LIST OF EXPERIMENTS TO BE PERFORMED IN LAB

Compiler Design Lab (BCEN- 402)	
1.	Write a program to implement a Regular expression. The program should read an R.E. through a file and should check whether a string given from the console is acceptable by the given R.E. or not.
2.	Write a program to implement Mealy & Moore Machines. The program should read the machine from a file and should generate the corresponding output for a string given from the console. An error must be generated for the case where no valid transition is available.
3.	Write a program to implement the conversion of an NFA to a DFA. The program should read an NFA through a file and should generate the corresponding tabular DFA for the same.
4.	Write a program to implement a Regular Grammar. The program should read an R.G. through a file and should check whether a string given from the console is acceptable by the given R.G. or not.
5.	Write a program to implement a Context Free Grammar. The program should read the C.F.G. through a file and should check whether a string given from the console is acceptable by the given C.F.G. or not.
6.	Write a program to find out the FIRST & FOLLOW values for a given Context Free Grammar. The program should read the C.F.G. from a file.
7.	Write a program that verifies whether a given CFG is suitable for LL(1) parsing or not. If not then the program should convert the given CFG to a form which is suitable for the LL parsing.
8.	Write a program that generates LL(1) parsing table for a given CFG and also performs LL(1) Parsing using the same table. The CFG will be given through a file and the string to be checked will be given through the console.
9.	Write a program to find the Leaders and Basic Blocks for a Three Address Code given through a file.
10.	Write a program to find the Flow Graph and the Dominator nodes in a Three Address Code given through a file.

Department of Computer Engineering
Faculty of Engineering & Technology, Jamia Millia Islamia, New Delhi

	through a file.
10.	Write a program to find the Flow Graph and the Dominator nodes in a Three Address Code given through a file.

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LIST OF EXPERIMENTS TO BE PERFORMED IN LAB

11.	Write a program to find the Natural Loops in a Three Address Code given through a file.
12.	Write a program that evaluates GEN & KILL Values for a TAC given through a file.
13.	Write a program to find the IN & OUT values for each basic block in a Three Address Code given through a file.
14.	Write a program to implement the following optimizations in a Three Address Code given through a file. a. Common Sub expression Elimination b. Copy Propagation c. Constant Folding d. Dead Code Elimination
15.	Write a program that generates a Target Assembly code for an optimized Three Address Code given through a file.