Name:_____ **Fall 2014**

QUIM3025L Section:_____ **Date:** _____

Experiment 5: Complexometric determination of Magnesium with EDTA

Pre-lab Exercise (10 pts /2pts each)
***Include References**

1. Why should the unknown magnesium sample be dried above 100°C for three hours?

2. Distinguish between "water of hydration" and "humidity" in a sample.

3. A 50.00 mL sample of 0.050 M Ca^{2+} solution buffered to pH 9.0 was titrated with 0.20 M EDTA.
   a. Write the reaction of this titration.

   b. What is the equivalence volume in milliliters? Show your work!

4. Explain why the titration must be carried out at a pH above 9.5 and how is this accomplished in the analysis.

5. What EDTA specie predominates at pH 10?