COSC 290 Lab Assignment #1

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\*\*\*\*You must submit as a single file document. If you need any extra file to submit, please attach it into your document

**Resistance(R), Current(I), and Voltage(V)**

**1. Get the Parts Required:**

* **Multimeter**
* **Breadboard**
* **Resistors (values in ohms)**
  + **Ra = 1000 (1K) 1 ea**
  + **Rb = 22000 (22K) 1 ea**
  + **Rc = 10000 (10K) 1 ea**
* **Wires**

**2.**

**2-1 Measure and record the values of Ra, Rb, Rc, and V (the power supply voltage)**

**= Blue**

**2-2. Calculate the value and Complete Table 1 = Orange**

**1) Ra and (Rb, Rc) is on Series case**

**2) Rb and Rc is on Parallel case**

The structure of the circuit

**Diagram, schematic

Description automatically generated**

**Figure 1**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **R - MIN** | **R - NORMAL** | **R - MAX** | **ACTUAL** |
| **Vt** | **5.0** | **5.0** | **5.0** | **5.0** |
| **Ra** | **950** | **1000** | **1050** | **984** |
| **Rb** | **20900** | **22000** | **23100** | **21850** |
| **Rc** | **9500** | **10000** | **10500** | **12920** |
| **Rt** | **7481.25** | **7875.0** | **8168.75** | **8119.12** |
| **It** | **0.0006683** | **0.0006349** | **0.0006121** | **0.0006158** |
| **VRa** | **0.6683** | **0.6349206** | **0.6121** | **0.6158** |
| **VRbc** | **4.3317** | **4.3650794** | **4.3879** | **4.38424** |
| **IRb** | **0.0002072** | **0.0001984** | **0.0001900** | **0.0002007** |
| **IRc** | **0.0004560** | **0.0004365** | **0.0004125** | **0.0003393** |

**Scratch work on next page**

A piece of paper with writing on it

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