

LAB WORK  
DIGITAL SYSTEM  
SEMESTER GENAP



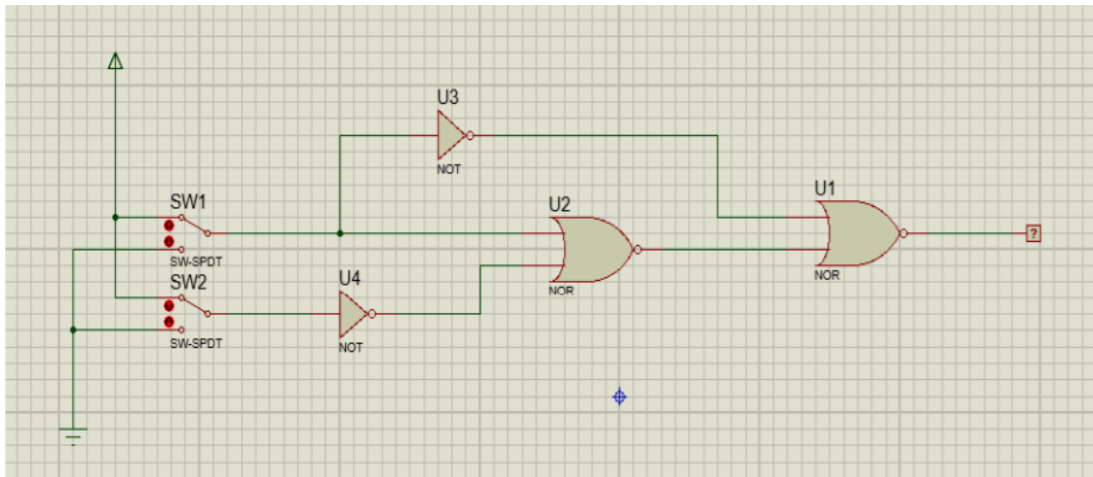
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PROGRAM STUDI INFORMATIKA  
FAKULTAS KOMUNIKASI DAN INFORMATIKA  
MUHAMMADIYAH UNIVERSITY OF SURAKARTA

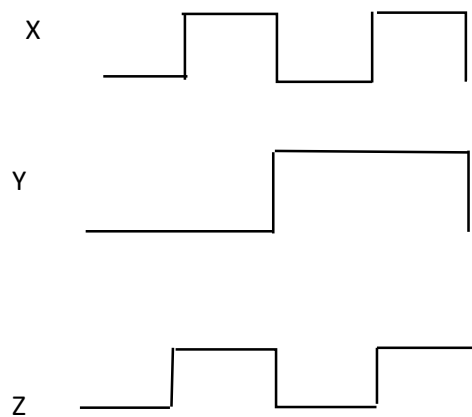
1 . Create a logic gate combination as show in figure below !



a . The truth table

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

b. Time diagram



c. Boolean function

$$\overline{(X + Y)} + \overline{A}$$

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

$$F = (A \cdot B + C) + (D \cdot E)$$

