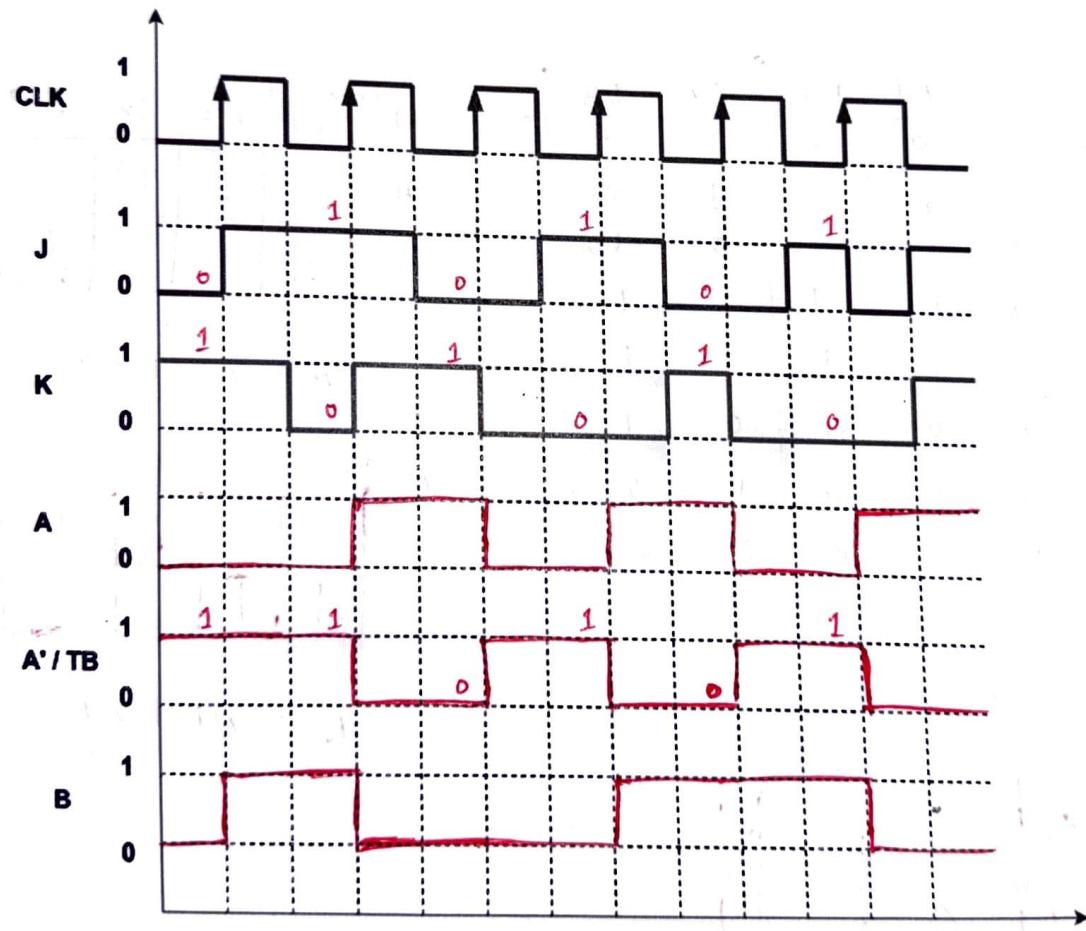
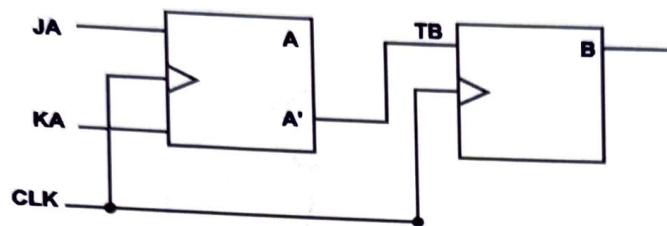


Name: *Solution.*

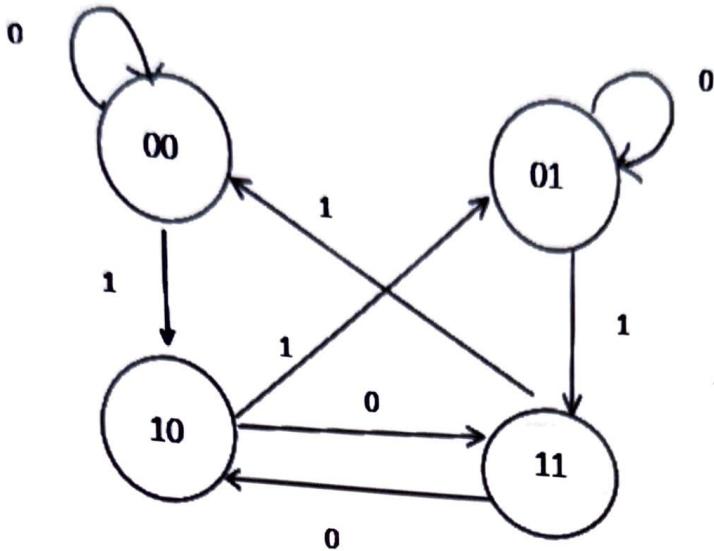
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Section:

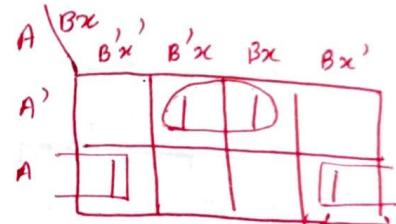
1. Complete the timing diagram for the following Flip-flop circuit diagram. The FF is positive edge triggered.



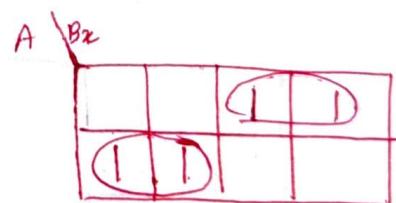
2. Convert the State diagram to a Circuit diagram using D flip-flops



A	B	X	A+	B+	DA	DB
0	0	0	0	0	0	0
0	0	1	1	0	1	0
0	1	0	0	1	0	1
0	1	1	1	1	1	1
1	0	0	1	1	1	1
1	0	1	0	1	0	1
1	1	0	1	0	1	0
1	1	1	0	0	0	0



$$DA = A'B' + AB' = A \oplus B$$



$$DB = AB' + A'B = A \oplus B$$

