# Standard Operating Procedure (SOP) for Computer Language Courses for 9-10 Standard Students in RBSE Schools.

## **Course Overview and Objective:**

 The objective of this SOP is to ensure that computer language courses provided to 9-10 standard students in RBSE schools are conducted effectively, efficiently, and consistently to achieve the desired learning outcomes.

## **Course Content:**

#### **Introduction to Programming**

- What is programming?
- Why do we need programming?
- Basic concepts of programming
- Introduction to C language

### **Variables, Data Types and Operators**

- Introduction to variables
- Data types in C (int, float, char, etc.)
- Arithmetic, relational and logical operators
- Expressions and statements

#### **Control Structures**

- Decision making with if-else statements
- Nested if-else statements
- Switch case statements
- Looping with while, do-while and for loops

#### **Arrays and Strings**

- Introduction to arrays
- Single and multi-dimensional arrays
- Strings in C
- String manipulation functions

#### **Functions and Pointers**

- Introduction to functions
- Defining and calling functions
- Recursion
- Introduction to pointers
- Pointer arithmetic

#### **File Handling**

- Introduction to file handling
- File modes and operations
- · Reading and writing to files
- Error handling in file operations

## **Mini-Project**

Students will work on a small project using the concepts learned in the course

Note: The above course content is just a suggestion and can be modified as per the requirements of the school and the students. It is recommended that the course be taught using a mix of theory and practical sessions to give students hands-on experience with programming.

## **Course Delivery:**

- The course should be delivered in a structured manner, following the below guidelines:
- Conduct classes in a well-equipped computer lab with necessary hardware, software, and internet connectivity.
- Assign qualified and experienced instructors who are well-versed in the course content and good in the coding languages being taught.
- Follow a pre-designed curriculum with clear learning objectives and outcomes.
- Use interactive teaching methods, such as lectures, demonstrations, group discussions, and practical coding exercises, Quiz to engage students and facilitate learning.
- Provide opportunities for students to ask questions and seek clarifications.
- Monitor student progress regularly and provide feedback to students and parents to track their performance and improvement.

## **Course Timings and Attendance:**

- This is a Six months course which will consist of 24 Days (Friday/ Saturday of Every week). Course timings will be in coordination with the respective RBSE school.
- Student Attendance shall be taken through Google Form or by the respective instructor who is taking the session.
- Attendance is mandatory for all the students who want to be certified in the course being chosen by them.

## **Course Assessments and Certifications:**

- Periodic tests will be conducted to assess the fruitfulness of course content being delivered to the students.
- Certification will only be provided to those who score marks above 60% in the Final Assessment.