**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**PHY2049C, Quiz 6**

**A- Read all the quiz once, or twice, before beginning to write. Make sure to comprehend all questions and start with those you fell most confident.**

**B – Be clear and concise. There are no extra points for being verbose or writing extra.**

**C –Only use the white pages that I will provide. You have 60 minutes to answer the quiz.**

**---------------------------------------------------------------------------------------------------------------------------**

A white paper with black lines and symbols

Description automatically generated

**Problem 1**

What’s the power through the resistance 2in the circuit (the battery on the right is 15 V)

**Problem 2**

The Figure displays two circuits with a charged capacitor that is to be discharged through a resistor when a switch is closed. The ratio of the initial charges on the two capacitors is . At time t = 0 both switches are closed. At what time t do the two capacitors have the same charge?

A diagram of a circuit

AI-generated content may be incorrect.

C1 = 9. pF R1 = 7. Ω

C2 = 12. pF R3 = 5. Ω

**Problem 3**

A diagram of a circuit

AI-generated content may be incorrect.The circuit has been closed and running for a long time, what is the total energy stored in the two capacitors?

6. pF

5. Ω

10. Ω

15. Ω

5. pF