

Code: 9A05504

B.Tech III Year I Semester (R09) Supplementary Examinations June 2017

COMPILER DESIGN

(Computer Science & Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Give pseudo code for lexical analyzer.
(b) What are the typical lexical errors encountered? Explain
- 2 (a) What is ambiguous grammar? Give an example of ambiguous grammar.
(b) Construct LL(1) parse table for the following grammar:
 $S \rightarrow Aa|bAc|Bc|bCa$
 $A \rightarrow d$
 $B \rightarrow d$
- 3 Construct the SLR parsing table for the following grammar:
 $E \rightarrow E+T|T$
 $T \rightarrow TF|F$
 $F \rightarrow F^*|a|b$
- 4 (a) Briefly give conceptual view of syntax directed translation.
(b) Describe in detail about attributed grammar.
- 5 (a) What are the demerits in self-organizing list? Explain.
(b) What are the steps to search an entry in the hash table?
- 6 (a) Describe in detail, any three methods of code optimization.
(b) Write short notes on peephole optimization.
- 7 What is meant by Available Expression? Explain in detail.
- 8 Discuss in detail about the interaction between code optimization and code generation phases of a compiler.
