Notes:

1. Students are expected to try these in the labs during the lab sessions
2. Try these on a Linux machines (and use lex/flex and yacc/bison)
3. Students can start lex assignment now and can start yacc assignment after parser lectures are completed.
4. Show the output to the TA within the deadlines given
5. You can form group of at most 4 students
6. Make reasonable assumptions where things are not clear
7. Write an lexical analyzer using lex/flex to identify tokens of a typical C program. The program should be able to print series of token-ids for every lexical pattern that it recognizes. Please show the lex specification and the working of the lexical analyzer.

Time Period : 2 weeks (deadline: 31st Jan 2019)

1. Write a parser to identify the following grammar:

stmts 🡪 stmts stmt

| epsilon

stmt 🡪 ;

| expr ;

| if (expr) stmt

| if (expr) stmt else stmt

| for (expr ; expr ; expr ) stmt

| { stmts }

You should show the parser specification and the working of the parser to show if there is any error encountered in the given input program. If there is no error, it should report “OK”.

Time Period : 4 weeks (deadline: March 20th, 2019)