

ET 438b

Given the ladder diagram attached, answer the following questions. Assume that all contacts start in the de-energized positions prior to question 1.

1. Push button switch PB2 is pressed. Which indicator lamp(s) will light? _____ (R, G, Y)
2. Will the indicator lamp(s) remained on after the PB2 is released? _____ (yes, no)
3. What combinational logic function is created by the third rung in the ladder? _____ (NOR NAND XOR)
4. After PB2 is pressed, PB4 is pressed. Which indicator lamp(s) will light? _____ (R,G,Y)
5. The relay contact B in ladder rung 2 is in the _____ (open, closed) state after PB2 and PB4 are depressed.
6. The relay contact A in ladder rung 1 is in the _____ (open, closed) state after PB2 and PB4 are depressed.
7. After PB2 and PB4 are depressed, The contact C in ladder rung 4 is in the _____ (open, closed) state.
8. PB2 and PB4 have been depressed. Now both PB1 and PB3 are depressed. Will any indicator lamps remain on? _____ (yes, no)
9. Can the lamps in rungs 5 and 6 light for any of combination inputs _____ (yes, no)

