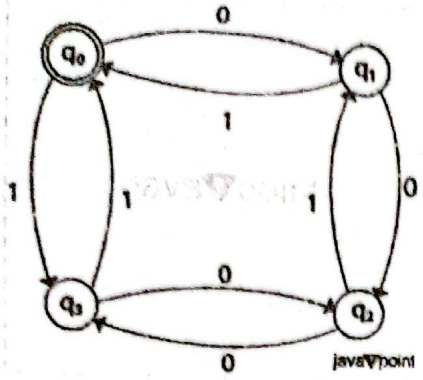
Quiz 2 Part B

Section

Student Id`

Question :1 Kleene's Theorem

Find closure of give DFA, consider q0 as initial state.



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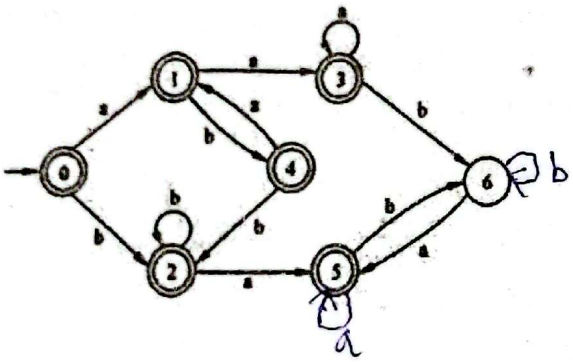
Question :2 Minimized Given DFA.



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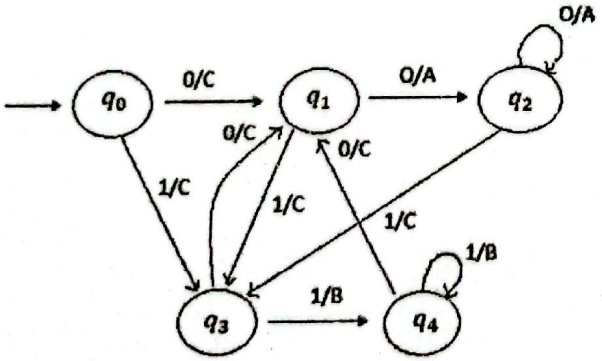
Question:3

Convert the following mealy machine in equivalent Moore machine.



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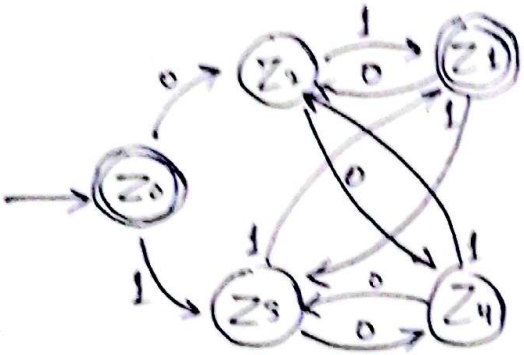
Question 4: Mealy Machine

a. Design the Mealy/Moore Machine for the following scenario

ATM is a computerized machine that provides bank customers to gain access to their accounts using magnetic encoded plastic card and code number. It enables the customer to perform online

Question # 01 :

Old States	0	1
(q_0)	(q_1)	(q_2)
(q_1)	(q_1)	(q_4)
(q_2)	(q_0)	(q_1)
(q_3)	(q_0)	(q_1)
(q_4)	(q_3)	(q_0)



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Question # 02 :

π_0 = [set of final states] [set of nonfinal]

States	a	b
→ 0	1	2
+ 1	3	4
+ 2	5	2
+ 3	3	6
+ 4	1	2
+ 5	5	6
6	5	6

π_0 = [0 1 2 3 4 5] [6]

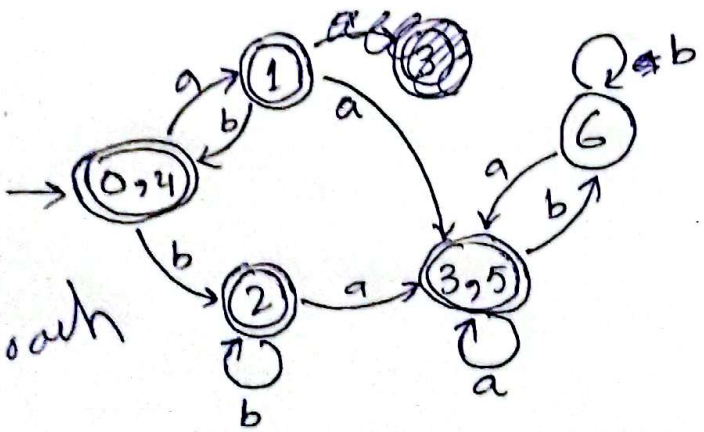
π_1 = [0 1 2 4] [3 5] [6]

π_2 = [0 4] [1 2] [3 5] [6]

π_3 = [0 4] [1] [2] [3 5] [6]

π_4 = [0 4] [1] [2] [3 5] [6]

P1 P2 P3 P4 P5



good approach

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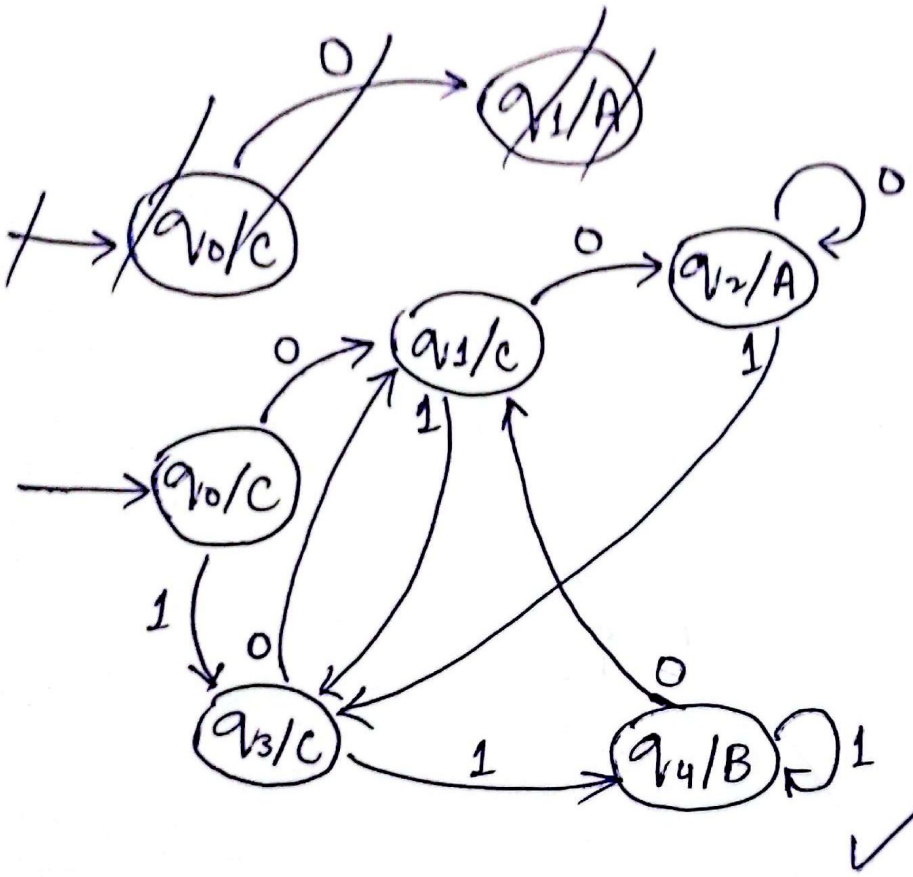
Question # 03 :



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