

### Curriculum plan (ODD Semester)

**Teacher Name: Neha Singh**

**Paper name: Programming using C++**

**Class type: BA (prog), Semester-I**

**Paper shared with: Dr. Reena Jain**

S.No	Schedule (Approximate)	Topic
1	August	<b>Unit- 1 Introduction to C++:</b> Overview of Procedural and Object-Oriented Programming, Using main() function, Header Files, Compiling and Executing Simple Programs in C++  <b>Unit-2 Programming Fundamentals:</b> Data types, Variables, Operators, Expressions, Arrays, Keywords, Decision making constructs, Iteration, Type Casting, Input-output statements, Functions, Command Line Arguments/ Parameters  <b>Assignment 1, Test and Quizzes</b>
2	September	<b>Unit-3 Object Oriented Programming:</b> Concepts of Abstraction, Encapsulation. Creating Classes and objects, Modifiers and Access Control, Constructors, Destructors, Implementation of Inheritance and Polymorphism, Template functions and classes.  <b>Assignment 2, Test and Quizzes</b>
3	October	<b>Unit- 4 Pointers and References:</b> Static and dynamic memory allocation, Pointer and Reference Variables, Implementing Runtime polymorphism using pointers and references  <b>Unit- 5 Exception and File Handling:</b> Using try, catch, throw, throws and finally;  <b>Test and Quizzes</b>
4	November	<b>Unit- 5 Exception and File Handling:</b> Nested try, creating user defined exceptions, File I/O Basics, File Operations  <b>Revision, Doubts Clearing, Viva</b>

#### References

1. Stephen Prata C++ Primer Plus, 6th Edition, Pearson India, 2015
2. E Balaguruswamy Object Oriented Programming with C++, 8 th edition, McGraw-Hill Education, 2020
3. D.S. Malik, C++ Programming: From Problem Analysis to Program Design, 6 th edition, Cengage Learning, 2013