BSM 304 T/P Programming and Problem Solving Through C Language Lab									
Teaching Scheme					**Examination Scheme**				
L	**T**	**P**	**C**	**Hrs/Week**	**Theory**			**Practical**	**TotalMarks**
					MS	**ES**	**IA**	**LW**	**LE/Viva**	
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OBJECTIVES
1.To learn basic concepts of procedural programming 2. To study and understand various features of C language and 3. To write own program for the developed algorithm

SYLLABUS

UNIT I	10
Introduction to Programming: types of programming languages (machine language, assembly language, high level language, etc.), procedural programming paradigm, program compilation tools (compiler, assembler, linker, loader, etc.), Fundamentals of C Language: Structure of C program, comments, constants, variables, data types, keywords, operators, precedence and associativity rules, etc	

UNIT II	10
Programming language constructs: looping and branching (if-else, for, while, do-while, case,conditional operator, break, continue, goto, etc.); built in functions: standard IO, math functions, etc.	

UNIT III	10
Composite data types: arrays and strings, structure and union, storage representation, Procedural Programming: implementation of functions and procedures, parameter passing (by value and reference), returning results, calling; Macros and Preprosessor directives (#define, #ifdef, and others)	

UNIT IV	9
Dynamic Memory access: concept of Pointer variables, library functions for run time memory management (malloc, calloc, free, etc.), Passing parameters to the main function from command line parameter passing File System Access: file operations such as open, close, read, write, random and sequential access, create and delete files, etc using inbuilt functions such as fopen, fread, fwrite, fseek, and others)	

APPROXIMATE TOTAL	39 Hours

OUTCOMES
1. Understand basic concept of Procedural programming 2. Understand the features of C languages 3. Write applications to solve real world problems using C language

TEXTS AND REFERENCES

1. Programming in ANSI C by E Balagurusamy, MGH publisher

2. Programming in C ANSI Standard, Yashwant Kanetkar, BPB Publisher

3. Programming with C by Gottfried, MGH Publisher

4. Pointers in C by Yashwant Kanetkar, BPB Publisher