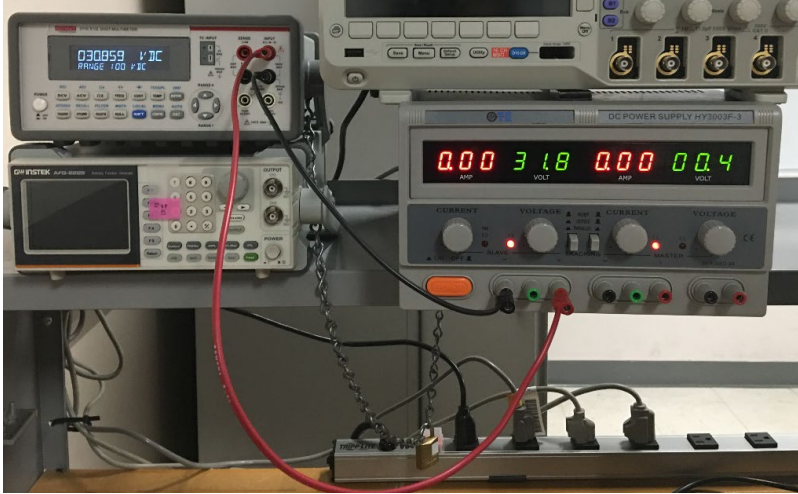


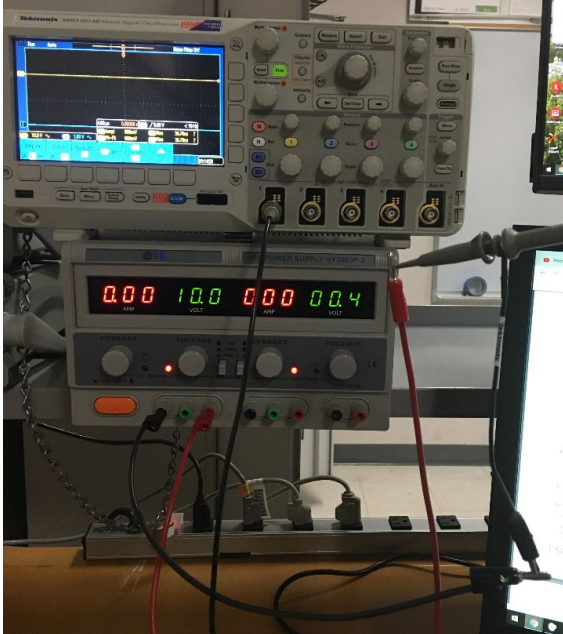
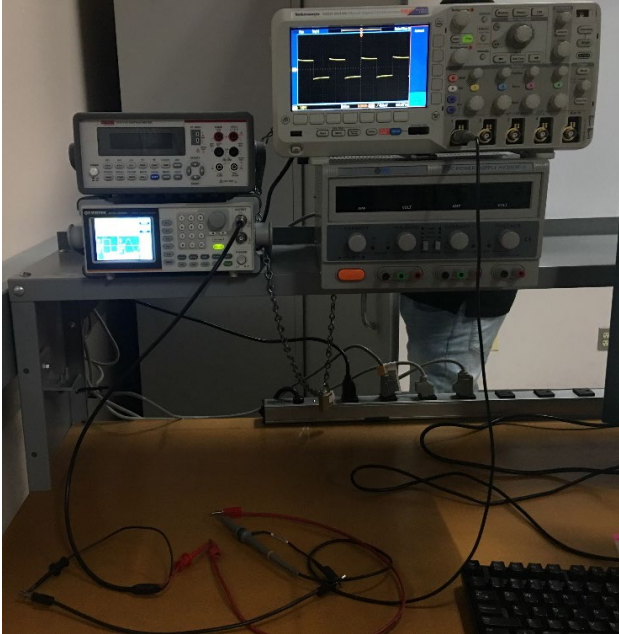
UNIVERSITY OF NEVADA LAS VEGAS DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING LABORATORIES			
Class:	CPE 100L 1002	Semester:	SRING 2020
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		Document topic:	Postlab 1
Instructor's comments:			

1. Introduction / Theory of Operation

Lab 1 was an introduction to lab safety procedures and laboratory equipment, which would allow us to be familiar with working procedures and with the basic setup of laboratory equipment expected for laboratory class experiments.

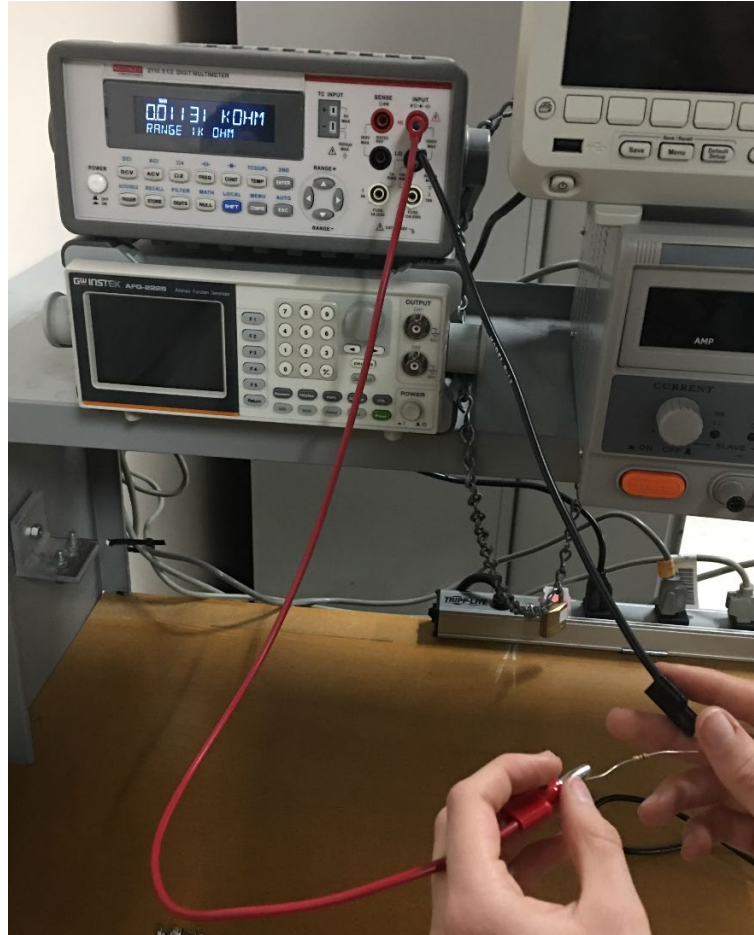
2. Description of Experiments

Experiment	Experiment Results
1	<p>a. Experiment 1 requires setting up the DC power supply with the multimeter. During this experiment, we measured the amplitude and voltage readings from both power supply CH1 and multimeter.</p>  <p>b.</p> <p>c. After connecting the black and red wires to the negative and positive ports, we observed that the readings from the CH1 power supply and multimeter were relatively the same with the maximum voltage reading of 31.8V.</p>

<p>2</p>	<p>a. Experiment 2 requires setting up the DC power supply with the oscilloscope. For this experiment we measured the DC power supply output voltage with the oscilloscope.</p>  <p>b.</p> <p>c. We observed that changing the voltage from 0V to 10V and the current from Coupling-DC to AC results in the horizontal yellow line indicating the voltage to increase.</p>
<p>3</p>	<p>a. Experiment 3 requires setting up the function generator to the oscilloscope to verify the function generator setting on the oscilloscope. We measured the output with the oscilloscope with frequencies 1kHz and 2kHz, amplitudes 1V and 0.5V, and offset 0V and 1V.</p>  <p>b.</p> <p>c. We observed that larger amplitudes provide bigger waves and higher frequencies provide more periods.</p>

4

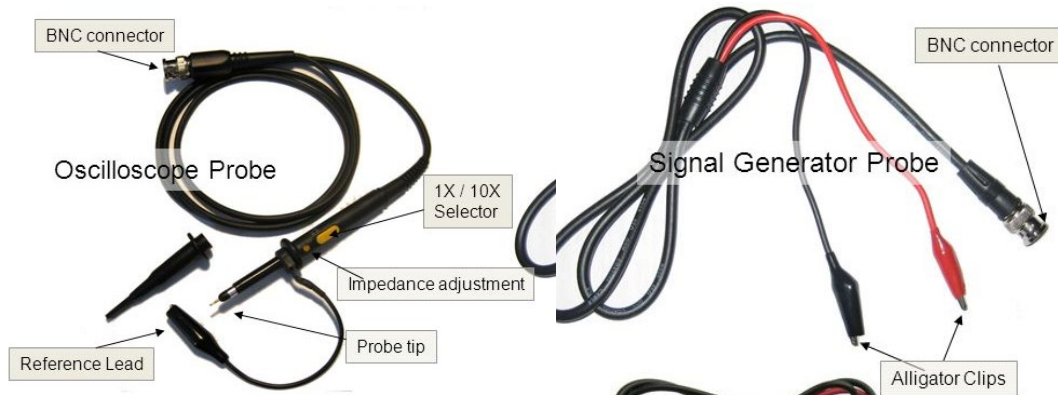
- a. Experiment 4 requires setting up a resistor and multimeter. We measured the value of the resistance to be 1131 KOHM with the declared resistor value of 11 ohms.



- b.
- c. We observed that the different band colors on the resistor determines the resistance value of the resistor in order to prevent strong currents.

3. Answer the questions

- 1) Ground is a term that is used to refer to a certain point in order to measure voltages. It is used in electrical circuits in order to protect against shock or high voltages and to direct the electricity.



- 2) The only similarity between the oscilloscope probe and the function generator cable is the BNC connector. The differences between the two is that the oscilloscope probe has a probe tip and the function generator cable has two alligator clips. These two wires can only be connected to the oscilloscope or the function generator depending on their respective wires.
- 3) The autoset function of the oscilloscope returns the oscilloscope settings back to the default settings and resets the trace back to normal when the trace goes off the grid or unstable.

4. Conclusions

As a student who is currently enrolled in CPE100's lecture component, this lab was still fairly straight forward with the exception of some of the equipment and wires. The problems encountered during the lab included not knowing how to setup the wires and which wire went where. In order to solve that problem, me and my partner examined the equipment closely and followed the instructional manuals and videos for the equipment. Any further difficulties that me and my partner encountered, we asked the teaching assistant or fellow lab mates for assistance. I learned about how to adjust the currents and voltages as well as how to use the function generator to properly display wave shapes.