REMAR BACADON

CMPE1000 – Basic Electricity Practical

Exercise 5– Thévenin’s

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  | | --- | --- | --- | | Load Resist ance  (𝑹𝑳) | Predicted  Load  Volt age  (𝑽𝑹𝑳  ) | Meas ured  Load  Volta ge  (𝑽𝑹𝑳) | | 10 Ω | 36.0V | 36.6 mV | | 10 kΩ | 7.80V | 7.81 V | | 100 kΩ | 9.64V | 9.64V | | 1 MΩ | 9.87V | 9.88V | | |  |  |  | | --- | --- | --- | | Load  Resistance  (𝑹𝑳) | Predicted  Load  Voltage  (𝑽𝑹𝑳) | Measured  Load  Voltage  (𝑽𝑹𝑳) | | 10 Ω | 36.0V | 36.4 mV | | 10 kΩ | 7.80V | 7.79 V | | 100 kΩ | 9.64V | 9.64 V | | 1 MΩ | 9.87V | 9.87 V | |

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| Table 1. Predicted and Measured | | | | | | Table 2. Measurement to Verify | | |
| Load Voltage and Current for Figure 1 Circuit | | | | | | Thevenin Equivalent Circuit | | |
| Column 1 | Column 2 | Column 3 |  | Column 1 | | Column 2 | Column 3 | |
| Calculated  Contribu on  to 𝑽𝑹𝟐  by Source 1  (𝑽𝑹𝟐)𝑽𝑺𝟏 | Calculated  Contribu on  to 𝑽𝑹𝟐  by Source 2  (𝑽𝑹𝟐)𝑽𝑺𝟐 | Sum  Of Column 1 and Column 2 | Measured  Contribu on  to 𝑽𝑹𝟐  by Source 1  (𝑽𝑹𝟐)𝑽𝑺𝟏 | | Measured  Contribu on  to 𝑽𝑹𝟐  by Source 2  (𝑽𝑹𝟐)𝑽𝑺𝟐 | Sum  Of Column 1 and Column 2 | |
| 1.71V | 1.95V | 3.66V | 1.71V | | 1.95V | 3.66V | |

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