PLC 210 Hands-On Assessments: Module 2

Student Name: _____ N# _____ Date: _____

This hands-on assessment requires that each student successfully demonstrates each of these tasks to the instructor's satisfaction. There is no grade for this assessment.
Prior to taking this assessment, the student must pass (minimum of 80%) the Knowledge and Application Assessment.
The student cannot proceed to the HOA for the next module without completing this HOA

Create a Project File called HOA_Module_2.ACD using the RSLogix 5000 software.
Use the components on the demo board for the required processor and I/O hardware information in the project file.
Leave all processor and I/O module's Properties at the Default settings.

Program the following Ladder Diagram in MainRoutine
Note: All tags that do not reference an input device are DINT Data Type tags.

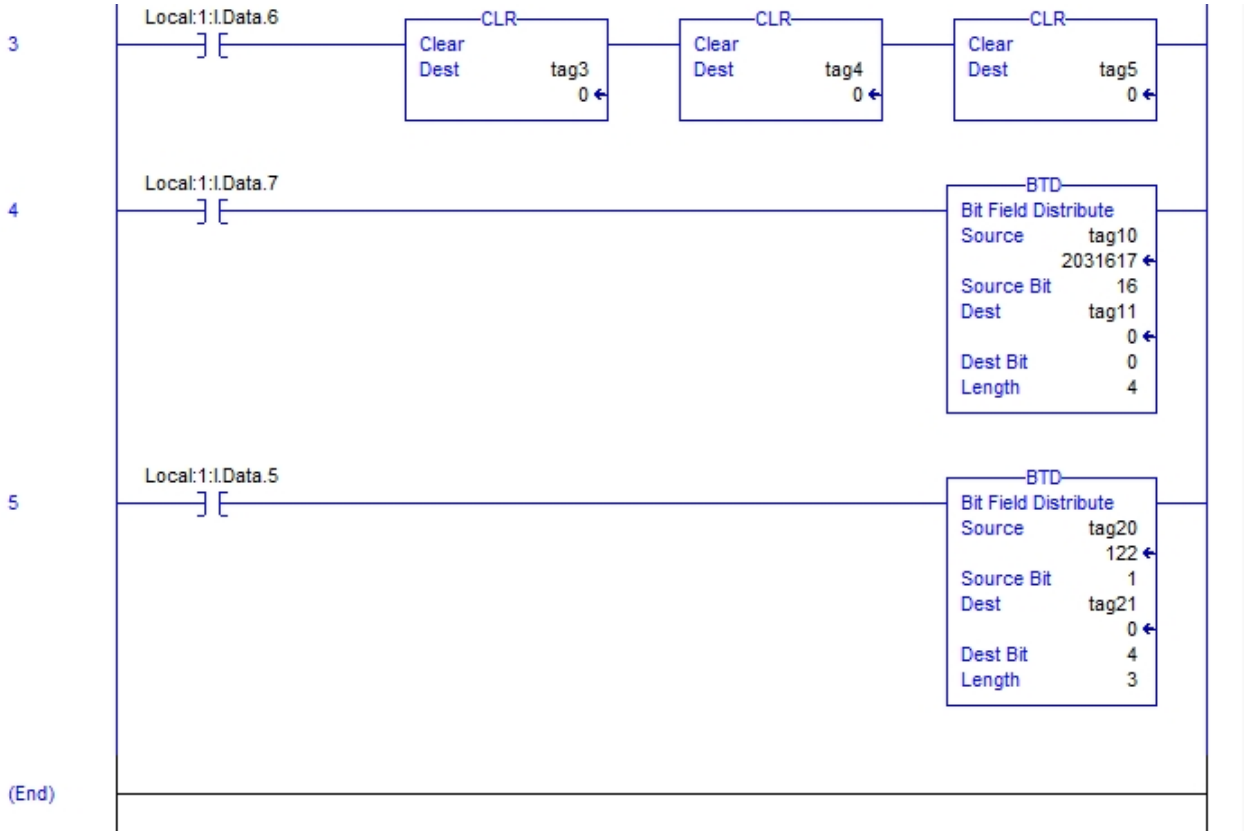

Figure 1. Ladder Diagram for HOA_Module_2.ACD Project File

Note: Be specific in answering questions on the status of Dest values.
Saying only that bits are 1 and / or 0 is not a sufficient answer.
Explain why the bit value is 1 and / or 0

Download the project file HOA_Module_2.ACD to the CompactLogix demo.
Ensure all demo inputs are OFF / False – Selector Switches turned to left.
Place processor in RUN mode

Note: SS6 will put a zero (0) in the Dest locations for Instructions on Rung 0, 1, 2.

_____ 1. At Rung 0, What are the bit values for tag3?_____
What is the output instruction on Rung 0?_____
Press PB1 at Rung 0
What is the decimal value of tag3?_____
Which bits have changed values in tag3? _____

Explain why the bits have changed values:_____
_____
_____

_____ 2. At Rung 1, What are the bit values for tag4?_____
What is the output instruction on Rung 1?_____
Press PB2 at Rung 1
What is the decimal value of tag4?_____
Which bits have changed values in tag4? _____
Explain why the bits have changed values:_____
_____
_____

_____ 3. At Rung 2, What are the bit values for tag5?_____
What is the output instruction on Rung 2?_____
Press PB3 at Rung 2
What is the decimal value of tag5?_____
Which bits have changed values in tag5? _____
Explain why the bits have changed values:_____
_____
_____

_____ 4. At Rung 4, What are the bit values for tag10?_____
At Rung 4, What are the bit values for tag11?_____
What is the output instruction on Rung 4?_____
Turn SS7 to the right.
What is the decimal value of tag11?_____
Which bits have changed values in tag11? _____
Explain why the bits have changed values:_____
_____
_____
_____
_____

_____ 5. At Rung 5, What are the bit values for tag20?_____
At Rung 5, What are the bit values for tag21?_____
What is the output instruction on Rung 5?_____

Turn SS5 to the right.
What is the decimal value of tag21?_____
Which bits have changed values in tag21? _____
Explain why the bits have changed values:_____
_____
_____
_____
_____

At Rung 3, toggle SS6 to put a zero (0) in the Dest locations for Instructions on Rung 0, 1, 2.
Ensure SS6 is OFF – left position
At Rung 0 – change the tag1 value to 32767
change the tag2 value to 14

_____ 6. At Rung 0, What are the bit values for tag3?_____
What is the output instruction on Rung 0?_____
Press PB1 at Rung 0
What is the decimal value of tag3?_____
Which bits have changed values in tag3? _____
Explain why the bits have changed values:_____
_____
_____

_____ 7. At Rung 1, What are the bit values for tag4?_____
What is the output instruction on Rung 1?_____
Press PB2 at Rung 1
What is the decimal value of tag4?_____
Which bits have changed values in tag4? _____
Explain why the bits have changed values:_____
_____
_____

_____ 8. At Rung 2, What are the bit values for tag5?_____
What is the output instruction on Rung 2?_____
Press PB3 at Rung 2
What is the decimal value of tag5?_____
Which bits have changed values in tag5? _____

Explain why the bits have changed values:_____
_____
_____

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