LBS CENTRE FOR SCIENCE AND TECHNOLOGY

(A Government of Kerala Undertaking)

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B4/ 2123/20224 15/05/2025

To

The Managing Director

X-treem Multimedia Technical Services Pvt Ltd

Sir,

Subject: Approval for conducting C Programming and Java Programming course in offline mode-Reg.

Ref: Your email dated 14/05/2025

Vide ref you have requested to conduct the courses *Online Course- C Programming and Online Course- Java Programming* in offline mode. The request was examined and it is pleased to inform you that the courses can be conducted in offline mode having the same duration. The course fees for the new courses are as follows. The syllabus is enclosed.

Sl.No	Name of the Course	Course Fees	Duration
1	C Programming	Rs 4000/-	50 Hrs
2	Java Programming	Rs 6000/-	50 Hrs

Dr.M. Abdul Rahiman

DIRECTOR

LBS Centre for Science and Technology
(Offline Course)

Course Title	C Programming
Abbreviation of Course Title	CCP
Overall duration of the course in Hours	50
Course Fees	4000
Eligibility	+2

About the Course

Solid Introduction to computer programming

Objectives of the course

Students who wish to undergo Engineering/BSc Degree/Diploma Courses

Syllabus of the course

Basics of Computer Architecture: processor, Memory, Input& Output devices
Application Software & System software: Compilers, interpreters, High level and low level Language

Introduction to structured approach to programming, Flow chart Algorithms, Pseudo code
Basic structure of C program: Character set, Tokens, Identifiers in C, Variables and Data Types , Constants, Console IO Operations, printf and scanf

Operators and Expressions: Expressions and Arithmetic Operators, Relational and Logical Operators, Conditional operator, size of operator, Assignment operators and Bitwise Operators. Operators Precedence

Control Flow Statements: If Statement, Switch Statement, Unconditional Branching using goto statement, While Loop, Do While Loop, For Loop, Break and Continue statements.(Simple programs covering control flow)

Arrays Declaration and Initialization, 1-Dimensional Array, 2-Dimensional Array
String processing: In built String handling functions (strlen, strcpy, strcat and strcmp, puts, gets)

Linear search program, bubble sort program, simple programs covering arrays and strings

Introduction to modular programming, writing functions, formal parameters, actual parameters Pass by Value, Recursion, Arrays as Function Parameters structure, union, Storage Classes, Scopeand life time of variables, simple programs using functions

Basics of Pointer: declaring pointers, accessing data though pointers, NULL pointer,array access using pointers, pass by reference effect

File Operations: open, close, read, write, append.

Sequential access and random access to files: In built file handling functions (rewind() ,fseek(), ftell(),feof(), fread(), fwrite()), command line arguments , simple programs covering pointers and files.
Method of Evaluation
Theory and Lab Examination conducted at our Centers.

LBS Centre for Science and Technology
(Offline Course)

Course Title	Java Programming
Abbreviation of Course Title	JP
Overall duration of the course in Hours	50
Course Fees	6000
Eligibility	+2

About the Course

Solid Introduction to computer programming

Objectives of the course

Students who wish to undergo B Tech / BSc Degree / Diploma Courses

Syllabus of the course

Java History; Java Features , Program Structure, Tokens, Statements; Implementing a Java Program (Creating the program, Compiling the program, Running the program, Command Line Arguments;

Variables; Data Types , Declaration of Variables; Scope of Variable, Type Casting (Automatic Conversion

Arithmetic Operators Relational Operators; Logical Operators, Assignment Operators; Increment and Decrement Operators; Conditional Operators;
Arithmetic Expressions; Evaluation of Expressions; Precedence of Arithmetic Operator; Type Conversions in Expressions (Automatic type conversion, Casting a value); Operator Precedence and Associativity

Decision Making with if Statement, the switch statement; The ?: Operator. Loops:- The while Statement; The do Statement; The for Statement, Nesting of for loops, Jumps in Loops (Jumping out of a loop, Skipping a part of a loop

Arrays; One-Dimensional Arrays, Two-Dimensional Arrays, Creating an Array (Declaration of arrays, Creation of arrays, Initialization of arrays, Strings (String arrays, String methods, StringBuffer class)

Basic Concepts of Object-Oriented Programming (Objects and Classes, Data abstraction and encapsulation, Inheritance, Polymorphism, Dynamic binding, Message communication), Benefits of OOP; Applications of OOP.

Defining a Class; Adding Variables; Adding Methods; Creating Objects; Accessing Class Members; Constructors; Methods Overloading; Static Members
Extending a Class (Defining a subclass, Subclass constructor, Multilevel inheritance, Hierarchical inheritance, Overriding Methods; Abstract Methods and Classes Visibility Control (public access, friendly access, protected access, private access, private protected access)

Defining Interfaces, Extending Interfaces, Implementing Interfaces, Accessing Interface Variables. **System Packages; Using System Packages; Naming Conventions** **Creating Packages; Accessing a Package; Using a Package; Adding a Class to a Package; Hiding Classes.**
Method of Evaluation
Theory and Lab Examination conducted at our Centers.