Experiment #5 Report

Name : ___________________________
Name : ___________________________
TA : _____________________________
Section : ____________

This write-up follows along with the Hands On section of the lab. You should complete this report as you do the lab exercises.

1. Relay Coil Testing

   a) Peak voltage, \( v_{\text{peak}} \): __________ Decay time, \( t_{\text{peak}} \): __________ [20 points]

   b) With resistor connected in parallel with relay coil: [15 points]
      
      Peak voltage, \( v_{\text{peak}} \): __________ Decay time, \( t_{\text{peak}} \): __________

      How do peak voltage & the decay time compare with what you saw in part (a)?

      How much power is being dissipated (i.e. wasted) in the resistor while the relay coil is connected?

   c) With diode connected in parallel with relay coil: [15 points]

      Peak voltage, \( v_{\text{peak}} \): __________ Decay time, \( t_{\text{peak}} \): __________

      Explain what happens in this case, when the relay coil is disconnected.

   d) With diode in series with resistor, connected in parallel with relay coil: [10 points]

      Peak voltage, \( v_{\text{peak}} \): __________ Decay time, \( t_{\text{peak}} \): __________
e) With capacitor connected in parallel with relay coil: [15 points]

Peak voltage, \( v_{\text{peak}} \): __________  Decay time, \( t_{\text{peak}} \): __________

Explain what happens in this case, when the relay coil is disconnected.

f) With capacitor in series with resistor, connected in parallel with relay coil: [10 points]

Peak voltage, \( v_{\text{peak}} \): __________  Decay time, \( t_{\text{peak}} \): __________

2. What is the best “snubbing” circuit for the relay coil? Why? [15 points]