

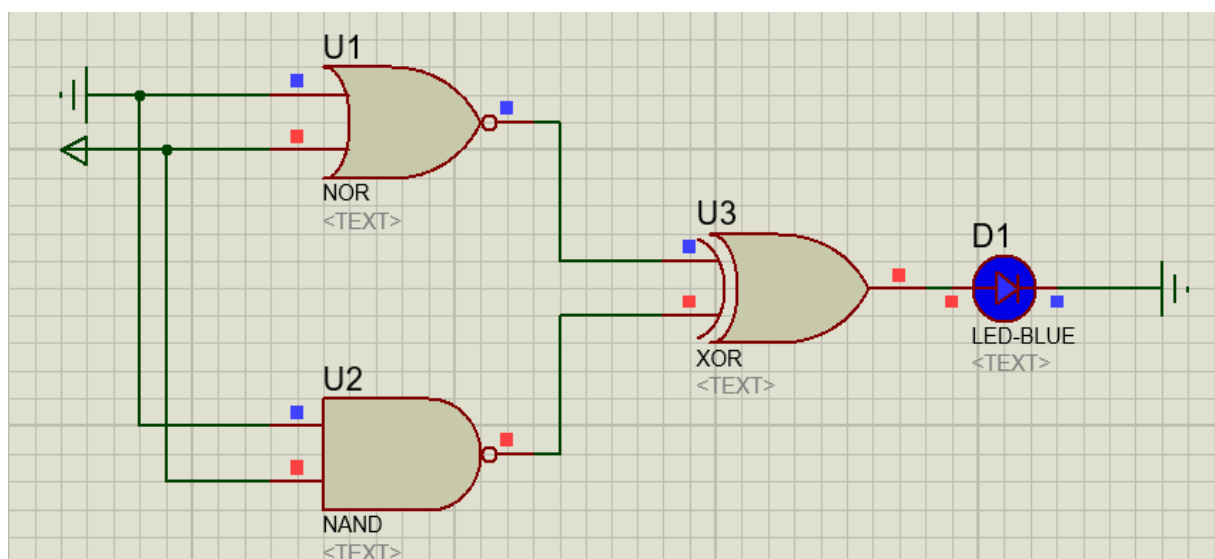
## PART 1

Part 1: Questions 3 and 5								
7408 Quadruple 2 input AND Gate			7432 Quadruple 2 input OR Gate			7404 - 7414 Hex Inverter		
Pin1	Pin2	Pin3	Pin1	Pin2	Pin3	Pin1	Pin2	
0	0	0	0	0	0	0	1	
0	1	0	0	1	1	1	0	
1	0	0	1	0	1	1	0	
1	1	1	1	1	1	0	1	

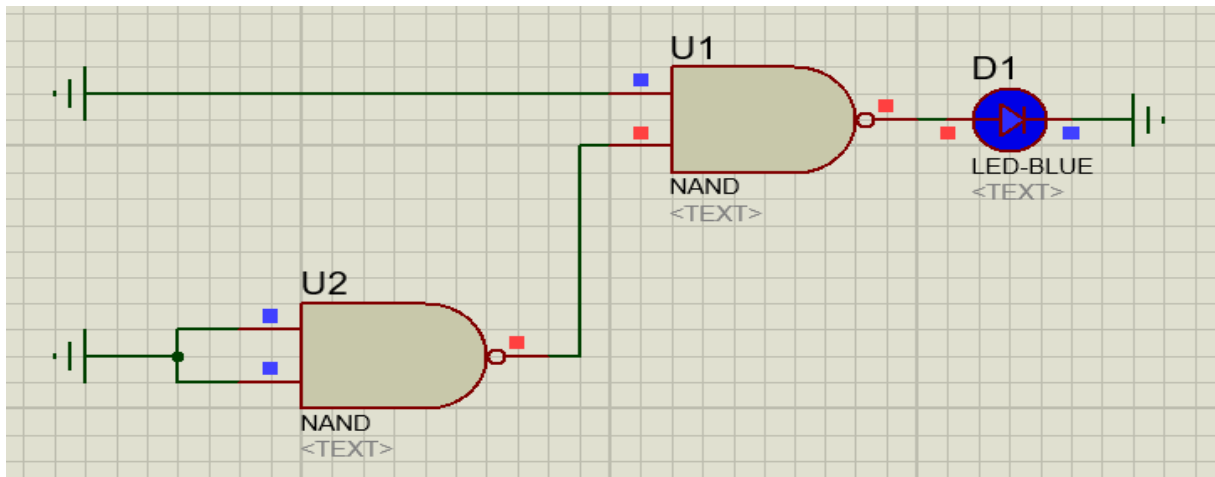
  

7400 Quadruple 2 input NAND Gate			7402 Quadruple 2 input NOR Gate			7486 Quadruple 2 input Exclusive OR Gate		
Pin1	Pin2	Pin3	Pin1	Pin2	Pin3	Pin1	Pin2	Pin3
0	0	1	0	0	1	0	0	0
0	1	1	0	1	0	0	1	1
1	0	1	1	0	0	1	0	1
1	1	0	1	1	0	1	1	0

## PART 2

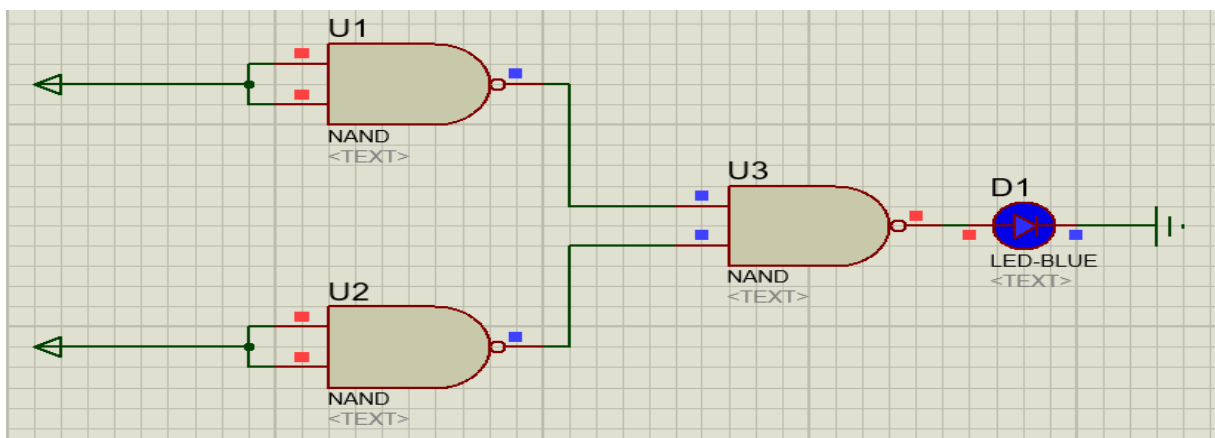


A	B	C	D	E
0	0	1	1	0
0	1	0	1	1
1	0	0	1	1
1	1	0	0	0



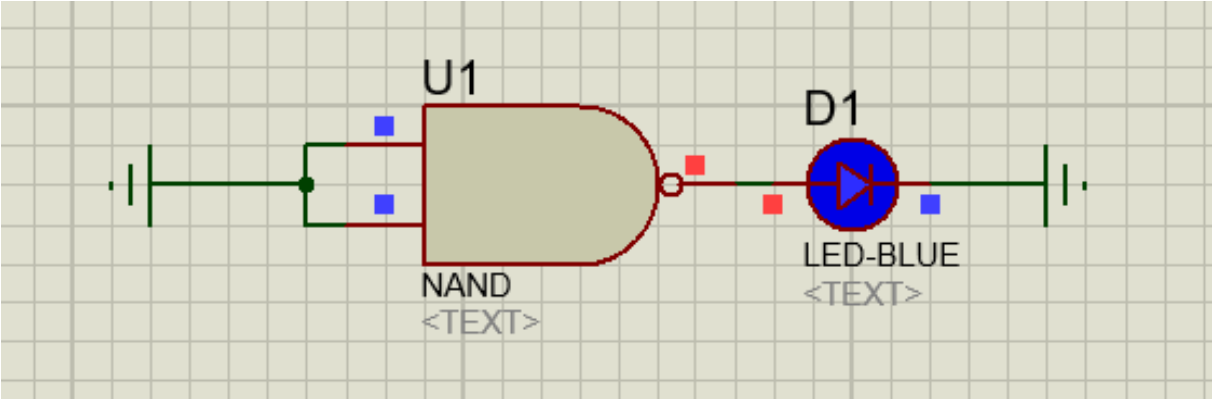
A	B	C	D
0	0	1	1
0	1	0	1
1	0	1	0
1	1	0	1

### PART 3 QUESTION 1



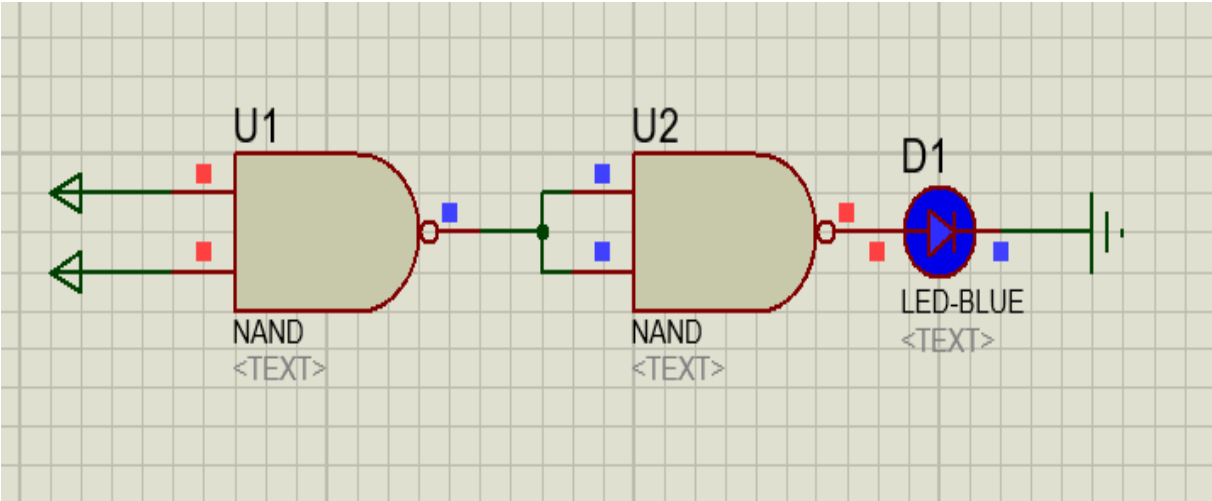
$$Y = X_1 + X_2$$

$X_1$	$X_2$	Y
0	0	0
0	1	1
1	0	1
1	1	1



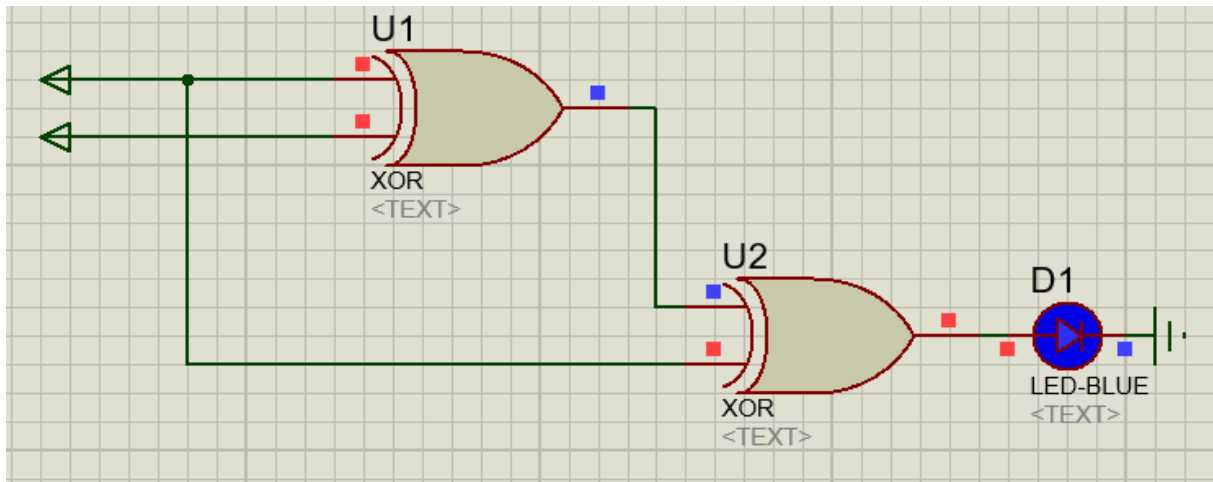
$Y = X_1'$

$X_1$	$Y$
0	1
1	0



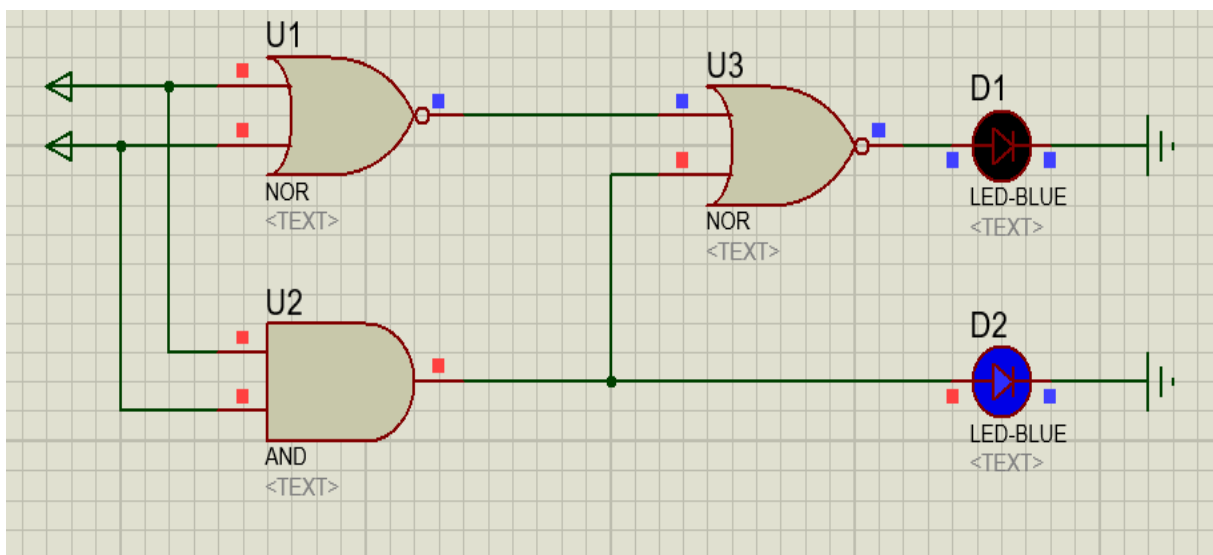
$Y = X_1 \cdot X_2$

$X_1$	$X_2$	$Y$
0	0	0
0	1	0
1	0	0
1	1	1



$$Y = X_2$$

X <sub>1</sub>	X <sub>2</sub>	Y
0	0	0
0	1	1
1	0	0
1	1	1

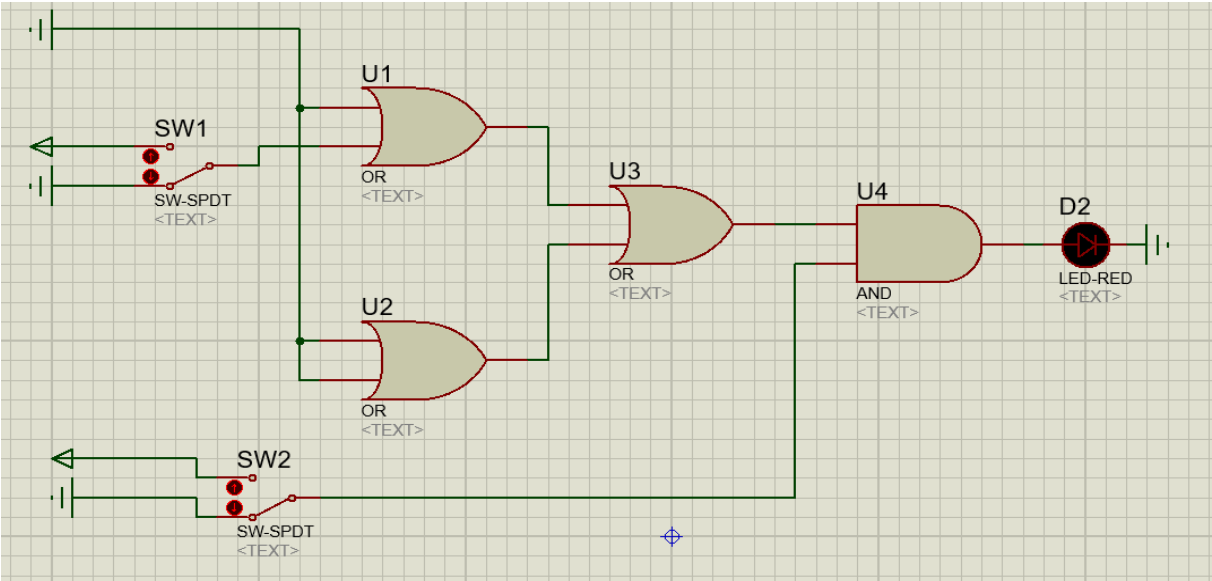


$$Y_1 = (X_1)' \cdot X_2 + X_1 \cdot (X_2)'$$

$$Y_2 = X_1 \cdot X_2$$

X <sub>1</sub>	X <sub>2</sub>	Y <sub>1</sub>	Y <sub>2</sub>
0	0	0	0
0	1	1	0
1	0	1	0
1	1	0	1

PART 3 QUESTION 2



Kapı-1	Kapı-2	Kapı-3	Kapı-4	Active High	Alarm
0	0	0	0	1	0
0	0	0	1	1	1
0	0	1	0	1	1
0	0	1	1	1	1
0	1	0	0	1	1
0	1	0	1	1	1
0	1	1	0	1	1
0	1	1	1	1	1
1	0	0	0	1	1
1	0	0	1	1	1
1	0	1	0	1	1
1	0	1	1	1	1
1	1	0	0	1	1
1	1	0	1	1	1
1	1	1	0	1	1
1	1	1	1	1	1

Kapı-1	Kapı-2	Kapı-3	Kapı-4	Active Low	Alarm
0	0	0	0	0	0
0	0	0	1	0	0
0	0	1	0	0	0
0	0	1	1	0	0
0	1	0	0	0	0
0	1	0	1	0	0
0	1	1	0	0	0
0	1	1	1	0	0
1	0	0	0	0	0
1	0	0	1	0	0
1	0	1	0	0	0
1	0	1	1	0	0
1	1	0	0	0	0
1	1	0	1	0	0
1	1	1	0	0	0
1	1	1	1	0	0