

# 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		<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
2. Assemble/solder: Power cord, fuses, on/off switch, transformer, & rectifier		<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
2b. Measure and document rectified waveforms		<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
3a. Calculate appropriate filter cap & On/Off indication circuit		<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
4a. Calculate and document the op-amp regulated variable voltage section		<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
4b. Assemble/solder op-amp regulated variable voltage section. With no load (10K RL) verify variable voltage operation.		<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
5a. Calculated and document the current-limiting section		<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
5b. Assemble/solder the current-limiting section. Verify current-limiting operation by <u>incrementally</u> increase load until output is shorted through your current meter. Verify limiting range		<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
6a. Calculated and document over-voltage protection circuit		<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
6b. Assemble/solder over-voltage section. Verify operation		<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
7a. Calculate overvoltage/output-shortcd indication circuit		<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
7b. Assemble/solder overvoltage/output-shortcd indication circuit. Verify.		<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
8a. Final Check-Off: Verify variable voltage, current limiting, and over-voltage.		<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
8b. Final Check-Off: 60min output shorted test		<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
8c. Final Check-Off: Final Check-Off: Verify variable voltage, current limiting, and over-voltage.		<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	

Check-Off Redo

(write in Action Item!)	Date (DD/MM/YY)	Status	Instructor Initials
		<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
		<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
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