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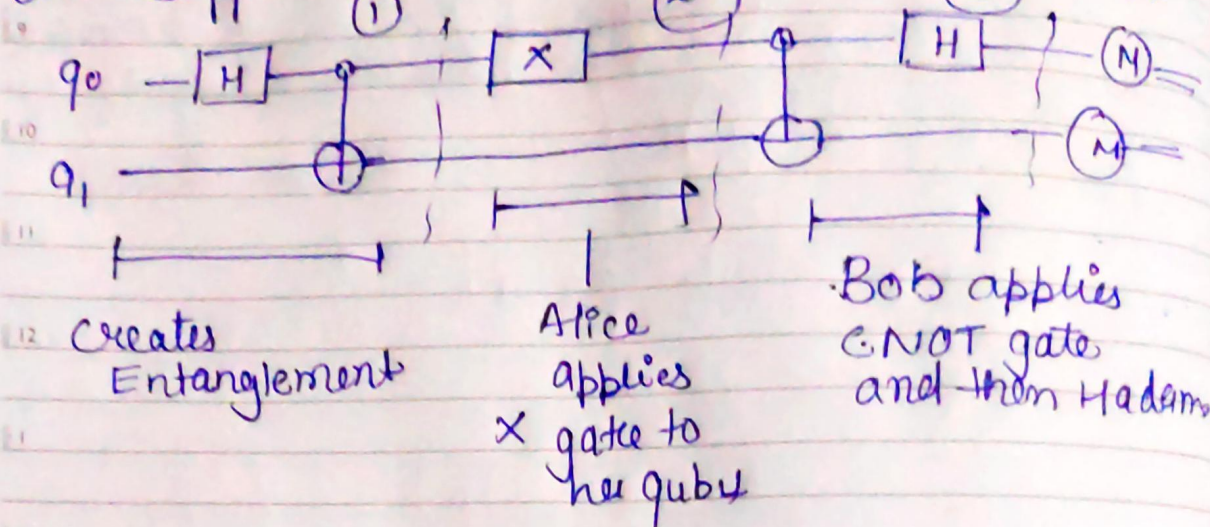
AUGUST  
FRIDAY

PSET -3

2017

WK 34 • 237

01. Suppose Alice wants to send 10 as a message



So, it'll go like

Step 1 Entanglement

$$\frac{1}{\sqrt{2}} (|00\rangle + |11\rangle)$$

Step 2 Alice applies X gate

$$\frac{1}{\sqrt{2}} (|01\rangle + |10\rangle)$$

Step 3: Bob applies CNOT and H

$$\text{CNOT} \Rightarrow \frac{1}{2} (|11\rangle + |10\rangle)$$

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7	14	21	28	
1	8	15	22	29
2	9	16	23	30
3	10	17	24	31
4	11	18	25	
5	12	19	26	
6	13	20	27	

Notes

$$\boxed{H \rightarrow |10\rangle}$$