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Roll No.

18F1

B.Tech. EXAMINATION, 2022

(Sixth Semester)

(C Scheme) (Main & Re-appear)

(CSE)

CSE302C

COMPILER DESIGN

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all. All questions carry equal marks.

Unit I

1. Define Compiler. Explain its various phases. 15
2. What is the role of lexical analyzer ? Explain its design. 15

Unit II

3. Explain the following : 15
 - (a) Parse tree
 - (b) Predictive Parsing.
4. What is Context Free Grammar ? Construct the leftmost and rightmost derivation for abbcd to grammar.
 $B \rightarrow aABe$
 $A \rightarrow Abc/b$
 $B \rightarrow d.$ 15

Unit III

5. What is the use of symbol table ? Explain the various data structures associated with symbol table. 15

6. (a) Explain the syntax directed translation scheme with example. 8
- (b) Explain triples and quadruples address code in detail. 7

Unit IV

7. Explain the following :
 - (a) Depth first search 8
 - (b) Problems in code generations. 7
8. Discuss register allocation for temporary and user defined variables. 15