SRI RAMAKRISHNA MISSION VIDYALAYA
COLLEGE OF ARTS AND SCIENCE
Coimbatore - 641 020

Certificate Course

Programming Skill Development

C and C++ Programming

Course Started: July 19, 2016

Department of Computer Studies

Computer Science,
Computer Application and
Information Technology

Coordinator   **Venue**

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Spoken-tutorial.org

C & C++ Syllabus

Basic Level

1) **First C Program** -Header Files - main() - Curly braces { } - printf() - semicolon ; - Compiling a C program - example: gcc filename.c -o output parameter - Executing a C program - Errors

2) **First C++ Program** - Header files - main() - Curly braces { } - cout<< - semicolon ; - Compiling a C++ program - Executing a C program

3) **Tokens in C and C++** - Data types, constants, identifiers – Keywords – Constants - Data types - Format specifiers – Variables – Identifier - Errors

4) **Functions in C and C++** - What is a function - Syntax for declaration of a function - Function with arguments - Function without arguments - Calling a function

5) **Scope of Variables in C and C++** - Introduction - Syntax of declaring a variable - Syntax for initializing a variable - Scope of variables - Global variable - Local variable

6) **If And Else If statement in C and C++** - What are Statements. - Syntax for if and - If-else Statement

7) **Nested if and switch statement in C and C++** - Nested if statement. - Switch statement. - Syntax for nested-if statement - Syntax for switch statement - break statement - Comparison between nested if-else and switch statement

8) **Increment and Decrement Operators in C and C++** - Increment Operator - Postfix increment - Prefix increment - Decrement Operator - Postfix decrement - Prefix decrement - Typecasting

9) **Arithmetic Operators in C and C++** - Arithmetic Operators - Addition Operator - Subtraction Operator - Multiplication Operator - Division Operator - Modulus Operator

10) **Relational Operators in C and C++** - Double Equal to - Not Equal to - Greater Than - Less Than - Greater than Equal To - Less Than Equal To

11) **Logical Operators in C and C++** - And && - Or || - Not !

Intermediate level

12) **Loops in C and C++** - Loops - Syntax for while and do-while loop - Comparison of while and do-while loop - Syntax for - for loop – etc.

13) **Arrays in C and C++** What are arrays - 1-D Arrays - Syntax for Declaration of arrays - Syntax for Initialization of arrays - Accepting values from the user

14) **Working with 2-D Arrays in C and C++ -** What are 2-D Arrays. - Range of arrays - Syntax for Declaration of 2-D arrays - Syntax for initialization of 2-D arrays

15) **Strings in C and C++ -** What is a string - Syntax for declaring a string - Syntax for initializing a string - To read a string from keyboard

16) **String Library Functions in C and C++ -** What are string library functions. - Types of string library functions – Strcpy, Strlen, Strcmp, Strcat

Advanced level

17) **Working with Structures in C and C++ -** Introduction - Syntax of structures - Declaration and initialization - Declaration of structure variable - Accessing structure variables

18) **Understanding Pointers in C and C++ -** Introduction - Syntax of Pointer – Declaration - Address Pointer

19) **Function call in C and C++ -** types of function calls - function pass by value - function pass by reference

20) **File Handling in C -** File handling functions - Opening a File closing a file - Reading data from a File

Signature

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