

QUIZ 4

Question 1: Using Toffoli gates, build a reversible circuit to compute AND of three bits x_1, x_2, x_3 and clearly mark the output register.

Question 2: In a circuit, one often needs the output of a gate to be used as an input for other gates. Using a CNOT/Toffoli gate, design a DUP gate that takes in a bit x and outputs two copies of the same bit x .