

## **LAB RECORD (Weight: 30 %)**

### **DC Circuit**

From Step 2: Reference values used :

$R_L \approx \dots\dots\dots$  Ohms ,  $V_s$  knob at  $\approx \dots\dots\dots$  Turns,  $I_s$  knob at  $\approx \dots\dots\dots$  Turns.

From Step 3 : DC Currents:

$I_1 = \dots\dots\dots$  mA,  $I_2 = \dots\dots\dots$  mA,  $I_3 = \dots\dots\dots$  mA.

From Step 4 : DC Node Voltages :

$V_A = \dots\dots\dots$  Volts,  $V_E = \dots\dots\dots$  Volts,  $V_C = \dots\dots\dots$  Volts.

### **AC Circuit** [Steps 6 to 11]

Values of elements used [The RLC meter located on the Printer table can be used to measure the exact values of L and C. Use the available measurement frequency of 1 kHz) :

$R = \dots\dots\dots$ ,  $L = \dots\dots\dots$ ,  $C = \dots\dots\dots$

**[ Make sure to also obtain your TA's signature on the printouts of Step 10 ]**

TA Signature : .....

## **LAB REPORT** (Weight: 50%)

**DC Results** (See Step 5)

(a) **KCL Verification** :

(b) **KVL Verification** :

(c) **Calculation of  $I_s$** :

(d) **Power Balance**:

Total Power Dissipated  $P_{diss} =$

Total Power Delivered  $P_{del} =$

### **AC Results**

(Step 11)

Amplitude Ratio  $A_v =$  .....

Phase Shift  $\phi =$  .....at frequency  $f_1 =$  .....Hz

Amplitude Ratio  $A_v =$  .....

Phase Shift  $\phi =$  .....at frequency  $f_2 =$  .....Hz

**Attach a final page to the report , summarizing what was learnt in the experiment and adding any comments that you may wish to make about it.**