

## COMP 335 Assignment 10

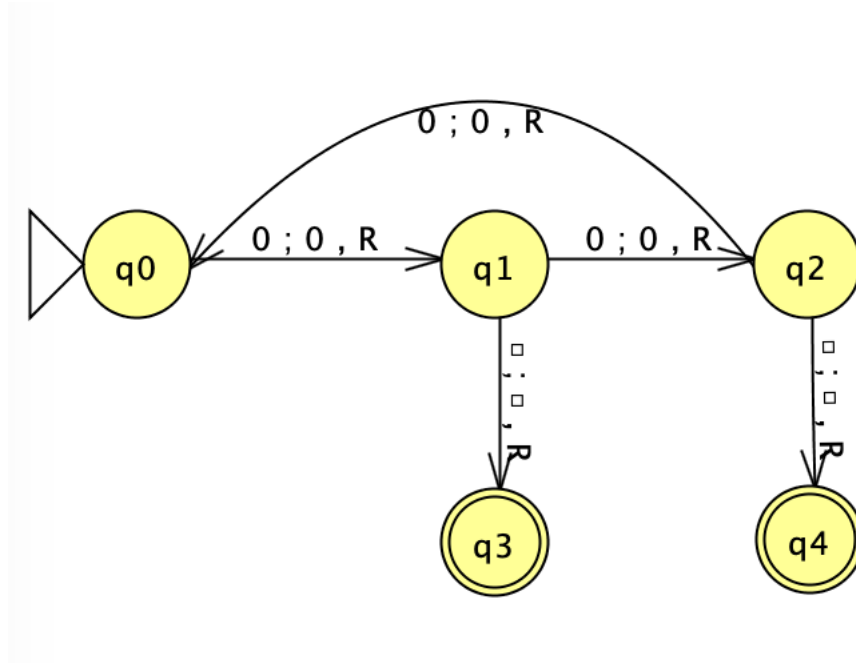
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November 29, 2020

### Question 1.

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1. For  $n=1$ , the path  $q_0, q_1, q_3$  is built.
2. For  $n \geq 1$ , it is accepted as long as it is not divisible by 3, so path  $q_2$  to  $q_0$  enforces this rule while allowing the other strings to be accepted.

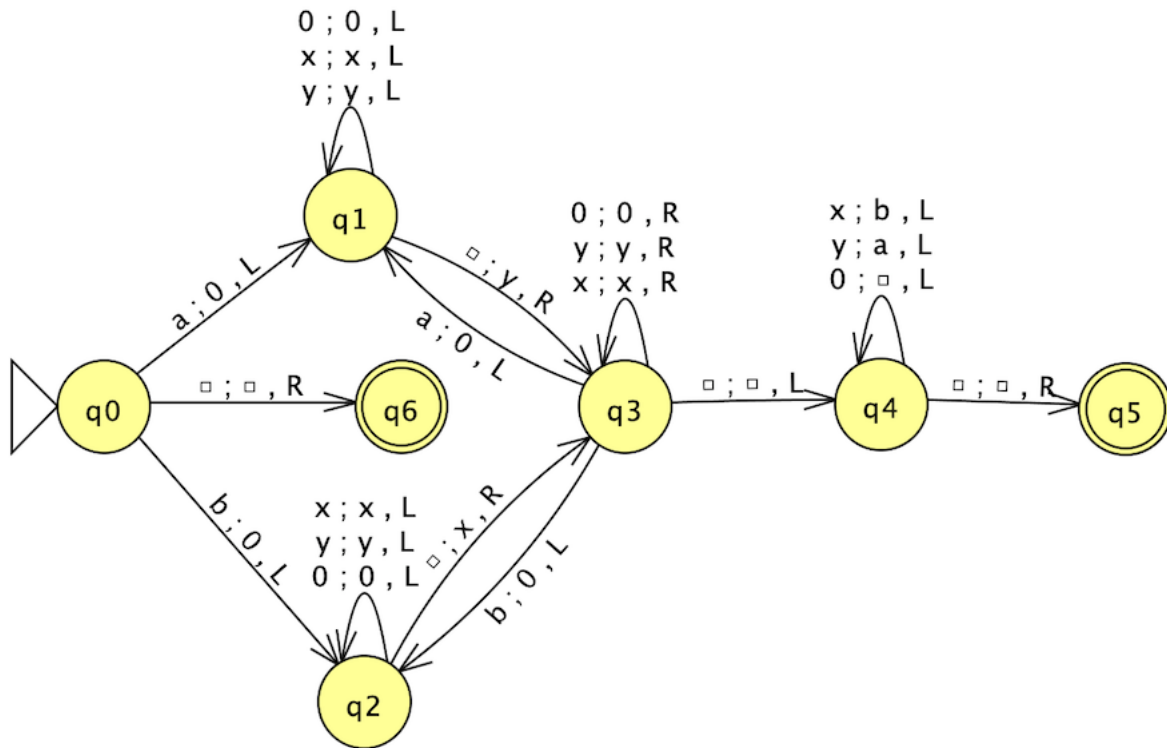


### Question 2.

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(a)

A variable 0 is appended to the end of the string for each a and b, while their intended positions are marked with x and y respectively. Finally, all the temporary variables 0 are removed and x/y are replaced with a/b and the reverse is formed.



Sample tests:

Table Text Size		
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Input	Output	Result
aaba	abaa	Accept
		Accept
abababbab	babbababa	Accept
aaaa	aaaa	Accept
b	b	Accept

.  
 .  
 .  
 .  
 .  
 .  
 .

(b)

The string is traversed to the leftmost point and this pattern continues while taking 0 into consideration.

