2018

MCA 4th Semester Examination

COMPILER LAB.

PAPER—MCA-408

Subject Code—32

(Practical)

Full Marks : 50

Time : 2 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer any *two* questions.   15×2

1. Write a program in LEX/YACC to check whether a given string is a valid ID (Identifier), Keyword, RELOP (Relational Operator) or others.

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", "GoodAfternoon", "Good Evening".

4. Construct a syntax directed translation scheme that translates integers into roman numerals. Implement translator from integers to roman numerals based on above syntax directed translation using LEX/YACC.

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').

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 seperate file.

9. *Program to recognize* whether a given sentence is simple or compound.

10. Write a program in LEX/YACC which takes a English sentence as input and gives the output as the parts of speech.

11. Write a program in LEX/YACC which takes a C program as inputs and delete the comment, white space and Count the no of lines.

12. 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.

13. Write a program in LEX/YACC to check the parts of Speech of a Sentence.

14. Write a program in LEX/YACC to count all occurrences of "rama" and "sita" in a given file and eliminate them.

15. Write a programs in LEX/YACC that eliminate multiple spaces and tabs and replace with a single space and remove empty lines.

16. Write a program using LEX/YACC to count all instance of SHE and HE, including the instances of HE that are included in SHE.

17. Write a lex program to check the validity of arithmetic statement.

18. Write a lex program to count the number of printf and scanf statements.

Viva-voce : 15

PNB : 5

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TB—150