**Introduction:**

The main objective of this experiment was To become familiar with the characteristics of a Permanent-Magnet DC (i.e. PMDC) Motor.

**Procedure/Discussion:**

From steps 1 to 3 of the experiment, it was calculated from Table A that Kb = 0.00856 Volt-sec/radian.

Afterwards, from steps 4 to 5, it was determined from Table B that B = 0.00001468 Nm-sec/radian.

From the determined values of Ra from the Table A values, it was determined that the average Ra was equal to 14.649.

From the data in Table B, to determine the speed regulation, the No-Load speed was and the Full-Load speed . The speed regulation was S = 10.34%.

Finally, the power efficiency of the motor was determined to be with VA= 6 Volts, I = 380 mA, , Pout = 0.35 W, and Pin = 2.28 W.

**Conclusion:**

For the power-efficiency calculations, it should be noted that these are very old electrical components and most definitely non-ideal. There must be a lot of power lost due to heat, friction, vibration, and once again, older components.