19BSP701P					C Programming Laboratory					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	Viva	
0	0	2	1	2	-	-	-	50	50	100

COURSE OBJECTIVES:

1. To understand the fundamentals of programming in C Language.
2. To write, compile and debug programs in C.
3. To formulate problems and implement in C.
4. To effectively choose programming components to solve computing problems in real-world.

List of experiments/programs

1. Finding the maximum and minimum of given set of numbers
2. Comparing two or more numbers
3. Identification of numbers and letters from user inputs
4. Finding Roots of a Quadratic Equation
5. Sin x and Cos x values using series expansion
6. Conversion of Binary to Decimal, Octal, Hexa and Vice versa
7. Preparing a user input driven calculator/unit converter
8. Generating a Pascal triangle and Pyramid of numbers, symbols and letters
9. Recursion: Factorial, Fibonacci, GCD
10. Introduction to arrays: storing numbers/characters
11. Programs on Linear Search and Binary Search using recursive and non-recursive procedures.
12. Finding the No. of characters, words and lines of given text file
13. Matrix addition and Transpose of a Matrix with and without arrays
14. Matrix multiplication using arrays
15. Writing a program that can be used in day to day life.

COURSE OUTCOMES

On completion of the course, student will be able to

1. Read and comprehend programs written in C language.
2. Apply the learning for the execution of the programs.
3. Explain and write the C code for a given algorithm and vice versa.
4. Implement Programs with pointers and arrays.
5. Compose the programs that perform operations using derived data types.
6. Apply the knowledge of C programming in solving day to day problem of life.

TEXT/REFERENCE BOOKS

1. Problem Solving and Program Design in C, 4th edition, by jeri R. Hanly and Elli B.Koffman.
2. Programming in C by Pradip Dey, Manas Ghosh 2nd edition Oxford University Press.
3. E.Balaguruswamy, Programming in ANSI C 5th Edition McGraw-Hill
4. A first book of ANSI C by Gray J.Brosin 3rd edition Cengagedelmer Learning India P.Ltd
5. AL Kelly, Iraphol,Programming in C,4th edition Addison-Wesley – Professional
6. Brain W.Kernighan & Dennis Ritchie, C Programming Language, 2nd edition, PHI

Evaluation

Max. Marks: 100

Continuous evaluation	50 marks
End semester examination, Viva-voce & project presentation	50 marks