Roll No. .....

Total Pages : 02

BT-7/D-19

37001

COMPILER DESIGN

CSE-401

Time : Three Hours]

[Maximum Marks : 100

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. A program written in a high level language has to be executed on a computer. What steps may be necessary to carry out this process ? How does a compiler implement these steps ?

2. Give a brief description of the following with a specification of their importance in compilation process :
   (a) Context-free grammars
   (b) Top down parsing.

Unit II

3. What are the benefits of using intermediate codes ? Describe the various intermediate code representations.

4. What is the importance of a symbol table in compiler design ? Describe the various ways to implement symbols table.

Unit III

5. (a) What information is contained in an activation record ?

   (b) Describe the storage allocation of block structured languages.

6. Give an overview of error detection and recovery to deal with errors in a code.

Unit IV

7. At what levels of compilation process can efforts be made for obtaining an optimized code ? Describe the techniques for loop optimization.

8. How is an intermediate code transformed into target object code during code generation phase ? What is the role of DAG and peephole optimization in the code generation process ?