Report 2: Electronic Test Equipment

Name:
Lab Section:

3.1.1 Record the error in the power supply at +1 V, +5 V, and +9 V.

<table>
<thead>
<tr>
<th>Voltage Setting</th>
<th>DMM Measurement</th>
<th>% Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 V</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.1.2 What is the error (in percent)? What is another error factor that may cause deviation from the ideal?

3.1.3 Why are you not supposed to connect the DMM in current mode to the terminals of a voltage source?

3.1.4 Measure the current and compare the value to your hand calculation.

3.2.1 What is the error on the function generator output at 1 kHz, 1 V\textsuperscript{p−p} after taking the voltage division factor into account?

3.2.2 What is the highest frequency sinusoid that the generator can produce? What is the error in the panel according to the oscilloscope?
3.2.3 What is the smallest $V_{p-p}$ that the function generator can produce? What is the error? Without averaging, does the oscilloscope over-measure or under-measure the $V_{p-p}$ value? (circle one)

3.2.4 What is the shortest pulse that the function generator can produce at 500 mV height?

3.2.7 Calculate the value of $|\frac{v_o}{v_s}|$ at 1 kHz from your oscilloscope measurements.

3.3.1 Attach the printed plot of the 100 Ω I-V characteristic.
3.3.2 Attach the printed plot of the diode I-V characteristic.
3.3.3 What is the $V_O$ value calculated from your load-line? Does it match the value measured with the DMM?