



**LISP PROGRAMMING  
(GE Inter-Disciplinary)**

**Credits:2**  
**Course Code : G22CSA11T**

**Semester:III**  
**No. of Lecture Hrs: 30**

**Course Objective:** To understand the programming concepts and constructs of LISP.

**Course Outcomes:** Students will be able to

- CO1: Understand** basics of LISP and installation
- CO2: Implement** the structure and components of a LISP program
- CO3: Interpret** how to write and implement Functions in program
- CO4: Create** programs involving arrays and strings
- CO5: Develop** programs related to file operations and error handling.

<b>UNIT-I</b>	<b>6Hrs</b>
1. LISP- Overview, Environment setup	2
2. Basic syntax, data types	2
3. Macros, variables and constants	2
<b>UNIT-II</b>	<b>6Hrs</b>
1. Operators (Arithmetic, comparison, logical and bitwise)	2
2. Decision structures- cond, if, when and case	2
3. Loops- loop, loop for, do, dotimes and dolist	2
<b>UNIT-III</b>	<b>6Hrs</b>
1. Functions in LISP	2
2. Predicates	2
3. Number and characters	2
<b>UNIT-IV</b>	<b>6Hrs</b>
1. Arrays and strings	2
2. sequences, lists, symbols	2
3. Vectors, set, Tree and Hashtable	2
<b>UNIT-V</b>	<b>6Hrs</b>
1. Input/Output, File I/O	2
2. Structures, packages	2
3. Error Handling and classes (CLOS)	2

**SUGGEST READING**

1. Vindarel. 2021. **The Common Lisp Cookbook, Diving into the Programmable programming language.** Oreilly Publications.