UNIT-1

1a) Explain how is the order of evaluation of attributes determined for the tree of a given grammar. [5M]

b) Discuss in detail about the attribute grammars [5M]

2 a)Explain about lexical analysis. [5M]

b)Write short notes on context free grammar [5m]

3. a) Give an example of left recursive rule in CFG. What is the significance of left Recursive rule? [5M]

b)How do you describe the meanings of programs using dynamic semantics? [5M]

4a)Explain different phases of compilation. [5M]

b)Write BNF notation for 'for loop', 'if-else condition' and structure definition in C. [5M]

5a) Explain Top down parsing [5M]

b) Explain bottom up parsing [5M]

UNIT-2

1a) What is a variable? What are the attributes of a variable? Elaborate on address of a variable [5M]

b) Explain in detail about overloaded operators [5M]

2a) Explain in detail arrays, indices, subscript bindings, and array categories [5M]

b) Define unconditional branching. What are the problems with unconditional branching [5M]

3a) Explain various primitive data types with suitable examples. [5M]

b) Discuss about type-checking and control structures? [5M]

4a) Explain the conditional statements and its implementation with examples. [5M]

b)Explain the scope and lifetime of variables. Illustrate when they would coincide and when they don't. [5M]

5a) Is static binding more reliable or dynamic binding? Explain why. [5M]

b)Present the classification of arrays based on subscript binding. Give programming examples. [5M]

UNIT-3

1a)Define a function. What are the design issues for functions? Explain [5M]

b)Explain how subprogram is overloaded? Give examples. [5M]

2. a)Explain how subprograms names are passed as parameters. [5M]

b)Define sub program. What are the distinct categories of Subprograms? [5M]

3.a)Define a subprogram. Write the semantics of call and return of a subprogram [5M]

b)Discuss about nested subprograms with examples. [5M]

4.a)Discuss how generic methods are implemented with suitable examples. [5M]

b)Explain the importance of dynamic scoping with an example. [5M]

5.a)Discuss about pass-by-result and pass-by-value-result parameter passing methods, with detailed programming example for each. [5M]

b)Discuss about deep access and shallow access methods for implementing dynamic scoping [5M]

UNIT-4

1 a)Discuss the design issues of Exception Handling. [5M]

b)Explain in detail abstract data types in java with examples. [5M]

2 a)Compare and contrast the cooperation synchronization and competition synchronization in message passing. [5M]

b)Explain the basic concepts of exception handling [5M]

3a) How message passing is implemented in Ada? Explain with examples. [5M]

b) What is an event? How the events are handled in various OOP languages. [5M]

4a) Define a Thread. How are threads different from processes? Explain java threads with examples [5M]

b) Define monitor. Explain how cooperation synchronization and competition synchronization are implemented using monitors [5M]

5a) Discuss how producer consumer problem can be solved using concurrency in Java. [5M]

b)Discuss about exception handling in C++. [5M]

UNIT-5

1a)Write about functional forms in LISP. [5M]

b)Give a comparison between ML and Haskell [5M]

2a)How ML is different from other functional programming languages?` [5M]

b)Why were imperative features added to most dialects of LISP? [5M]

3a)Give comparison of Functional and Imperative Languages [5M]

b)Explain the control structure of a PROLOG program [5M]

4a)Explain about scheme functional programming language. [5M]

b)Discuss how Haskell differs from ML [5M]

5a)Explain the principles of ML? [5M]

b)Explain about fundamentals of FPL? [5M]

UNIT-6

1 a)Explain about Logic programming [5M]

b)Discuss in brief about the Basic elements of Prolog. [5M]

2 a)Discuss about basic elements of Prolog [5M]

b)Explain different types of propositions present in logic programming. [5M]

3 a)Discuss Terms and Goal statements in Prolog with examples [5M]

b)How PROLOG is different from other logic programming languages? Give an example for each feature [5M]

4 a)Explain Prolog interfacing process. [5M]

b)Explain about the inferencing process of Prolog [5M]

5 a)List and explain the applications of logic programming. [5M]

b)Discuss about basic elements of Prolog [5M]