

100 pts Lab #5 Notebook Grading

THE FOLLOWING ITEMS ARE REQUIRED:

- Student's work reproducible from notebook.
- Title and date for each lab section.
- Written in ink.
- Student signed every page.
- Student dated every page.

50 pts EXPERIMENT 1(VOLTAGE FOLLOWER):

- 5 pts (1a) Circuit design to keep $v_{out} \sim v_s$
- 5 pts (1b) Measurement of v_{out} from built circuit.
- 5 pts (1c) Calculation of current. Comparison of measured to hand calculated value.
- 5 pts (1d) Description of current production and applications for the circuit designed.
- 5 pts (2a) Sinusoidal input signal with various outputs to determine the Bode plot.
- 10 pt (2b) Magnitude Bode plot sketch.
- 10 pt (3) Corner frequency calculation. Comparison of measured value to hand calculation.
- 5 pts (4) Verification of $v_{out} \sim v_s$ during its bandwidth.

50 pts EXPERIMENT 2(NON-INVERTING AMP):

- 5 pts (1a) Circuit design of a non-inverting amplifier with gain of 101V/V.
- 10 pts (1b, c) Measurement of v_{out} from built circuit to prove gain is 101V/V.
- 5 pts (1d) -3dB point found and stated.
- 5 pts (1e) Corner frequency calculation. Comparison of measured value to hand calculation.
- 5 pts (1f) Measurement of gain beyond f_c to verify slope falls at -20dB/decade.
- 5 pts (1g) Measurement of gain at $5f_c$ and $10f_c$. Comments about the slope.
- 5 pts (2a) Measurement of clipping for both rails.
- 5 pts (2b) Waveform sketch of clipping levels.
- 5 pts (2b) Comparison of output clipping levels with datasheet values.