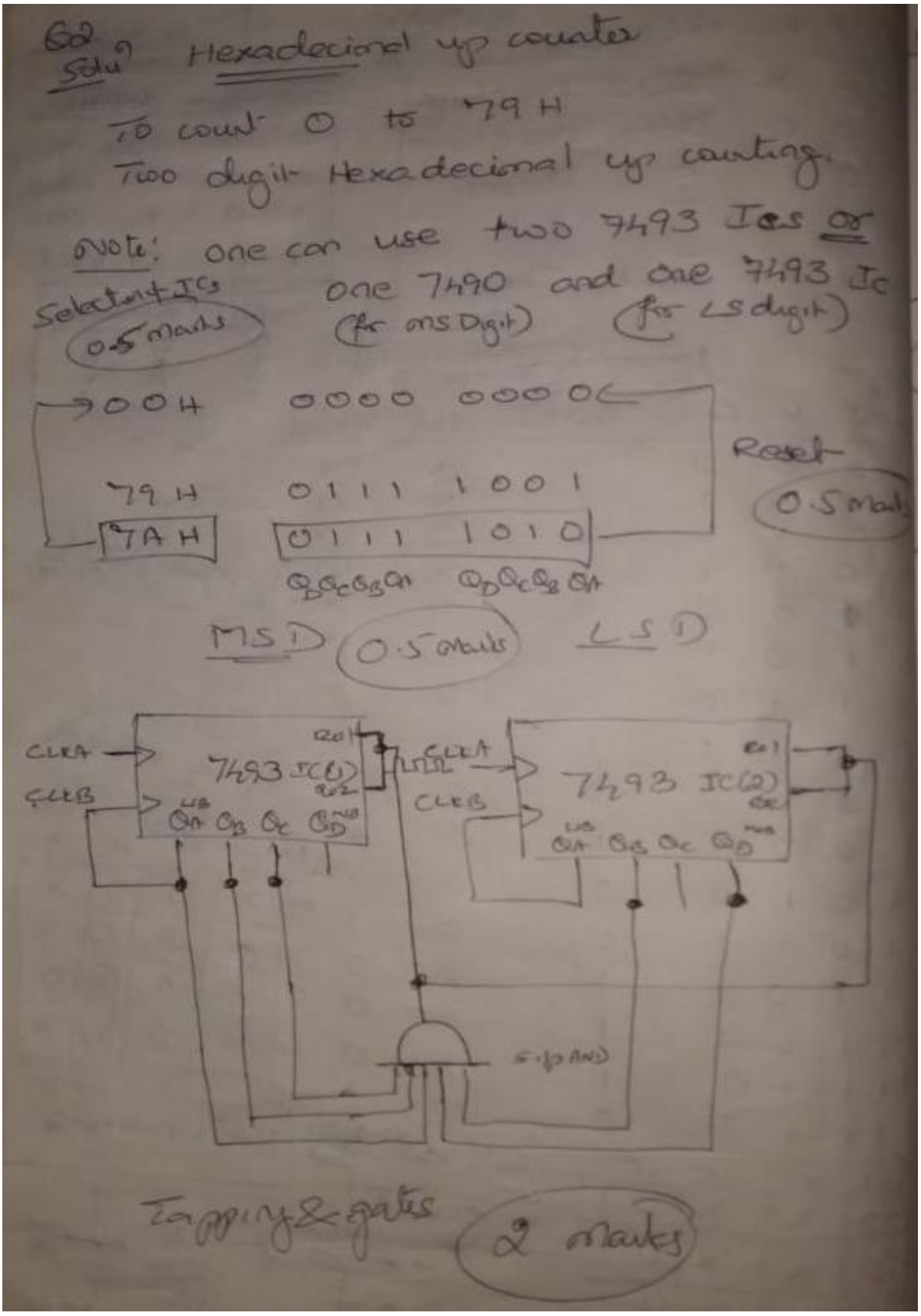
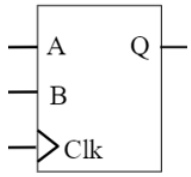
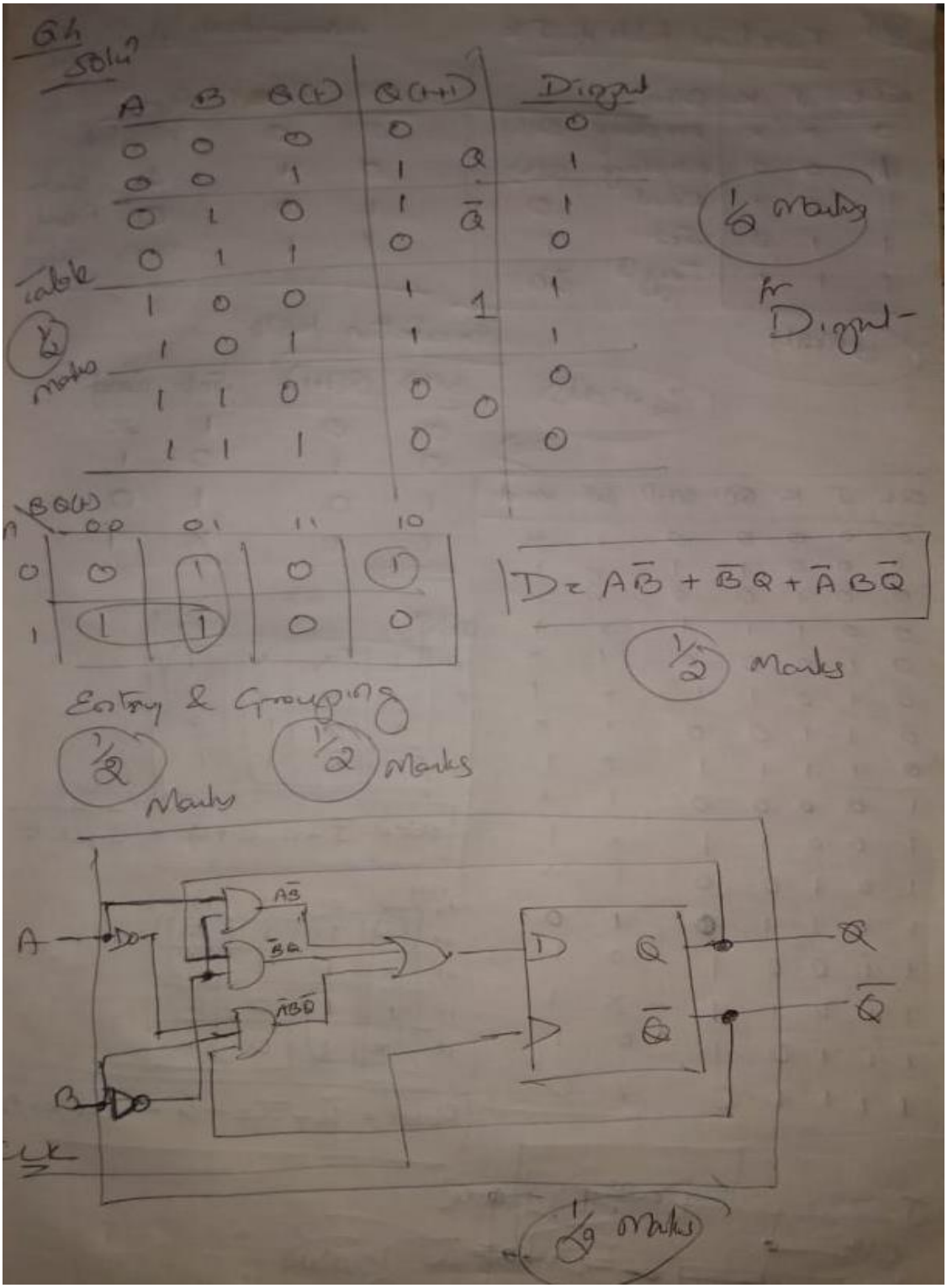
Q2.. Construct a hexadecimal up counter to count from 0 to 79H using minimum asynchronous ICs and external gates. Draw the logic diagram. 3 Marks



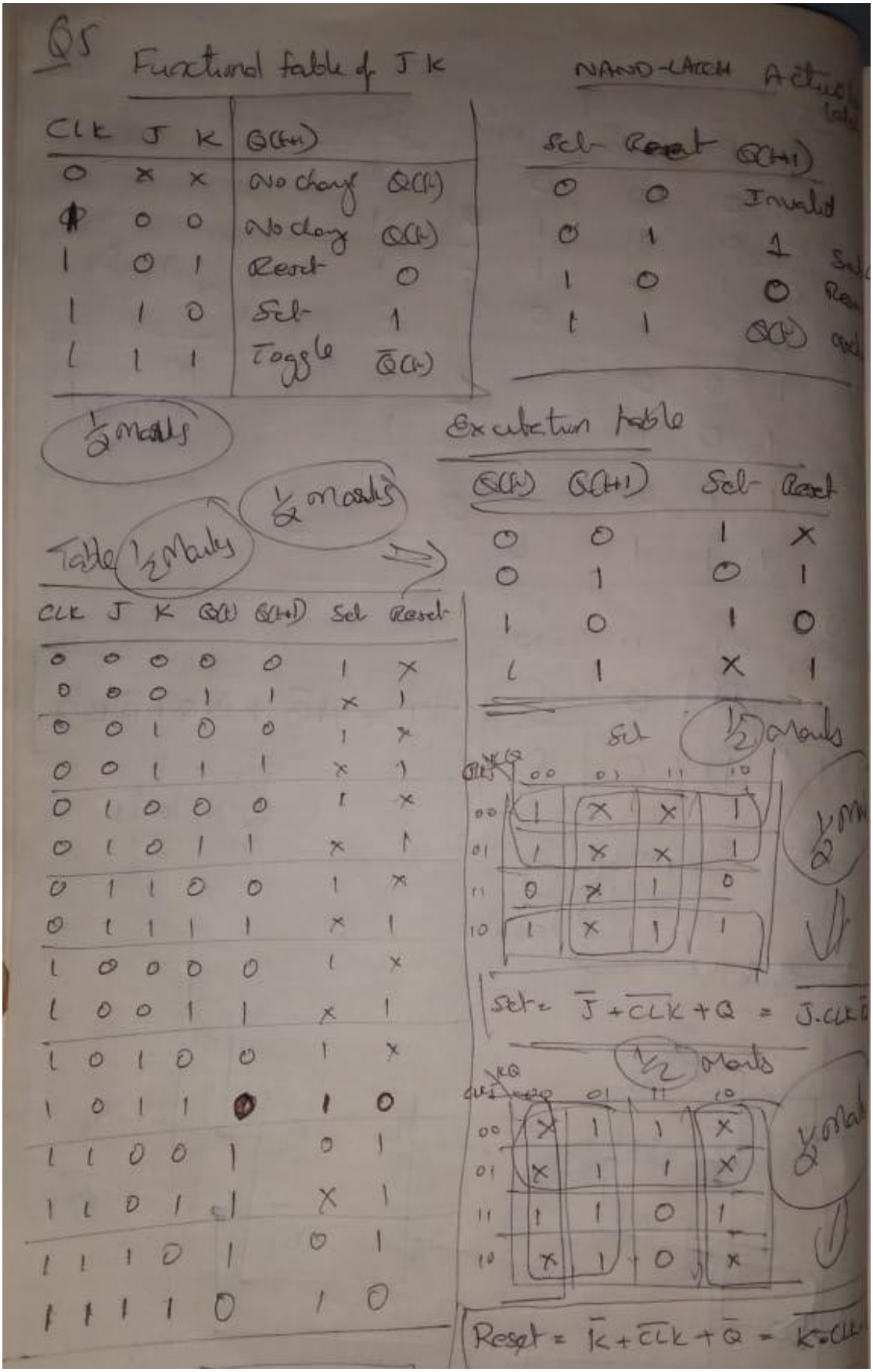
Q4. Function table defines the working of a fictious AB flip flop. Design the AB flip flop using D flip flop and external gates. **3 Marks**

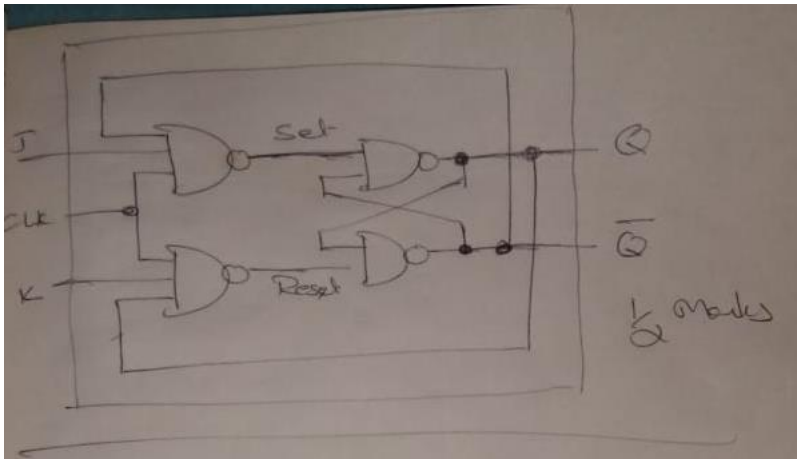
A	B	Q(t+1)
0	0	Q
0	1	Q'
1	0	1
1	1	0





Q5. Design a JK flip flop using a basic NAND latch and gates




J
Clk
K
Set
Reset
Q
$\bar{Q}$
½ Marks