

**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. 15**
  
- 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. 15**

*( Turn Over )*

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". 15
  
4. Write a LEX program to count the number of palindrome string in a given file and write them into a separate file. 15
  
5. Write a LEX program to count the number of comment lines in a given C program. 15
  
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). 15

7. Write programs in LEX/YACC, which replaces all the occurrences of "vidya" with "RAMA" and "sagar" with "SITA". 15

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. 15

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

$$b^n a^m b^{2n}, n \geq 0, m \geq 0. \quad 15$$

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

Eg : int a, b, c ; 15

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. 15
12. Write a LEX program to check the validity of arithmetic statement. 15

P. N. B. – 5 Marks

Viva – 5 Marks

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