D 91654 **(Pages : 2)** **Name**

Reg. No.....

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2015

(CUCSS)

Computer Science

CSS 3C 02—PRINCIPLES OF COMPILERS

(2014 Admissions)

Time : Three Hours Maximum : 36 Weightage

Part A

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

1. **What is a Complier ?**
2. Define Ambiguous Grammar.
3. Discuss DAG representation.
4. Define basic block.
5. What are LR Parsers ?
6. What is the use of code generator ?
7. What do you mean by overloading of functions and operators ?
8. What do you mean by type conversions ?
9. Write a note on Handle Pruning.
10. Define parse tree.
11. What do you mean by data flow analysis ?
12. Write a note on recursive descent parsing.

(12 x 1 = 12 weightage)

Part B

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

13. Discuss symbolic debugging of optimised code.
14. What is peephole optimization ?
15. Write note on compiler construction tool's.
16. Convert (a/b)*abb into DFA.

Turn over

17. Briefly explain predictive parsing.

18. What are the roles of a lexical analyser ?

19. Differentiate between top down parsing and bottom up parsing.

20. Describe in detail operator precedence parsing.

21. List parameter parsing mechanisms.

(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. Explain the principle sources of optimization.

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 *

F -> (E) /id

(3 x 4 = 12 weightage)