

Name: _____ Date & Time of Practical: _____.

Student Number: _____ Name of your TA1: _____.

Pre-Practical Question Sheet 6

Instructions: Please print this page, fill out brief answers to the questions below, and turn in the sheet to the box at the front when you arrive to Practicals this week. (Alternatively, you may write out the answers on a blank piece of paper. In this case, be sure to put your name, date & time of Practical at the top, and clearly number each question you are answering.)

1. Here are three charges: $q_1 = 1 \mu\text{C}$, $q_2 = 1 \text{pC}$, $q_3 = 1 \text{nC}$. Which is the largest? Which is the smallest?

2. What is the approximate resistivity of dry air? What is the approximate (order of magnitude) of the electrical resistance across a cubic metre of dry air?

3. For a capacitor, what is the relationship between charge, Q , capacitance, C , and voltage, V ?

4. You charge a parallel plate capacitor with a battery, then disconnect the battery. What happens to the charge on the plates? You then connect a wire between the plates; what happens to the charge on the plates?

Mark out of 2: