

Amit Nijjar  
A11489111  
Rosing  
HW4

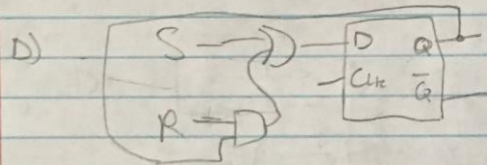
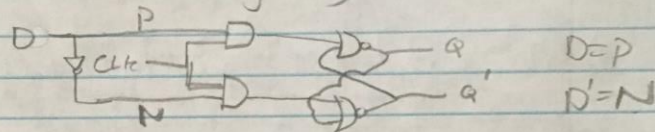
(SIE 140 HW 4

1) a)

P	N	Q	Q+
0	0	0	0
0	1	0	0
1	0	1	1
1	1	1	1

b) Characteristic Equation:  
 $Q = PN$

c) We can implement a D-FF with a PN-FF by using D and D's as P and N



2) a)  $Q(t+1) = D \cdot \bar{Q} + \bar{D} \cdot Q = Q \oplus D$   
 $Q(t+1) = Q(t) \oplus D$

D	Q	P	Q+
0	0	0	0
0	1	0	1
1	0	1	1
1	1	0	0

b) c)

