Name:

GID:

Lab 1:

Grantham University

Date:

**Note: When writing the report, make sure you write in 3rd person**

**Introduction:**

Write one to two paragraphs about the Lab. Explain the following information for this lab:

* What are the goals to achieve in the lab?
* What are the expectations of the lab?
* How will you be implementing this lab?
* What will you try to measure?

**Equipment/Components:**

List the type of equipment or components that you will be using? Where will you find these components? How will you use these components in Multisim/VHDL? Explain any adjustments required such as tolerances.

**Procedure:**

Briefly describe how you will approach the problem and try to solve the lab, describe and explain any techniques/rules/laws/principles you would use. Outline each step of the process.

**Calculations:**

Include circuit analysis and all calculations here (if applicable).

**Circuit design:**

Take a screenshot of the circuit/logic from Multisim/VHDL as asked in the lab assignment before you run the circuit and paste it here in your report.

**Execution/Results:**

Run the circuit in Multisim/VHDL and copy/paste the results from the simulation including any readings, plots or graphs.

Copy/Paste the screenshots for all the measurements required in the lab here. Be sure to add a title and explain what each of the screenshots represent.

**Analysis:**

Analyze the results obtained from Multisim/VHDL and compare those to your calculated results (if applicable).

Answer the following questions:

* + - What did you discover/confirm?
    - Use tables and diagrams to record results.
    - Compare calculations with the measured values.
    - Analyze your results.

Explain if your simulation is correct or incorrect and why. If the results are confirmed, then your measurements are correct. If they are not confirmed, explain what the problem is. You will need to discuss how to troubleshoot the circuit to achieve the correct results.

**Conclusion:**

Summarize the entire lab in 1 to 2 paragraphs with the results and analysis in mind.

Answer any questions asked in the lab assignment here.

Cite any sources that you may use in your report.