1. Is the mixing of ideal gases a spontaneous process or not, why?
2. Explain the difference between ideal and real solutions. How does this difference influence the Gibbs free energy of mixing in the two different kinds of system?
3. How does the chemical potential depend on temperature and pressure?
4. In reverse osmosis, what is the effect of the applied pressure and how it is counteracted by the solution side?
5. What is the drive for the formation of ionic atmospheres according to the Debye-Hückel theory?