RCET 0253 Systems Analog and Digital Lab

Linear Regulated Power Supply Check-Off Sheet

Student Information

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| Name |  | Start Date |  |

Check-Offs

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| 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 |  |
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Check-Off Redo

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| (write in Action Item!) | Date (DD/MM/YY) | Status | Instructor Initials |
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