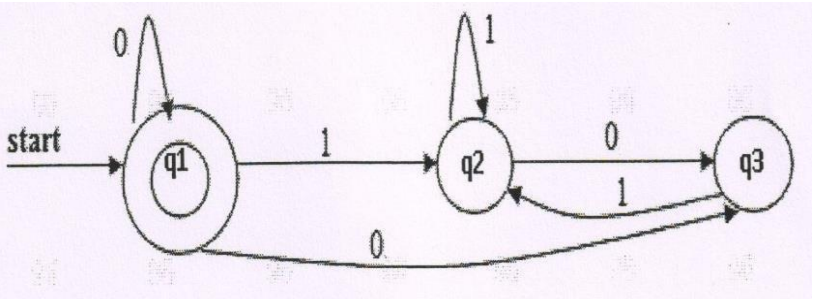
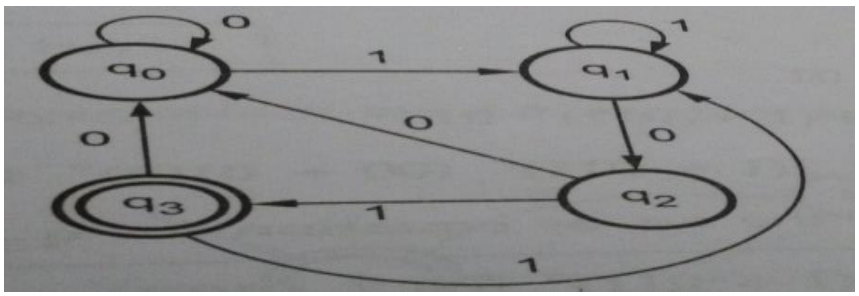
UNIT–II

S.No		Questions	BT	CO
Part-A:ShortAnswerQuestions				
1		What is regular set and Regular Expression?	L1	CO2
2		Simplify the RE (ab*+(ab)*)*a*	L3	CO2
3		Construct the RE that generates all the strings of a's and b's i)including ii)excluding	L3	CO2
4		Define CFG,LMD,RMD.	L1	CO2
5		Find a RE for the set of all strings containing no three consecutive 0'	L1	CO2
6		What is the difference between Regular and context free grammar?	L1	CO2
7		Construct a regular grammar for the regular expression a*b (a+b)*	L3	CO2
8		List closure properties of regular languages.	L2	CO2
9		Prove for the RE a and b i)(ab+a)*a=a(ba+a)*ii(a*b*)*=(a+b)*	L3	CO2
10		Find the left most derivation for the word a b b a in the grammar S□AA,A□aB,B□bB/ε	L3	CO2
Part-B:LongAnswerQuestions				
11	a)	Show that L={ $a^n b^n$|n>=1} is not a regular language using pumping lemma	L3	CO2
	b)	Derive the RE for the following finite automata 	L3	CO2
12	a)	Construct the RE, Where the length of the string is at least 2and exactly 2	L3	CO2
	b)	Convert the RE (02+1)* to an NFA-ε	L3	CO2
13	a)	State and prove pumping lemma for regular languages.	L1	CO2

	b)	Explain the procedure of converting FA to RE with example	L1	CO2
14	a)	Consider the FA and construct RE that accept by the following diagram. 	L1, L2	CO2
	b)	Find the RE accepted by the following DFA 	L1, L3	CO2
15	a)	Construct a regular grammar for (ab+a)*(aa+b)	L3	CO2
	b)	Convert the given right linear grammar to equivalent left linear grammar S→bB,B→bC,B→aB,C→a,B→b	L3	CO2