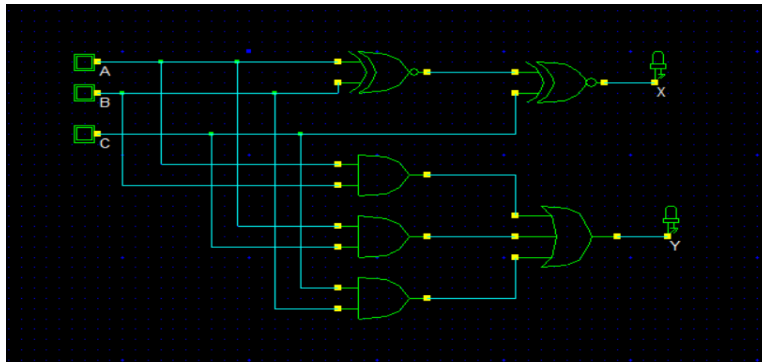# INDRAPRASTHA INSTITUTE OF INFORMATION TECHNOLOGY, DELHI

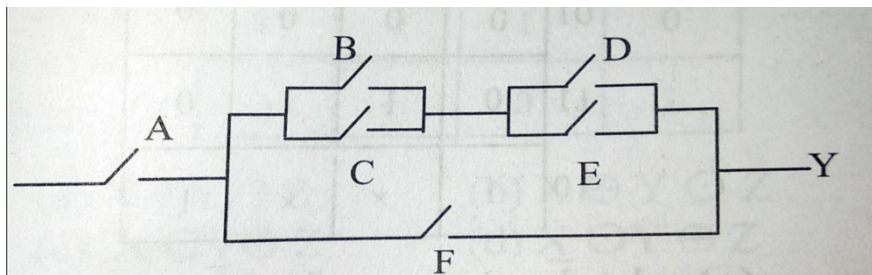## ECE111 DC

TUTORIAL 1

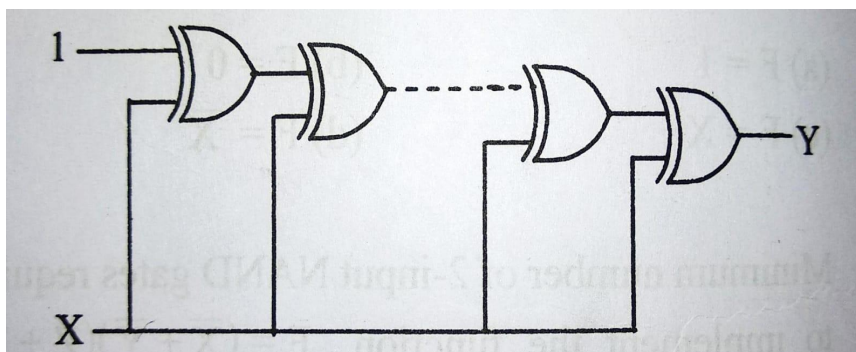Q1) For the given circuit:

A. Find the logical function for X and Y.

B. Obtain the Truth table for the circuit.

Q2) What Boolean Function does the following circuit represent?

Q3) If the below digital circuit of 20 XOR gates in cascade. Then the output Y is

Q4) Minimize the following Boolean function using K-Map:

F(A, B, C, D) = Σm (3, 4, 5, 7, 9, 13, 14, 15)

Q5) (a) Realize W = AB + CD + EF using:

    (i) NAND gates of any size

    (ii) 2-input NAND gates only

 Also, mention the number of gates obtained in each case.