Semester	**III**
Course	**Skill Enhancement**
Paper Code	S2MT230311P
Paper Title	C Programming
No. of Credits	**3**
Theory / Practical / Composite	Practical
Minimum No. of preparatory hours per week a student has to devote	3
Number of Modules	Nil
Syllabus	Introduction to C programming [4]: Basic Concept Of Computer, History Of Computer, Computer Architecture; Computer Languages: Machine Language, Assembly language, High Level Language, compiler, Interpreter, Assembler , Object Program , Source Program , Operating system , History of C language .Introduction to *First Program of C Language* : Idea of Library Function [6]: standard input output, printf() ,scanf() ,# include library like #include<math.h> which includes all mathematical function. Structure Of C Program. C Character Set [2], identifier, Constants, Variables and Data Type, Statement. Operators in C language [4]*e*: Arithmetic Operators, Relational Operators, Shift Operators, Logical Operators, Bitwise Operators, Ternary or Conditional Operators Assignment Operator. Elementary Programmes [4]: sum and product of some numbers, calculation of area perimeter of some geometrical object, To find value of a function (without defining a function); to find real root of a Quadratic Equation. program to use operator and statement especially ternary operator and Bitwise operator. Control statement in C language [10]: if, if-else , if-else-if……, nested if , switch-case , for loop , while loop , do-while loop . jump statement. Programmes [18]: 1. To generate a sequence. 2. To check convergence of a sequence and its limit (if convergent). 3. To find sum of finite series.

	4. To check convergence of a series and its sum (if convergent).
	5. Introduction of array and sorting it in ascending or descending order.
	6. To find frequency distribution of a given set of data and calculation of mean and standard deviation.
	7. Introduction of two-dimensional array as matrix and its input output sum, product, transpose.
	8. Calculation of mean/standard deviation of a set of real numbers using array and writing user defined functions for mean and s.d.
	9. Calculation of factorial value of a positive integer using function.
	10. Introduction to two-dimensional array, computation of matrix product, matrix transpose etc.
	11. To form and print difference table for given set of data.
	12. To write a program on different Interpolation formula.
	13. To find Inverse of a matrix.
Learning Outcomes	To be acquainted with basics of programming language in connection with mathematics.
Reading/Reference Lists	(1) Let Us C: Kanitkar (2) Programming with C: Byran Gottfried
Evaluation	50	
Paper Structure for Theory Semester Exam	