DIGITAL SYSTEM

2rd PRACTICUM: LOGIC GATES COMBINATION
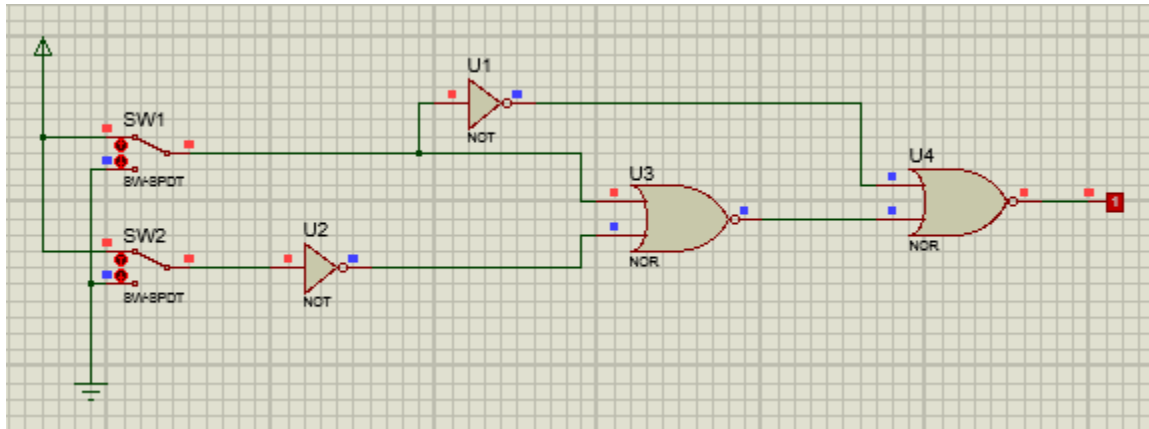

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INFORMATION TECHNOLOGY

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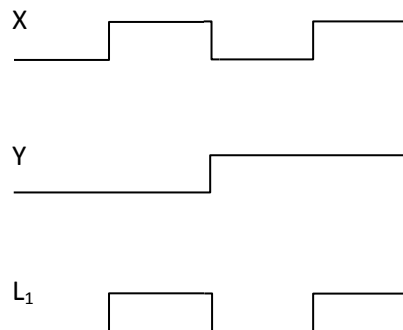1. Create a logic gate combination as shown in figure below !

a) Complete the truth table and time diagram based on the circuit above !

- Truth table

X	Y	L_1
0	0	0
1	0	1
0	1	0
1	1	1

- Time diagram

X

Y

L_1

b) Boolean function : $L_1 = X + \overline{Y} + \overline{X}$

2. Create the logic gate circuit based on the following Boolean function !

$$F = (\overline{\overline{A.B} + C}) + (\overline{D}.E)$$