



Inspiring Excellence

CSE260: Digital Logic Design

Summer 2025

Quiz - 04

Duration: 30 minutes

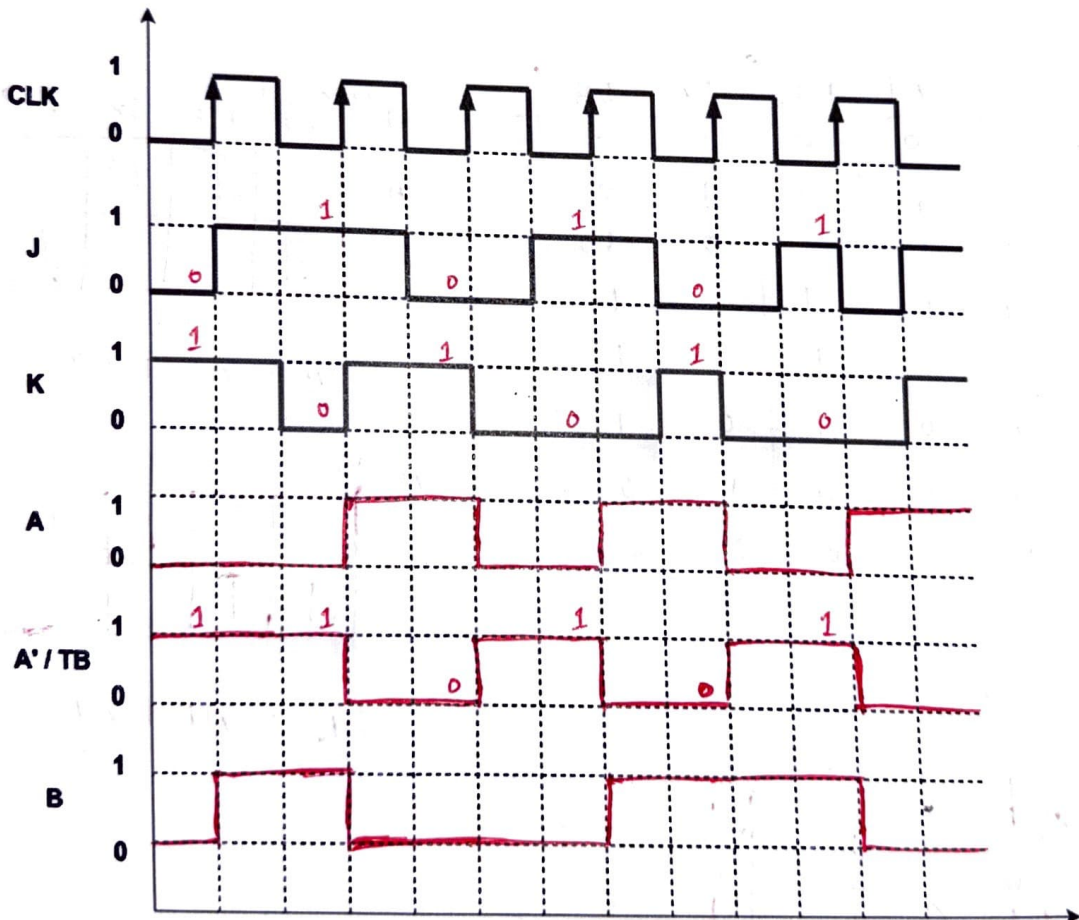
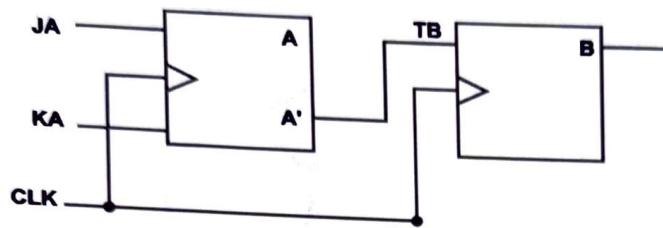
B

Name: Solution.

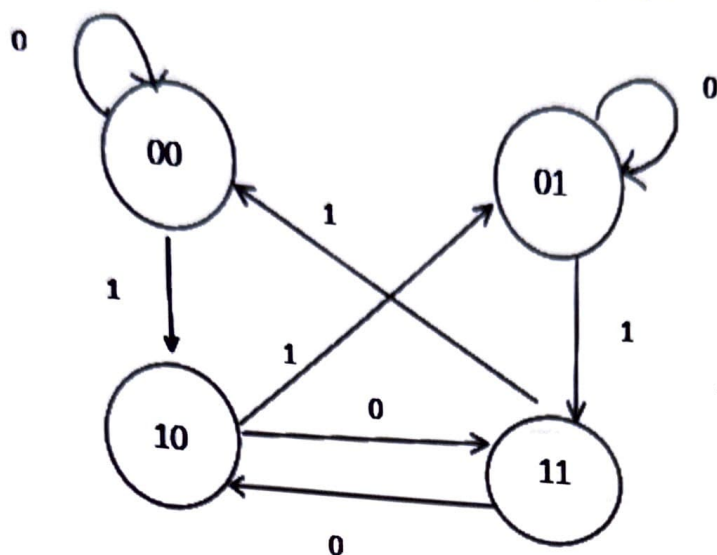
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Section:

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

A \ Bx	B'x	B'x	Bx	Bx'
A'		1	1	
A	1			1

$$DA = A'x + Ax' = A \oplus x$$

A \ Bx	Bx	Bx	Bx'
A		1	1
A'	1	1	

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

