Lab 7 – 4 Resistor Parallel Circuit

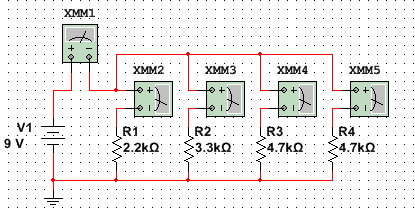
Names: ­­­­­­­­­­­­­­­­Brandon Steup\_, ­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The purpose of this lab is to:

Learn about parallel circuits

The voltage applied to 4 parallel resistors x is 9V. Measure all the resistor values, total current and all the branch currents.



Equipment needed:

1 – Digital Multimeter

1 – Elvis II

|  |  |  |  |
| --- | --- | --- | --- |
|  | Measured | Calculated | Simulated |
| V1 = | 9 V | 9 V | 9 V |
| RT = | 838.4 | 845.2316 | 845.232 |
| I1 = | 3.9892 | 4.091E-3 | 4.091 mA |
| I2 = | 2.6917 | 2.727E-3 | 2.727 mA |
| I3 = | 1.9240 | 1.915E-3 | 1.915 mA |
| I4 = | 1.9414 | 1.915E-3 | 1.915 mA |
| IT = | 10.750 | 10.648E-3 | 10.648 mA |

3 – Standard Resistors

|  |  |  |
| --- | --- | --- |
|  | Design | Measured |
| R1 = | 2200 | 2190 |
| R2 = | 3300 | 3293 |
| R3 = | 4700 | 4645 |
| R4 = | 4700 | 4604 |

Observations:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_