

PSPICE Tutorial 4

(Chap14~16)

Due May 2, Thursday

- **You need to turn in four plots**
- **Remember to write your name**

1. Chapter 14 (2 plots)

Draw the circuit of Fig. 14.1, page 225, do the simulation practice on page 227. Plot V_{surface} vs. time and V_{distance} vs. time. Change the value of R_{shock} to get both the underdamped and overdamped waveforms like Fig. 14.3 and Fig. 14.4. (You can also change the R_{shock} to see the critically damped response.)

2. Chapter 15

Draw the circuit of Fig. 15.1, page 238 and follow the “Parametric Mode” simulation practice on page 243 to do both AC sweep and Parametric Sweep at the same time. By sweeping R_{tank} over a range of values, plot the Bode plot of three different curves with three different Q like Fig. 15.3.

3. Chapter 16

Draw the circuit of Fig. 16.1, page 250, do the “Long and short RC time constants” simulation practice on page 254. Generate the plot like Fig. 16.6 by choosing different R_1 values to get short, medium and long RC time constants.