



JEEWAN JYOTI IT & MANAGEMENT CENTER

"C" SYLLABUS

INTRODUCTION OF PROGRAMMING LANGUAGES

- Types of Languages
- Evolution of 'C' Language
- Structure of a 'C' Program
- 'C' Program development life cycle
- Executing and Debugging a 'C' Program

CONTROL STATEMENT AND EXPRESSIONS

- Decision Making using if statement
- Types of if ...else block
- Switch case Block
- Arithmetic Expressions
- Evaluation of Expressions
- GOTO statement

ARRAYS AND STRING

- Introduction of Array
- One - D Array
- Two - D Array
- Multidimensional Array
- Dynamic Arrays
- Implementing String Variables
- String handling Functions

'C' TOKENS

- Keywords and Identifiers
- Operators
- Constants
- Variables
- Data Types
- Precedence of Operators
- Scope and Lifetime of Variables

LOOPING

- Concept of Loop
- For loop
- While loop
- Do while loop
- Jumping in Loop
- Break and continue statement

FUNCTIONS

- Concept of Function
- User defined Function
- System Defined Function
- Types of parameter passing in function

POINTERS

- Need of Pointers
- Types of Pointers
- Pointer Expression
- Arrays of Pointers
- Pointers and Functions

STRUCTURE AND UNIONS

- Need of Structure
- Implementing Structure Variable
- Arrays of Structure
- Structure within Structure
- Introduction of Unions
- Difference between Structure and Unions

STORAGE CLASSES AND PRE-PROCESSOR

- Introduction of Storage Class
- Types of Storage Classes
- Introduction of Pre-processor
- Macro Substitution
- File Inclusion

FILE HANDLING USING 'C'

- Opening and Closing File
- Input / Output operations on File
- Random Access to Files
- Command Line Arguments

DYNAMIC MEMORY ALLOCATION

- Concept of Dynamic Allocation
- Implementing Malloc and Calloc Functions
- Releasing the free space

"C++" SYLLABUS

INTRODUCTION TO OBJECT ORIENTED PROGRAMMING

- Concept of OOP
- Features of OOP
- Introduction of 'C++'
- Structure of 'C++' program
- Executing and Debugging a 'C++' Program

CLASSES & OBJECTS

- Classes & Object Specifier
- Defining data members and member functions
- Array of objects
- Managing console I/O
- 'C++' stream classes
- Formatted and unformatted console I/O
- Usage of manipulators

FUNCTION IN 'C++'

- Call by reference, Return by reference
- Function overloading and default arguments
- Inline function
- Static class members
- Friend functions
- Virtual Functions

'C++' TOKENS AND TYPE CASTING

- Keywords and Identifiers
- Operators
- Constants
- Variables
- Data Types
- Precedence of Operators
- Scope and Lifetime of Variables

INTRODUCTION TO OBJECT ORIENTED PROGRAMMING

- Concept of OOP
- Features of OOP
- Introduction of 'C++'
- Structure of 'C++' program
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CONSTRUCTORS AND DESTRUCTOR

- Concept of Constructor
- Types of Constructors
- Memory allocation (new and delete)
- Usage of destructor

OPERATOR OVERLOADING

- Overloading Unary and Binary operators
- Overloading using friend function

INHERITANCE

- Types of inheritance
- Virtual base classes and abstract base classes
- Constructor and destructor in derived class

WORKING WITH FILES

- File operations
- File pointer and their manipulation
- File updating with random access

EXCEPTION HANDLING

- Various Exception Handling classes
- Implementing try and catch block
- Use of throw keyword