

## Appendix A

### Guidelines for Formal Report Writing

A formal report is expected to include the following sections

#### **Cover Page**

Contains experiment number and title, student name, partners' names, date and abstract.

#### **Abstract**

A few statements that summarize the work done in the experiment, the general procedure and results and observations.

#### **Introduction**

A brief summary of the theoretical background needed to understand the experiment. This background may include laws and formulas, models, equivalent circuits, block diagrams, etc. A clear statement of objective should also be included in this section.

#### **Procedure**

A list of steps done in the experiment. Each step should be briefly explained and outlined. The circuit connections, block diagram and/or modifications to the handout procedure should be included in the appropriate step. All components in the circuit connections should be marked clearly. (Do not copy the lab manual; write your own statements)

#### **Results**

The experimental results obtained from each of the steps in the procedure. All data should be tabulated.

#### **Discussion of Results**

A comprehensive evaluation of the results. This evaluation includes the following:

- Calculation of theoretical values.
- Plots of experimental and theoretical values.
- Error analysis (calculation of % error associated with each data set).
- Discussion of errors and ways to reduce them.
- Any specific observations and comments.

#### **Conclusions**

A few statements discussing the following:

- A general statement about the experiment and how close it accomplishes the objectives. Problems and Conclusions of the experiment regarding procedure, equipment, accuracy, learning benefits, etc.
- Answer to questions (those in the lab manual and those given by instructor).

#### **Important notes**

- Submitting identical or even similar reports will be considered as act of cheating.
- All pages should be numbered.
- All figures (including circuits diagrams, plots, block diagrams, etc.) should be numbered and given meaningful captions and legends (see examples on next page).
- tables should be numbered and given meaningful captions (see examples on next page).
- Landscape figures or tables should be oriented correctly.
- Report grade will be based on the quality of the above sections and on correct format.
- Use of computers in word setting and plotting is highly encouraged.