ECE2260
Lab3 – Notebook Point Breakdown

Communications (Keeping a Proper Notebook)   *30 Points Total*
Written in Ink 4
Student Signed every page... 4
Student Dated every page 4
TA Signature for every lab session (-3 each session missed)................... 6
Student's work Reproducible from notebook... 12

1. Component Measurements   *10 Points Total*
Table of Components (Measured Values L and Ro) 10

2. Circuit Design   *20 Points Total*
2.1. Equations:
Vi(s) Laplace transform 1
Laplace transform and init cond for C's 1
Laplace transform and init cond for R's and L.. 1
V0(s) expression... 1
V1(s) expression... 1
Inverse transform of V0(s)... 4
Inverse transform of V1(s)... 4
2.2. Circuit parameters:
Component values derivation 2
Component values 1
2.3. Double Spiral:
Matlab plot of expected spiral x-y plot v1(t) vs v0(t).............................. 2
Matlab code listing.. 2

3. Measurements   *20 Points Total*
3.1 Construction:
Schematic of constructed circuit with component values......................... 2
3.2. Display v0(t) and v1(t):
notes on debugging circuit 1
3.3. Display the spirals:
sketch of spiral v1(t) vs v0(t) from oscilloscope.................................... 3
3.4. Measure v0(t) and v1(t) versus time:
derivation of how values derived from oscilloscope waveform.............. 6
measured values alpha, beta, a, b, c, and psi... 6
measured component values R1, R2, R3, C1, C2.................................... 2

4. Comparison of Calculated and Measured Results   *15 Points Total*
4.1. Calculations with measured component values:
Matlab plot of calculated and actual v0(t) versus time............................ 3
Matlab plot of calculated and actual v1(t) versus time............................ 3
Matlab code listing for plot.. 3
4.2. Spirals:
Comparison plot of calculated and measured spirals v0(t) vs v1(t)......... 3
Matlab code listing for plot.. 3

5. Conclusions   *5 Points Total*