There are 25 items in the list. Make a mark your lab report with the item number where you have it in your report. Each item is 1 point. Add them up and write it on the cover page next to your name.

Introduction

1. The description of the lab equipment you learn to use in the lab.

2. The description of KCL and KVL.

3. The description of series and parallel circuits.

4. The description of the power dissipation of the resistor.

Part 1

5. The measured values of the resistance of R1, R2, and R3 and the description of how you took the measurement.

6. The comparison of the measured value and the nominal value of the resistors.

7. The measured values of V1, V2, and V3 and the description of how you measured them.

8. The measured values of the currents through each resistors and the description of how you measured them.

9. The verification of KCL with the data from 4.

Part 2

10. The measured values of the resistance of the two light bulbs when they are off.

11. The circuit diagrams of the bulbs and the voltage source in series and parallel circuits.

12. The resulting brightness and the explanation.

13. The resistance of the bulbs while they are on, and the description of how you took the measurement.

14. Comparison of the cold (off) and hot (on) resistance and the explanation.

15. Comparison of the series and parallel circuits and the explanation.

16. The power dissipation of each light bulbs for each circuit.

Part 3

17. The circuit diagram and expected value of R2 and V1, V2, and V3 (given Vs of your choice) of the voltage divider you built.

18. The measured value of R1, R2, R3, Vs, V1, V2, and V3 of your circuit.

19. The experimental verification of your circuit.

Part 4

20. The description of how you balanced the Wheatstone bridge with your circuit diagram.

21. The measured value of R3.

22. The expected and measured values of Rx.

23. (Extra credit) The derivation of Rx = R2*R3/R1.

Conclusion

24. The summary of the topics you learned in this lab demonstrated with the result of your lab activity.

25. The personal appreciation of the lab. (What you like/hate, the difficulties/inspirations while you working on the lab. Any suggestion on how to improve the future lab #1)