C 58317

Name.....

Reg. No.....

SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, JUNE 2009

CS 2K 605/~~IT 2K 606~~ D – COMPILER DESIGN

Time : Three Hours

Maximum : 100 Marks

Answer **all** *questions.*

I. (a) What are compilers and translators?

(b) What is an lexical analysis? Give example.

(c) What is a Parser? How the Parse tree is represented?

(d) What is Handle Pruning?

(e) Briefly explain any *one* syntax-directed translation scheme.

(f) What is a symbol table?

(g) Name the principal sources of code optimization.

(h) Give the properties of reducible flow graphs.

(8 × 5 = 40 marks)

2. (a) With a simple approach, explain the design of a Lexical Analyser.

Or

(b) Explain in detail about the

(i) Translation Rules of a LEX Program.

(ii) Implementation of a Lexical analyser.

(8 + 7 = 15 marks)

3. (a) Explain in detail about the operator-precedence Parsing Algorithm.

Or

(b) Discuss in detail about the SLR Parsing table construction algorithm.

4. (a) Explain in detail about the implementation syntax-directed translators.

Or

(b) (i) What are the capabilities of symbol tables.

(ii) Explain the implementation of a Block structured language.

(8 + 7 = 15 marks)

5. (a) Discuss in detail about the DAG construction process.

Or

(b) (i) Explain the properties of Reducible Flow graphs.

(ii) Briefly explain the Depth-First search algorithm.

(8 + 7 = 15 marks)

[4 × 15 = 60 marks]