FULL SUBTRACTOR:

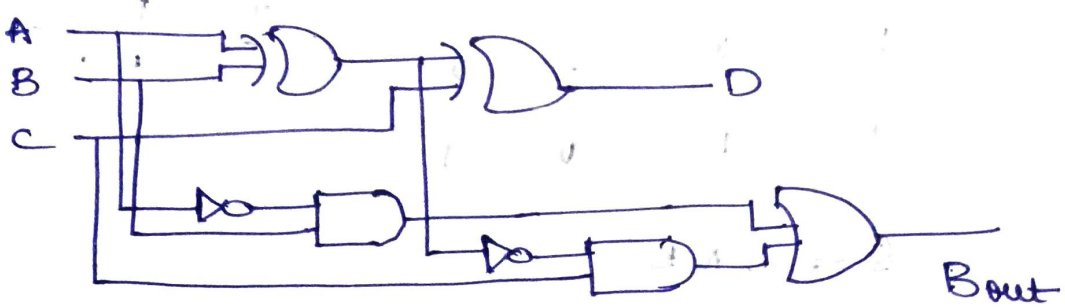
The full subtractor consists of three inputs and two outputs. Let, the three inputs denotes the minuend, subtrahend and previous borrow as A, B, B_{in}. the output are D and Bout represents difference and Borrow.

the full subtractor is a combinational circuit that performs the subtraction operation.

these subtractors are used in processors to compute tables, addresses, etc..

Truth table:—

A	B	B_{in}	D	Bout
0	0	0	0	0
0	0	1	1	1
0	1	0	1	1
0	1	1	D	1
1	0	0	1	0
1	0	1	0	0
1	1	0	0	0
1	1	0	1	1



$D = A \wedge B \wedge B_{in}$

$B_{out} = (\neg a \& c) | (\neg a \& b) | (b \& c)$