Quantum University

Quantum School of Technology

Course / Topic wise Schedule of Teaching

Name of The Faculty :

Name of The Programme : **Diploma**

Name of The Paper : **Object Oriented Concepts**

Year / Sem : **3**

Paper Code : **CS1305**

Session : **2022-23**

Section :

Unit	Topic	No. Lecture taken	Teaching Methodology	CO / Bloom	Start Date	Complete Date	Reading References
File and Streams	Components of a file, different operation of the file	0	N/A	CO5 / UN			Object Oriented Programming with C ++ by Balagurusamy
	communication in files, creation of file streams, stream classes, header files, updating of file	0	N/A	CO5 / AP			Object Oriented Programming with C ++ by Balagurusamy
	opening and closing a file, file pointers and their manipulations, functions manipulation of file pointers	0	N/A	CO5 / AP			Object Oriented Programming with C ++ by Balagurusamy
	detecting end-of-file, Garbage collection & Memory management	0	N/A	CO5 / AP			Object Oriented Programming with C ++ by Balagurusamy
Inheritance, Polymorphism and Virtual Functions	Definition of inheritance	0	N/A	CO4 / UN			Object Oriented Programming with C ++ by Balagurusamy
	protected data, private data, public data, inheriting constructors and destructors	0	N/A	CO4 / UN			Object Oriented Programming with C ++ by Balagurusamy
	constructor for virtual base classes, constructors and destructors of derived classes, and virtual functions, size of a derived class	0	N/A	CO4 / UN			Object Oriented Programming with C ++ by Balagurusamy
	order of invocation, types of inheritance	0	N/A	CO4 / UN			Object Oriented Programming with C ++ by Balagurusamy
	Importance of virtual function, function call binding, virtual functions, implementing late binding, need for virtual functions	0	N/A	CO4 / UN			Object Oriented Programming with C ++ by Balagurusamy
Introduction OOP, Classes and Objects	Fundamentals of object oriented programming	0	N/A	CO2 / UN			Object Oriented Programming with C ++ by Balagurusamy
	procedure oriented programming Vs. object oriented programming (OOP).	0	N/A	CO2 / UN			Object Oriented Programming with C ++ by Balagurusamy
	Object oriented programming concepts	0	N/A	CO1 / UN			Object Oriented Programming with C ++ by Balagurusamy
	Classes, reusability, encapsulation, inheritance, polymorphism, dynamic binding, message passing, data hiding	0	N/A	CO2 / UN			Object Oriented Programming with C ++ by Balagurusamy
	Creation of object and class, accessing class members	0	N/A	CO2 / UN			Object Oriented Programming with C ++ by Balagurusamy

Introduction OOP, Classes and Objects	Private Vs Public, Constructor and Destructor Objects	0	N/A	CO2 / UN			Object Oriented Programming with C ++ by Balagurusamy
Introduction, Language Constructs	Algorithm, Flow charts, Debugging	0	N/A	CO1 / RE			Object Oriented Programming with C ++ by Balagurusamy
	Introduction C++ : variables, types and type declarations	0	N/A	CO1 / RE			Object Oriented Programming with C ++ by Balagurusamy
	user defined data types; increment and decrement operators, relational and logical operators	0	N/A	CO1 / RE			Object Oriented Programming with C ++ by Balagurusamy
	if then else clause; conditional expressions, input and output statement, loops, switch case	0	N/A	CO1 / RE			Object Oriented Programming with C ++ by Balagurusamy
	arrays, structure, unions, functions, pointers; preprocessor directives, typecasting	0	N/A	CO1 / RE			Object Oriented Programming with C ++ by Balagurusamy
Member Functions, Overloading Member Functions	Method definition	0	N/A	CO3 / AP			Object Oriented Programming with C ++ by Balagurusamy
	Inline functions implementation, Constant member functions	0	N/A	CO3 / AP			Object Oriented Programming with C ++ by Balagurusamy
	Constant member functions, Friend Functions and Friend Classes, Static functions	0	N/A	CO3 / AP			Object Oriented Programming with C ++ by Balagurusamy
	Need of operator overloading, operator overloading, instream / outstream operator overloading, function overloading, constructor overloading	0	N/A	CO3 / AP			Object Oriented Programming with C ++ by Balagurusamy