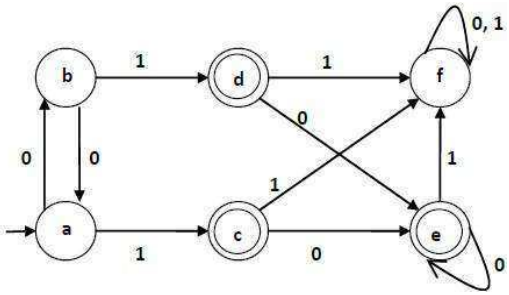
SSN COLLEGE OF ENGINEERING, KALAVAKKAM – 603 110
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
B.E. Computer Science and Engineering
CS6660 COMPILER DESIGN
TUTORIAL

Qn. No	Tutorial Questions	Marks	(KL,COn)
1	Construct the DFA directly from the given regular expression (a|b)*abb(a|b)*	20	K3,CO2
2	Minimize the number of states in the following DFA 	10	K3,CO2

3	Indicate the values assigned to w, x, y and z for the following block structured C code
	int w,x,y,z;
	int i=4; int j=5;
	{
	int j=7;
	i=6;
	w=i+j;
	}
	x=i+j;
	{
	int i=8;
	y=i+j;
	}
	z=i+j;
	}
		10	K2,CO2

4	llustrate Thomson's construction by drawing a NFA for the regular expression (a|b)*a. Write the algorithm for subset construction and convert this NFA to DFA by using this algorithm.	20	K3,CO2
5	Design lexical analyzer for the language **NewL** has following constructs (Using cumulative transition diagram) **Data types** (integer, real, Boolean, char and string) **Reserved words** (repeat, until, record, program, var, type, file, function, switch, case, break, if, while) **Arithmetic** (+,-,*,/), Relational (<,<=,>,>=,=.<>) **Boolean** (and,or,not) **Variable** should start with underscore, sequence of letter(s) followed by sequence of digit(s) with a maximum of 15 characters	40	K5,CO2