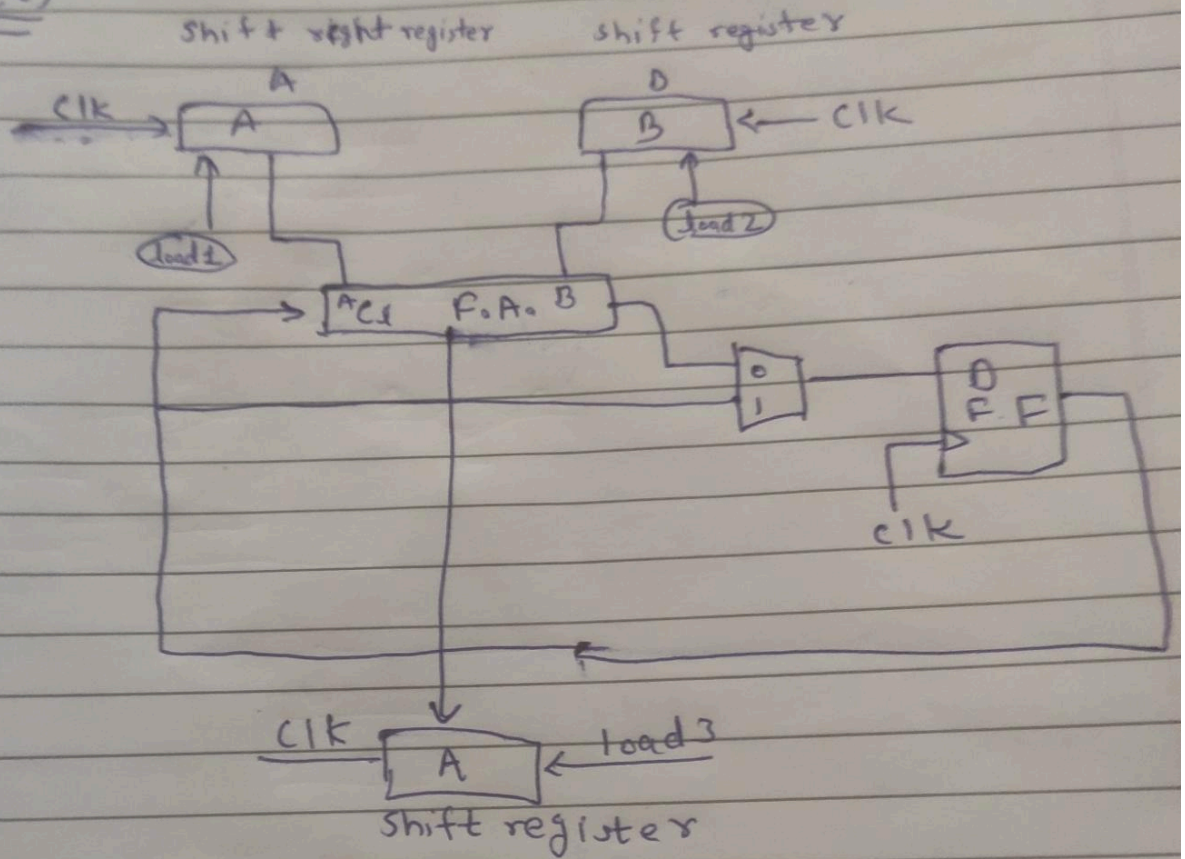


Control unit

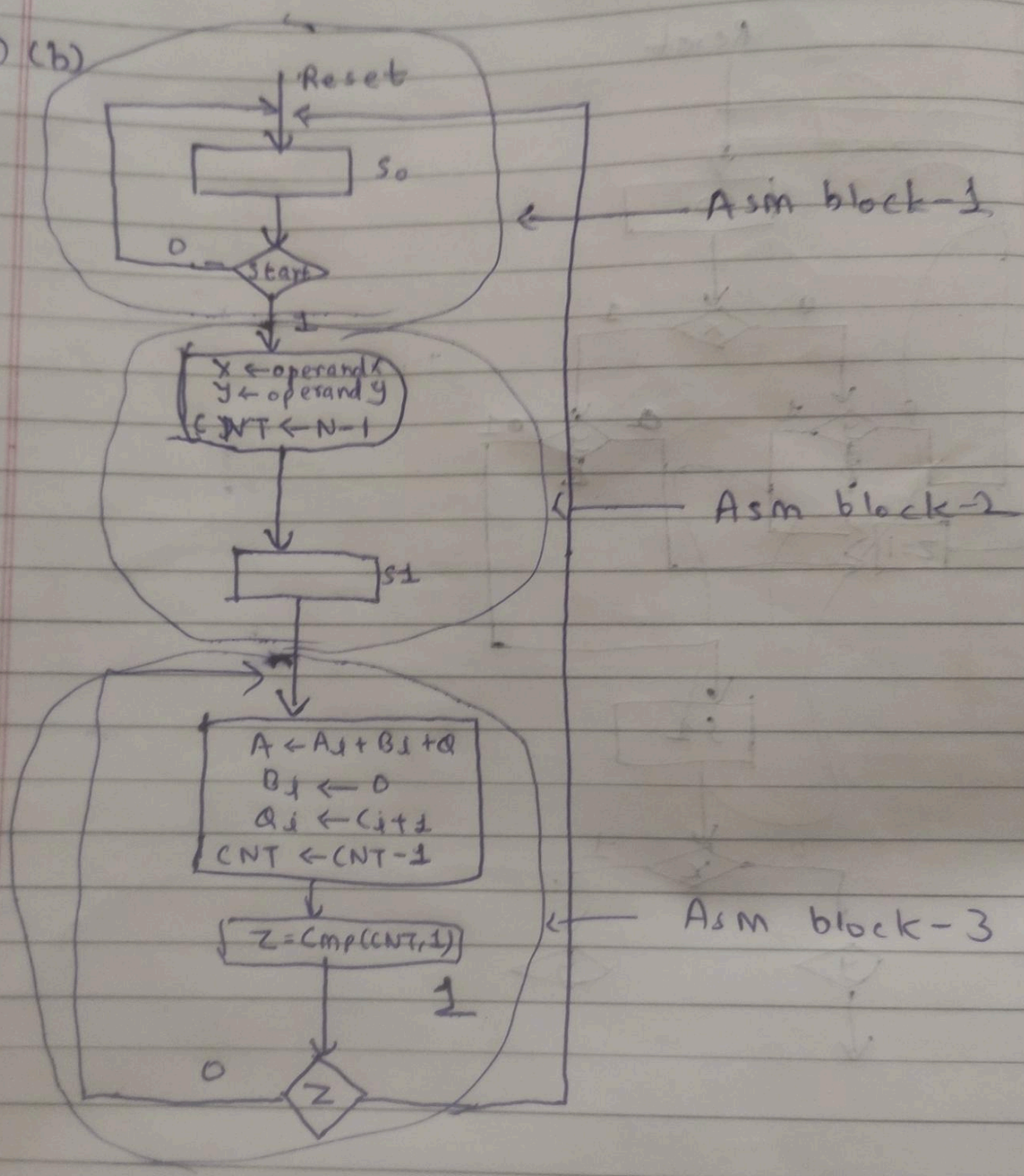
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SIDDHARTH CHARAN

Q.10 (c)

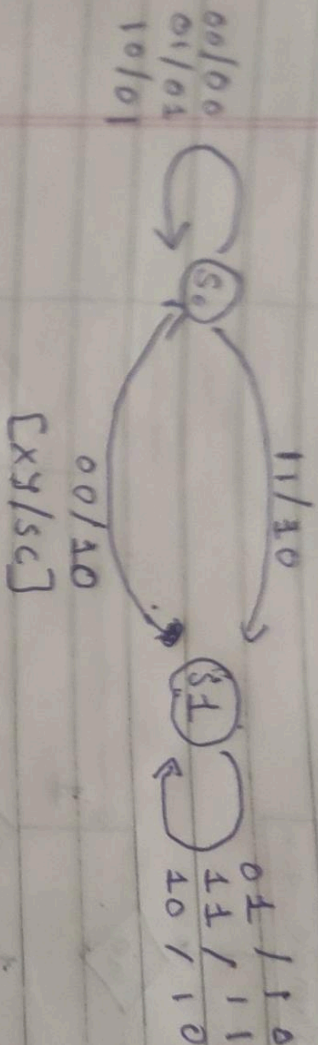


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Q.1 (b)

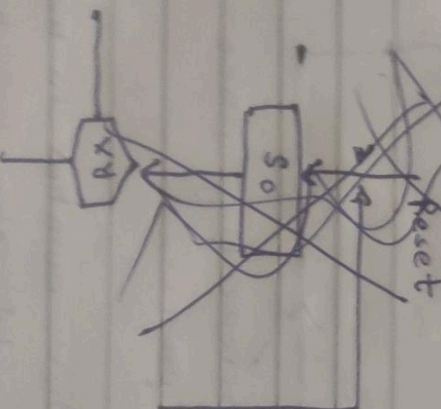


Q.1 (a)



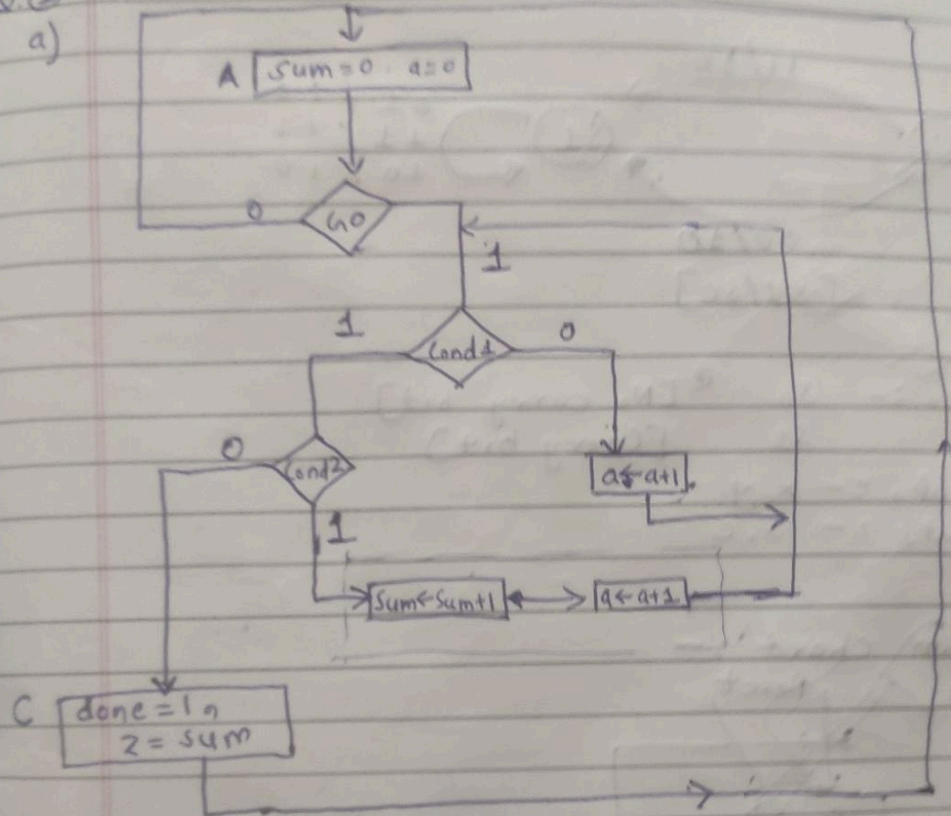
States :- S_0 [No carry bit]
 S_1 [Carry bit]
 inputs :- x, y
 outputs :- s, c

(b) Asim Charaf



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Q.2
a)



states \Rightarrow A: start B: incrementing state C: output
[Asm blocks] go: signal to start process.

* \rightarrow cond1 :- check whether number is odd or even
 \rightarrow cond2 :- if a is odd check whether it is less than or equal to $2N-1$.