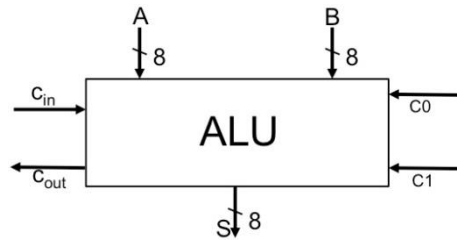


QUESTION: [35 points]

Design an 8 bit ALU with functionalities given in the below table, using full adders and logical elements (and, or, mux etc.).

(Note: Assume $B/2$ in the table refers to: $\left\lfloor \frac{B}{2} \right\rfloor$)



<u>C1C0</u>	<u>İŞLEM</u>
00	$S = A + B + C_{in}$
01	$S = -A + B$
10	$S = 1 + (B/2)$
11	$S = A + (B/2)$

SOLUTION:

