Rubric for Atomic Spectra of Hydrogen (same as the General Lab Report Format)

1. Title page .... includes:
   1. Name (upper right corner). List all names if it is a collaborative report.
   2. Experiment title and number (upper right corner)
   3. Section (give day of week and meeting time-upper right corner)
   4. Course Name (lower part of page)
   5. Lab partner's name (lower part of page)
   6. Date report was submitted (lower part of page)
   7. Instructor’s name (lower part of page)
   8. Word count (lower part of page)

2. Aim
   State the aim of the experiment in one statement.

3. Introduction
   State the background and motivation of the experiment. Briefly describe the procedure used to conduct this experiment. Include a rough sketch and a picture of the setup. The introduction should include important equations used in the analysis of the data. Equations should be presented in a separate line.

3. Results and Discussion
   Present all data collected in the experiment including graphs and spreadsheets. Explain the sources of uncertainties in your experiment and the size of your estimated uncertainty. Discuss any significant problems you encountered and how you resolved these problems. You should use your data, graphs and calculations to support your conclusion about the results obtained in the experiment. Discuss each graph in detail: tell what was expected and why it was expected (a reference to a theoretical equation may help in explaining what “should” have happened) and what was observed. Number your tables and graphs in a consistent manner so that you may refer to them more easily in your conclusion.

4. Conclusion*
   Summarize the results and tell whether there was agreement between theory and experiment. The agreement or disagreement between the experimental and the accepted value of a quantity should be expressed as a multiple of sigma. If possible you should suggest ways of improving the experiment. This section should not exceed six statements.

   *NOTE: It is better to put your detailed analysis of the results with the graphs in the results and discussion section and let the Conclusion section summarize everything. Do NOT include the same information in each section—it should appear only ONCE in the report.

5. Sample Calculation with uncertainty propagation.
   Include a sample of each type of calculation performed in the lab including propagation of uncertainties with sufficient details to enable the grader to evaluate your work. Sample calculations should be done by hand. The sample problems in the uncertainty part of the lab manual are a good guide to the format for uncertainty calculations.

   Answer the sample questions if you are required to do so as per the instructions in the lab handouts.