

MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans (Odd Semester)
Session: 2020-21

Name of the Teacher: Ms. Vandana Syal

Department: Computer Science and Application

Class: BSc-II (3rd semester)

Section: Voc.(Computer Applications)

Subject: Programming with C++ (CA-05)

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1.	13 Aug,2020	31 Aug, 2020	<p>Introduction to OOP: Object, Class, Encapsulation, Data hiding, Inheritance and Polymorphism; Analysis and design of system using object oriented approach</p> <p>C++ Basics: Token, keywords, Identifiers, Basic data types, user defined and derived data types, symbolic constants, declaration of variables, dynamic initialization of variables, reference variables, operators in C++, I/O streams, Control structures</p> <p>Classes and Objects: data members and Specifying a class, defining data members and member functions, private and public member functions, member function definition inside/outside the class declaration, scope resolution operator, nesting of member functions, creating and declaring objects, accessing class data members, accessing member functions, static member functions</p>	Lecture Method, PPT, Online Sources and demo in Practical
2.	1 Sept, 2020	30 Sept , 2020	<p>Functions in C++:Function prototyping, pass by value, pass by reference, In line functions, default arguments, const arguments, function overloading, Friend functions, Objects as function arguments, returning objects</p> <p>Arrays and Strings: creating and manipulating arrays with in a class, arrays of objects, Creating and manipulating String Objects, Accessing Characters in strings</p> <p>Constructors : default constructors, parameterized constructors, multiple constructors in a class, copy constructors, dynamic constructors; Destructors: Definition and use</p>	Lecture Method, PPT, Online Sources and demo in Practical
3.	1 Oct, 2020	31 Oct , 2020	<p>Extending Classes using Inheritance: base class, derived class, refining derived classes, visibility modes: private, public, protected; single inheritance: privately derived, publicly derived; making a protected member inheritable, access control to private and protected members by member functions of a derived class, multilevel inheritance, virtual base classes, abstract classes, nesting of classes Pointers</p> <p>Virtual Functions and polymorphism: virtual and pure virtual functions, Function overloading, operator overloading</p>	Lecture Method, PPT, Online Sources and demo in Practical
4.	1 Nov, 2020	30 Nov, 2020	<p>Console I/O Operations: C++ Stream Classes, Unformatted I/O functions-put(), get(), getline(), write(), Formatting with ios class functions and flags, Manipulators</p>	Lecture Method, PPT, Online Sources and demo in Practical
5.	1 Dec ,2020	31 Dec,2020	<p>Files and Streams: Text and binary streams, The stream class hierarchy, Processing files, declaring files, opening files using open() function or constructor function, closefiles,opening files using open() function or constructor function, closing files, String I/O, Sequential and random Access, File updation</p>	Lecture Method, PPT, Online Sources and demo in Practical
6.	1 Jan ,2020	Till end of semester	Revision of syllabus	Discussions and class Tests

MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans (Odd Semester)
Session: 2020-21

Name of the Teacher: Ms. Vandana Syal

Department: Computer Science and Application

Class: BSc-II (3rd semester)

Section: Voc.(Computer Applications)

Subject: Web Designing (CA-06)

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken
	From	To		
1.	13 Aug,2020	31 Aug, 2020	<p>Web Terminology: Web Server; Web Client/Browser, Understanding how a Browser communicates with a Web Server, Internet, Intranet, Extranet, WWW, URL</p> <p>Introduction to HTML: Structure of an HTML program, Paragraph Breaks, Line Breaks; Emphasizing Material in a Web Page (Heading Styles, Drawing Lines); Text Styles (Bold, Italics, Underline); Other Text Effects (Centering (Text, Images etc.));</p> <p>Lists: Unordered List, Ordered Lists, Definition lists;</p> <p>Adding Images: Img element using Border, Width, Height, Align, ALT Attributes;</p> <p>Tables: Caption Tag, Width, Border, Cell padding, Cell spacing, BGCOLOR, COLSPAN and ROWSPAN Attribute</p>	Lecture Method, PPT, Online Sources and demo in Practical
2.	1 Sept, 2020	30 Sept , 2020	<p>Linking Documents: Anchor tag, External Document References, Internal Document</p> <p>References and Image Maps</p> <p>Frames: understanding frames, creating frames, Targeting Named Frames</p> <p>Cascading style sheets (CSS): Style tag, Link tag, Types of CSS: In-Line, Internal, External</p> <p>Forms: Attributes of Form element, Input element: Text Element, Password, Button, Submit Button, Reset Button, The Checkbox, Radio, TextArea, Select and Option</p>	Lecture Method, PPT, Online Sources and demo in Practical
3.	1 Oct, 2020	31 Oct , 2020	<p>Java Script: Features, tokens, data types, variables, operations, control constructs, strings arrays, functions, core language objects, client side objects, event handling. revision</p>	Lecture Method, PPT, Online Sources and demo in Practical
4.	1 Nov, 2020	30Nov, 2020	<p>Java Script: Applications related to client side form validation Other Built-In Objects in JavaScript: The String Object, The Math Object, and The Date Object; User Defined Objects: Creating a User Defined Object, Instances, Objects within Objects</p>	Lecture Method, PPT, Online Sources and demo in Practical
5.	1 Dec ,2020	31 Dec,2020	<p>Creating WebPages using Dreamweaver Introduction to Dreamweaver, Understanding Workspace Layout, Managing Websites, Creating a Website,</p>	Lecture Method, PPT, Online Sources and demo in Practical
6.	1 Jan ,2020	Till end of semester	<p>Using Dreamweaver Templates, Adding New WebPages, Text and Page Format, Inserting Tables, Lists, Images, Adding Links.</p> <p>Revision of syllabus</p>	Lecture Method, PPT, Online Sources and demo in Practical, Discussions and class Tests

MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans (Even Semester)
Session: 2020-21

Name of the Teacher: Ms. Vandana Syal

Department: Computer Science and Application

Class: BSc-II (4th semester)

Section: Voc.(Computer Applications)

Subject: Data Structures (CA-07)

S. No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	Month 1	Month 1	<p>Introduction to data structure: basics and notations, introduction to complexity</p> <p>Arrays: Introduction, various operations on Arrays like insertion, deletion,</p> <p>Searching (Binary and Linear Search) and Sorting (Bubble sort, Insertion sort, Selection sort)</p>	Lecture Method, PPT, Online Sources and demo in Practical
2	Month 2	Month 2	<p>Linked list Introduction, declaration, operations:-traversing, searching, inserting, deleting, Introduction to circular list</p> <p>Stacks: Array representation of a stack, operations- initialization, push, pop, empty, and full;</p> <p>Applications: Expression evaluation, expression conversion, recursion</p>	Lecture Method, PPT, Online Sources and demo in Practical
3	Month 3	Month 3	<p>Queues: Introduction, memory representation, operations- add, removes, initialization; applications</p> <p>Trees: Definition and Basic concepts, Linked Tree Representation, Representation in Contiguous Storage, Binary Tree, Binary Tree Traversal, Searching, Insertion and deletion in Binary trees</p>	Lecture Method, PPT, Online Sources and demo in Practical
4	Month 4	Month 4	<p>Graphs: Graphs and their application, Sequential and Linked representation of Graph, Traversing a graph (DFS and BFS)</p>	Lecture Method, PPT, Online Sources and demo in Practical
5	Month 5	Till end of semester	Revision of syllabus	Discussions and class Tests

MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans (Even Semester)
Session: 2020-21

Name of the Teacher: Ms. Vandana Syal

Department: Computer Science and Application

Class: BSc-II (4th semester)

Section: Voc.(Computer Applications)

Subject: Java Programming (CA-08)

S. No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	Month 1	Month 1	Fundamentals of Java: Introduction to Java and its features, Java Vs. C++, ByteCode, Java virtual machine, constants, variables, data types, operators, expressions, control structures, defining class, creating objects, accessing class members, constructors, method overloading Inheritance: Basics, member access, using super to call super class constructors, creating a multi level hierarchy, method overriding, Dynamic method dispatch, using abstract classes, using Final.	Lecture Method, PPT, Online Sources and demo in Practical
2	Month 2	Month 2	Arrays and String handling: creating and using arrays, understanding string and StringBuffer class and various string functions Interfaces: creating and using Interfaces, Implementing inheritance and multiple inheritance using Interfaces. Packages: understanding packages and system defined packages, creating and using user defined packages	Lecture Method, PPT, Online Sources and demo in Practical
3	Month 3	Month 3	Exception Handling: Fundamentals, exception types, using Try and catch, Multiple Try and Catch clauses, Nested Try statements, Built –in exceptions. Multi-threaded Programming: Understanding Multithreading, Thread Life Cycle, Creating threads using The thread class and runnable Interface, creating Multiple Threads, Resuming and stopping Threads, Thread priorities, synchronizations	Lecture Method, PPT, Online Sources and demo in Practical
4	Month 4	Month 4	Applet fundamentals: Introduction, Types of applet, Life Cycle, Incorporating an applet into web page using Applet Tag, running applets; using Graphics class and its methods to draw lines, rectangles, circles, ellipses, arcs and polygons	Lecture Method, PPT, Online Sources and demo in Practical
5	Month 5	Till end of semester	Revision of syllabus	Discussions and class Tests