LAPORAN PRAKTIKUM

PRAKTIKUM ORGANISASI ARSITEKTUR KOMPUTER

MODUL : 03

" BINER, GERBANG LOGIKA, DAN ADDER "

NAMA	: ALFANSYAH PUTRA RAJA DINATA
NIM	: L0223002
HARI	: JUM'AT
TANGGAL	: 22 SEPTEMBER 2023
WAKTU	: 07.30 – 9.15
ASISTEN	: MUHAMMAD FIKRI ABDULLAH
	MUHAMMAD SYAFIQ IBRAHIM

PROGRAM STUDI SAINS DATA

FAKULTAS TEKNOLOGI INFORMASI DAN SAINS DATA

UNIVERSITAS SEBELAS MARET

2023

Modul 3

BINER, GERBANG LOGIKA, DAN ADDER

ALFANSYAH PUTRA RAJA DINATA (L0223002) / Jum'at, 22 September 2023
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KEGIATAN 1

Mengerjakan 6 soal biner beserta tahapannya.

1. 100 + 111 = 4 + 7 (Decimal)
   = 11 (Decimal) = **1100 (Biner)**

2. 1001 – 101 = 9 – 5 (Decimal)
   = 4 (Decimal) = **100 (Biner)**

3. 100 x 101 = 4 x 5 (Decimal)
   = 20 (Decimal) = **10100 (Biner)**

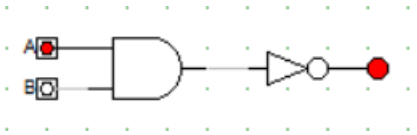
4. 10010 / 1001 = 18 / 9 (Decimal)
   = 2 (Decimal) = **10 (Biner)**

5. (110 – 10) x 11 = (6 – 2) x 3 (Decimal)
   = 4 x 3 (Decimal)
   = 12 (Decimal) = **1100 (Biner)**

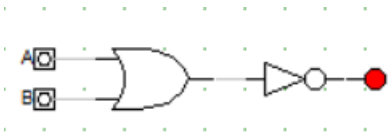
6. (110 + 100) / 101 = (6 + 4) / 5 (Decimal)
   = 10 / 5 (Decimal)
   = 2 (Decimal) = **10 (Biner)**

KEGIATAN 2

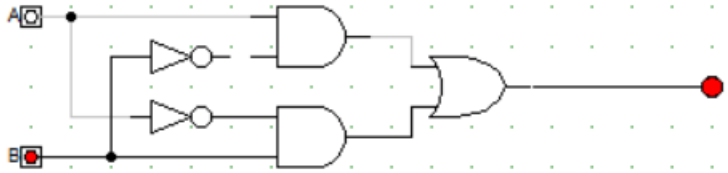
1. Gerbang NAND



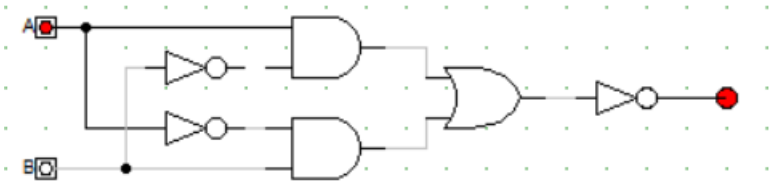
2. Gerbang NOR



3. Gerbang XOR

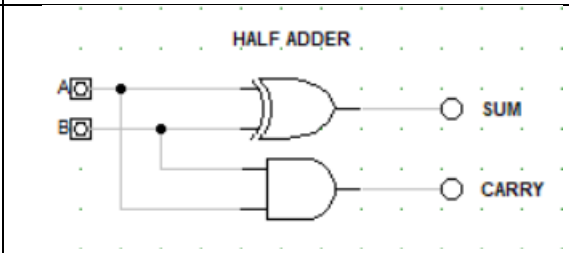
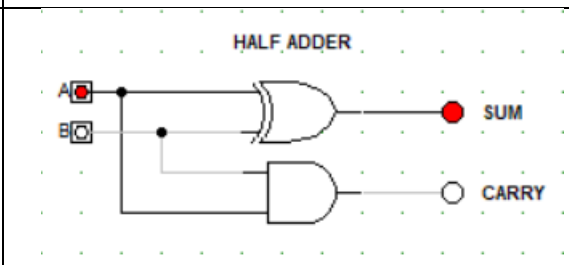
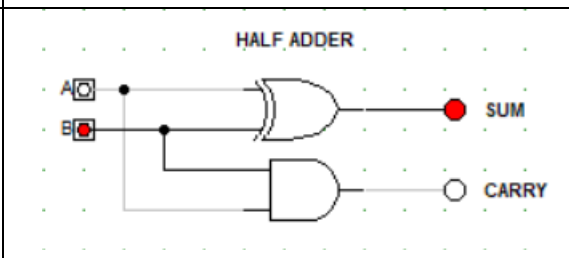
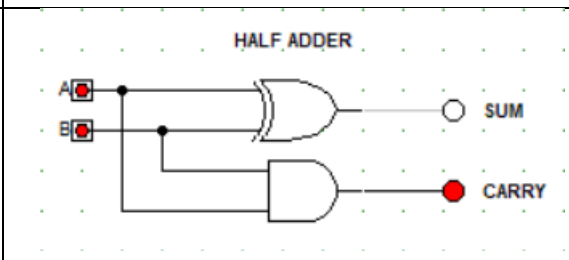


4. Gerbang XNOR

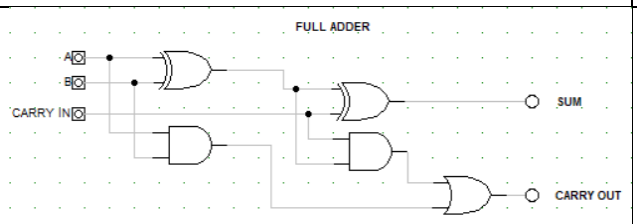
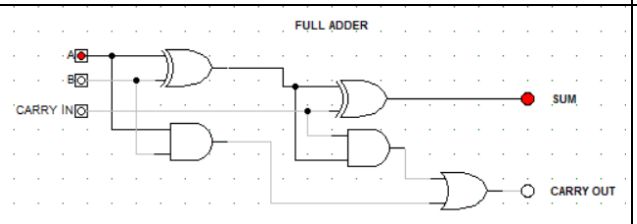
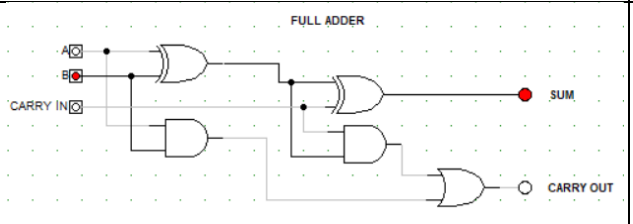
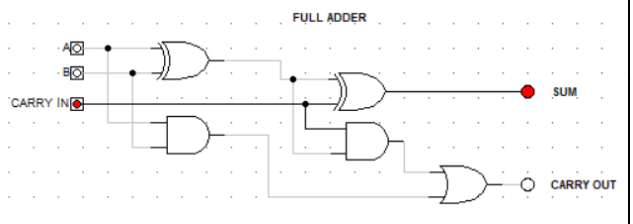
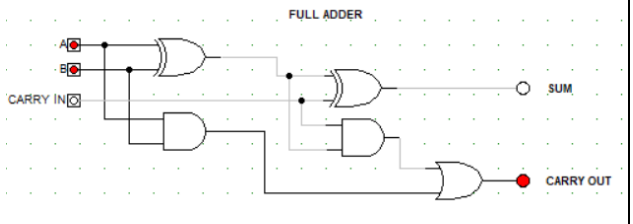
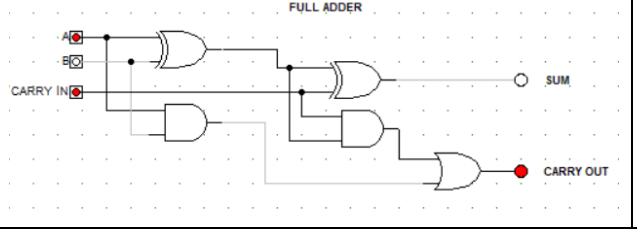


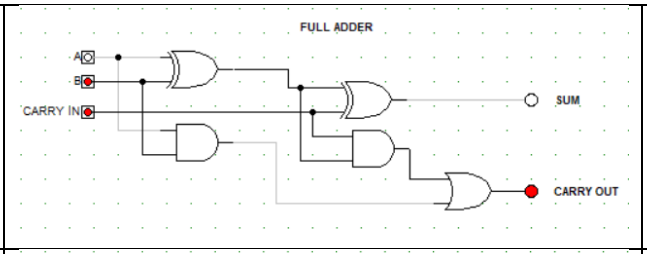
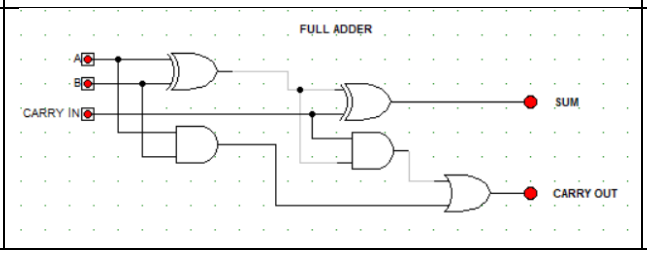
KEGIATAN 3

1. HALF ADDER

NO	GAMBAR	A	B	SUM	CARRY
1		0	0	0	0
2		1	0	1	0
3		0	1	1	0
4		1	1	0	1

2. FULL ADDER

NO	GAMBAR	A	B	CARRY IN	CARRY OUT	SUM
1		0	0	0	0	0
2		1	0	0	0	1
3		0	1	0	0	1
4		0	0	1	0	1
5		1	1	0	1	0
6		1	0	1	1	0

7		0	1	1	1	0
8		1	1	1	1	1

Alfansyah Putra Raja Dinata

Seorang pelajar yang suka belajar hal baru, khususnya di bidang komputer, terutama di bidang perangkat lunak (software), termasuk custom ROM dan custom Windows. Memiliki hobi fotografi di bidang arsitektur dan street photography. Ketika bosan, suka melakukan perjalanan (touring) sampai ke pelosok entah berantah hanya untuk mencari hal baru.