D 6775 (Pages : 2) Name.....

Reg. No.....

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2016

(CUCSS)

Computer Science

CSS 3C 02—PRINCIPLES OF COMPILER

(2014 Admissions)

Time : Three Hours Maximum : 36 Weightage

Part A

Answer **all** *questions.*
Each question carries 1 weightage.

1. What is a Compiler ?
2. Define Grammar ?
3. Discuss DAG representation ?
4. Define context free grammar ?
5. What are LR Parsers ?
6. Discuss the importance of intermediate code ?
7. What are boolean expressions ?
8. What is a symbol table ?
9. Write a note on Handle Pruning ?
10. Define parse tree ?
11. What do you mean by data flow analysis ?
12. Define basic block ?

(12 x 1 = 12 weightage)

Part B

Answer any **six** *questions.*
Each question carries 2 weightage.

13. What is peephole optimization ?
14. Briefly explain predictive parsing ?
15. List parameter parsing mechanisms ?
16. Convert (a/b)*abb into DFA ?

Turn over

17. Discuss symbolic debugging of optimised code ?
18. What are the roles of a lexical analyser ?
19. Describe in detail operator precedence parsing ?
20. Differentiate between top down parsing and bottom up parsing ?
21. Write note on compiler construction tools ?

(6 x 2 = 12 weightage)

Part C

Answer **any three** *questions.*
Each question carries 4 *weightage.*

22. Give an overview of phases of compiler ?
23. What are type checkers ? How do they help in compilation ?
24. Discuss the storage allocation strategies ?
25. What are the implementation of Three Address statements ?
26. Discuss the issues in the design of a code generator ?
27. Construct a LL(1) parsing table for the grammar.

    E – > E + T/T.

    T – > T * F/F.

    F – > (E)/id.

(3 x **4** = 12 weightage)