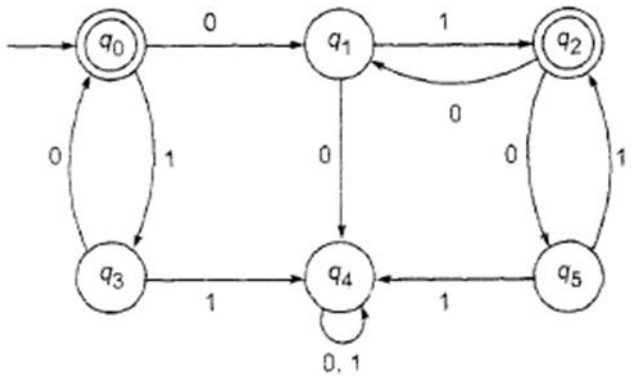
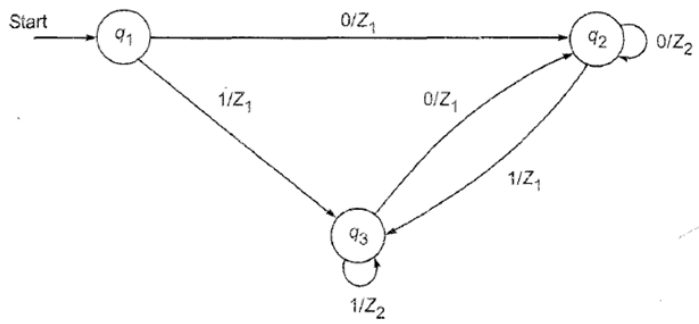
Assignment 2

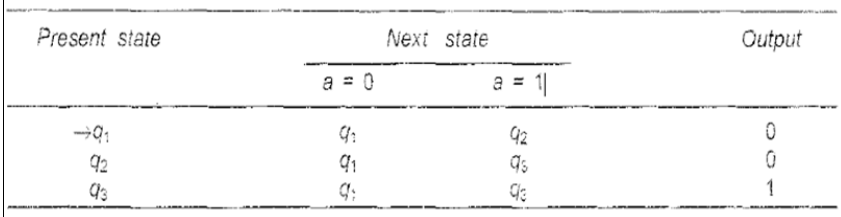
Set –A

S. no	Question	Marks	COs	BT Level
1.	Construct a minimum state automaton equivalent to the DFA described as :  	5 marks Each -	CO4	Level 5
2.	Consider a Mealy machine  a) Construct Transition table for this given Mealy Machine b) Find Output for input 001 c) Construct a Moore machine equivalent to this Mealy machine	5 marks	CO5	Level 6 -

Set –B

S. no	Question	Marks	COs	BT Level
1.	Construct a reduced grammar by removing useless symbols equivalent to the grammar $S \rightarrow aAa, \quad A \rightarrow Sb \mid bCC \mid DaA, \quad C \rightarrow abb \mid DD,$ $E \rightarrow aC, \quad D \rightarrow aDA$	5 marks	CO4	Level 5
2.	Consider the Moore machine described by the transition table given by Table. Find Output for input string 001 and Construct the corresponding Mealy machine	5 marks	CO5	Level 6

Present state	Next state		Output
	a = 0	a = 1	
$\rightarrow q_1$	q_1	q_2	0
q_2	q_1	q_3	0
q_3	q_1	q_3	1

Set –C				
S. no	Question	Marks	COs	BT Level
1.	Construct a grammar in Greibach normal form equivalent to the grammar $S \rightarrow AA \mid a.\ A \rightarrow SS \mid b.$	5 marks Each -	CO4	Level 5
2.	Consider the Moore machine described by the transition table given by Table.  a) Draw equivalent transition diagram from given table b) Construct the corresponding Mealy machine represent it by transition table and transition diagram	5 marks	CO5	Level 6 -

Present state	Next state		Output
	a = 0	a = 1	
$\rightarrow q_1$	q_1	q_2	0
q_2	q_1	q_3	0
q_3	q_1	q_3	1