Name: _____   Date: _____   Course: _____   Professor: _____

E11a Prelab: Series and Parallel Capacitors

Read the lab instructions before answering questions

1. What is a capacitor?

2. What is the equation that relates capacitance, charge, and voltage? Solve the equation for capacitance and give its SI unit.

3. If you have several capacitors in series, how do you calculate the equivalent capacitance? Given three capacitors in series that have a capacitance of 445 μF, 884 μF, and 246 μF respectively. Give the equivalent capacitance of the circuit

4. If the capacitors are in parallel, does that change the equivalent capacitance? If so how do you calculate it? Calculate the equivalent capacitance of the above capacitors in parallel.