Lesson Plan

Name of Faculty   :   **Ms Bharti Sethi Assistant Professor in CSE deptt.**
Discipline   :   **Computer Science and Engineering**
Semester   :   **3th(ODD)IT-202E**
Subject   :   **Object Oriented Programming Using C++**
Lesson Plan Duration   :   **15 weeks (from AUG-2020 to NOV/DEC-2020)**

Week	Theory		Topic Covered Date and Remarks		
	Lecture Day	Topic (Including Assignment/Test)	Date	HOD	Director-Principal
1st	1	Introduction to C++,C++ Standard Library, Basics of a Typical C++ Environment			
	2	Pre-processors Directives, Illustrative Simple C++ Programs			
	3	Header Files and Namespaces, library files.			
	4	Introduction to Objects and Object Oriented Programming,			
2nd	5	Access Modifiers: Controlling access to a class method			
	6	variable (public, protected, private, package)			
	7	Polymorphism: Overloading,			
	8	Encapsulation (Information Hiding)			
3rd	9	Inheritance,and their types			
	10	Overriding Methods			
	11	Abstract Classes, Reusability, Class's Behaviors			
	12	Classes and Data Abstraction: Introduction, Structure Definitions, Accessing Members of Structures			
4th	13	Class Scope and Accessing Class Members			
	14	Controlling Access Function And Utility Functions			
	15	Class Objects: Constructors, Using Default Arguments With Constructors			
	16	Using Destructors, Classes : Const(Constant) Object And Const Member Functions			
5th	17	Initializing Object as Member of Classes, Friend Function and Friend Classes			
	18	Using This Pointer, Separating Interface from Implementation			
	19	Dynamic Memory Allocation with New and Delete, Static Class Members			
	20	Container Classes And Integrators			
6th	21	Proxy Classes, Function overloading.			
	22	Operator Overloading: Introduction, Fundamentals of Operator Overloading, Restrictions On Operators Overloading			
	23	Operator Functions as Class Members vs. as Friend Functions, Overloading			
	24	<<, >> Overloading Unary Operators, Overloading Binary Operators			
7th		**1st Minor Test**			
8th	25	**Inheritance:** Introduction, Inheritance: Base Classes And Derived Classes			
	26	Protected Members, Public, Protected and Private Inheritance			
	27	Casting Base- Class Pointers to Derived- Class Pointers			
	28	Using Member Functions, Overriding Base –Class Members in a Derived Class			
9th	29	Using Constructors and Destructors in derived Classes			
	30	Implicit Derived –Class Object To Base- Class Object Conversion			
	31	**Virtual Functions and Polymorphism:** Introduction to Virtual Functions, Polymorphism			
	32	Abstract Base Classes And Concrete Classes, Dynamic Binding			
10th	33	New Classes And Virtual Destructors			
	34	**Files and I/O Streams:** Files and Streams, Creating a Sequential Access Creating A Random Access File			
	35	Unformatted I/O (with read and write)			
	36	Reading Data Sequentially from a Random Access File.			
11th	37	File Reading Data From A Sequential Access File, Updating Sequential Access Files, Random Access Files			
	38	Writing Data Randomly To a Random Access File,			
	39	Stream Input/Output Classes and Objects, Stream Output, Stream Input			

	40	Stream Manipulators, Stream Format States, Stream Error States.			
12th	41	**Templates & Exception Handling:** Function Templates			
	42	Overloading Template Functions			
	43	Templates and Friends			
	44	Templates and Static Members.			
13th	45	Class Template, Class Templates and Non-Type Parameters			
	46	Templates and Inheritance			
	47	Stack Unwinding, Exceptions and Inheritance			
	48	Introduction, Basics of C++ Exception Handling: Try Throw, Catch			
14th		**2nd Minor Test**			
15th	49	Throwing an Exception, Catching an Exception Rethrowing an Exception			
	50	Exception specifications, Processing Unexpected Exceptions			
	51	Constructors Exception Handling			
	52	Destructor exception handling			