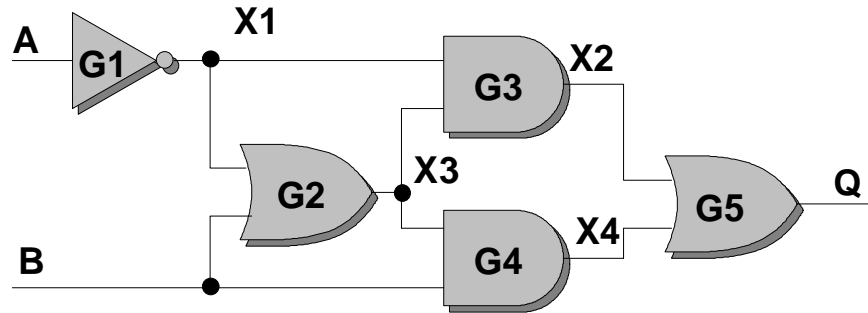


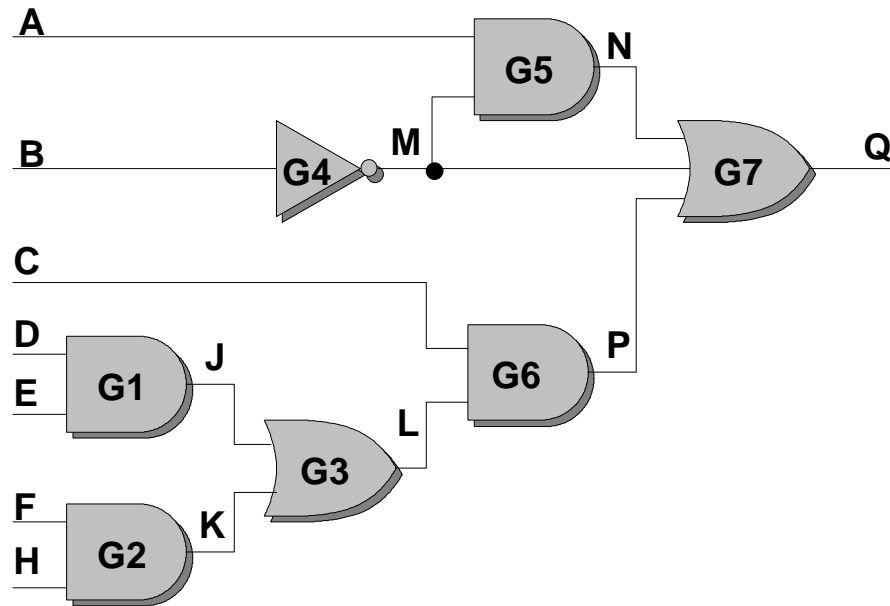
Name _____

1. Show the data structures and routines that would be generated for the following circuit using the threaded code technique. You may omit the routines for G4 and G5. (20 Points)

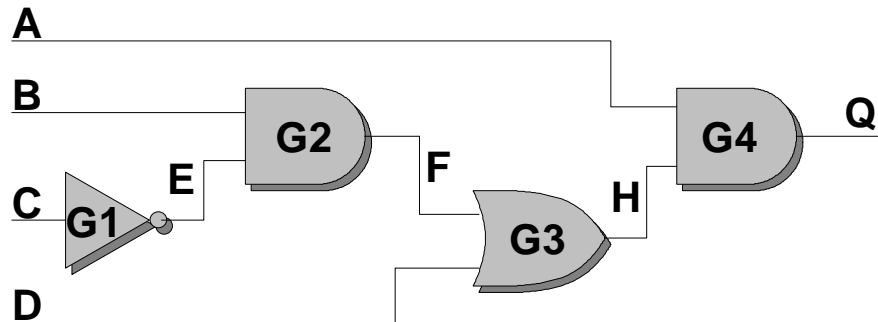


2. Show the simulation of the above circuit for the vector $A=1, B=1$, assuming that the previous vector was $A=0, B=0$. (20 Points)

3. Show the simulation of the following circuit using the LECSIM technique. Use the vector A=0,B=0,C=0,D=0,C=0,E=0,F=0,G=0,H=0. Assume that the previous vector was A=1,B=1,C=1,D=1,C=1,E=1,F=1,G=1,H=1. (20 Points.)



4. Show the data structures and variables (along with their values) that would be generated for the Inversion Algorithm simulation of this circuit.. Do the same after eliminating all NOT gates from the circuit. (20 Points)



5. Explain the following terms: N-Type Silicon, P-Type Silicon, PN-Junction. Show a side-diagram of an NPN MOSFET. (20 Points.)