Appendix B: Answer Sheet

1: 14.82 V

2: -14.82 V

3: 973 Ω

4: 5 %

5: Yes. Resistance should be within ± 50Ω

6: 1961 Ω

7: 5V

8: 4.92 V

9: $\left(\frac{.08}{5}\right)(100) = 1.6\%$

10: Resistance of wire(s) & defect of resistor.

11: 4.92/973 = 5.06 mA

12: 4.99 mA

13: $\left(\frac{.07e\text{-}3}{5.06e\text{-}3}\right)\cdot 100 = 1.38\%$

14: Ammeter in series since the deviation measured from this method is smaller than using voltage probe in parallel. Additionally current in series is constant.

15: We would use the DMM & probe the voltage across that resistor. Knowing this resistance and voltage, use ohms Law $\frac{V}{R} = i$ to obtain the current passing through the resistor