

INFORMATIVE TRAINING COMPUTER CENTRE

OPP- Maa Laxmi Plaza, Sahu complex

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Sahjanand Chowk, Ranchi-02

Jharkhand

Tel.No.9431326614

Software Development

AND

Training Centre



SYLLABUS OF C LANGUAGE

Introduction to language translation programs, interpreters versus compilers, The basic structure of a 'C' program, various data types in 'C', their sizes & ranges, Library functions Vs. user defined functions, Pre-processor directives, type modifiers, rules about Mixed data type Expressions, Type casting.

A Detailed discussion on various operators (arithmetic, Relational, Logical), conditional operators, Unary operators (++/--), precedence & associativity of operators. Control structures, use of if, nested if, switch.. case construct, Iteration, while..loop, do..while loop, for..loop, Nested Loops, break & continue statement, exit() & goto library function, various console input/output functions like scanf(), printf(), getch(), getche(), getchar(), gets(), puts(), putchar() etc.. The concept of escape sequences & conversion specifiers.

Arrays & their utilities ,Single & double dimensional arrays, Bubble sort, Linear Search, Binary search, matrix addition, matrix multiplication. String Handling functions: Strlen(), strcpy(), strstr(), strchr(), strcat(), strlwr(),strupr(), strrev(), strncat(), strncpy(), strcmp(), strcmpi() etc.

How to build your own functions, concept of function prototypes, function calling & definitions, Actual Parameters, Formal Arguments, Scope Of arrays & Variables, storage classes concept (auto, register, static & extern). Inetprogram Communication through extern.

Pointers, pointer to int, float, char, double, long double etc., pointer to pointer, representation of 1-D array through pointers, call by value Vs. call by reference, Passing an array to a function by using call by reference, Macros, the concept of Recursion. Dynamic memory allocation Vs. static memory allocation, Using malloc(), calloc().

Using arguments to main() (argc() & argv() concept), Structures & Conglomerate data types, built-in data types Vs. user-defined data types, Array of structures, Nested Structures, Pointer to structure, using Dynamic memory allocation with structures, Passing a structure to a function, Enumerated data types & typedef.

Temporary memory Vs. Permanent storage, The concept of disk files, different file opening modes, Text files & Binary files, Using file input/output functions such as fgetc(), fputc(), String input/output fputs(), fgets(), formatted disk input/output functions fprintf(), fscanf(). Writing structures to disk files using fwrite(), Reading into structures from a file using fread().

SYLLABUS OF 'C++' LANGUAGE

Introduction to OOP (Object Oriented Programming),distinctions From structured programming approach ,Using Objects & Classes,Access Specifiers,Array of objects,Pointer to object,Passing and returning objects from functons,Usage of static class data & Functions,this keyword usage.

Constructors, Implicit and Explicit, Using Constructor Overloading,Function Overloading,New And Delete Operators,Using Destructors, Copy Constructors.Conversions - Auomatic & Non-Automatic,basic type to class object, object to basic types.

Inheritance,Private And Public Inheritance, When To Use Protected Access Specifier, Behaviour Of Constructors Without Arguments And With Arguments in Inheritance,Overriding Functions,Multilevel Inheritance, Multiple Inheritance,Containership.

Operator Overloading,operator keyword,overloading binary operators(+,-,>,<,>= etc...), advantages of operator overloading, concept of nameless objects, overloading unary operators(both with prefix and suffix notations), multiple overloading, Friend functions and using them to resolve overloading problems,Assignment operator overloading,Overloading of [] operator.Doing Away With Temporary objects,Overloading of Insertion & extraction Operator.

Friend classes & interclass communication,Array of Pointers to built-in Date types & objects,Binding - Late Binding Vs. Early Binding,Using Virtual Functions,Abstract Classes & pure virtual Functions,Virtual Destructors

Templates,function templates & class templates,Funcion Templates with multiple arguments,Using more than one template arguments,The Standard Template Library (STL),Exceptions & their handling,multiple exceptions,Exceptions with arguments.

File Handling in C++,Streams,Using ofstream,ifstream,fstream classes,text Files Vs. Binary Files,Writing Variables,Arrays,Objects,multiple objects,Arrays Of Objects on a disk file,Using Overloaded versions of insertion & extraction operators,write(),read() functions to write & read Binary files, Using seekg() ,ios::beg,ios::end,ios::cur to place file pointers on particular locations,logic explanation for appending,deletion,modification of records Using Formatting flags (left, right, dec, oct, hex, showbase, showpoint, showpos, scientific, fixed),Manipulators(setw(),setfill(),setprecision(),setiosflags()).

CERTIFICATION

Certificates will be provided to each successful participant at the end of the training.

In case of any clarification please feel free to get in touch with us.

Thanks and Regards

ITCC

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*Conditions Apply