Extra Credit C – Sine Wave Oscillator

You can receive extra credit during the third ¼ of the semester by building a simple op-amp circuit that creates a sine wave. This circuit was taken from a classic Radio Shack hobby booklet hand-written by Forrest M. Mims. Resistors, R3, R4 and R5, and capacitors, C1, C2, C3 and C4, form a “Twin-Tee” filter. When connected in the feedback loop of an op-amp, the resulting circuit generates a sine wave.

Build the circuit. Demonstrate to the staff member that it generates a sine wave at two different frequencies (requires a change of components). Compare the observed frequency with the chart above. Document your results in a short (probably one page) report.

Name of student: _____________________________________________________

Section ___________ Group _____________

Apply Towards (circle one): quiz2 proj 1 proj2 exp4 exp5

Protoboard returned _______________

Staff Signature ________________________________________________