

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

Name of the Teacher: Ms. Priyanka

Department: Computer Science and Applications

Class: BCA-III (5th semester)

Section(s): A & B

Subject: Computer Networks (BCA-16-501)

S. No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1.	Aug , 2020	31 Aug, 2020	Computer Network: Network Hardware and Software, Network Topologies, Uses of Computer Networks, OSI Reference Model, TCP/IP reference model, Comparison of OSI with TCP/IP model.	Class test, Lecture Method, Online Sources
2.	1 Sept, 2020	30 Sept, 2020	Physical Layer: Transmission media: Twisted pair, Coaxial cable, Fiber optics, Wireless Transmission (Radio, Microwave, and Infrared), Switching: Circuit Switching, Message Switching, Packet Switching & their comparisons. ISDN and its services, Multiplexing: Frequency Division, Time Division, Wave Length Division, MODEMS.	Lecture Method, Notes from other Books and Online Sources, Class test, discussion on the previous year question paper of covered topics
3.	1 Oct, 2020	31 Oct, 2020	Data Link Layer: Design Issue, Framing, Errors Detection and Correction Code: Check sum, CRC, hamming code, Data Link Protocols for noisy and noiseless channels, Sliding Window Protocol: Stop and Wait ARQ, Go-Back-N ARQ, Selective Repeat ARQ.	Lecture Method, Notes from other Books and Online Sources, Class test, discussion on the previous year question paper of covered topics
4.	1 Nov, 2020	30 Nov,2020	Medium Access Sub-Layer: Introduction to Static and Dynamic channel allocation, IEEE standards 802.3. Network Layer: Design Issues, network layer addressing, network layer datagram, IP addressed Classes. Sub netting-Sub network, Subnet mask;	Lecture Method, Notes from other Books and Online Sources, Class test, discussion on the previous year question paper of covered topics
5.	1 Dec, 2020	31 Dec, 2020	Network Layer: Routing, Flooding, Broadcast and Multicast routing, Congestion control: Principles of Congestion Control, Congestion prevention policies, Leaky bucket and token bucket algorithms. Application Layer: Domain Name system (DNS), DNS name space, DNS Servers, World Wide Web, HTTP, e-mail:	Lecture Method, Notes from other Books and Online Sources, Class test, discussion on the previous year question paper of covered topics
6.	1 Jan, 2021	Till end of Semester	Application Layer: Architecture and Services, Message Component, Multipurpose Internet Mail Extensions (MIME), Simple Mail Transfer Protocol (SMTP), Post Office Protocol (POP), Remote Login and File transfer protocol, Introduction to Network Security Revision of syllabus	Lecture Method, Notes from other Books and Online Sources, Class test, discussion on the previous year question paper of covered topics

MCM DAV College for Women, Sector – 36A, Chandigarh
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Name of the Teacher: Ms. Deepti Sharda

Department: Computer Science and Applications

Class: BCA III (5th semester)

Section(s): A and B

Subject: Java Programming (BCA-16-503)

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1.	14 Sept,2020	30 Sept,2020	Java and the Internet: The Java programming language and its characteristics; Java development kit, Java run- time environment; Java compiler Fundamentals of Java: Java Vs. C++, Byte Code, Java Virtual Machine, constants, variables, data types, operators, expressions, control structures, defining class, creating objects, accessing class members, constructors, Garbage Collection, method overloading,	Lecture method, PPT, Online sources, Doubt sessions, Assignments.
2.	1 Oct, 2020	31Oct, 2020	Inheritance: Different types of Inheritance, member access, using super keyword to call super class constructors, creating a multilevel hierarchy, method overriding, dynamic method dispatch, using abstract classes, using Final keyword. I/O Basics: streams, the predefined streams; Reading console Input, Writing console Output. Arrays and Strings: One-dimensional and two-dimensional Arrays, String Handling using String and StringBuffer class, String Functions. Packages: Types of packages, defining a package, Importing packages, Access protection	Lecture method, PPT, Online sources, Doubt sessions, Revisions, Assignments.
3.	1 Nov,2020	30 Nov,2020	Interfaces: Defining an Interface, Implementing Interfaces, Variables in Interfaces, Achieving multiple inheritance using interfaces, Interface and Abstract classes. Exception Handling: Java Exception handling model, Types of exception, using Try and catch, Multiple Try and Catch clauses, Nested Try statements, finally block, user defined exceptions	Lecture method, PPT, Online sources, Doubt sessions, Revisions, Assignments.
4.	1 Dec,2020	31 Dec,2020	Multi-threaded Programming: The Java Thread model, the Thread class and Runnable interface, Creating a Thread using Runnable Interface and extending Thread, Creating Multiple Threads, Thread Priorities, Synchronizations: Methods, Statements, Inter Thread Communication, Deadlock, Suspending, Resuming and Stopping Threads. Applet Programming: 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, Doubt sessions, Revisions, Assignments, Practical demonstrations, class Tests.
5.	1 Jan,2021	31 Jan,2021	Using AWT controls: Introduction to AWT, Creating GUI Applications using AWT, AWT controls: Label, TextBox, TextArea, Check Boxes, Radio Buttons, Choice lists, Understanding Layout Managers: FlowLayout, BorderLayout, GridLayout; Introduction to Event handling using Delegation Event Model.	Lecture method, PPT, Online sources, Doubt sessions, Revisions, Assignments, Practical demonstrations, class Tests.
6.	1 Feb,2021	Till end of Semester	Introduction to Java Database Connectivity (JDBC): JDBC Architecture, JDBC Drivers, Java.SQL package, Connecting to the Database and performing basic database operation like Insert, Delete, Update and Select. Revision of syllabus	Lecture method, PPT, Online sources, Doubt sessions, Revisions, Assignments, Class tests.

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

Name of the Teacher: Dr. Mandeep Kaur & Ms. Navdeep Kaur

Department: Computer Science and Applications

Class: BCA-III (5th semester)

Section(s): A & B

Subject: Web Application Development using PHP (BCA-16-504)

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	13 Aug, 2020	30 Sep, 2020	Introduction to web applications: Client Side Scripting Vs Server Side Scripting, Understanding Web Servers: Local Servers and Remote Servers, Installing WAMP and configuring PHP environment, Static website Vs Dynamic website development, Embedding PHP code in Web Pages PHP Basics: Tokens, Variables, Variable Scope, Constants, Data Types, number handling in PHP, operands, operators, expressions, operator precedence, comments, echo and Print statement Control structures: Branching statements: if-else, ternary operator, switch; looping statements: while, do-while, for; file inclusion Statements	PPT, Assignments, Online videos.
2	1 Oct, 2020	31 Oct, 2020	Functions: Function definition, Creating and invoking user-defined functions, Formal parameters versus actual parameters, Function and variable scope, Recursion, Library functions String Handling: interpolation with curly braces, characters and string indexes, string operators, heredoc, string functions, Formatting Strings, Comparing and searching Strings and substrings Arrays: PHP Arrays, Creating Arrays, Accessing Array elements, Multidimensional Arrays, Inspecting Arrays, Deleting from Arrays, Iterating with each() and foreach(), Iterative functions: current(), next(), prev(), reset(), end()	PPT, Assignments, Online videos, BrainStorming, Discussions, Related Material, Project, Live demonstrations
3	1 Nov, 2020	30 Nov, 2020	Forms: Working with HTML Form controls and PHP, Super global variables, super global array, importing user input, Accessing user input Integrating PHP and Database: Connecting to database, Making SQL queries, Executing queries, Fetching data sets, Integrating Forms and Databases: Basic form submission to a database	PPT, Assignments, Live demonstration of PHP, Peer Learning, Related Material, Project
4	1 Dec, 2020	31 Dec, 2020	Databases: editing data with an HTML form Maintaining User State: Introduction to Cookies, Setting time in a cookie with PHP, Deleting a cookie, creating session cookie,	Assignments, Live demonstration of PHP programs, Peer Learning, Related Material, mid-term exam
5	1 Jan, 2021	Till End of Semester	Maintaining User State: Introduction to sessions, Starting a session, Registering Session variables, working with session variables, Destroying session, passing session Ids , encoding and decoding session variables, increase session expire time, working of session without cookie. Working with File System: Understanding PHP file permissions, Opening and closing a file, File reading and writing functions, File system and directory functions Revision of syllabus	Assignments, Online videos, Live demonstrations, Peer Learning, Related Material, Discussions, Project

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

Name of the Teacher:

Department: Computer Science and Applications

Class: BCA-III (6th semester)

Section(s): A & B

Subject: E-Commerce (BCA-16-601)

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1.	Month 1	Month 1	E-Commerce, E-Business, Types of E-Commerce, Challenges and Aims of E-Commerce	Lecture Method, PPT
2.	Month 2	Month 2	Traditional vs EDI enabled system, Components of EDI, Need for web based business, Steps in setting up business, Elements of Webpage, Webhosting Considerations	Class Test, dictated notes from online sources, PPT
3.	Month 3	Month 3	Getting links to your site, Web Traffic Analysis, web-reporting tools, SEO, E-cash, ATM, Online Third Party System	Assignment given, Lecture Method, PPT
4.	Month 4	Month 4	M-Commerce, Mobile Commerce Framework, Case studies in retailing, e-governance, Cyber Crimes and IT Act-2000	Discussion of previous year questions, Class Test of Unit-3, Concluded with the syllabus
5.	Month 5	Till end of semester	Revision of syllabus	Discussions and class Tests

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Monthly Teaching Plans (Even Semester)
Session: 2020-21

Name of the Teacher:

Department: Computer Science and Applications

Class: BCA-III (6th semester)

Section(s): A & B

Subject: Application Development using VB.Net (BCA-16-602)

S. No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	Month 1	Month 1	Visual Studio .NET IDE, .NET Framework, CLR, Using common controls of Toolbox and their properties and methods	Lecture Method, PPT, Demonstration on PC
2	Month 2	Month 2	Additional controls of Toolbox, operators, data types, Control structures, sub/function/event procedures, strings, control arrays	Lecture Method, Class tests, practical demos, <u>Sample programs discussion</u>
3	Month 3	Month 3	Accessing Databases with ADO.NET: making connections, Data Adapter, Data Reader and Data sets, Data Navigation and Manipulation, Data Grid view control	Lecture Method, Class test, PPT, sample applications, real-life case studies, Online Sources, project study and plan
4	Month 4	Month 4	Introduction to ASP.NET, Web Forms, Using 6 Validation Controls, State management in ASP.NET, Sessions/Cookies/Query Strings, Introducing Web Services, Deploying Applications	Lecture Method, PPT Online Sources, project implementation
5	Month 5	Till end of semester	Revision of syllabus	Project report making, preparing for viva voce

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Name of the Teacher:

Department: Computer Science and Applications

Class: BCA-III (6th semester)

Section(s): A & B

Subject: Computer Graphics & Multimedia Applications (BCA-16-603)

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1.	Month 1	Month 1	Introduction to Computer Graphics, Application of Computer graphics, Display Device	PPT, Lecture Method
2.	Month 2	Month 2	CRT, TFT, LCD, Plasma panel, Hard Copy Device, Input device, Computer Graphics using C, I/O Primitives, program using primitives	PPT, Lecture Method, Class Test, Practical demonstration on TURBO C3
3.	Month 3	Month 3	Multimedia, Component of multimedia, Benefits & Problems of Multimedia, multimedia Add on Cards, Applications, AutoCad, Drawing commands, Editing Commands, Positioning Commands, Hardware Platform, Software Platform	Lecture Method, Practical demonstration on TURBO C3, Practical demonstration on AutoCad
4.	Month 4	Month 4	Image, Lossy & Lossless Compression, Video Compression, Storage Media, Photoshop, Macromedia Director	Lecture Method, Practical demonstration on Photoshop, Practical demonstration on Macromedia Director
5	Month 5	Till end of semester	Revision of syllabus	Discussions and class Tests