Performance Assessments for EET 2440 Programmable Controller I

These would be tasks that each student must demonstrate to the faculty to pass the hands-on portion of the course.

Performance Assessment #1: (Students should take this after completing M2 KAA)
1. Identify and explain the diagnostic indicators on the ML1000 training unit
2. Explain the hardware on the SLC-500 system including I/O addressing and communication port identification
3. Determine the IP address of a computer in the Terra PLC lab
4. Create an RS-232, Ethernet and Ethernet IP drivers in RSLinx
5. Use the PING command to verify computer to PLC processor communications
6. Create an SLC-500 project using RSLogix500
7. Use RSLogix500 to go online, offline and perform a download and upload
8. Configure Channel 1 of an SLC-5/05 for a specific IP address
9. Reset an SLC-500 processor back to factory default

Assessment #2: (Students should take this after completing M4 KAA)
1. Create an RSLogix500 project with timers/counters, download, go online, and upload
2. Explain the operation of an AB timer instruction and status bits
3. Explain the operation of an AB counter instruction and status bits
4. Print an RSLogix500 project to a PDF and view with a browser
5. Explain the hardware on a PLC-5 system
6. Explain the I/O addressing on a PLC-5 system
7. Interpret the PLC-5 processor and I/O module diagnostic indicators
8. Create an RSLogix5 project, download, go online, and upload
9. Use RSLogix5/RSLinx to go online to a PLC-5 processor through the ControlLogix Gateway

Assessment #3: (Students should take this after completing M6 KAA)
1. Identify and explain all hardware components on a ControlLogix system
2. Identify and explain all the hardware on a CompactLogix 5370 unit
3. Create and download a program in the CompactLogix
4. Backup PLC program to SD and restore manually or from power on
5. Change IP address on CompactLogix with RSLinx
6. Create multiple types of tags in CompactLogix
7. Use Controlflash to upgrade the firmware of a CompactLogix controller
8. Transfer program from RAM to/from SD module on CompactLogix, TW suggested 12/29/22
9. Replace I/O module on a ControlLogix, TW suggested 12/29/22
10. Clear a recoverable processor fault, TW suggested 4/20/23
11. Go online to an L5000 processor with or without a .ACD file, TW suggested 4/20/23

Assessment #4: (Students should take this after completing M8 KAA)

1. Identify what caused a fault and clear a fault on an SLC-500
2. Search to find an output in a large program in RSLogix 500
3. Force an input or output on SLC-500 and CompactLogix
4. Identify what caused a fault, and clear the fault on a CompactLogix unit
5. Reset an SLC-500, PLC-5 and CompactLogix back to factory settings
6. Replace a module and a processor on a functioning SLC-500 system
7. Replace a CompactLogix unit in a functioning system
8. Interpret the diagnostic indicators on an L5000 processor