

Experiment Report

RC Filters and LabVIEW

Name: _____

Name: _____

TA: _____

Section: _____

1. Do P1. Write down your raw data and calculated data in the following table and then draw the transfer function in the log-log scale. Please indicate the 3 dB point on your plot. Is it in a good agreement with what you calculated from R and C?

[illegible][illegible]

2. Do P2. Write down your raw data and calculated data in the following table and then draw the transfer function in the log-log scale. Please indicate the 3 dB point on your plot. Is it in a good agreement with what you calculated from R and C?

[illegible][illegible]

3. What did you see on the oscilloscope when you change the frequency of the signal? Qualitatively draw graphs at $f = 100 \text{ Hz}$, $f = 1 \text{ kHz}$, $f = 10 \text{ kHz}$ of square wave. Explain why they look different.

4. Attach your LabVIEW measurement print-outs for high-pass filter and low-pass filter. Compare it with your manual plots. Are they in a good agreement in terms of shapes, amplitudes and 3 dB points? If not, try to explain the reason. What are the advantages you think of using LabVIEW rather than doing it manually?