

Name Riag Ahmad

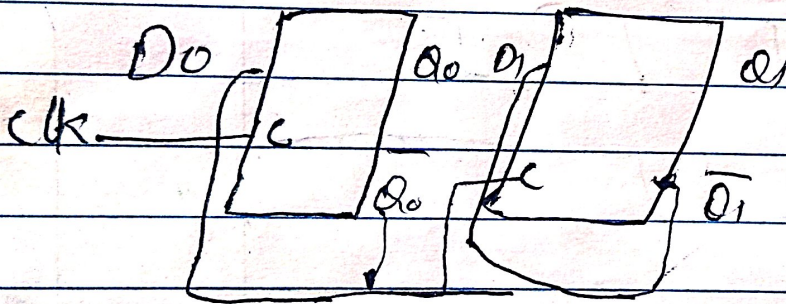
Id 15419

Subject DLD

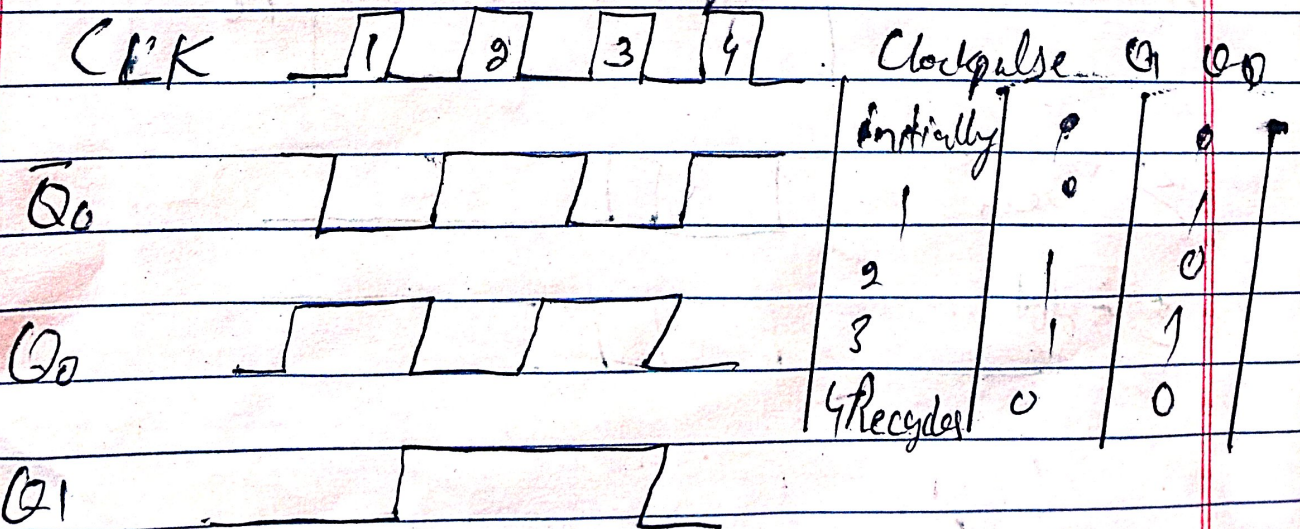
Teacher Sa M. Amin

Assignment 8th

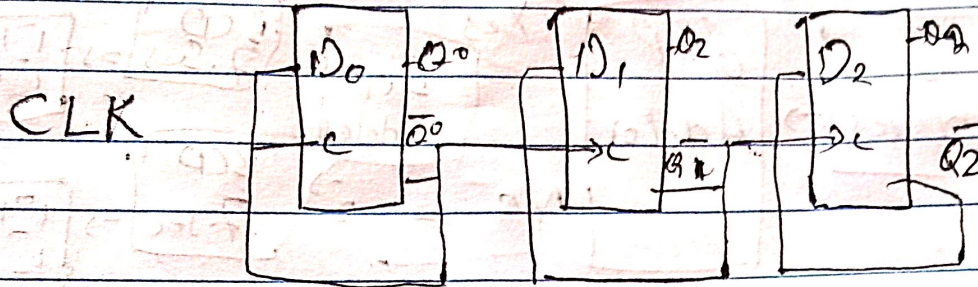
Q1)



Q2)

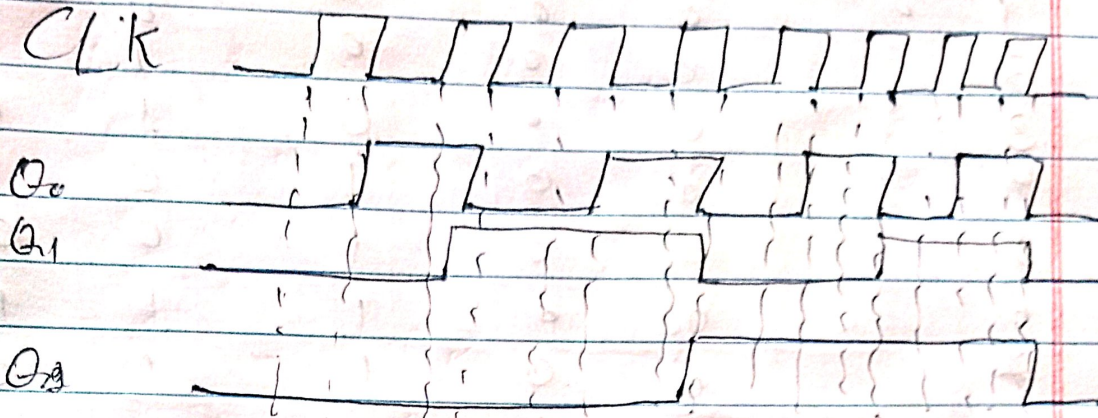


Q2)



C. Pulse	\bar{Q}_0	Q_1	Q_0
initially	0	0	0
1	0	0	1
2	0	1	0
3	0	1	1
4	1	0	0
5	1	0	1
6	1	1	0
7	1	1	1
8 Recycles	0	0	0

Q3



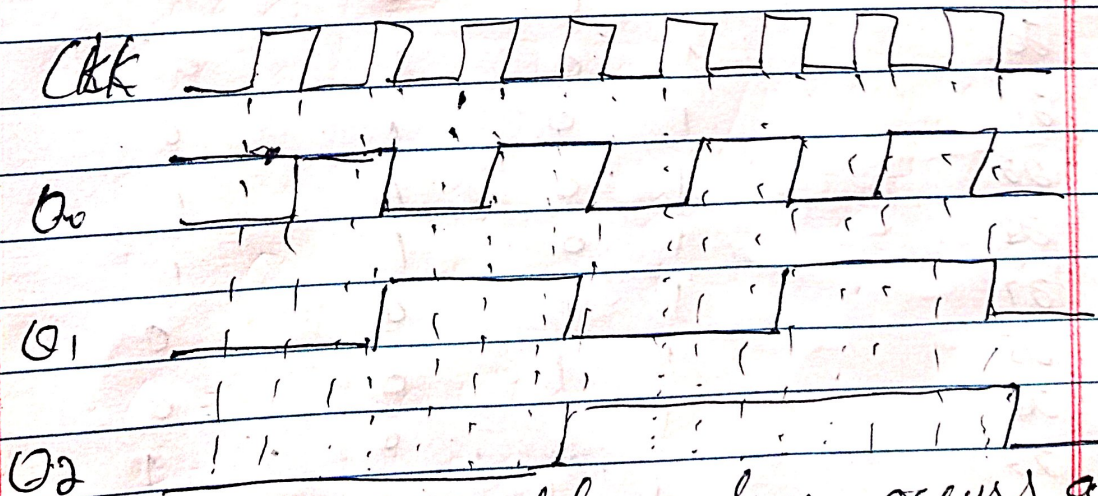
The worst case delay occurs at Q₂.

CLK - Q₀,

The highest delay is 8ms because on the case of synchronous binary counters the propagation delay is independent of the number of flip-flop used.

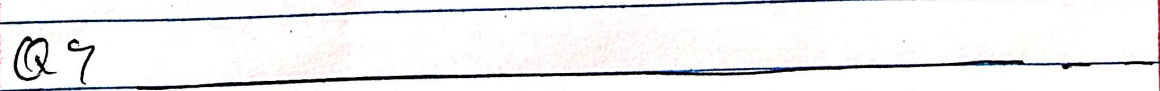
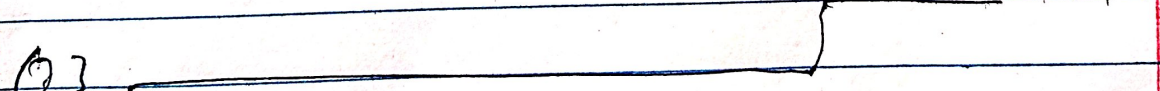
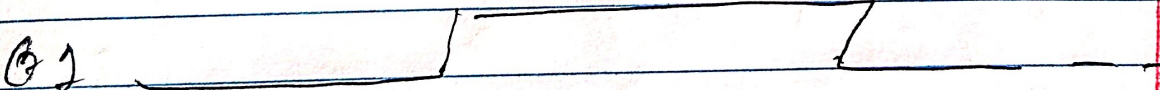
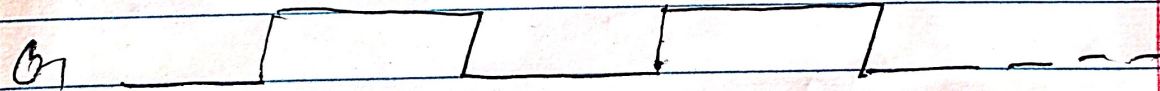
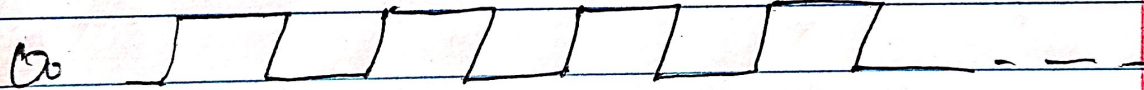
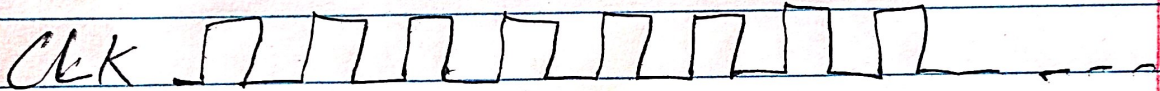
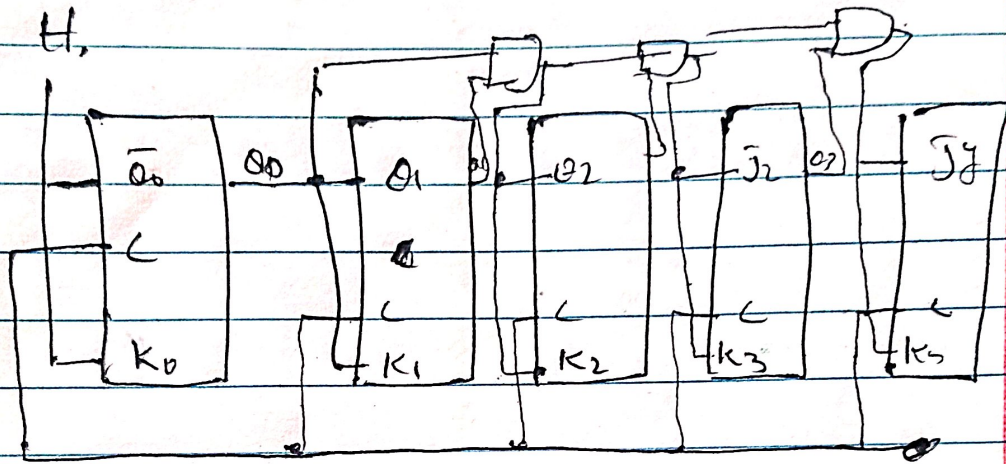
Q4.

Asynchronous



The worst case delay line occurs at Q₂
 The delay interval equals to three times the delay time at Q₂
 $3(8ms) = 24ms$

Q5



half real page.

Day: MTWTF S

5

Date: ___/___/___

C. pulse	Q ₁	Q ₂	Q ₃	Q ₄
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0
13	0	0	0	0
14	0	0	0	0
15	0	0	0	0
16	0	0	0	0
17	0	0	0	0
18	0	0	0	0
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0
25	0	0	0	0
26	0	0	0	0
27	0	0	0	0
28	0	0	0	0
29	0	0	0	0
30	0	0	0	0
31	0	0	0	0