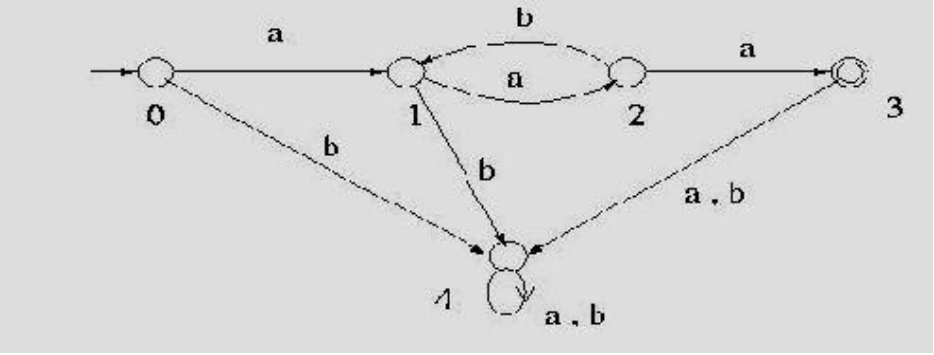
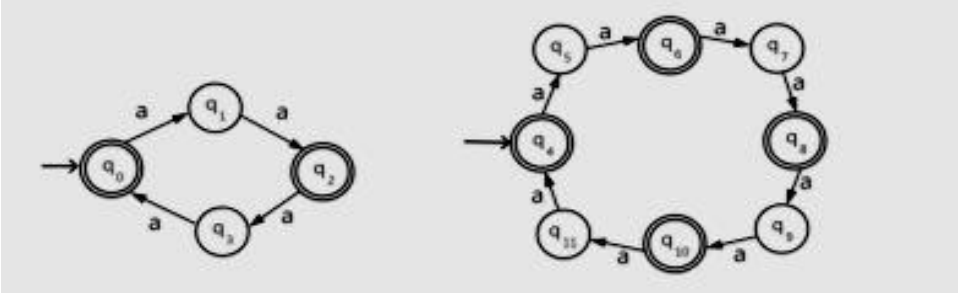
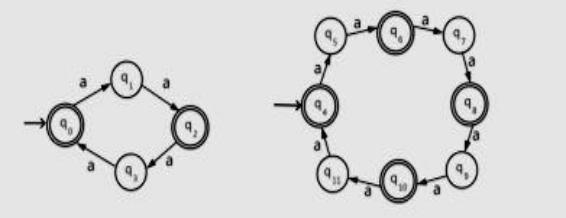
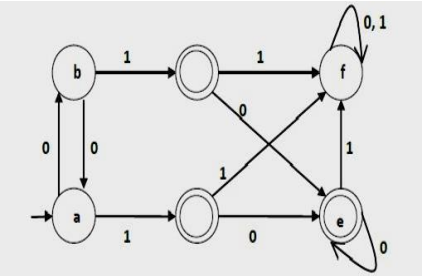
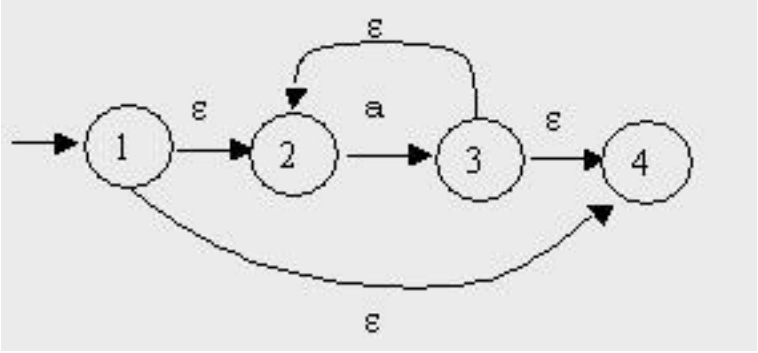
Subject Name TAFL	**Subject Code**	KCS-402
Date of Handover: 08/05/23	**Max Marks**	
Date of Submission:21/05/23		

Practice Set-1

Q.no	Question	Mapped CO
a.	Design a DFA which accepts set of strings containing exactly four 1's in every string over∑={0,1}.	
b.	Giv DFA accepting the following language over ∑= {0,1} i) Number of 1's is multiple of 3. ii) Number of 1's is not multiple of 3. iii) Containing either substring '000' or '111' iv) All the strings that end with 11 and contain 101 as substring.	**[CO1]**
c.	Determine an NFA accepting all strings over {0,1} which end with 1 but does not contain the substring 00. Also calculate equivalent DFA	**[CO1]**
d.	Find an NFA with four states for L={ a^n; n>=0} U {$b^n a$; n>=1}. Also calculate equivalent DFA.	**[CO1]**
e.	Design an NFA with no more than 5 states for the set L={$abab^n$; n>=0} U {aba^n ;n>=0}.	**[CO1]**
f.	**Design the DFA that accepts an even number of a's and even number of b's.**	**[CO1]**
g.	Consider the DFA given below and identify the L accepted by the machine 	**[CO1]**
h.	(i)Convert the NFA- **ε to DFA.**  ii) Check with the comparison method for testing equivalence of two FA given	**[CO1]**

	below. 	
i.	Minimize the automata given below 	**[CO1]**
j.	Compute the epsilon- closure for the given NFA. Convert it into DFA 	**[CO1]**