DSMDC114 Introduction to Programming I

Semester: I	Course Title: Introduction to Programming I	Credit: 4
Course Code: DSMDC114		(3 T + 1 P)

Course Outcomes: On successful completion of the course the learner will be able to

CO	COGNITIVEABILITIES	COURSEOUTCOMES
CO 1	REMEMBERING	Enumerate core concept of C Programming.
CO 2	UNDERSTANDING	Explain C language basics, including its history and structure.
CO 3	APPLYING	Develop algorithms and flowcharts for basic tasks
CO 4	ANALYSING	Identify and compare different operators and their precedence.
CO 5	EVALUATING	Debug C programs and understand the roles of different program files.
CO 6	CREATING	Create C programs using decision-making and looping constructs.

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	2	2	3	2	2
CO 2	3	2	3	2	2
CO 3	2	2	3	2	2
CO 4	1	1	2	1	1
CO 5	2	3	3	2	2
CO 6	3	2	3	3	1

Unit	Detailed Syllabus	Teaching Hours
II	**Fundamental of Algorithms:** Introduction, Algorithm Development Method, Algorithms for basic human general activities focused on understanding basic steps, Basic number and arithmetic Operation, Looping & Control flow statements, Series computation, Introduction to flowchart, Symbols for input/output, Processes, Decision, Begin/End, Representation of algorithms by Flowchart. **Overview of C:** Brief history of C, Importance of C, Features of 'C' language, Basic Structure of C Programs, Programming Style, Steps to execute 'C' Program, Understanding the terminologies: Source Program, Object Program, Executable Program, Linker, Loader, Debug, Compilation process, Interpreter. **Constants, Variables and Data Types:** Character set, C tokens, keywords and identifiers, constants, variables, data types, declaration of variables, assigning value to the variable, defining symbolic constants.	15
II	**Operators and Expression:** Operators - arithmetic, relational, logical, assignment, increment-decrement, conditional, bit-wise and special, Arithmetic expressions, evaluation of expressions, precedence of arithmetic operators, type conversions in expressions, operator precedence and associativity, mathematical functions.	15