

Code No: 07A60502

R07

Set No. 3

**III B.Tech II Semester Regular/Supplementary Examinations, May 2010
COMPILER DESIGN**

Computer Science And Engineering

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. (a) What is next use information explain in detail.
(b) Write about target code forms. Explain how the target code can be generated from the given three address code. [8+8]
2. Explain with example the various techniques in loop optimization. [16]
3. (a) What is an SLR Grammar?
(b) Construct LALR(1) Parse table from the following grammar
 $S \rightarrow Aa|bAc|dc|bda..$ [8+8]
4. Describe the procedure to compute in and out values using data flow equations for reaching definition in structured programs. [16]
5. What is an ambiguous grammar? With an example illustrate how we can not uniquely parse a given sentence for an ambiguous grammar. [16]
6. (a) What is back patching?
(b) Explain back patching with reference to the three address code generated for the expression $p > q$ and $q < t$. [12+4]
7. (a) Construct an NFA for regular expression $R = (aa|b)^*ab$ convert it into an equivalent DFA
(b) Write a LEX program for identifying the keywords and identifiers from the file? [8+8]
8. Explain activation trees and draw activation tree for quick sort program. [16]
