

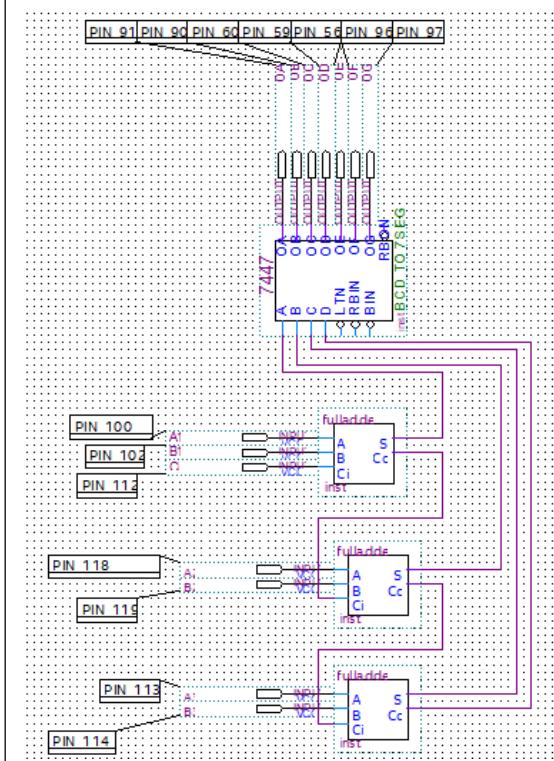
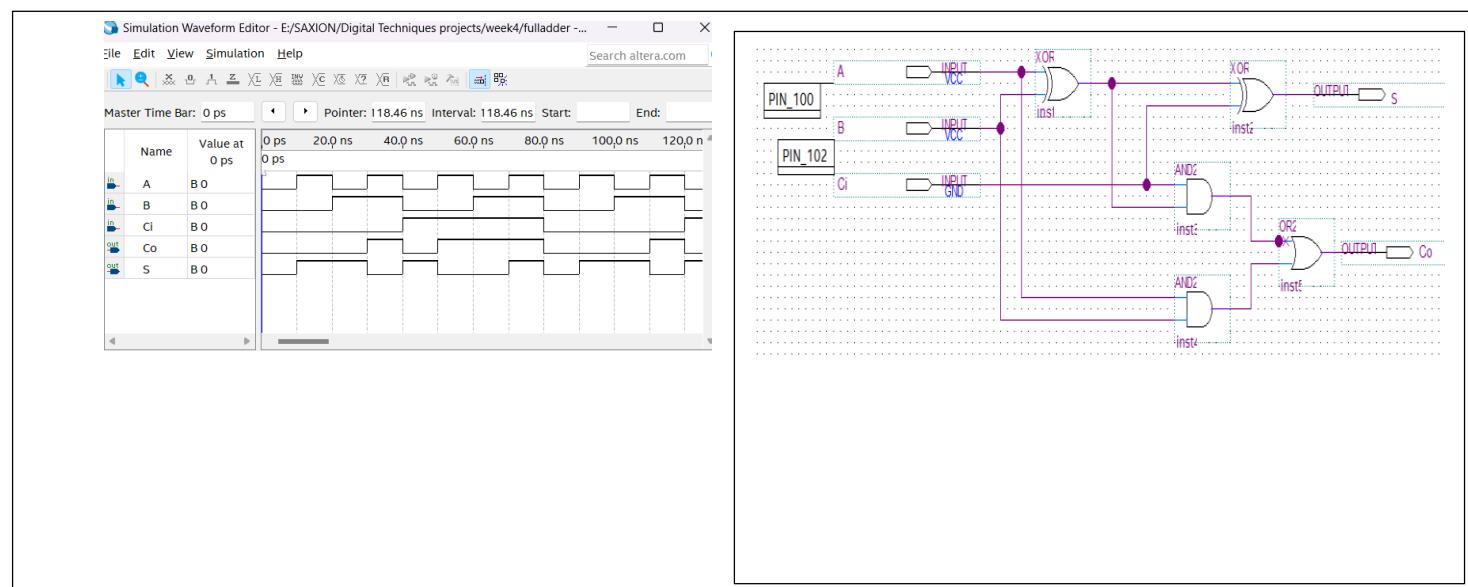
A	B	C _i	C _o	S
0	0	0	0	0
0	0	1	0	1
0	1	0	0	1
0	1	1	1	0
1	0	0	0	1
1	0	1	1	0
1	1	0	1	0
1	1	1	1	1

AB/C _i	0	1
00	0	1
01	1	0
11	0	1
10	1	0

$\bar{A}\bar{B}C_i + \bar{A}B\bar{C}_i + ABC_i + A\bar{B}\bar{C}_i$
 $= B(\bar{A}\bar{C}_i + AC_i) + \bar{B}(\bar{A}C_i + A\bar{C}_i)$
 $= B(A \oplus C_i) + \bar{B}(A \oplus C_i)$
 $= B \oplus (A \oplus C_i)$

AB/C _i	0	1
00	0	0
01	0	1
11	1	1
10	0	1

$BC_i + AB + AC_i$



Simulation: This is the result of full adder which is on the truth table above.