LAB 02 - COULOMB BALANCE

1 Lab format

1) THEORY
Equations that are related to this Lab, including explanations and background.

2) PROCEDURE
Maximum 2 paragraphs.

3) EXPERIMENTAL DATA
Give values of :
d$\pm\triangle d$, where d is the gap between the conductign plate and $\triangle d$ the associated uncertainty,
m=50 mg,
and A is the plates surface area.
Give your experimental measurement of $V \pm \triangle V$.
Calculate $\epsilon_0 \pm \triangle\epsilon_0$. ϵ_0 is calculated using Equation 4 in Lab manual. The uncertainty on ϵ_0, $\triangle\epsilon_0$, is given by:

$$\triangle\epsilon_0 = \epsilon_0\sqrt{2 \times \left(\frac{\triangle d}{d}\right)^2 + 2 \times \left(\frac{\triangle V}{V}\right)^2}$$

. 4) DATA ANALYSIS. + SOURCES OF ERROR

Compare your value (RANGE) to the accepted value : fall or doesn't fall into the range.
Answer questions SECTION 7 - SOURCES OF ERROR
Answer Question SECTION 9

5) CONCLUSION
Did you reach the objective of the lab?
(short discussion of few lines)