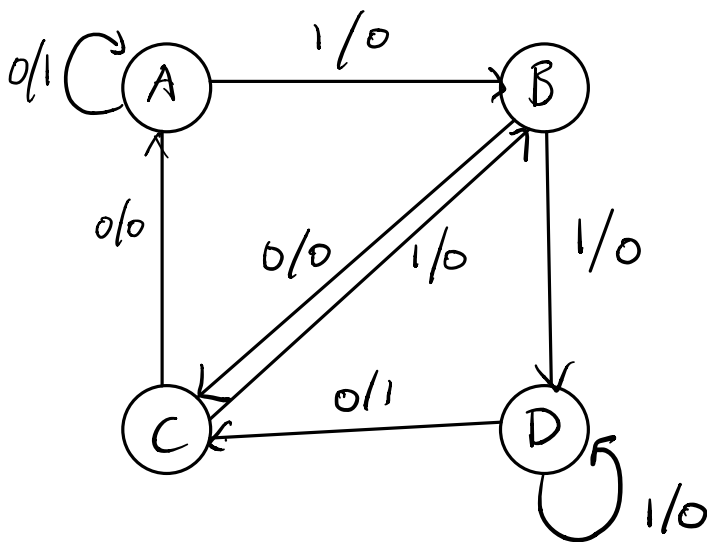


Chapter 5

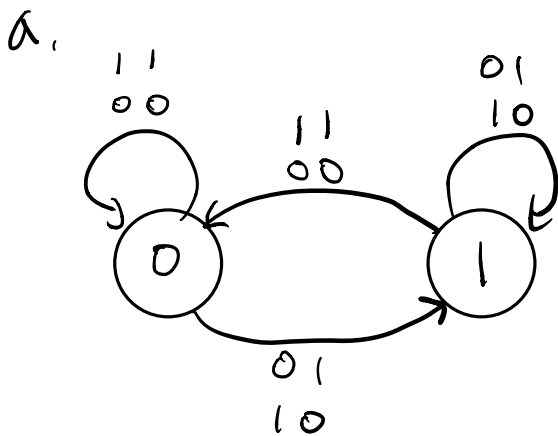
Problem 1 (d)

20171630



x	0	1	0	0	0	1	1	1	1	0	1	
q	A	A	B	C	A	A	B	D	D	D	C	B
z	1	0	0	0	1	0	0	0	0	1	0	0

Problem 6



b.

AB	Q^*
00	0
01	1
10	1
11	0

$$Q^* = A'B + AB' = A \oplus B$$

A \ B	0	1
0	0	1
1	1	0

Problem 9 (a)

a.

$$J_A = X, K_A = C', T_B = A, S_C = B', R_C = B$$

$$Z = B + C$$

X	0	1	1	0	1	0	1				
A	0	0	1	1	1	0	0	1	0		
B	0	0	0	1	0	1	1	1	0	0	
C	0	1	1	1	0	1	0	0	0	1	1
Z	0	1	1	1	0	1	1	1	0	1	1

x	C	A^*
0	1	0
0	0	1
1	1	0
1	0	1

B	C^*
1	0
0	1

A	B^*
0	0
1	1

$$Z = B + C$$

Chapter 6

Problem 3 (e)

q q_1, q_2	q^*		z	
	$x=0$ q_1^*, q_2^*	$x=1$ q_1^*, q_2^*	$x=0$	$x=1$
00	0 1	1 0	0	0
01	1 0	1 1	1	0
11	0 0	0 1	0	0
10	1 1	0 0	1	0

JK		qQ^*		JK	
00	0	00	0	X	X
01	0	01	1	X	1
10	1	10	X	1	1
11	1	11	X	0	0

z q_1, q_2	x	00	01	11	10
0	0	0	1	0	1
1	0	0	0	0	0

$$z = x'q_1'q_2 + x'q_1q_2'$$

D_1

q_1, q_2	x	00	01	11	10
0	0	0	1	0	1
1	0	1	1	0	0

$$D_1 = xq_1' + q_1'q_2 + x'q_1q_2'$$

D_2

q_1, q_2	x	00	01	11	10
0	1	1	0	0	1
1	0	0	1	1	0

$$D_2 = x'q_2' + xq_2$$

J_1

q_1, q_2	x	00	01	11	10
0	0	0	1	X	X
1	0	1	1	X	X

$$J_1 = x + q_2$$

K_1

q_1, q_2	x	00	01	11	10
0	0	X	X	1	0
1	0	X	X	1	1

$$K_1 = x + q_2$$

J_2

q_1, q_2	x	00	01	11	10
0	0	1	X	X	1
1	0	0	X	X	0

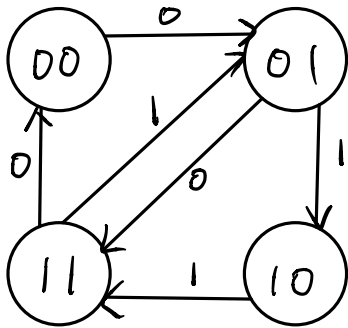
$$J_2 = x'$$

K_2

q_1, q_2	x	00	01	11	10
0	0	X	1	1	X
1	0	X	0	0	X

$$K_2 = x'$$

Problem 9



λ	A	B	A^*	B^*
0	0	0	0	1
0	0	1	1	1
0	1	0	x	x
0	1	1	0	0
1	0	0	x	x
1	0	1	1	0
1	1	0	1	1
1	1	1	0	1

J	K	q	q'	Q^*	J	K
0	0	0	0			
0	1	0	1			
1	0	1	0			
1	1	1	1			
0	0	0	0			
0	1	0	1			
1	0	1	0			
1	1	1	1			

J_A	AB	00	01	11	10
0	0	0	1	x	x
1	0	x	1	x	x
0	1				
1	1				

$J_A = B$

K_A	AB	00	01	11	10
0	0	x	x	1	x
1	0	x	x	1	0
0	1				
1	1				

$K_A = B$

J_B	AB	00	01	11	10
0	0	1	x	x	x
1	0	x	x	x	1
0	1				
1	1				

$J_B = 1$

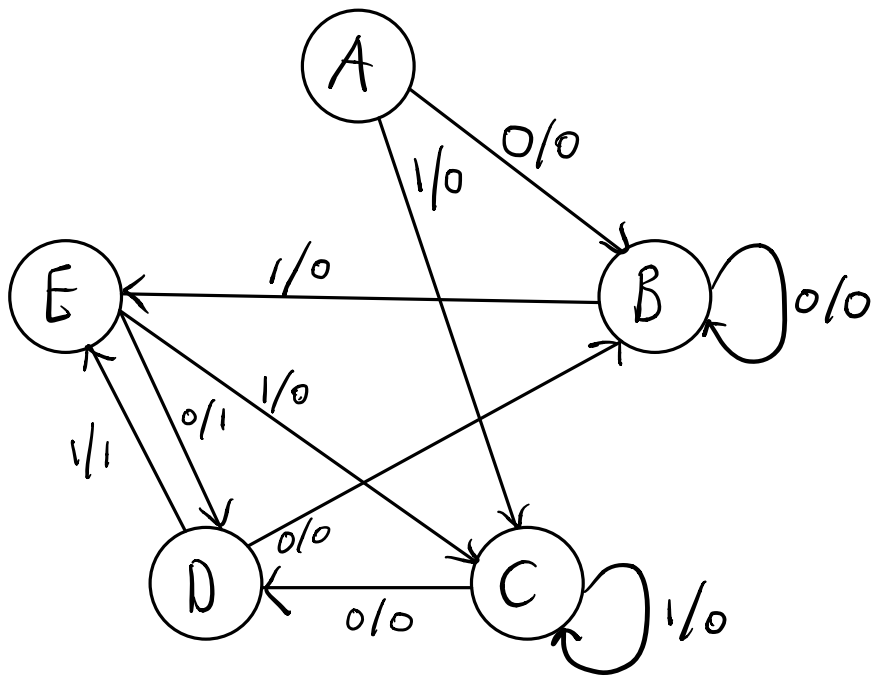
K_B	AB	00	01	11	10
0	0	x	0	1	x
1	0	x	1	0	x
0	1				
1	1				

$K_B = \lambda A' + \lambda' A$

b.

λ	A	B	A^*	B^*
0	1	0	1	1
1	0	0	0	1

Problem 15 (d)



Problem 15 (g)

