



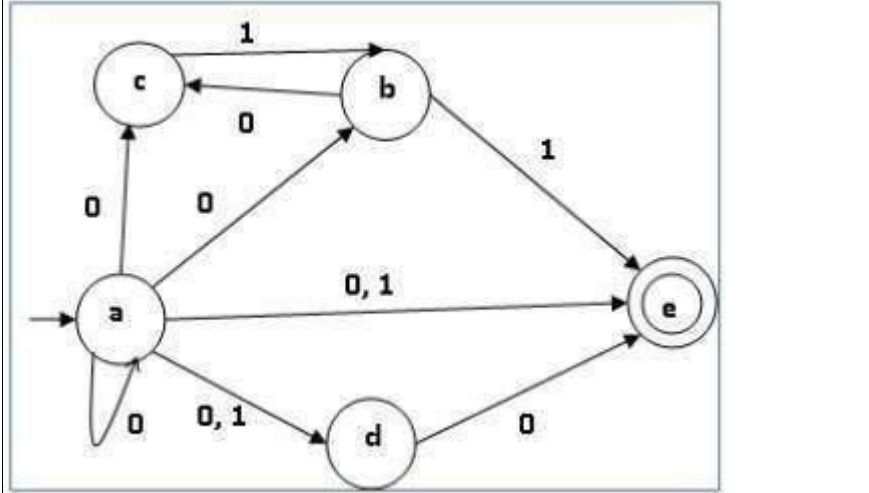
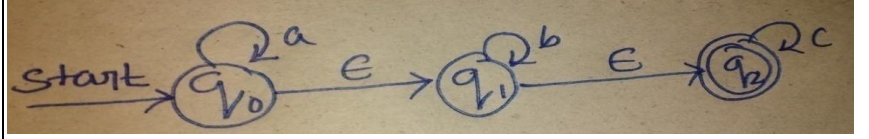
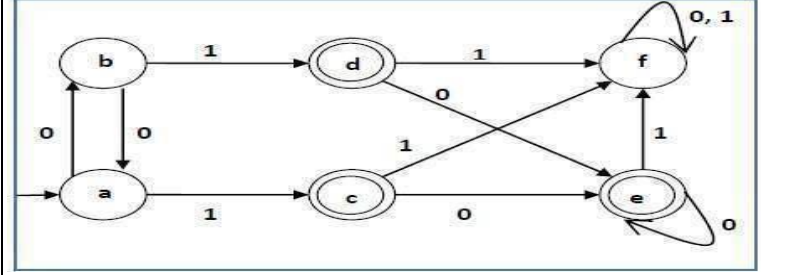
DEPARTMENT OF CSE (CYBER SECURITY)

Subject: FORMAL LANGUAGE AUTOMATA THEORY (23CY503PC)

Unit wise Question Bank

UNIT-I

S.No	Questions	BT	CO
Part-A: Short Answer Questions			
1	Define DFA	L1	CO1
2	Mention the differences between DFA,NFA.	L2	CO1
3	Construct the DFA that accepts all strings of a's and b's, no a's are even or no .of b's are even .	L3	CO1
4	Construct the FA that accepts all strings of a's and b's, that every string starts with a and length of the string not divisible by 3	L3	CO1
5	Write down the decision properties of FA.	L1	CO1
6	List the differences between Moore and Melay machines.	L3	CO1
7	Obtain a DFA to accept strings of a's and b's starting with the string a b	L3	CO1
8	List limitations of Finite Automata.	L4	CO1
9	Define Moore machine.	L4	CO1
10	Obtain a DFA to accept strings of a's and b's having even number of a's and b's	L3	CO1
Part-B Long Answer Questions			

11	Convert the following NFA to DFA		L3	CO1
				
12	Convert the following NFA with to NFA without		L3	CO1
				
13	A)	Define the following i)power of an String ii)Transition Table	L1	CO1
		iii)Language iv)power set		
B)		With the help of diagram explain the function of DFA, Why it is called as deterministic?	L1	CO1
14	A)	Draw a DFA to accept string of 0's and 1's ending with the string 011	L2	CO1
B)		Obtain a DFA to accept strings of a's and b's having even number of a's and b's.	L2	CO1
15	A)	Minimize following DFA.	L3	CO1
				

B)

Check whether following two finite automata are equivalent or not.

L2

CO1

