Scheme of work

Name of Faculty : Ms. Anshu Sharma

Discipline : Computer Science & Engineering

Semester : IV

Subject : Advanced Programming Using C++ (BCA – 242)

Lesson Plan duration : 15 weeks (From January, 2020 to June, 2020)

Work load(Lecture/Practical)per week(in hours) - **Lecture** - 03, **Practical** - 02

Week	Lecture Day	Theory Topic (including assignment/test)	Practical	
			Practical Day	Topic
1st	I	Dynamic Polymorphism	1	Write a program to illustrate the virtual function
	II	Function Overriding		
	III	Virtual Function		
2nd	I	Virtual Function need	2	Write a program to implement run time polymorphism with the help virtual function.
	II	Pure Virtual Function		
	III	Pure Virtual Function need		
3rd	I	Abstract Class	3	Write a program to read and write the student and employee records by using late binding.
	II	Abstract Class need		
	III	Virtual Derivation		
4th	I	Virtual Destructor	4	Write a program to illustrate the concept of virtual destructors.
	II	Revision of Unit 1		
	III	Revision of Unit 1		
5th	I	Type Conversion	5	Write a program to

	II	Basic Type Conversion		illustrate inheritance.
	III	Conversion between objects and basic types		
6th	I	Conversion between objects of different classes	6	Write a program to change the visibility mode from public to private.
	II	Inheritance		
	III	Rules of Derivations		
7th	I	Private, Protected Derivations	7	Write a program to implement multiple inheritance.
	II	Public Derivations		
	III	Revision of Unit 2		
8th	I	Revision of Unit 2	8	Write a program to implement multiple inheritance.
	II	Different Forms of Inheritance – Single		
	III	Multiple, Multilevel Inheritance		
9th	I	Hierarchical and Multipath Inheritance	9	Write a program to implement hierarchical inheritance.
	II	Roles of Constructors in Inheritance		
	III	Roles of Destructors in Inheritance		
10th	I	Genericity in C++	10	Write a program to implement function template.
	II	Templates in C++		
	III	Function templates		
11th	I	Revision of Unit 3	11	Write a program to implement function template with multiple parameters.
	II	Revision of Unit 3		
	III	Revision of Unit 3		

12th	I	Class templates in C++	12	Write a program to implement try-catch mechanism.
	II	Exception Handling in C++		
	III	Try, throw and catch		
13th	I	Files I/O in C++	13	Write a program to handle the division by zero exception using class
	II	Class Hierarchy for Files		
	III	Class Hierarchy for I/O		
14th	I	Text versus Binary Files	14	Write a program to illustrate the catch all exception.
	II	Opening and Closing Files		
	III	File Pointers		
15^{th}	I	Operation on files	15	Internal viva
	II	Revision of Unit 4		
	III	Revision of Unit 4		