Atal Bihari Vajpayee Indian Institute of Information Technology & Management, Gwalior

IT302: Compiler Design

Minor Examination (Session 2024–25)

Maximum Time: 1.5 Hours Max Marks: 25

Note: Attempt all questions. Use diagrams wherever applicable.

1. Explain the different phases of a compiler with their roles. (5 Marks)

2. Construct a DFA for the regular expression $(a|b)^*a$. (5 Marks)

3. Distinguish between recursive-descent parsing and predictive parsing. (5 Marks)

4. Write short notes on: (a) Lexical errors (b) Syntax errors (5 Marks)

5. Explain the purpose and structure of an Abstract Syntax Tree (AST). (5 Marks)