

UNIT- I	INTRODUCTION AND LEXICAL ANALYSIS	Hrs
Introduction: Language Processors- Phases of a Compiler- The Science of Building Compiler Applications of Compiler Technology- Cousins of a compiler- Compiler Construction Tools, Lexical Analysis: The Role of the Lexical Analyzer- Specification of Tokens- Recognition of Tokens- Finite Automata		12
UNIT- II	SYNTAX ANALYSIS	Hrs
Syntax Analysis: Role of the Parser- Writing a Grammar - Top Down Parsing - Recursive Descent Parsing - Predictive Parsing - Bottom Up Parsing - Shift Reduces Parsing - LR Parsers- SLR Parser- CLR Parser		12
UNIT- III	INTERMEDIATE CODE GENERATION	Hrs
Syntax-Directed Translation: Syntax-Directed Definitions - Applications of Syntax -Directed Translation - Syntax-Directed Translation Schemes -Intermediate Code Generation- Types of Three Address Code- Type Checking- Control Flow Statements- Switch Statements – Procedures - Backpatching		12
UNIT- IV	CODE GENERATION	Hrs
Code Generation: Issues in the Design of a Code Generator - Basic Blocks and Flow Graphs- Optimization of Basic Blocks- Peephole Optimization- Register Allocation and Assignment Optimal Code Generation for Expressions - Dynamic Programming Code –Generation		12
UNIT- V	CODE OPTIMIZATION	Hrs
Introduction to Optimization: Background- Scope of Optimization- Local and Global Optimization - Inter-procedural Optimization. Dataflow Analysis: Iterative Data Flow Analysis- Static Single Assignment Form - Inter-procedural Analysis		12
Total: 60 Periods		