

P4.

$$A) f = \bar{S}_0 \bar{S}_1 W_0 + \bar{S}_0 S_1 W_1 + S_0 \bar{S}_1 W_2 + S_0 S_1 W_3$$

$$B) f = \bar{S}_0 \bar{S}_1 \bar{S}_2 W_0 + \bar{S}_0 \bar{S}_1 S_2 W_1 + \bar{S}_0 S_1 \bar{S}_2 W_2 + \bar{S}_0 S_1 S_2 W_3 + S_0 \bar{S}_1 \bar{S}_2 W_4 + S_0 \bar{S}_1 S_2 W_5 + S_0 S_1 \bar{S}_2 W_6 + S_0 S_1 S_2 W_7$$

• 8-to-1 MUX has eight data inputs, 3 selection lines, and one output.

P5.

A)

A	B	C	$A \oplus B \oplus C$
0	0	0	0
0	0	1	1
0	1	0	1
0	1	1	0
1	0	0	1
1	0	1	0
1	1	0	0
1	1	1	1

$$\bar{A} \cdot \bar{B} \cdot C$$

$$\bar{A} \cdot B \cdot \bar{C}$$

$$A \cdot \bar{B} \cdot \bar{C}$$

$$A \cdot B \cdot C$$

$$(\bar{A} \cdot \bar{B} \cdot C) +$$

$$(\bar{A} \cdot B \cdot \bar{C}) +$$

$$(A \cdot \bar{B} \cdot \bar{C}) +$$

$$(A \cdot B \cdot C)$$

