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Course – 104 Computer Programming & Programming Methodology (CPPM)

Course Content:	**UNIT-1: Introduction**
	1.1 Concepts of Programming Language
	1.1.1 Introduction of Source Code, Object Code and executable code
	1.1.2 Algorithm and Flowchart
	1.1.3 Concepts of Structured Programming Language
	1.2 Concepts of Editor, Interpreter and Compiler
	1.2.1 Introduction of C program body structure
	1.2.2 Character Set, concepts of variables and constants
	1.2.3 Identifiers, literals, Key words
	1.2.4 Data types (signed and unsigned) (Numeric : int, short int, long, float, double) , (Character type: char, string) and void.
	1.2.5 Concepts of source code, object code and executable code.
	UNIT-2: Input/Output Statements and Operators:
	2.1 Input/Output statements:
	2.1.1 Concepts of Header files (STDIO,CONIO)
	2.1.1.1 Concepts of pre-compiler directives.
	2.1.1.2 Use of #inlcude and #define
	2.2 Input/Output Statements:
	2.2.1 Input statements : scanf(), getc(), getch(), gets(), getchar()
	2.2.2 Output Statements: printf(), putc(),puts(), putchar()
	2.2.3 Type specifiers (formatting strings) : %d, %ld, %f, %c, %s, %lf
	2.3 Operators :
	2.3.1 Arithmetic operators (+, -, *, /, %, ++, --,)
	2.3.2 Logical Operators (&&, ||, !)
	2.3.3 Relational Operators (>, <, ==, >=, <=, !=)
	2.3.4 Bit-wise operators (&, |, ^ , <<, >>)
	2.3.5 Assignment operators (=, +=, -=, *=, /=, %=)
	2.3.6 Ternary Operator and use of sizeof() function.
	2.4 Important Built-in functions:
	2.4.1 Use of <string.h> : (strlen, strcmp, strcpy, strcat, strrev)
	2.4.2 Use of <math.h> : (abs(), floor(), round(), ceil(), sqrt(), exp(), log(), sin(), cos(), tan(), pow() and trunc())

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UNIT-3: Decision Making statements :
3.1 if statements :
    3.1.1 simple if statements
    3.1.2 if…else statements
    3.1.3 if…else if….else statements
    3.1.4 Nested if statements.
3.2 Switch..case statements
    3.2.1 Use of break and default
    3.2.2 Difference between switch and if statements.

UNIT-4: Iterative statements :
  4.1 Use of goto statement for iteration
  4.2 while loop
  4.3 do..while loop
  4.4 for loop
  4.5 Nested while, do..while and for loops
  4.6 Jumping statement: (break and continue)

UNIT-5: Concepts of Arrays and pointer
5.1 Concepts of Single-dimensional Array
    5.1.1 Numeric single dimensional Array
     5.1.2 Numeric single dimensional array operations:
        5.1.2.1 Sorting array in ascending or descending. (Bubble and selection)
        5.1.2.2 Searching element from array (Linear Search)
     5.1.3 Character Single dimensional Array
        5.1.3.1 Character Single dimensional array operations:
        5.1.3.2 Use of \0, \n and \t
5.2 Pointers:

    5.2.1 Concepts of Pointers
    5.2.2 Declaring and initializing int, float, char and void pointers
    5.2.3 Pointer to single dimensional numeric array.