A	B	S_H	Cin	Cout	S_F
0	0	0	0	0	0
0	0	0	1	0	1
0	1	1	0	0	1
0	1	1	1	1	0
1	0	1	0	0	1
1	0	1	1	1	0
1	1	0	0	1	0
1	1	0	1	1	1

$$S = \overline{A}\,\overline{B}\,C + \overline{A}B\overline{C} + A\overline{B}\,\overline{C}$$
$$+ \,ABC$$

XNOR

$$= \left(\overline{A}B + \overline{B}A\right)\overline{C} + C\left(\overline{A}\,\overline{B} + AB\right)$$

XOR

XOR $= D\overline{E} + E\overline{D}$

$$S = A \oplus B \oplus C$$

$$Cout = \overline{A}BC + A\overline{B}C + AB\overline{C}$$
$$+ \,ABC$$

$$= \left(\overline{A}B + A\overline{B}\right)C + AB(C + \overline{C})$$

$$= (A \oplus B)C + AB \Rightarrow \text{Majority gate}$$