Percobaan 3

111 110 101 011 010 100 000

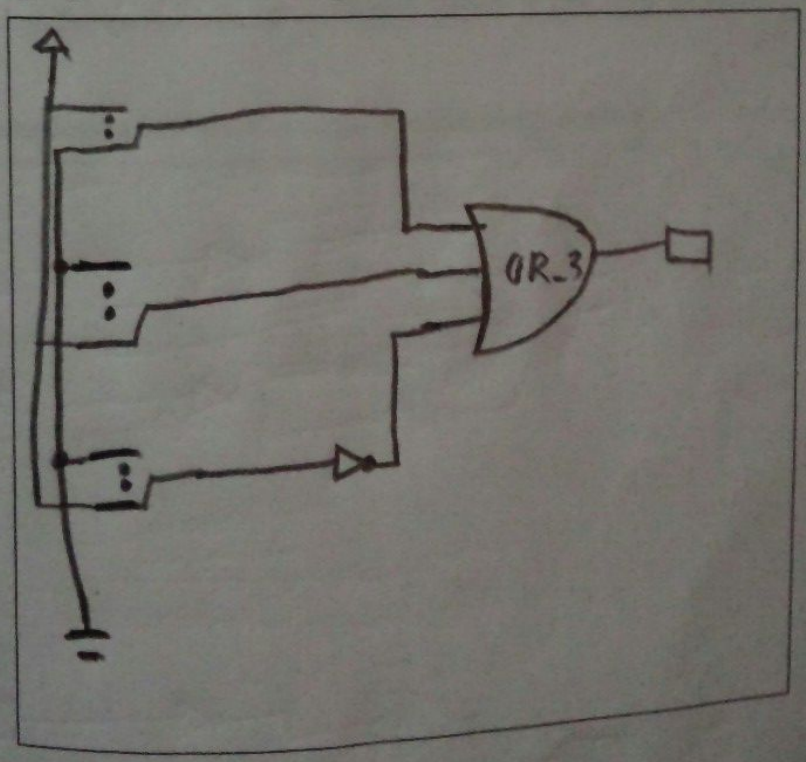
1. Fungsi boolean : **F = XYZ + XYZ' + XY'Z + X'YZ + X'YZ' + XY'Z' + X'Y'Z'**

2. Berdasarkan fungsi boolean, isi titik-titik dalam peta karnaugh berikut!

		XY			
		00	01	11	10
Z	0	1	1	1	1
	1	....	1	1	1

3. Sederhanakan fungsi boolean : **F =** ..... Y + $\bar{Z}$ + X .....

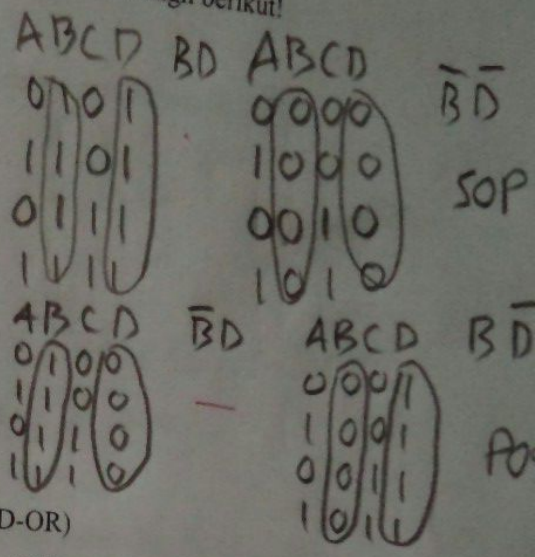
4. Buat gerbang logika berdasarkan fungsi boolean anda! Gambar dalam kotak dibawah ini!



Percobaan 2

1. Buat kombinasi gerbang logika berdasarkan peta karnaugh berikut!

CD \ AB	00	01	11	10
00	1	0	0	1
01	0	1	1	0
11	0	1	1	0
10	1	0	0	1

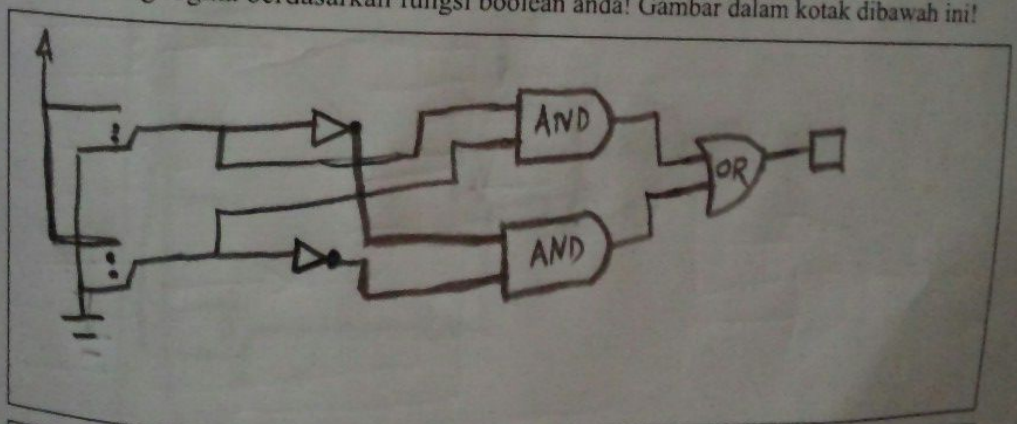


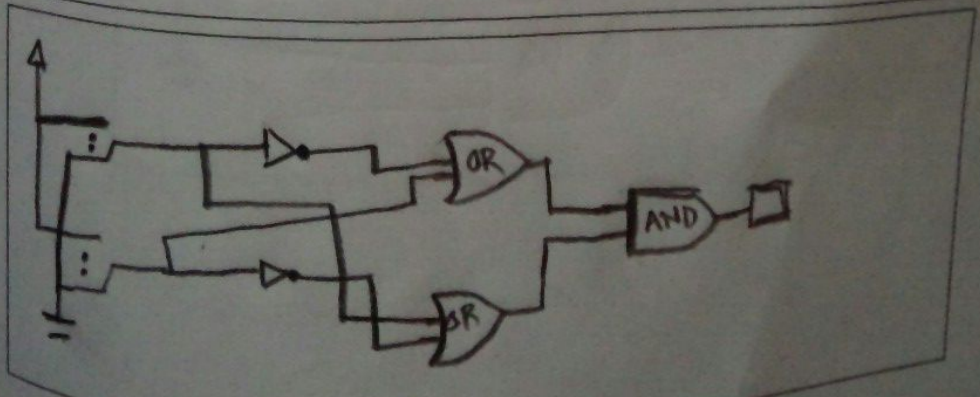
2. Fungsi boolean :

F = $B\bar{D} + \bar{B}\bar{D}$ ..... (AND-OR)

F = $(\bar{B}+D).(B+\bar{D})$ ..... (OR-AND)

3. Buat gerbang logika berdasarkan fungsi boolean anda! Gambar dalam kotak dibawah ini!





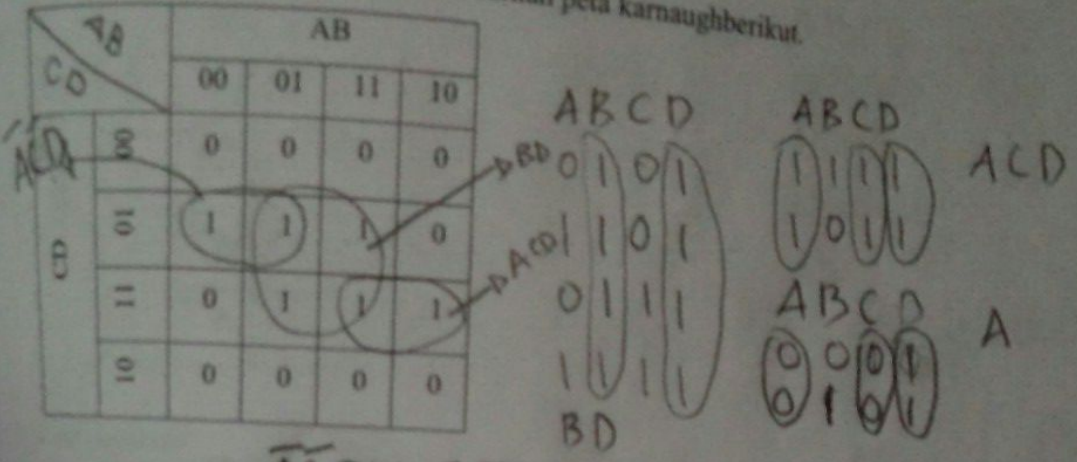
Apakah kedua kombinasi memberikan hasil yang sama? Ya / tidak

KEGIATAN PRAKTIKUM

Percobaan 1

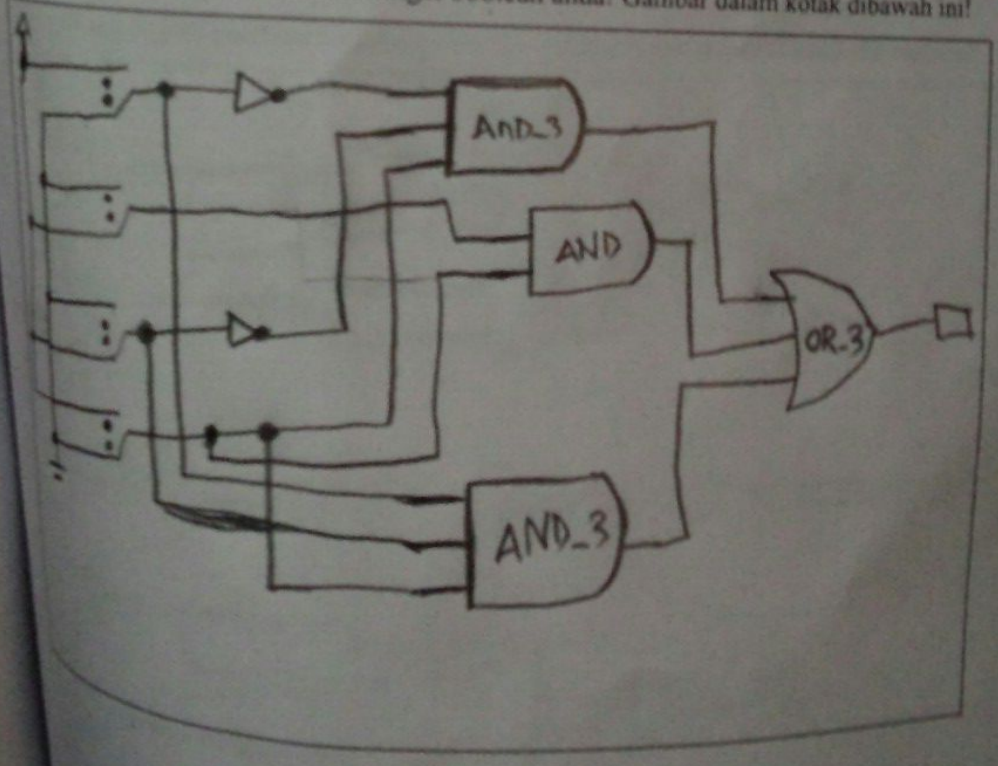
1. Buat kombinasi gerbang logika berdasarkan peta karnaughberikut.

CD \ AB	00	01	11	10
00	0	0	0	0
01	1	1	1	0
11	0	1	1	1
10	0	0	0	0



2. Fungsi boolean : F = $\bar{A}C\bar{D} + B\bar{D} + ACD$

1. Buat gerbang logika berdasarkan fungsi boolean anda! Gambar dalam kotak dibawah ini!



Percobaan 4

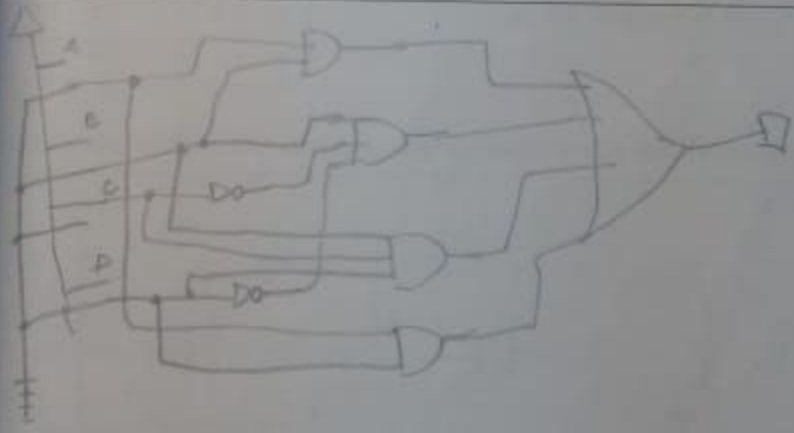
1. Fungsi boolean : $F = AD' + ABC + ABC' + BCD + BC'D' + AB'CD'$.

2. Berdasarkan fungsi boolean, isi titik-titik dalam peta karnaugh berikut!

		AB			
		00	01	11	10
CD	00	0	1	1	1
	01	0	–	1	–
	11	0	1	1	–
	10	0	–	1	1

3. Sederhanakan fungsi boolean : F = ...

4. Buat gerbang logika berdasarkan fungsi boolean anda! Gambar dalam kotak dibawah ini!



Percobaan 5

1. Tabel Fungsi boolean :

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

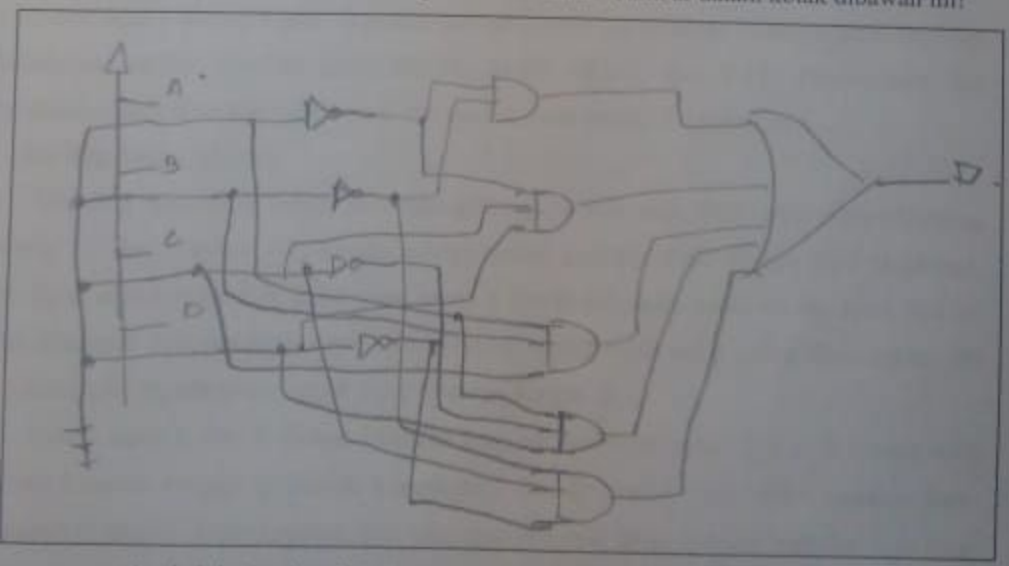
2. Berdasarkantabel. Isi titik-titik dalam karnaugh map berikut!

		AB			
		00	01	11	10
CD	00	1	....	1	....
	01	1	....	1	1
	11	1	1	....	....
	10	1	....	....	1

3. Fungsi booleansederhana:

F = $\bar{A}\bar{B}\bar{D} + \bar{A}\bar{C}\bar{D} + A\bar{B}\bar{C} + A\bar{C}\bar{D} + \bar{B}\bar{C}\bar{D}$

Buat gerbang logika berdasarkan fungsi boolean anda! Gambar dalam kotak dibawah ini!



Apakah kedua kombinasi memberikan hasil yang sama? Ya / Tidak