Weekly Planner
BCA I (2023-24) ODD Semester

Week	Problem Solving Through C	Computer Fundamentals & ComputingSoftware	Fundamentals of Mathematical Statistics
Teacher Name	Ms Maninder Kaur	Ms Nishwinder Kaur	Ms Davinder Kaur
July 21 to July 29	Programming Process: Steps in developing of a program, Data Flow Diagram, Decision Table, Algorithm development, Flowchart, Pseudo Code,Testing and Debugging.	Introduction to computers, characteristics of computer; History of computers; Classification of computers on size: (Micro, Mini, Mainframe and super computers),	Basic Statistics: Types, Techniques, Investigation Steps, Collection ofData, Primary and Secondary data.
July 31 to August 5	Fundamentals of C Languages: Historyof C, Character Set, Identifiers and Keywords, Structure of C program.	Working Principles, Generations; Applications of computers; commonly used terms–Hardware, Software, Firmware. Basic Computer Organization:	Organization of Data, Graph of grouped frequency distribution , Tabulation of data and Parts of table.
August 7 to August 12	Constants, Types of C Constants, Rulesfor Constructing Integer, Real and character Constants.	Description of Computer input devices: Keyboard, Mouse, Trackball, Pen, Touch screens, Scanner, Digital	Measuresof Central Tendency Arithmetic Mean, Weighted arithemetic mean
August 14 to August 19	Variables, Data Types, rules for constructing variables. Operators and Expressions: C Instructions, Arithmetic operators, Relational operators, Logical operators, Assignment Operators	System and Application software; Programming Languages: Generation of Languages; Translators Interpreters, Compilers,	GeometricMean, Weighted Geometric mean,Harmonic Mean, Weighted harmonic mean.
August 21 to August 26	Type Conversion in Assignments, Hierarchy of Operations, Standard and Formatted Statements, Compilation and Execution. Decision Control Structure: Decision making with IF-statement, IF-Else andNested IF Else, The else if Clause.	Introduction to operating systems and its functions, DOS and versions of DOS, Booting sequence; Warm and Cold Boot; Concepts of files and directories,	Median,Partition value
August 28 to September 2	Loop Control Structure: While and do-while, for loop and Nested for loop. Case Control Structure: Decision usingswitch, The goto statement.	Types of DOS commands: Internal and External; Internal Commands: DIR, MD, CD, CLS, COPY, DATE, DEL, PATH, PROMPT, REN, RD. Batch Files: Introduction to simple batchfiles	Mode, Range, Mean Deviation
September 4 to September 9	Functions: Library functions and userdefined functions, Global and Local variables, Function Declaration, Calling and definition of function,	Fundamentals of Windows, Types of Windows, Anatomy of windows, Icons, Recycle bin, Operations on Folders, Registry of Windows: Basics, Editing; Control panel.	Standard Deviation, Variance
September 11 to September 16	Methods of parameter passing to functions, recursion, Storage Classes , Arrays: Introduction, Array declaration, Accessing values in an array, Initializing values in an array, Single and Two Dimensional Arrays	Word Processing Package: Using styles and templates, Working with text,Spell check, Grammer,Autocorrect, Formatting text	Correlation Analysis, Techniques For measuring Correlation
September 18 to September 23	Initializing a 2-Dimensional Array, Memory Map of a 2-Dimensional Array, Passing array elements to a function: Callby value and call by reference, Arrays of characters	Formatting pages, Printing a document, Using mail merge, Tracking changes to a document, Using fields, Linking to another part of a document, Using master documents, Creating fill-in forms.	Karl Pearson's Coefficient of Correlation, Spearman's Coefficient ofCorrelation
September 25 to September 30	String Manipulation in C: Declaring and Initializing string variables, Reading and writing strings, String Handling functions(strlen(), strcpy(), strcmp(), strcat()).	Spreadsheet Package: Opening and saving spreadsheet files; Working with sheets: inserting new sheet, deleting and renaming sheets, Viewing a spreadsheet: freezing rows and columns, splitting screen, Formatting data	Regression analysis, Methods of obtaining regressionanalysis

October 2 to October 12	Structures and Unions: Declaration of structures, Structure Initialization, Accessing structure members, Arrays of structure, Nested structures, Structure with pointers, Union. Files in C: Introduction, Opening and Closing files, Basic I/O operation on files.	Printing a spreadsheet document, Workingwith Graphs and Charts Adding database functions, Functions and Macros. Presentation Packages: Basics of creating a presentation, Parts of main window, workspace views, creating a presentation, Incorporation of Animation.	Standard error of Estimate, Use of Regression analysis and limitations
October 14 to November 10	**Revision**		

BCA I (2023-24) Even Semester

Week	Computer Organization	Fundamentals of Web Programming	Object Oriented ProgrammingUsing C++
Teacher Name	Ms Maninder Kaur	Ms Nishwinder Kaur	Ms Davinder Kaur
January 9 to January 14	Evolution of Computers, Von Neumann Architecture, Combinatorial Blocks : Gates, Half Adder, Full Adder	Basic terminology: Web Server; Web Client/Browser, Understanding how a Browser communicates with a Web Server,	Principles of Object Oriented Programming (OOP): Introduction to OOP, Difference between OOP and Procedure
January16 to January 21	Multiplexers, Decoders, Encoders, Sequential Buildingblocks : Flip Flops	HTML: Structure of an HTML program, Paragraph Breaks, Line Breaks; Emphasizing Material in a Web Page (Heading Styles,Drawing Lines).	Applications of OOP. Special operators: scope resolution operator, Member Dereferencing operators, Memory management operators, Manipulators and Type cast operator
January 23 to January 28	Information representation: codes, fixed and floating point representation	Text Styles (Bold, Italics, Underline); Other Text Effects (Centering (Text, Images etc.). Lists: Unordered List, Ordered Lists, Definitionlists.	Structure of a C++ Program and Classes and Objects :Class Declaration : Data Members, Member Functions, Private
January 30 to February 4	Arithmetic: Addition and subtraction for sign magnitude and 2's complement numbers,	Adding Graphics to HTML Documents using theBorder,Width, Height, Align, ALT Attributes.	Class Function Definition: Member Function definition insidethe class declaration and outside the class declaration. Friend function, inline function, Static members,
February 6 to February 11	Integer multiplicationusing Booth's algorithms	Tables: Caption Tag, Width, Border, Cell padding, Cell spacing. BGCOLOR, COLSPANand ROWSPAN Attributes.	Function Overloading, Arrays within a class. Arraysof Objects. Constructors: Declaration and Definition, Types of Constructors, (Default)
February13 to February 18	Architecture of 8086/8088 microprocessor, instruction set, Addressing Modes.	Linking Documents: Anchor tag, External Document References, Internal Document References and Image Maps Frames: Introduction to Frames: The tag, The tag, Targeting Named Frames	Parameterized, Copy Constructors). Destructors, Operator Overloading(Unary and Binary) Type Conversion: Conversion frombasic type to user defined type,
February20 to February 25	Instruction: Microinstructions: Register Transfer, Arithmetic, Logical and Shift,	DHTML: Introduction to cascading style sheets (CSS), Style tag, Link tag, Types of CSS: In-Line, Internal, External Forms: Attributes of Form element, Input element, The Text Element, Password, Button, Submit Button, Reset Button, The Checkbox, Radio, TextArea, Select and Option , Bootstrap Library.	Inheritance: Extending Classes Concept of inheritance, Base class, Defining derived classes, Making a protected member inheritable, multilevel inheritance, multiple Inheritance, Ambiguity of multiple inheritance, Hierarchal Inheritance, Hybrid,

February 27 to March 4	Types of Instructions, Instruction Cycle.Interrupt: Types, Interrupt Cycle, I/O organization: Strobe based and Handshake based communication, DMA based data transfer	Introduction and Features of JavaScript, Writing JavaScript into HTML, tokens, data types, variables, operations, control constructs, strings arrays, functions, core language objects, client side objects, event handling.	Nesting of classes. Polymorphism: Definition, Application and Demonstration of Data Abstraction, Encapsulation
March 6 to March 14	Memory Hierarchy, RAM (Static and Dynamic), ROM Associative memory, Cache memory organization, Virtual memory organization.	Applications related to client side form validation. Other Built-In Objects in JavaScript: The String Object, The Math Object, The Date Object.	Polymorphism Early Binding, Polymorphism with pointers,Virtual Functions, Late binding, pure virtual functions.
March 15to March 21	Assembly Language : Features of Assembly Language, Machine Language vs Assembly Language,	Understanding Workspace Layout, Managing Websites, Creating a Website, Using Dreamweaver Templates,	Exception Handling Mechanism Throwing mechanism and Catching Mechanism, Rethrowing an Exception
March 22 to March 28	Pseudo Instruction use of Assembly for programs: Addition, Subtraction, Multiplication using Subroutines and Basic Input/ Output.	Adding New WebPages, Text and Page Format, Inserting Tables, Lists, Images, Adding Links.	Exception Handling: Definition, Opening and closing of file, Binary file operations, structures and file operations.
March 29 to April 7	System Maintenance: Introduction to various physical components of a computer, Physical Inspection and Diagnostics on PC, Functional description of various Internal and External cards; Viruses: Types of Computer Viruses, Detection, prevention and protection from Viruses.	Web Hosting: Understanding Domain Name & Web Space, Getting a Domain Name & Web Space (Purchase or Free). Uploading the Website to Remote Server, Introduction to Open Source Third party FTP Tools	Classes and file operations, Random file processing.
April 8 to April 22	**Discussion and Revision**		

Weekly Planner

BCA II (2023-24) ODD Semester

Subject Name	**Information System Design &Implementation**	**Computer Oriented Numerical Method**	**Data Structures**
Teacher Name	**Ms. Pooja Jain**	**Ms. Pooja Jain**	**Ms. Maninder Kaur**
July 21 to July 29	Definition and characteristics of a system. Elements of a system Environment: Boundaries and interface.	Data Representation and Computer Arithmetic: Introduction, Concept of Exactand Approximate Numbers, Concept of Significant digits, Representation of Numbers in Memory,	Introduction to Data Structures, Algorithms Definition, Notations, Types of Data Structures
July 31 to August 5	Types of systems: Physical or Abstract Systems, Open and Closed System, Man - made information systems.	Floating Point Arithmetic, Normalization and their consequences, Errors, Measures of Accuracy: Absolute Error, Relative Error and Percentage Error, Error types: Data Errors, Truncation Errors, Round-Off Errors, Computational Errors.	Chapter: Array: Definition, Types and Operations.
August 7 to August 12	Introduction to various phases -Recognition of Need, Feasibility Study, Analysis, Design, Implementation,Post–Implementation and Maintenance.	Rules, Relationship between Relative Error and Significant digits and Error Propagation: Error Propagation in Addition Operation, Subtraction Operation, Multiplication Operation and Division Operation.	Continue Various Operations on Arrays , Multi DimensionalArrays
August 14 to August 19	The Role of System Analyst: Skills of a System Analyst, various roles of the Analyst.	Solution of Non-Linear Equations: Introduction, Types of Non- Linear Equations:	Memory Allocation inArrays, Applications ofArrays
August 21 to August 26	System Planning and the Initial Investigation: Bases for planning in system analysis, Initial investigation, determining the user's information requirements.	Polynomial Equations, Transcendental Equations, Methods of Finding Solutions	Linked List- Introduction ,Types of Linked List, Operations on Linked List
August 28 to September 2	Problem definition and Project Initiation, Background Analysis,Fact Finding, Fact Analysis, Determination of Feasibility.	False-Position Method continue.. Secant Method	Singly Linked List- Operations Algorithms and Programs
September 4 to September 9	Major phases in selection, Evaluation and Validation, Vendor Selection	Approximation: Approximation of functions: Taylor Series Representation, Chebyshev Polynomials.	Applications of Queue, Operations of Queue

September 11 to September 16	Post – Installation Review. Software selection- Criteria for Software Selection	Solution of Ordinary Differential Equations: Introduction, Euler'sMethod,Runga–Kutta Methods: 2nd order & 4th order, Predictor Corrector Methods: Modified Euler's Method.	Continue Operations of Queue. Comparison between Stack and Queue
September 18 to September 23	Criteria for Software Selection Continue… The evaluation process.	Runga–Kutta Methods Continue: 4th order, Predictor Corrector Methods: Modified Euler's Method.	Introduction of Tree. Traversal of Tree, Insertion and Deletion operations in Tree. Binary Search Tree
September 25 to September 30	The evaluation Process Continue…	Gauss-Jordan Method, Concept of Pivoting.	Introduction of Graph, Operations of Queue.
October 2 to October 12	**REVISION**	Iterative Method:Gauss-Seidal Method	Applications of Graph
October 14 to November 10	**REVISION**		

BCA II (2023-24) Even Semester

	Software Project Mgmt.	Operating System Concepts & Linux	Database Mgmt System
Teacher Name	Ms. Ramandeep Kaur	Ms. Nishwinder Kaur	Ms. Pooja Jain
January 9 to January 14	Introduction to project andproject management, role of a project manager in project management, a system view of project management, Stakeholders of Project,	Operating Systems: Introduction, its needs and services. Types of OS: Multi-user, Multitasking, Multiprocessing and Real time OS, Parallel systems, Distributed systems	Basic Concepts: A Historical perspective, File Systems vs.DBMS, Characteristics of the Data Base Approach, Abstraction and Data Integration, Database users
January16 to January 21	Project phases and productlife cycles, Evolution of software economics, Improving software economics: reducing product size	Process Management: Introduction to Process,PCB, Process States. CPU Scheduling: Scheduling Criteria and Algorithms: FCFS, SJF,Priority, Round Robin.	Data Base Systems Concepts and Architecture: Schemas and Instances, DBMS architecture and Data Independence, Data base languages & Interfaces, DBMS functions and component modules.
January 23 to January 28	Software processes, team effectiveness, automationthrough software environments, Principles of modern software management.	Algorithms continue.. Multilevel Queue Scheduling, Multilevel Feedback Queue Scheduling. Deadlocks: Necessary and sufficient conditionsfor Deadlocks, Methodsfor handling deadlocks, deadlock detection andrecovery	Entity Relationship Model:Entity Types, Entity Sets, Attributes & Keys, Relationships, Relationship Types, Roles and Structural Constraints, Design issues.
January 30 to February 4	Project Management Framework: Project Management Framework, Software Tools for Project Management, Issues in Project Staff Acquisition and Team formation and Development,	Memory Management: Logical vs Physicaladdress space, Swapping, Introduction to Paging, Segmentation, Virtual Memory-Demand paging.	Relational Data Model : Relational model concepts, Integrity constraints over Relations, Relational Algebra - Basic Operations. ConventionalData Models: An overview of Network and Hierarchical Data Models.
February 6 to February 11	Model based software architectures, Workflowsof the process, Checkpoints of the process. Project Integration: Integration Management: Projectselection	Introduction to PageReplacement algorithms: FIFO, Optimal Page replacement and LRU. Introduction to Linux: Linux's shell, Kernel,	Relational Data Base Design: Functional Dependencies, Decomposition, Desirable properties of decomposition. Normal Forms.
February13 to February 18	Project management plans,project execution, project monitoring and controlling, integrated	Features of Features of Linux, History, Minimum system requirements, Boot and Root disks Starting and stopping Linux system, passwords, logging in and out, terminal Handling commands: who, Understanding wildcards, Environment variables.	Understanding SQL-1: Data Types, Creating Tables, Creating a Table with data from Another table, Inserting Values into a Table, Updating Column(s) of a Table, Deleting Row(s) from a Table, Dropping a Column, Querying database tables, Conditional retrieval of rows, Working with Null Values, Matching a pattern from a table
February20 to February 25	Continued…...	Understanding I/O Redirection and Piping: Introduction, cut, paste, sort, tee; Introduction to Regular Expressions and grep	Continue….

February 27 to March 4	Scope Management: project scope statement,Work breakdown structures, Scope verification and scope control	Using file system: Introduction to common types of files, Filenames, Introduction to different types of directories: Parent, Subdirectory, Home directory; rules to name a directory, Important directories in Linux File System, Absolute and relative filenames, creating files and directories, listing files, pwd, moving and copying files, moving directories, Removing files and directories, using wildcards with files and directories	Aggregate Functions, Grouping the Result of a Query, creation and deletion of Views, Managing privileges with Grant and Revoke Command, COMMIT and ROLLBACK, Functions: Character Functions, Date Functions, Group Functions
March 6 to March 14	Process instrumentation and seven core metrics. Software management disciplines: Iterative process planning, Project organizations and responsibilities, Processautomation.	Using file system: Introduction to common types of files,	Querying Multiple Tables using Equi-Joins, Cartesian Joins, Outer Joins, Self-Joins, SET Operators: Union, Intersect, Minus; Introduction to Nested Queries
March 15to March 21	MST		
March 22 to March 28	Project Scheduling: Time Management; Importanceof Project Schedules, Sequencing and Scheduling Activity,Project NetworkDiagrams, PERT/CPM	Process Management: Types of processes, ps, bg, fg, nice, kill. Understanding System Administration activities: Superuser (su) command, Taking backups using tar, Managing disk space, Mounting and Un-mounting file system, Managing users, Managing printers with lpd, mknod, lpc, lpq, lprm	Introduction to PL/SQL, The Advantage of PL/SQL, PL/SQL Block Structure, PL/SQL Architecture, Fundamentals of PL/SQL, PL/SQL Data Types, Variables and Constants, Scope and Visibility of a Variable, Assignments and Expressions, Operator Precedence, Conditional and Iterative Control,
March 29 to April 7	Gantt charts, Critical chain scheduling. Cost Management: Project CostManagement - Importanceand Principles of Project Cost Management COCOMO Model, CostBudgeting and Control	Using wildcards withfiles and directories,File and directory permissions using relative and absolute methods, Vi editor: starting vi, vi modes,	Cursor Management in PL/SQL, Implicit/explicit Cursor Attributes, Exception Handling inPL/SQL. Predefined Exceptions, User Defined Exceptions, Database Trigger.
April 8 to April 22	**Discussion and Revision**		

Weekly Planner
BCA III (2023-24) ODD Semester

Week	Computer Networks	Discrete Mathematical Structure	Java Programming	Web Application Development Using PHP
Teacher In-charge	**Ms. Pooja Jain**	**Ms. Kumud Srivastava**	**Ms. Nishwinder Kaur**	**Ms. Ramandeep Kaur**
July 21 to July 29	Network Definition, Network Hardware and Software, Network Topologies, Uses and applications of Computer Networks.	Relations and Functions: Set Notation and Description, subset, basic set operations,	Java and the Internet: The Java programming language and its characteristics; Java development kit, Java run- time environment; Java compiler	Client Side Scripting Vs Server Side Scripting, Understanding Web Servers: Local Servers and Remote Servers, Installing WAMP and configuring PHP environment.
July 31 to August 5	OSI Reference Model. TCP/IP Reference Model	Venn Diagrams, laws of set theory, partitions of sets, min sets, duality principle,	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,	Static website Vs Dynamic website development, Embedding PHP code in Web Pages
August 7 to August 12	Comparison between OSI Reference Model & TCP/IP Reference model. Physical Layer: Transmission media: Twisted pair, Coaxial cable, Fiber optics	basic definitions of relations and functions, graphics of relations,	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.	PHP Basics: Tokens, Variables, Variable Scope, Constants, Data Types, number handling in PHP, operands, operators, expressions, operator precedence, comments, echo and Print statement
August 14 to August 19	Wireless Transmission (Radio, Microwave, and Infrared) Switching: Circuit Switching, Message Switching, Packet Switching & their comparisons. ISDN and its services	properties of relations: injective, surjective and bijective functions, compositions.	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 String Buffer class, String Functions.	Control structures: Branching statements: if-else, ternary operator, switch; looping statements: while, do-while, for; file inclusion Statements
August 21 to August 26	Multiplexing: Frequency Division, Time Division, Wave Length Division, MODEMS	Recurrence Relations and Recursive Algorithms –	Packages: Types of packages, defining a package, Importing packages, Access protection. Interfaces: Defining an Interface, Implementing Interfaces, Variables in Interfaces, Achieving multiple inheritance using interfaces, Interface and Abstract classes.	Functions: Function definition, Creating and invoking user-defined functions, Formal parameters versus actual parameters, Function and variable scope, Recursion, Library functions

August 28 to September 2	Data Link Layer: Design Issues, Framing, Error Detection & Correction Codes: Check sum, CRC, Hamming code.	Linear-Recurrence Relations with Constant Coefficients;	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	String Handling: interpolation with curly braces, characters and string indexes, string operators, heredoc, string functions, Formatting Strings, Comparing and searching Strings and substrings
September 4 to September 9	Data Link Protocols for noisy and noiseless channels, Sliding Window Protocol: Stop and Wait ARQ, Go-back-N ARQ, Selective Repeat ARQ	Homogeneous Solutions: Particular Solution, Total Solution, Solution by the Method of Generating functions.	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,	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()
September 11 to September 16	Medium Access Sub-Layer: Static and Dynamic channel allocation, IEEE standards-Token Bus, Token Ring, Ethernet.	Graph and planar graphs – Basic Terminology.	Synchronizations: Methods, Statements, Inter Thread Communication, Deadlock, Suspending, Resuming and Stopping Threads.	Forms: Working with HTML Form controls and PHP, Super global variables, super global array, importing user input, Accessing user input
September 18 to September 23	Network Layer: Design Issues, network layer addressing, network layer datagram, IP addressed Classes. Sub netting-Sub network, Subnet mask	Multi-graphs, Weighted Graphs, Paths and Circuits	Introduction, Types of applet, Life Cycle, Incorporating an applet into web page using Applet Tag, running applets	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, editing data with an HTML form
September 25 to September 30	Routing Algorithms: Shortest Path Routing, Flooding, Flow based Routing, Broadcast and Multicast routing. Congestion control: Principles of Congestion Control, Congestion prevention policies, Leaky bucket and token bucket algorithms	Shortest Paths, Eulerian Paths and Circuits. Travelling Salesman Problem, Planar Graphs	Using Graphics class and its methods to draw lines, rectangles, circles, ellipses, arcs and polygons. Using AWT controls: Introduction to AWT, Creating GUI Applications using AWT, AWT controls: Label, TextBox, TextArea, Check Boxes, Radio Buttons, Choice lists	Introduction to Cookies, Setting time in a cookie with PHP, Deleting a cookie, creating session cookie. Introduction to sessions, Starting a session, Registering Session variables, working with session variables, Destroying session
October 2 to October 12	Domain Name system (DNS), DNS name space, DNS Servers, World Wide Web,HTTP,E-mail. Remote Login and File transfer protocol, Introduction to Network Security.	Finite State Machines– Equivalent Machines, Finite State Machines as language Recognizers; Analysis of Algorithms - Time Complexity, Complexity of Problems.	Understanding Layout Managers: FlowLayout, BorderLayout, GridLayout; Introduction to Event handling using Delegation Event Model. Introduction to Java Database Connectivity	Passing session Ids , encoding and decoding session variables, increase session expire time, working of session without cookie. Understanding PHP

			(JDBC): JDBC Architecture, JDBC Drivers, Java.SQL package, Connecting to the Database and performing basic database operation like Insert, Delete, Update and Select.	file permissions, Opening and closing a file, File reading and writing functions, File system and directory functions
October 14 to November 10	**REVISION**			

BCA III (2023-24) Even Semester

Week	E-Commerce	Application Development using VB.Net	Computer Graphics & Multimedia Applications
Teacher Name	**Ms. Ramandeep Kaur**	**Ms. Ramandeep Kaur**	**Ms. Pooja Jain**
January 9 to January 14	Definitions: E-commerce, E-business, difference between E-commerce and E-business, Problems with Traditional business systems, Aims of E-commerce,	Introduction to .NET Framework and the Common Language Runtime. Introduction to Visual studio .NET IDE: Menu Bar and Tool Bar, Solution Explorer, Toolbox, Using different controls of Toolbox and their commonly used properties and methods.	Computer Graphics: Computer Aided Design, Presentation Graphics, Computer art, Entertainment, Education and Training, Visualization, Graphical User Interfaces.
January16 to January 21	Types of E-commerce: B2B, B2C, C2C, B2G, G2H, G2C, Operational & Strategic benefits of E-commerce, Issues & Challenges in E-commerce.	TextBox, Label, Check Box, Radio Button, Button, Frame, List Box, Combo Box, Picture, Image, Shape, Drive, File, directory related controls, Introduction to Menus.	Overview of Graphics Systems: Video Display Devices, Cathode Ray Tube, CRT monitors, Flat panel displays: Plasma Panel display, Thin-film electroluminescent displays, LED, Liquid Crystal Displays (LCD)
January 23 to January 28	Traditional versus EDI enabled system for document exchange; Components of EDI: EDI Standards, EDI Software, Communication Networks; EDI Message Structure; EDI Notification Structure;	Constants, Variables, data types, assignment operator, Operators: Arithmetic, Relational and logical operators, Assignment operators.	Raster Scan Systems, Random Scan Systems. Graphics Monitors and Workstations, Input Devices, Hard-copy devices, Graphics Software
January 30 to February 4	EDI in India; EDI enabled procurement process; Benefits of EDI: Direct Benefits, Strategic Benefits; EDI Implementation issues; Legal Aspects	Control structures: If, if/then/else selection structures, Select case Multiple-selection structure, While, do while, do until, For/Next repetition structure.	Auto CAD: Features and applications, Interface, System Requirements, The X, Y coordinate system, Dimensioning, Drawing commands, Positioning Commands, Editing Commands, Construction Commands, Display Commands.
February 6 to February 11	Need for web-based business, Steps in setting up business on Internet: Selection & registration of domain name, Website development: Planning a website, Steps for creating a website	Procedures, sub Procedures, function procedures, event procedures, commonly used Form events, msgBox function, InputBox function	Computer Graphics Using ‘C’: Input- output primitives, setting character and text attributes, changing line styles, Using fill styles to fill images

February13 to February 18	Elements of a webpage, web authoring tools, Hosting a website: Website hosting considerations.	Arrays and Strings: declaring and allocating Arrays, Using Strings and String functions: len, right, left, ucase, lcase, ltrim, trim.	Developing C Programs like drawing concentric circles, Ellipses, Sine curves, Histograms, Pie charts and human face.
February20 to February 25	Getting links to your site, banner advertisements & measuring advertisement effectiveness; Web Traffic Analysis: Hits, View pages, Visits and Other web-reporting tools, various measures, Search Engine optimization	Introduction to Control Arrays, Creating and using Control Arrays	Multimedia: Components of Multimedia, Need of Multimedia, Features of a Multimedia System, Benefits and problems of using Multimedia. Multimedia system and a conventional system, Basic System components, Subsystems and functions of a Multimedia computer, Multimedia Add-on Cards, Multimedia Applications.
February 27 to March 4	E-cash: Purchasing & using of e-cash; Electronic Purses and their loading with cash and use; E-cheque payment system;	Introduction to ASP.NET, Difference between ASP and ASP.NET, Understanding Web Forms	Multimedia Platforms: Personal computer as a Multimedia System, Limitations of the early Personal Computer as a Multimedia System, Evolution of MPC, Hardware Platforms, Software Platforms. Multimedia Development Tools, Commercial tools, Stages of Multimedia Application Development.
March 6 to March 14	Online Third Party Verified Payment System through Credit & Debit Cards; ATM based cash disbursement system; Electronic Bill Payment System; Inter-bank clearing system.	Using Validation Controls: RequiredFieldValidator, RangeValidator, CompareValidator, RegularExpressionValidator, CustomValidator, ValidationSummary	Sources of image, Types of images, Basic editing operations, Introduction to Image Compression: Lossy and Lossless compression, Image file formats. Hardware for Audio, Digital Audio, Audio editing operations
March 15to March 21	Mobile Commerce, Benefits of Mobile Commerce, Issues in Mobile Commerce, Mobile Commerce Framework	Managing State in ASP.NET Web Applications using Session object, Cookie and Query String, Creating ASP.NET application, Deploying ASP.NET Applications with Windows Installer, Introduction to Web Services.	MIDI, Audio file formats Hardware Components of a Video System, Video compression, MPEG, Video file formats.

March 22 to March 28	Applications of e-commerce, Case studies in Retailing, Banking and e-governance.	Understanding ADO.net, ADO.NET Object model: Connected model and Disconnected model, architecture, components, Understanding Provider classes, using Data Reader to read data from database	Storage for multimedia: Magnetic media, Optical media, Compact disk specifications. Features and use of Multimedia Authoring Tools
March 29 to April 7	Cyber Crimes: Types, Cyber Forensics, Cyber-crimes and IT Act - 2000.	Data Adapter and Data sets, Using DataAdapter for Data Navigation and Data Manipulation, connecting to and querying a data source, using Data Grid view control with ADO.NET data sources	Photoshop- Features, Interface, Toolbox, Color models, Layers, Filters Features of Macromedia Director-, Stage, Cast, Score, Control Panel, Sprite, Channels, Text Inspector, Tools for creating cast members
April 8 to April 22	**Discussion and Revision**		