RCET 0253 Systems Analog and Digital Lab
Linear Regulated Power Supply Check-Off Sheet

Student Information

Name Start Date

Check-Offs

Action item	Date (DD/MM/YY)	Status	Instructor Initials
1. Calculated rectifier section, document predicted waveforms		☐ Satisfactory ☐ Unsatisfactory	
2a. Assemble/solder: Power cord, fuses, on/off switch, transformer, & rectifier. Perform continuity check.		☐ Satisfactory ☐ Unsatisfactory	
2b. Measure and document rectified unloaded voltage waveforms		☐ Satisfactory ☐ Unsatisfactory	
2c. Measured and document loaded voltage waveforms		☐ Satisfactory ☐ Unsatisfactory	
3a. Calculate appropriate filter cap & On/Off indication circuit		☐ Satisfactory ☐ Unsatisfactory	
3b. Assemble Filter Capacitor and measure unloaded and loaded voltage waveforms.		☐ Satisfactory ☐ Unsatisfactory	
4a. Calculate and document the op-amp regulated variable voltage section		☐ Satisfactory ☐ Unsatisfactory	
4b. Assemble/solder op-amp regulated variable voltage section. With no load (10K RL) verify variable voltage operation.		☐ Satisfactory ☐ Unsatisfactory	
5a. Calculated and document the current-limiting section		☐ Satisfactory ☐ Unsatisfactory	
5b. Assemble/solder the current-limiting section. Verify current-limiting operation by incrementally increase load until output is shorted through your current meter. Verify limiting range		☐ Satisfactory ☐ Unsatisfactory	
6a. Calculated and document over-voltage protection circuit		☐ Satisfactory ☐ Unsatisfactory	
6b. Assemble/solder over-voltage section. Verify operation		☐ Satisfactory ☐ Unsatisfactory	
7a. Calculate overvoltage/output-shorted indication circuit		☐ Satisfactory ☐ Unsatisfactory	
7b. Assemble/solder overvoltage/output-shorted indication circuit. Verify.		☐ Satisfactory ☐ Unsatisfactory	
8a. Final Check-Off: Verify variable voltage, current limiting, and over-voltage.		☐ Satisfactory ☐ Unsatisfactory	
8b. Final Check-Off: 60min output shorted test		☐ Satisfactory ☐ Unsatisfactory	
8c. Final Check-Off: Final Check-Off: Verify variable voltage, current limiting, and over-voltage.		☐ Satisfactory ☐ Unsatisfactory	

Action item	Date (DD/MM/YY)	Status	Instructor Initials

Check-Off Redo

(write in Action Item!)	Date (DD/MM/YY)	Status	Instructor Initials
		☐ Satisfactory ☐ Unsatisfactory	
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