

Digital Logic

2015-09-10

$$F = (m \text{ OR } j) \text{ AND } \text{NOT}(s)$$

(1)

m	j	s	AND		F
			m OR j	NOT(s)	
0	0	0	0	1	0
0	0	1	0	0	0
0	1	0	1	1	1
0	1	1	1	0	0
1	0	0	1	1	1
1	0	1	1	0	0
1	1	0	1	1	1
1	1	1	1	0	0

3 different inputs
 2^3 possible

TRUTH
TABLE

$$F = (a \text{ AND } b) \text{ OR } (c \text{ AND } d)$$

(2)

TRUTH
TABLE

a	b	c	d	a AND b ^{←OR→}	c AND d	F
0	0	0	0	0	0	0
0	0	0	1	0	0	0
0	0	1	0	0	0	0
0	0	1	1	0	1	1
0	1	0	0	0	0	0
0	1	0	1	0	0	0
0	1	1	0	0	1	1
0	1	1	1	0	1	1
1	0	0	0	0	0	0
1	0	0	1	0	0	0
1	0	1	0	0	1	1
1	0	1	1	0	1	1
1	1	0	0	1	0	1
1	1	0	1	1	0	1
1	1	1	0	1	1	1
1	1	1	1	1	1	1