

B.Tech CSE - Compiler Design

Introduction:

This document contains a collection of questions and answers from previous Compiler Design question papers for B.Tech CSE students. The content includes multiple choice questions (MCQs), short answer type questions, and long answer type questions, aimed at covering different aspects of compiler design.

GROUP A: Multiple Choice Type Questions

1. Which of the following derivations does a top-down parser use while parsing an input string?
 - a) Leftmost derivation
 - b) Leftmost derivation in reverse
 - c) Rightmost derivation
 - d) Rightmost derivation in reverse
2. Parse tree is generated in the phase of
 - a) Syntax Analysis
 - b) Semantic Analysis
 - c) Code Optimization
 - d) Intermediate Code Generation
3. Compiler translates the source code to
 - a) Executable code
 - b) Machine code
 - c) Binary code
 - d) Both b) and c)

GROUP B: Short Answer Type Questions

1. Define a compiler.
2. What is ambiguous grammar? Eliminate ambiguities for the grammar $E \rightarrow E + E \mid E * E \mid (E) \mid id$.
3. What is annotated parse tree? What do you mean by terminal table and literal table?
4. Explain inherited and synthesized attributes with suitable examples.

GROUP C: Long Answer Type Questions

1. Explain the stages of compilation with a suitable diagram. Explain what will be the output at each stage.
2. Construct a predictive parsing table for the following grammar:
E \rightarrow TE'
E' \rightarrow +TE' | ϵ
T \rightarrow FT'
T' \rightarrow *FT' | ϵ
F \rightarrow (E) | id
3. Explain the difference between Quadruples, Triples, and Indirect Triples with examples.
4. Design a DFA from the regular expression $(a|b)^*ab$.