GUIDE TO TEST 2 for Touro chemistry 1, Spring 2014.

You will be given the values of "R" and the equation PV= nRT. The equations

MM = gRT/PV and MM = DRT/P are NOT given, but will help you.

There will be a table of heats of formation of various substances.

There are 17 multiple choice and short items.

1 to 5 deal with the sign of Δ H for various conditions, and the sign of ΔV for a gas.

6 and 7 deal with strong and weak electrolytes in acids and bases.

8 and 9 are molarity questions. 10 is a dilution problem

11 and 12 are gas law problems

13 - 14 deal with ΔH for a reaction, and for the reverse reaction. You are also asked to find the mass of a sample that would produce a given amount of heat in that reaction.

15 to 17 deal with partial pressures of gas in a constant volume tank, and a PV=nRT problem where T is the unknown.

Problem I is finding ΔH for a reaction using the table of ΔH of formation.

Problem II. is a neutralization problem, where you need to find the MASS of the acid or base needed.

Problem III is Hess's Law.

IV is specific heat, using q = mcΔt. That equation is NOT given.

V is a problem in which you are given ΔH for the reaction, and asked to find a heat of formation.

VI is a density calculation

VII deals with net ionic equations.

VIII. This is the COMBINED problem I spoke about. You are given a volume and molarity of a reactant, and are asked to use it to find the VOLUME of a gaseous product under a given set of conditions. It is worth 10 points. Remember to work with moles, and it is not difficult. The equation M x L = moles is NOT given ! You will need it!