M.Sc. 2nd Semester Examination, 2013

COMPILER CONSTRUCTION LAB

(Practical)

PAPER—CS/MSc- 206

*Full Marks : 25*

*Answer any one question (Lottery basis)*

*The figures in the right hand margin indicate marks*

1. Write a program using LEX/YACC, which recognize regular expressions.  

2. Write a program in LEX/YACC to check whether a given expression (relational or assignment or bitwise operator) is valid or not and it gives the type of expression as output.
3. Write a program in LEX/YACC which takes standard input as output of system date and time and give either of the following messages "Good Morning", "Good Afternoon", "Good Evening".

4. Write a LEX program to count the number of palindrome string in a given file and write them into a separate file.

5. Write a LEX program to count the number of comment lines in a given C program.

6. Write a C code analyzer in LEX/YACC: comments, code, white space, count braces, keywords etc. Try to identify function definition and declaration, which are names followed by 'outside of any braces'.

( Turn Over )
7. Write programs in LEX/YACC, which replaces all the occurrences of "vidya" with "RAMA" and "sagar" with "SITA".

8. Write a LEX program to count the number of comment lines in a given C program. Also eliminate them and copy that program into separate file.

9. Write a YACC program to recognize strings of the form:

   \[ b^n a^m b^{2n}, n \geq 0, m \geq 0. \]

10. Write a YACC program to validate a C declaration.

    Eg: int a, b, c;

PG/IMS/COS-206/13(Pr.) (Turn Over)
11. Write a program in LEX/YACC which counts the no. of lines, total no. of characters, total no. of vowels and total no. of punctuation marks in a paragraph.

12. Write a LEX program to check the validity of arithmetic statement.

P. N. B. — 5 Marks
Viva — 5 Marks