EE 251
Basic Electrical Engineering

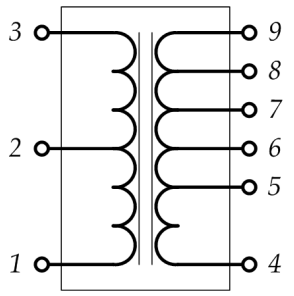
Lab04: Transformer

Date: / /

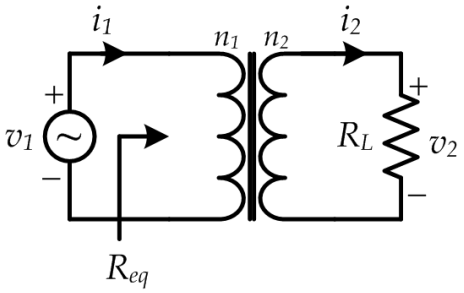
ID	Comp	Name

1. Objectives

1. You will be given a multiple tap transformer. Identify its turn ratios with respect to the multiple taps by select one primary and secondary tap and applying a a sine wave 20V peak to peak voltage at 1 kHz and measure the output
2. Build the circuit shown using the highest transformer turn ratio taps, and measure the currents of both sides of the transformer with v_1=120V_{RMS} sine wave f = 60Hz, R_L=100Ω, 15W.



A Multiple Tap Transformer



Transformer Circuit

2. Equipment

☐ DC Supply Qty =

☐ Function Generator Qty =

☐ Digital Multimeter Qty =

☐ Oscilloscope Qty =

☐ Other:

3. Experiment Steps

Experiment (1.1):

Experiment (1.2):

4. Results

Experiment (1.1)

Primary Side	*Secondary Side*	*Turn Ratio*
1:2	4:5	:
1:2	4:6	:
:	:7	:
:	:8	:
:	:9	:

Experiment (1.2)

	chosen turn ratio =		
	Theoretical	*Measurement*	*Error (%)*
V_1 *(RMS)*			
V_2 *(RMS)*			
I_1 *(RMS)*			
I_2 *(RMS)*			
R_{eq}			

5. Remarks

