc, Ka) from reactions

$$\Delta G_r^\circ = -RT \ln K_p$$

$$\Delta G_r = RT \ln \frac{Q_p}{K_p}$$