

# SOLUTION FOR LAB #1

CSC103

a	b	c	c	s
0	0	0	0	0
0	0	1	0	1
0	1	0	0	1
0	1	1	1	0
1	0	0	0	1
1	0	1	1	0
1	1	0	1	0
1	1	1	1	1

$$\begin{aligned}
 S &= (\text{NOT } a) \text{ AND } (\text{NOT } b) \text{ AND } c \\
 &\text{OR } (\text{NOT } a) \text{ AND } b \text{ AND } (\text{NOT } c) \\
 &\text{OR } a \text{ AND } (\text{NOT } b) \text{ AND } (\text{NOT } c) \\
 &\text{OR } a \text{ AND } b \text{ AND } c
 \end{aligned}$$

$$\begin{aligned}
 c &= (\text{NOT } a) \text{ AND } b \text{ AND } c \\
 &\text{OR } a \text{ AND } (\text{NOT } b) \text{ AND } c \\
 &\text{OR } a \text{ AND } b \text{ AND } (\text{NOT } c) \\
 &\text{OR } a \text{ AND } b \text{ AND } c
 \end{aligned}$$

