

**PANIPAT INSTITUTE OF ENGINEERING AND TECHNOLOGY  
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**LESSON PLAN**

**Semester: 3<sup>rd</sup> Sem**

**Subject Name: Object Oriented Programming      Subject Code: PC-CS-203A**

<b>Sr. No.</b>	<b>Lecture No.</b>	<b>Topics to Be Covered</b>
1	L 1	Introduction to C++, C++ Standard Library
2	L 2	Illustrative Simple C++ Programs
3	L 3	Header Files, Applications of Object Oriented Programming
4	L 4	Namespaces
5	L 5	Object Oriented Concepts, Introduction to Objects and Object Oriented Programming
6	L 6	Encapsulation, Polymorphism, Overloading
7	L 7	Inheritance, Abstract Classes, Access specifier (public/protected/ private)
8	L 8	Class Scope and Accessing Class Members
9	L 9	Controlling Access Function, Constant
10	L 10	Class Member, Structure and Class
11	L 11	Friend Function and Friend Classes
12	L 12	This Pointer, Dynamic Memory Allocation and De-allocation (New and Delete)
13	L 13	Static Class Members, Constructors
14	L 14	Parameterized Constructors and Copy Constructors, Destructors
15	L 15	Introduction to Inheritance, Types of Inheritance, Overriding Base Class Members in a Derived Class
16	L16	Public, Protected and Private Inheritance
17	L 17	<b>Inheritance Vs Composition</b>
18	L 18	Effect of Constructors and Destructor of Base Class in Derived Classes

19	L 19	Polymorphism, Pointer to Derived class
20	L 20	Virtual Functions, Pure Virtual Function
21	L 21	Abstract Base Classes, Static and Dynamic Binding, Virtual Destructor
22	L 22	Fundamentals of Operator Overloading
23	L 23	Rules for Operators Overloading
24	L 24	Implementation of Operator Overloading like <<, >>
25	L 25	Unary Operators, Binary Operators.
26	L 26	Text Streams and binary stream
27	L 27	Sequential access of file
28	L 28	Opening and closing of file, Detecting end of file
29	L 29	Opening modes of files
30	L29	File pointers and their manipulation
31	L 30	Error Handling
32	L31	Random Access File, Updating Random Access file
33	L32	Stream Input/ Output Classes
34	L32	Stream Manipulators
35	L33	Basics of C++ Exception Handling, Try, Throw, Catch, multiple catch
36	L34	Re-throwing an Exception, Exception specifications.
37	L35	Templates: Function Templates, Overloading Template Function
38	L38	Overloading Template Functions
39	L39	Class Template, Class template and Non-Type Parameters
40	L40	<b>Standard Template Library</b>

(COURSE INCHARGE)