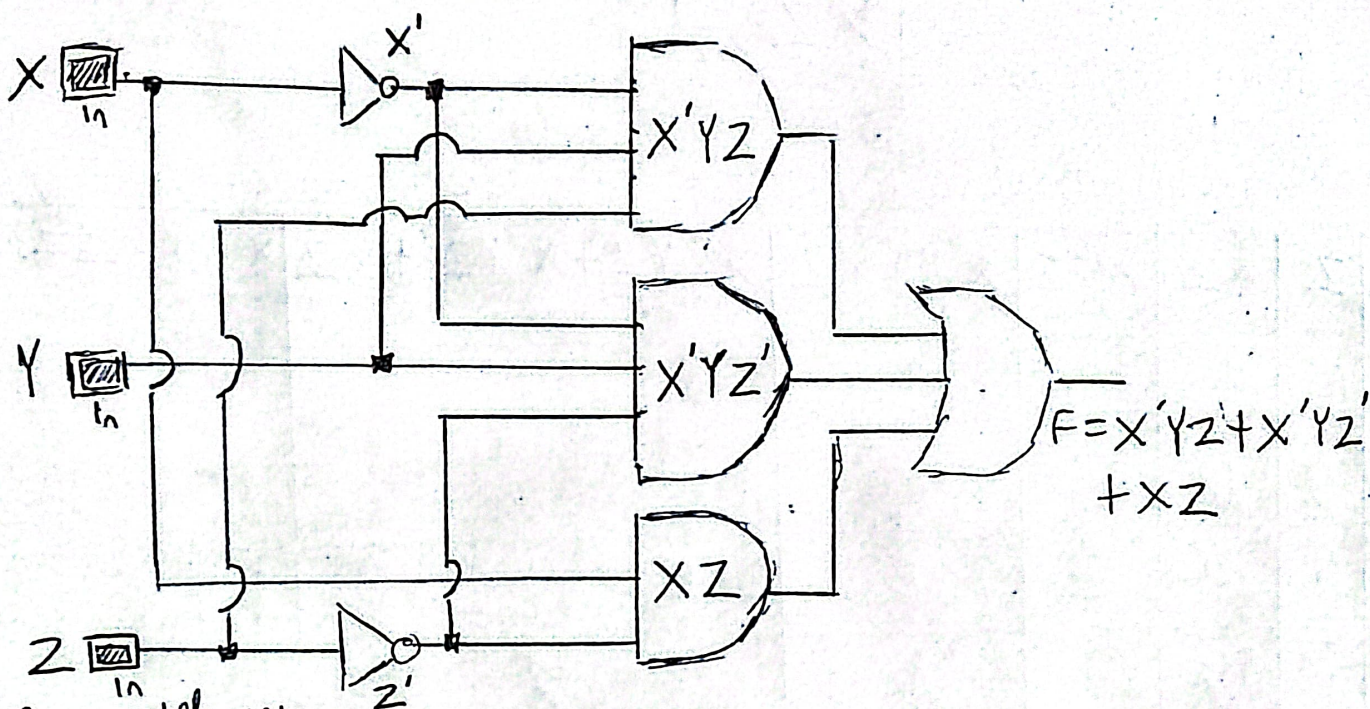


LEMBAR JAWABAN PRE-TEST DAN POST-TEST PRAKTIKUM

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1. Diketahui ekspresi boolean  $F = X'YZ + X'YZ' + XZ$

a. Gambar rangkaian logikanya



b. Buat tabel kebenarannya

X	X'	Y	Z	Z'	XZ	X'Y	X'YZ	X'YZ'	X'YZ + X'YZ'	F
1	0	1	1	0	1	0	0	0	0	1
1	0	1	0	1	0	0	0	0	0	0
1	0	0	1	0	1	0	0	0	0	1
1	0	0	0	1	0	0	0	0	0	0
0	1	1	1	0	0	1	1	0	1	1
0	1	1	0	1	0	1	0	1	1	1
0	1	0	1	0	0	0	0	0	0	0
0	1	0	0	1	0	0	0	0	0	0



c. Sederhanakan ekspresi boolean

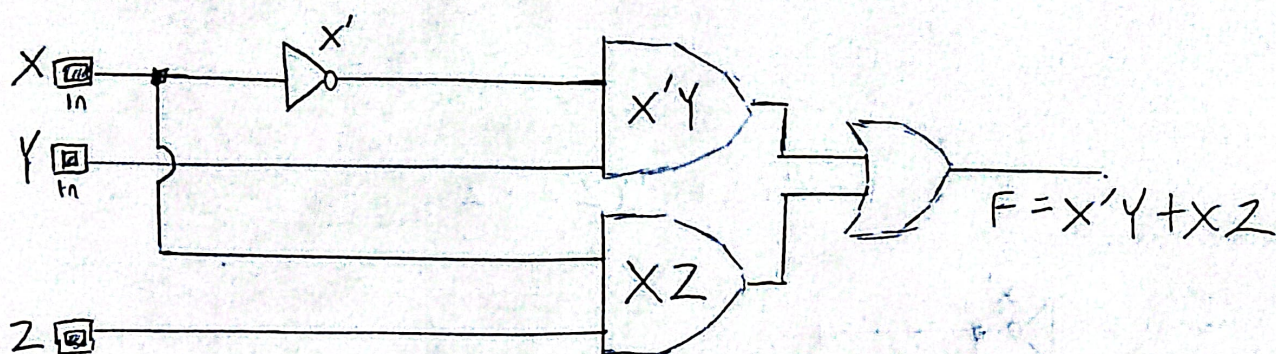
$$F = X'YZ + X'Y2' + XZ$$

$$F = X'Y(Z + 2') + XZ \quad \text{hukum distributif}$$

$$F = X'Y(1) + XZ \quad \text{hukum komplemen}$$

$$F = X'Y + XZ \quad \text{hukum identitas}$$

d. Rangkaian setelah disederhanakan



e. Buatlah tabel kebenarannya

sebelum disederhanakan							Pembuktian	
X	X'	Y	Z	XZ	X'Y	X'Y + XZ	$X'YZ + X'Y2' + XZ$	$X'Y + XZ = X'YZ + X'Y2' + XZ$
1	0	1	1	1	0	1	1	1
1	0	1	0	0	0	0	0	1
1	0	0	1	1	0	1	1	1
1	0	0	0	0	0	0	0	1
0	1	1	1	0	1	1	1	1
0	1	1	0	0	1	1	1	1
0	1	0	1	0	0	0	0	1
0	1	0	0	0	0	0	0	1