

Quiz – 3  
 05-Dec-2023 (12<sup>th</sup> Week)

30 minutes

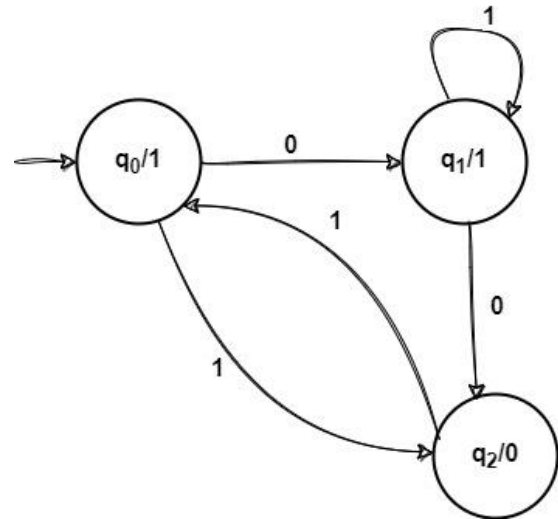
Attempt questions.

Q1.

Consider the Moore machine,

- Create the Transition Table of the above Moore Machine
- If the input string '010' is run, what would be the output of such input?

[5 marks]



Answer of Q1

i.

Old State	New State		Output
	Reading a	Reading b	
$q_0$	$q_1$	$q_2$	1
$q_1$	$q_2$	$q_1$	1
$q_2$	$q_2$	$q_0$	0

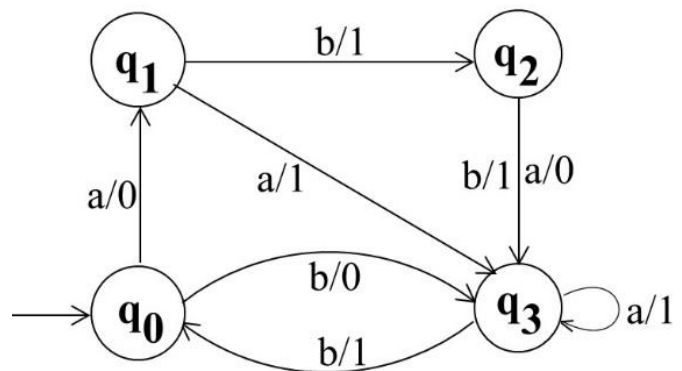
ii.

Input		0	1	0
State	$q_0$	$q_1$	$q_1$	$q_2$
Output	1	1	1	0

Q2.

Consider the Mealy machine, run the string 'abbabbbba' over the Mealy machine, what would be the output of the given string?

[5 marks]



Answer of Q2:

Input		a	b	b	a	b	b	b	a
States	q <sub>0</sub>	q <sub>1</sub>	q <sub>2</sub>	q <sub>3</sub>	q <sub>3</sub>	q <sub>0</sub>	q <sub>3</sub>	q <sub>0</sub>	q <sub>1</sub>
output		0	1	1	1	1	0	1	0