

Question 1)

First Four Digits of Student Id: 3017

Question 2)

Binary Representation Of the Student Id:

b1= 0011

b2= 0000

b3= 0001

b4= 0111

Question 3)

Sum of b1,b2,b3,b4...

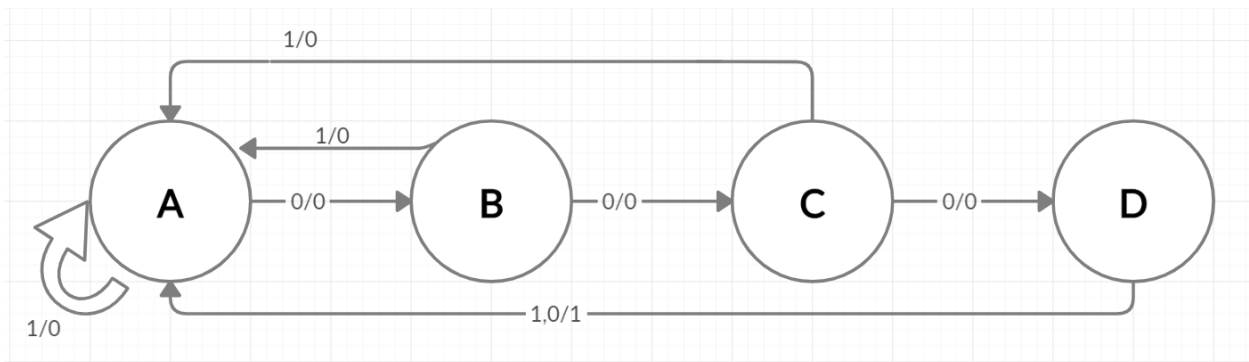
sum a1 = 01011

Question 4)

C1 = b2 = 0000

C2 = b3 = 0001

Question 5)



Question 6)

q1	q0	x	z		q1	q0	x	d1	d0	
0	0	0	0		0	0	0	0	1	
0	0	1	0		0	0	1	0	0	
0	1	0	0		0	1	0	1	0	
0	1	1	0		0	1	1	0	0	
0	0	0	0		0	0	0	1	1	
0	0	1	0		0	0	1	0	0	
1	1	0	1		1	1	0	0	0	
1	1	1	1		1	1	1	0	0	
Output Truth Table					Next State Truth Table					

d0 kmap						d1 kmap						z output kmap					
x						x						x					
q1	q0	00	01	11	10	q1	q0	00	01	11	10	q1	q0	00	01	11	10
	0	1	0	0	1		0	0	1	0	1		0	0	0	1	0
	1	0	0	0	0		1	0	0	0	0		1	0	0	1	0

$$Z = q_1 q_2$$

$$d1 = q1 \oplus q0 \cdot x + \neg q1 \cdot q0 \cdot \neg x$$

$$d_0 = !q_0 !x$$

Question 7)

Didn't have time to do this or the circuit for number 6 due to some work (I work as a developer) projects that came up. You know for work I do stuff that is actually programming, like modern day programming, not time wasters like this entire class of irrelevant material. Unfortunately taking an L on this time waster here.

Question 8)

