Exam.Code:0919
Sub. Code: 6352

1078
B.E. (Computer Science and Engineering)
Seventh Semester
CSE-711: Compiler Design

Time allowed: 3 Hours Max. Marks: 50

NOTE: *Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.*

x-x-x

I. Attempt the following:-

a) Depict diagrammatically how a language is processed.

b) Write a regular expression for an identifier.

c) What does a semantic analysis do?

d) List the various error recovery strategies for a lexical analysis.

e) Why lexical and syntax analyzers are separated out? (5x2)

UNIT – I

II. Explain in detail all the algorithms required for generating operator precedence parsing table for a grammar. Also explain the overall generation process. (10)

III. Explain in detail all the algorithms required for generating predictive parsing table for a grammar. Also explain the overall generation process. (10)

IV. Construct the SLR parsing table with DFA for the following grammar and then show acceptance (if possibly accepted) of any string with the Parsing Table.

$S \rightarrow L = R \backslash R$

$L \rightarrow *R \mid id$

$R \rightarrow L$ (10)

UNIT – II

V. a) Give algorithms for finding basic blocks and then generating the flow graphs. Explain the same by taking an example.

b) Enlist principle sources of optimization. (6,4)

P.T.O.

VI. a) Compare and contrast different data structures available for symbol table.

b) Differentiate intermediate code representations techniques. (5,5)

VII. a) Explain the Peephole optimization with example.

b) Give different storage allocation strategies. (5,5)

x-x-x