RCET 0253 Systems Analog and Digital Lab

Lab 1 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 |
| 1a. Set the oscilloscope to trigger on the Probe Compensation Signal. Demonstrate the difference between free-running and triggered by adjusting the trigger level |  | 🞏 Satisfactory 🞏 Unsatisfactory |  |
| 1b. Identify trigger level, rise/fall slope setting, and trigger point |  | 🞏 Satisfactory 🞏 Unsatisfactory |  |
| 2. Demonstrate proper probe compensation |  | 🞏 Satisfactory 🞏 Unsatisfactory |  |
| 3a. Measure the period, frequency, and amplitude of the signal without using the measure function of the scope |  | 🞏 Satisfactory 🞏 Unsatisfactory |  |
| 3b. Measure the period, frequency, and amplitude of the signal with the measure function of the scope |  | 🞏 Satisfactory 🞏 Unsatisfactory |  |
| 3c. Measure the period, frequency, and amplitude of the signal with the cursor function of the scope |  | 🞏 Satisfactory 🞏 Unsatisfactory |  |
| 3d. Show how all three methods compare in a table. Explain any discrepancies |  | 🞏 Satisfactory 🞏 Unsatisfactory |  |
| 4. Measure tilt & rise time |  | 🞏 Satisfactory 🞏 Unsatisfactory |  |
| 5a. Calculate all voltages, phase angles, and frequency response of the circuit. |  | 🞏 Satisfactory 🞏 Unsatisfactory |  |
| 5b. Draw the predicted voltage phasor diagram |  | 🞏 Satisfactory 🞏 Unsatisfactory |  |
| 5c. Measure the circuit and compare to the predicted values. Explain discrepancies |  | 🞏 Satisfactory 🞏 Unsatisfactory |  |
| 6a. reference the Tektronix Lissajous document and draw predicted Lissajous patterns in your lab book at 0° 360°, 45° 225°, 90° 270°, 135° 315°, 180° |  | 🞏 Satisfactory 🞏 Unsatisfactory |  |
| 6b. verify Lissajous patter accuracy using two channels out of the generator and varying the phase of one. |  | 🞏 Satisfactory 🞏 Unsatisfactory |  |
| 6c. Predict and Measure the phase difference between the generator and the output using Lissajous pattern |  | 🞏 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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