

# Assignment 6

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ID:

15434

Department:

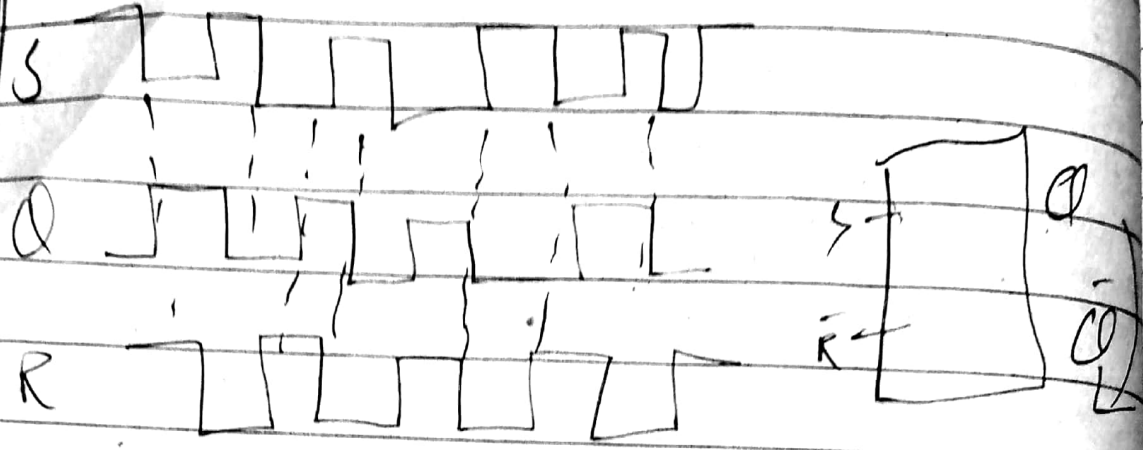
Computer Science

Submitted To:

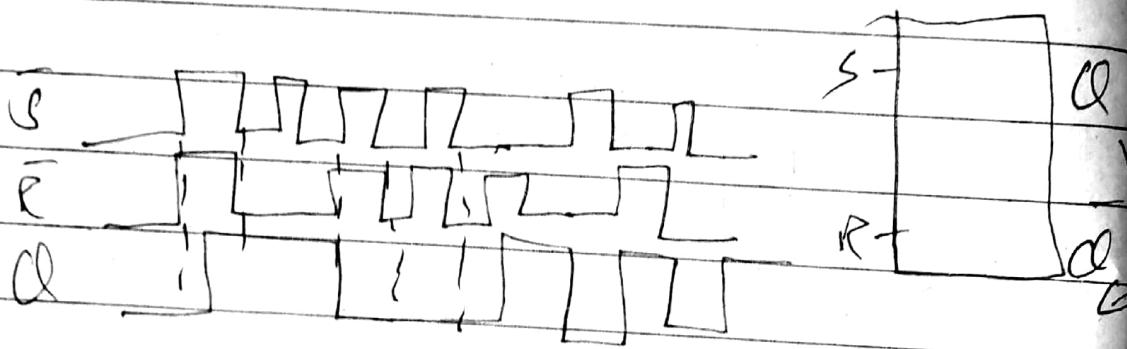
Sir M. Amin.

1

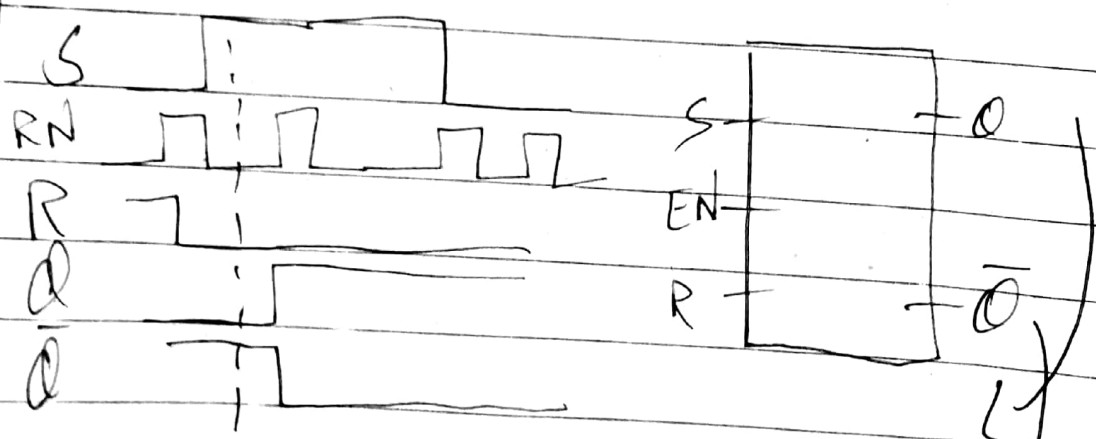
Q1



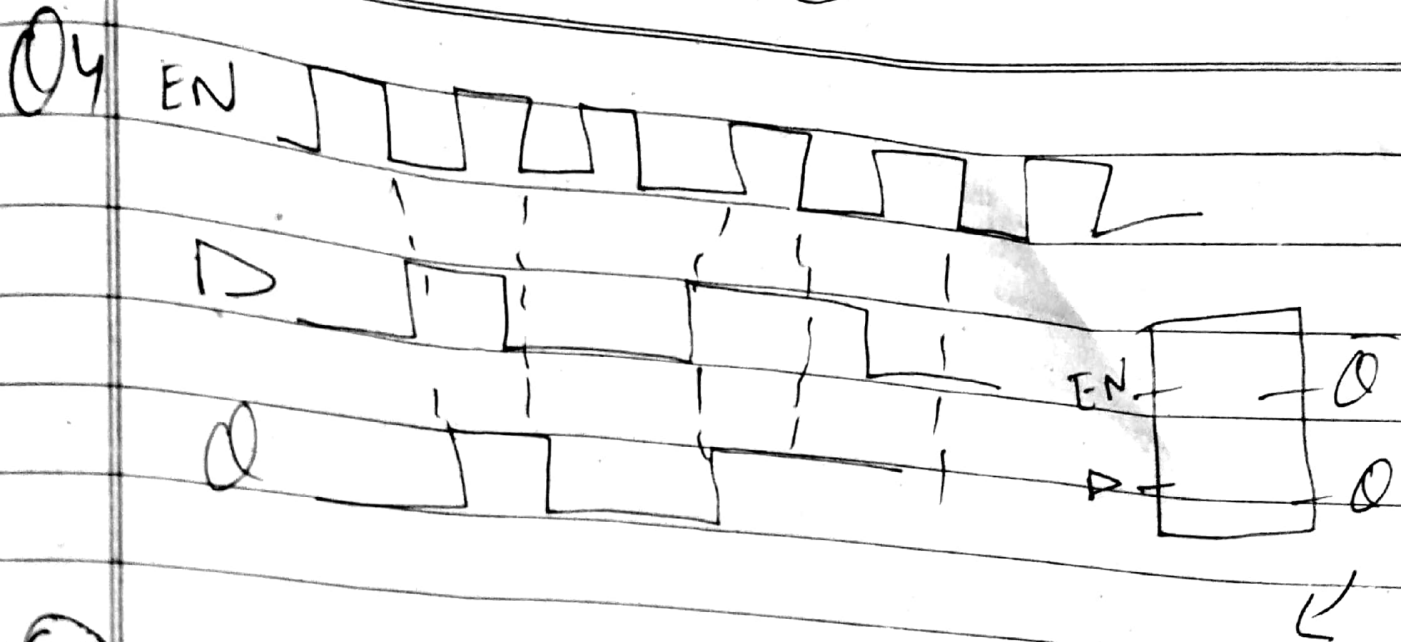
Q2



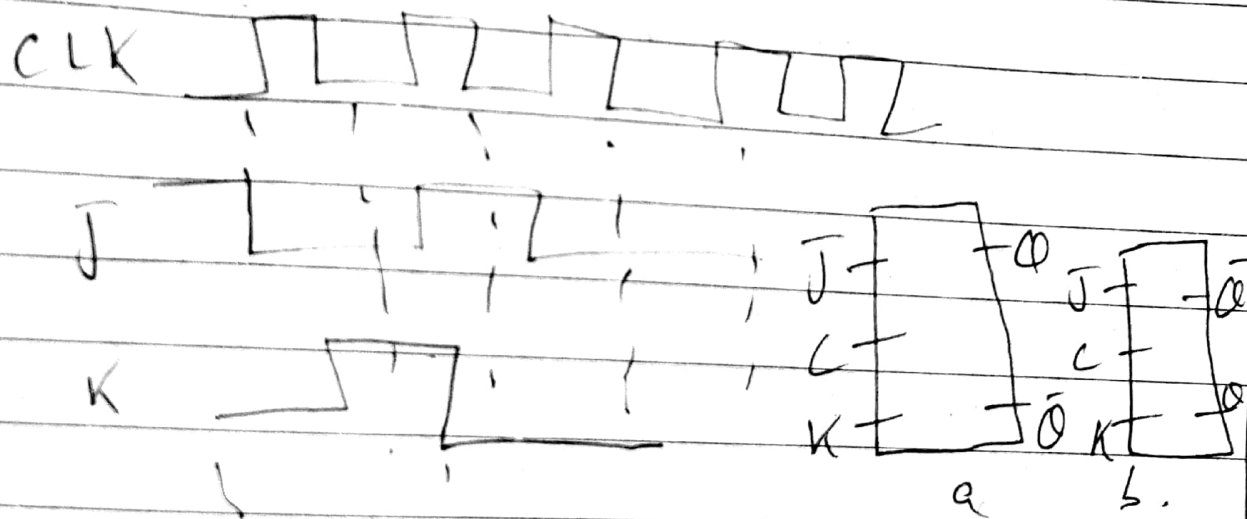
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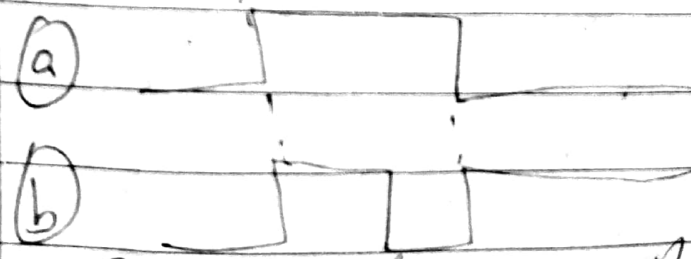
(2)



(05)



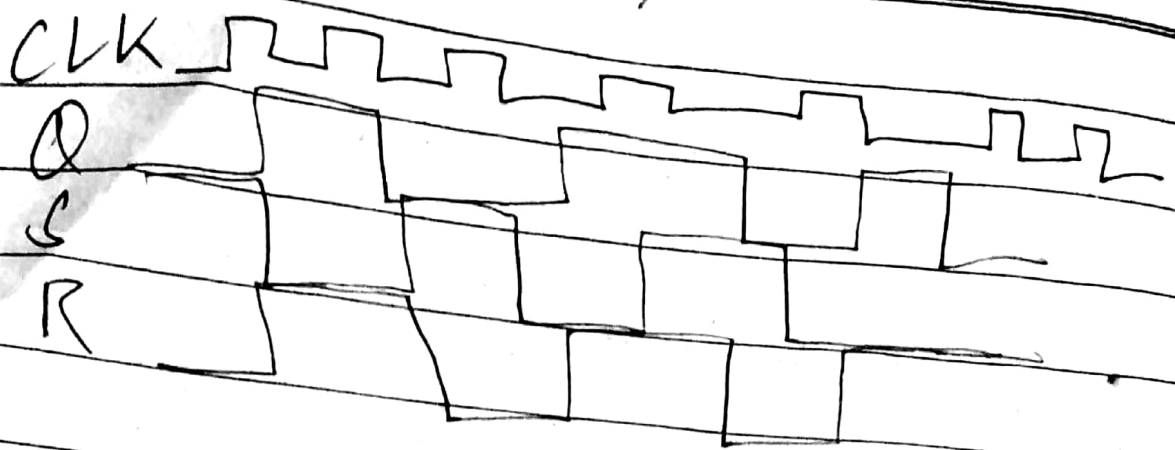
(06)



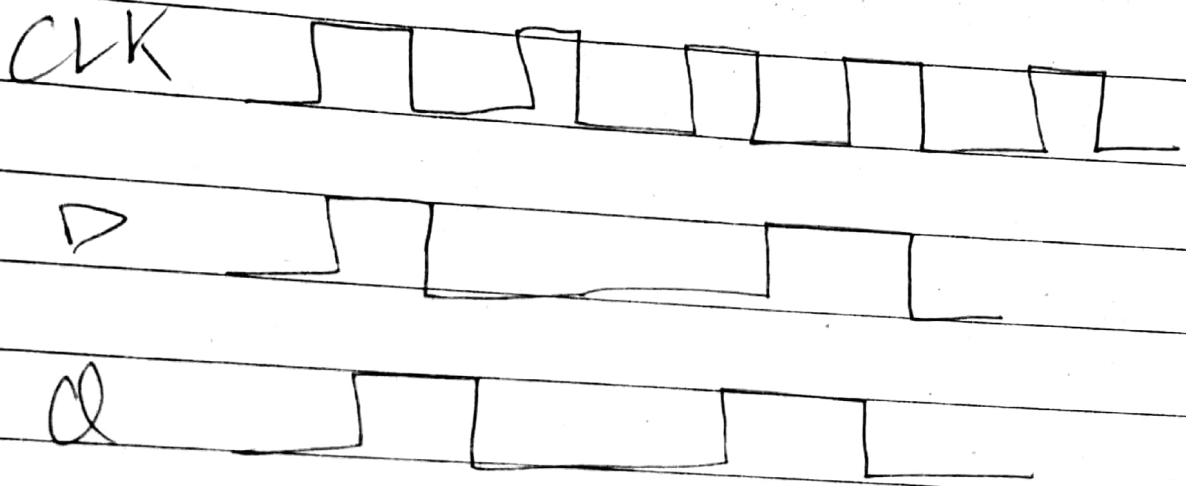
The difference b/w edge triggered JK flip flop is that one is negative & another is positive.

(3)

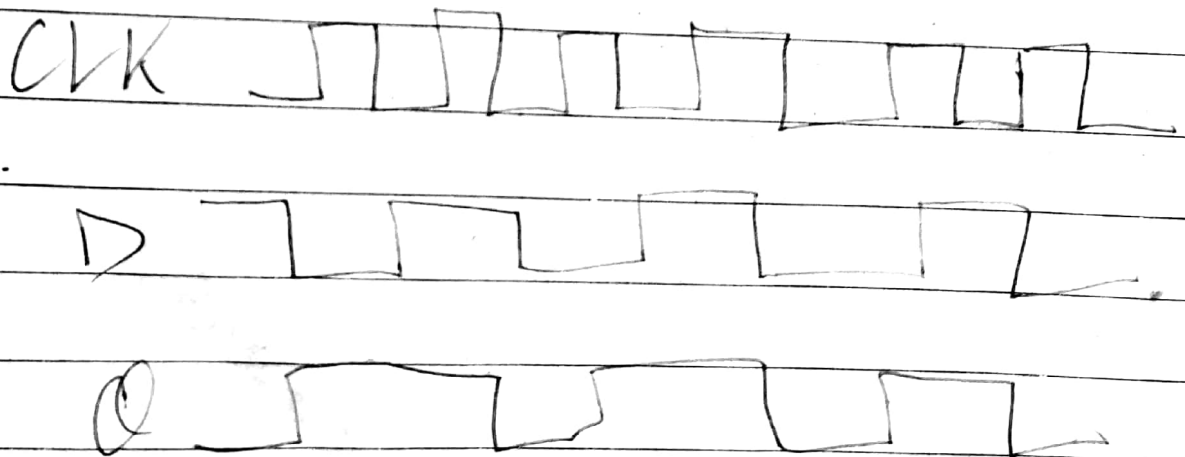
06



07



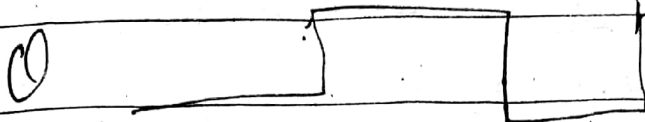
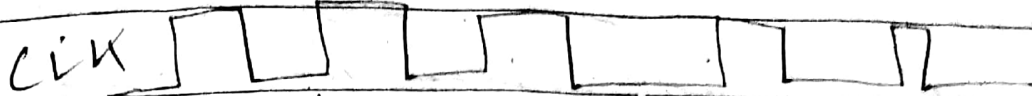
08



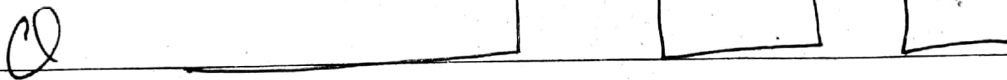
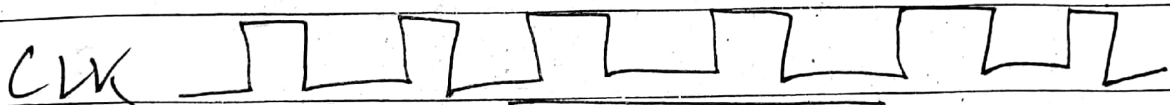


4

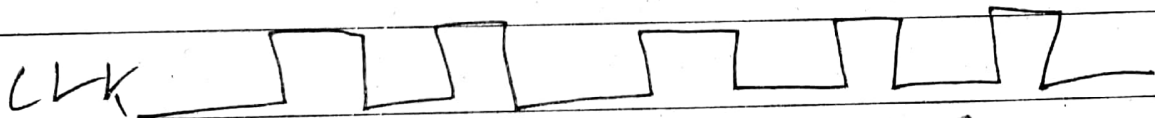
(10)



(11)



(12)

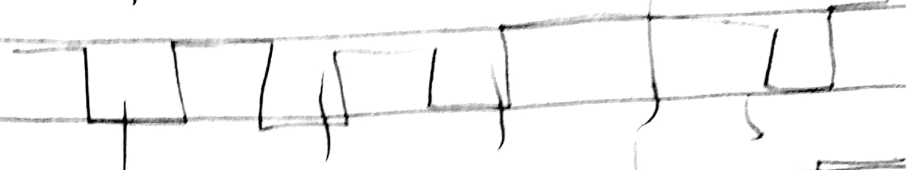


5.

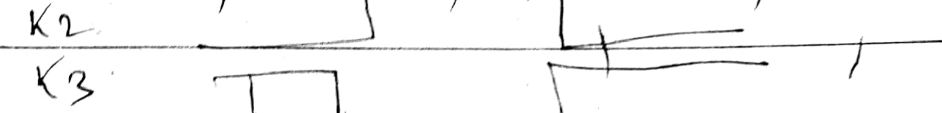
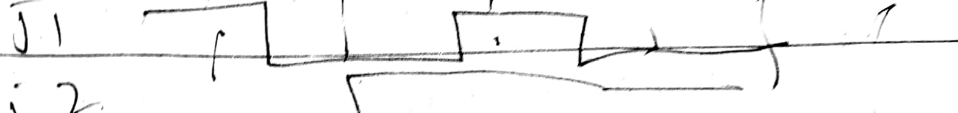
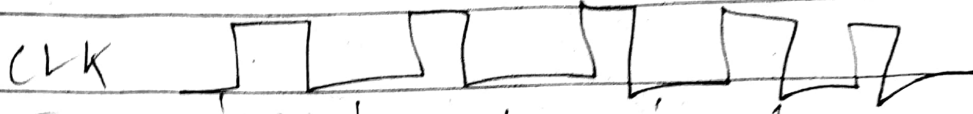
Q12



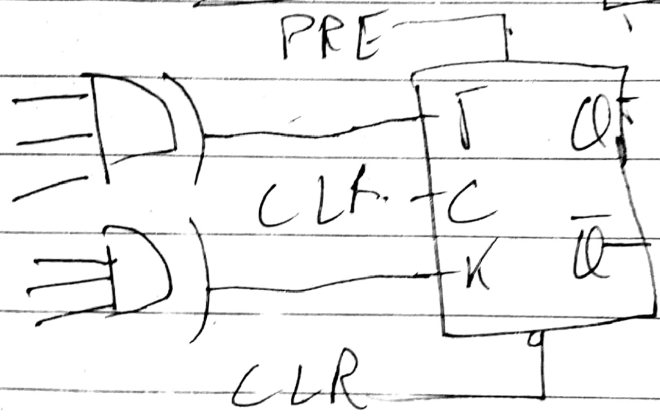
Q13



Q14



~~Q13~~



(6)

Q13

$$J_1 = 1010011$$

$$J_2 = 0111000$$

$$J_3 = 1111000$$

$$J = 0010000$$

$$K_1 = 0001110$$

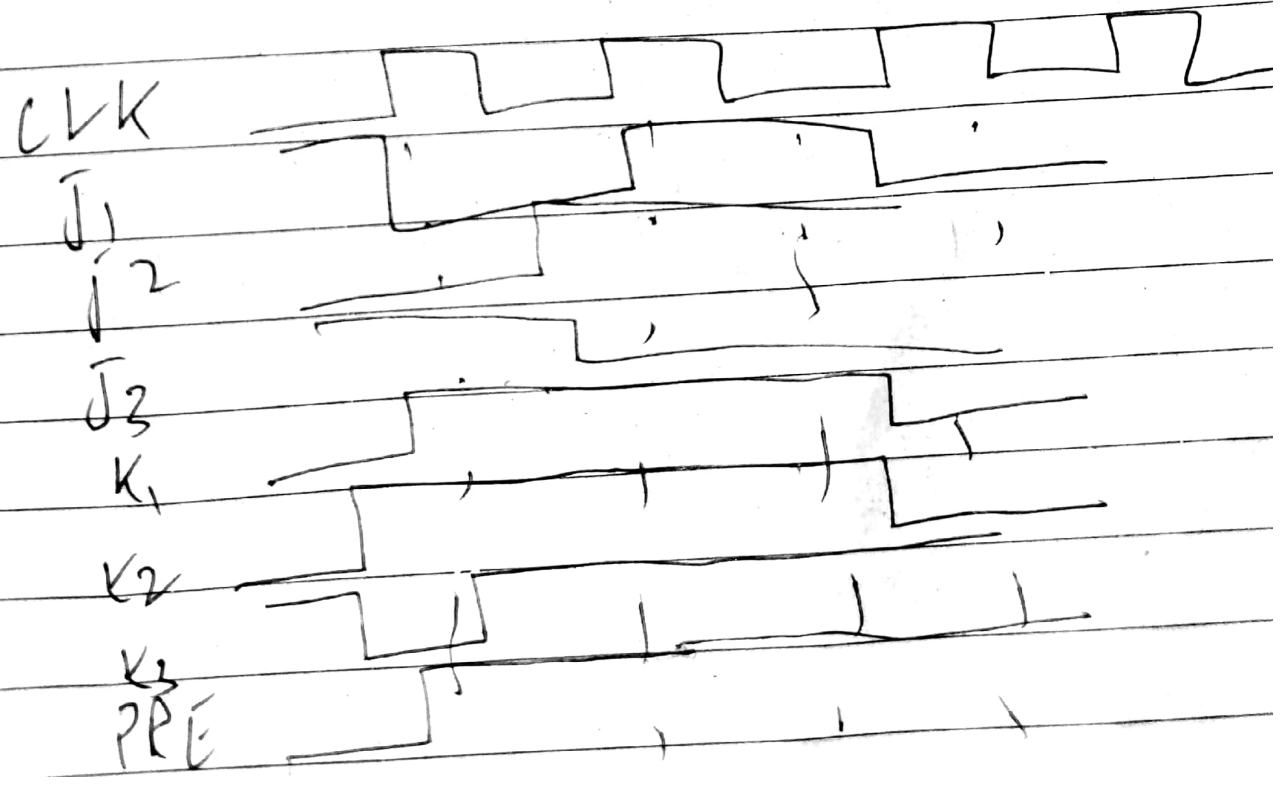
$$K_2 = 1101100$$

$$K_3 = 1010101$$

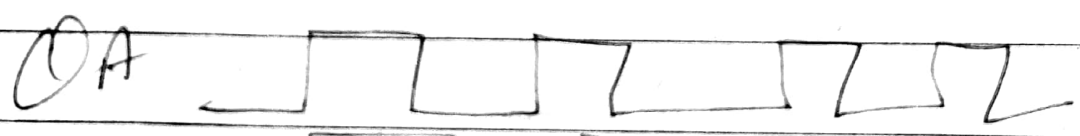
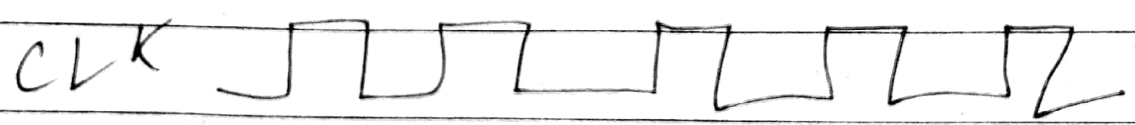
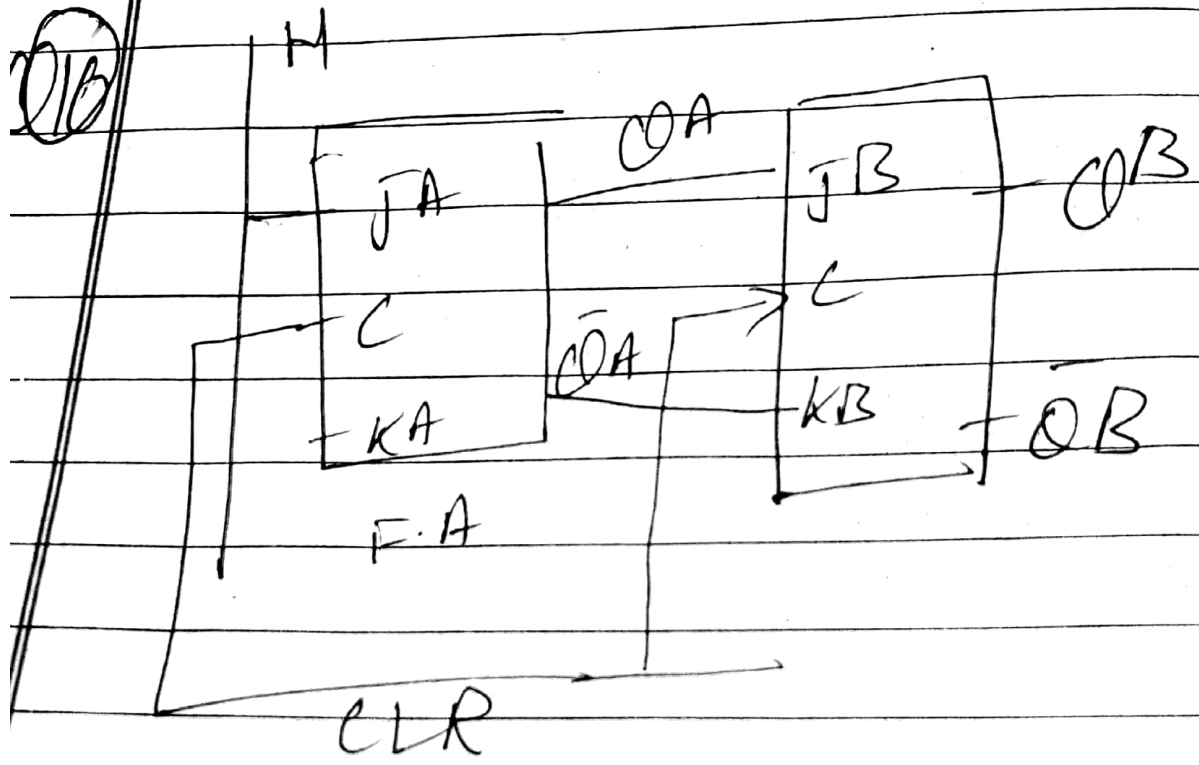
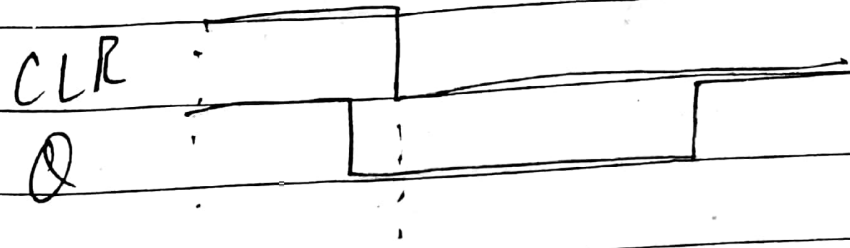
$$K = 0000100$$

$$D = 0011000$$

Q15



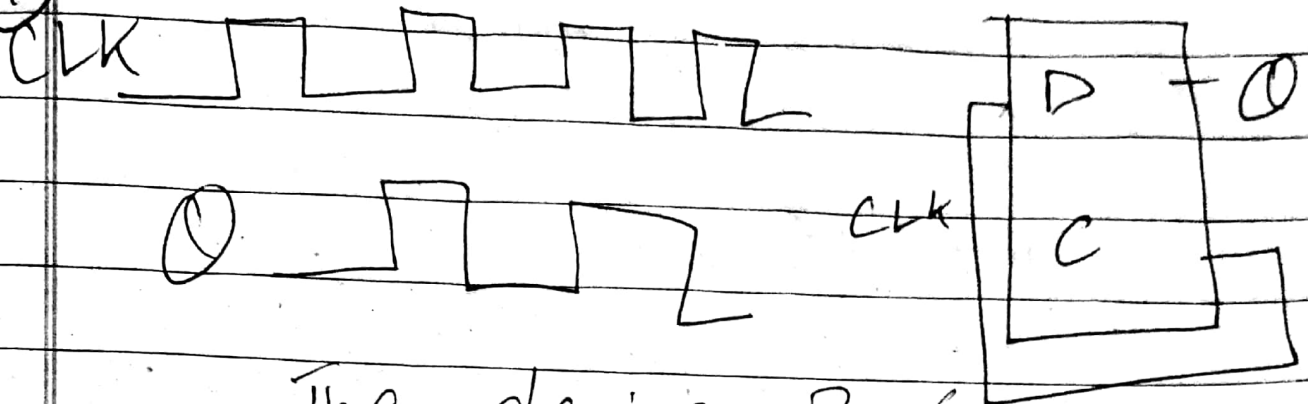
7





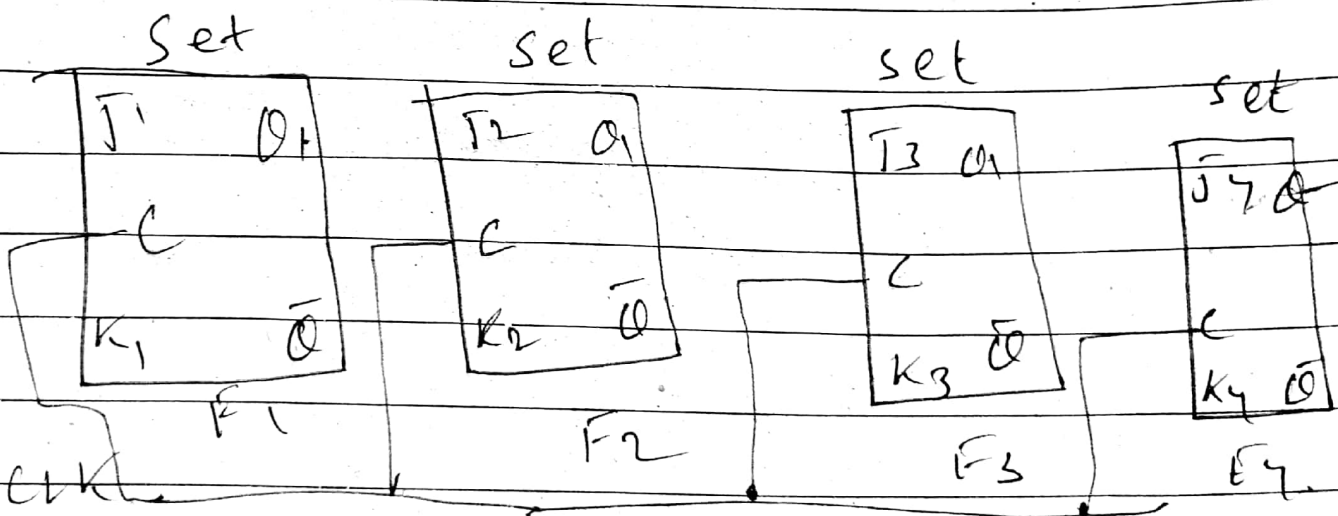
(8)

(Q1)



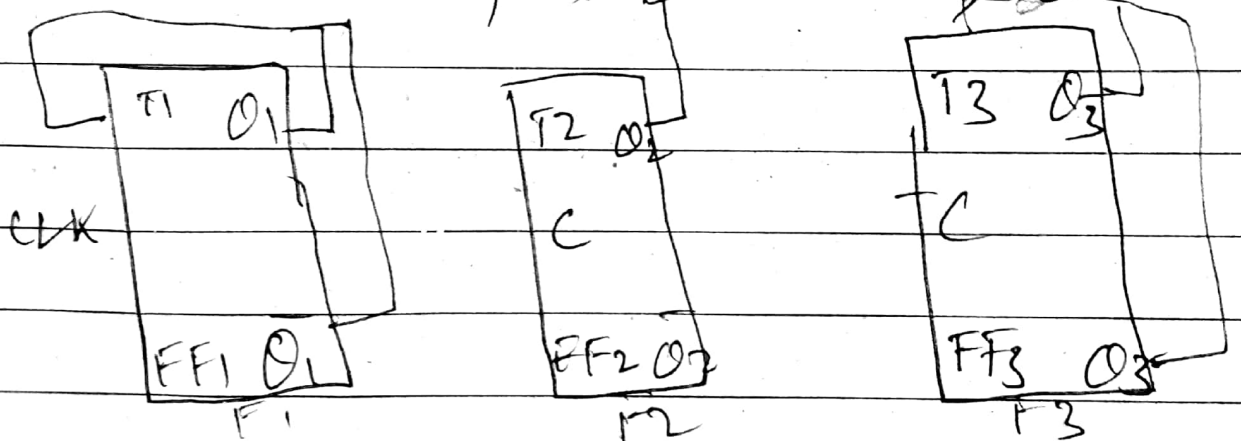
The device perform divide by two function.

(Q18)



(Q19)

$Q_A = f/2$  ,  $Q_B = f/4$  ,  $Q_C = f/8$



(9)

If input freq = 8 kHz.

$$\textcircled{1} A = f/2 = 4 \text{ kHz}$$

$$\textcircled{2} B = 2 \text{ kHz}$$

$$\textcircled{3} C = 1 \text{ kHz}$$