**TEACHING PLAN 2023-2024 (EVEN SEMESTER)**

**Name:- Mrs. Parul Department: Computer Science Class:- M.Sc (CS)-2nd sem Subject:- Computer Networks(16MCS22C4)**

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
|  | Introduction to | OSI and TCP/IP | Digital Vs. Analog | Data | ; Transmission |
|  | Computer Network: | Reference Models; | communicat ion; | Communications | media: Wired- |
|  | Types of Networks, | Comparison of | Parallel and Serial | Concepts: | Twisted pair, |
|  | Network Topologies, | Models. | Communicat ion; | Communication | Coaxial cable, |
|  |  |  | Synchronous, | modes: simplex, | Optical Fiber, |
|  |  |  | Asynchronous and | half duplex, full | Wireless |
| **JAN** |  |  | Isochronous | duplex; Mult | transmission: |
|  |  |  | Communicat ion; | iplexing | Terrestrial, |
|  |  |  |  |  | Microwave, |
|  |  |  |  |  | Satellite, Infrared. |
|  |  |  |  |  | UNIT TEST |
|  | Communication | Data Link Layer | Check codes for | Carrier Sense Mult | High-Speed LAN: Standard Ethernet, Fast Ethernet, Gigabit Ethernet, |
|  | Switching | Fundamentals: | Error Detection, | iple Access |
|  | Techniques: | Framing, Basics of | Flow Control, | (CSMA), CSMA |
|  | Circuit Switching, | Error Detection, | Media Access | with Collision |
|  | Message Switching, | Forward Error | Protocols**:** ALOHA, | Detection |
| **FEB** | Packet Switching. | Correction,  Cyclic Redundancy |  | (CSMA/CD),  Token Ring, |
|  |  |  |  | Token Bus. |
|  |  |  |  | ASSIGNMENT |
| **MARCH** | 10G; Wireless LANs: IEEE  802.11, Bluetooth. Network Layer: IP Addressing and Routing,  IPv4 (Header Format and  Services), ARP | ICMP (Error Reporting and Query message); IPv6 (Header Format and Addressing).  Transport Layer: Process-to-Process Delivery: UDP, | TCP; Connect ion Management by TCP; | Basics of Congestion Control. | Application Layer: Domain Name System (DNS); |
| **APRIL** | SMTP; HTTP; [WWW.](http://WWW/) | Network Security**:** Security | Requirements and attacks; | Cryptography: Symmetric Key (DES, AES), | Public Key Cryptography (RSA); Firewall. |

**TEACHING PLAN 2023-24 (EVEN SEMESTER)**

**Name :- Ms. Sonam Department:-Computer Science Class:- M.Sc(CS) 2nd sem Subject:- Object Oriented Programming using C++**

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| **JAN** | Procedural Language Object Oriented Approach  Objects & Classes Encapsulation Data Abstraction Revision | Doubts and Discussion Inheritance Polymorphism Dynamic Binding, Message Passing Revision Test | Structure of C++ Program ,  Data types Variables Static Variables  Operators in C++ Revision | Arrays Strings, Structure Revision | Functions, Recursion Control Statements Test of topics covered |
| **FEB** | Classes and Objects Memory Allocation for objects, memory layout of objects | Private, Public member functions Protected member functions  Static members Explain with examples Doubts and Discussion | Constructor, Features Types of constructor Dynamic constructor Parameterized constructor Destructor | Doubts and Discussion Dynamic memory allocation New, delete Object creation at run time.  This pointer Doubts and discussion | Derived class and Base class, Different types of Inheritance Overriding member function  Public and private inheritance Ambiguity in multiple inheritance Doubts and Discussion |
| **MARCH** | Virtual Inheritance Abstract class Introduction to Polymorphism Revision  Test | Operator overloading Overloading Unary operator Overloading Binary Operators | Function overloading Revision | Virtual function Friend function Static function | Doubts and Discussion  Test on topics covered |
| **APRIL** | Throwing Catching  Re-throwing an exception Specifying exceptions | Exceptions when handling exceptions Exceptions when handling exceptions Resource capture and  release Revision | Introduction to Templates Class Templates  Function Templates | Overloading of template function, namespaces Introduction to STL, Benefits of STL: Containers, adapters | Benefits of STL: iterators, vectors, lists  Doubts and Discussion |

**TEACHING PLAN 2023-24 (EVEN SEMESTER)**

**Name :- Ms. Parul Department:-Computer Science Class:- M.Sc(CS)- 2nd Sem Sub:- Software Engineering**

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| **JAN** | **Software crisis, Software engineering Approach and Challenges,** | **Software development process models with comparison: Waterfall, Prototype,**  **Time**  **boxing and Spiral Models, RAD Model and Automat ion through software environments** | **Quality Standards like ISO 9001, SEI- CMM,**  **Structured Analysis, Behavioral & non-behavioral requirements, Software requirement specification: components &**  **characteristtics,** | **Funct ion point metric, Cost estimat ion, static, Single & mult ivariate models, COCOMO Model, Putnam Resource Allocation Model,** | **Risk management, project scheduling, personnel planning, team structure, Software configurat ion management** |
| **FEB** | **quality assurance, project monitoring, Empirical, Fundamentals, problem partit ioning & abstraction, design methodology** | **Function Oriented Design,**  **Cohesion, Coupling & their classification, User Interface Design, Detailed design,** | **Choosing Programming Language, Characteristics of Program, Avoiding Dead Codes** | **Program Metrics: Size Estimation; Complexity metric (McCabe’sCyclometic Complexity), Halsted Theory, Function Point Analysis.** | **Impracticality of Testing all Data and Paths, Levels of testing, Funct ional vs. Structural testing, Static and Dynamic Test ing Tools,** |
| **MARCH** | **Regression testing, Mutation Test ing, Stress Testing; Validation Vs. verification.** | **Source Code Translation, Program Restructuring, Data Re‐Engineering, Reverse Engineering.** | **Maintaining Product Integrity, Change Management, Version Control, Configuration accounting,** | **Version Control, Configuration accounting,** | **Revision and Doubts.** |
| **April** | **Limitat ions of Reliability Models.** | **Version Control, Configuration accounting,** | **Reviews, Walkthrough, Inspection, Configuration Audits** | **Reliabilit y Models (JM, GO, MUSA**  **Markov),** | **. Revision and Doubt** |

**TEACHING PLAN 2023-24 (EVEN SEMESTER)**

Name :- Dr. Kavita Sharma Department:- COMPUTER SCIENCE Class:- M.Sc(CS)-II Sub:- INTERNET AND WEB DESIGNING

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| **MONTH** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
|  | **Internet, Evolution of**  **Internet, Types of**  **Computer Network: LAN,**  **WAN, MAN, Internet** | **Protocol, Internet Services,** | **WWW, Working of**  **Internet, Introduction to**  **Intranet, DNS working,** |  |  |
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|  |  |  |
|  | **Configuring Internet** | **Client-Server environment:** |
| **JAN** | **Connection, Internet**  **Connection Concepts,** | **Single User, Multi User,** |
|  | **Connecting LAN to** | **Server, Workstation,** |
|  | **Internet.** |  |
|  |  | **Configuring E-Mail** | **E-Mail mailing lists and** | **Progress indicators,** | **Hypertext Transfer** |
|  |  | **Program, Sending and** | **avoiding E-Mail viruses.** | **customization of browsers,** | **Protocol (HTTP), URL.** |
|  |  | **Receiving Files through E-** | **Popular web servers, Web** | **browsing tricks Next** | **Internet Tools: Online** |
|  | **Computer Network;** | **Mail, Fighting Spam,** | **Browsers; Basic features of** | **generation web browsing,** | **Chatting, Messaging, and** |
| **FEB** | **Network Topologies;**  **Network Protocols, E-Mail** | **Sorting Mail,** | **browsers: Bookmarks,**  **Cookies** | **Search Engines** | **Conferencing Concepts.**  **Usenet newsgroup** |
|  | **Concepts.** |  |  |  | **concepts: Reading usenet** |
|  |  |  |  |  | **newsgroups. TEST** |
|  | **Instant messaging, Web-** | **Keeping track of Favorite** | **HTML Elements:** | **Working with Background** | **Publishing HTML Pages.** |
|  | **Based chat rooms and** | **Web Sites, Web Security,** | **Paragraph, Lists, Tables** | **colors and Images.** | **HTML, XHTML Syntax** |
|  | **discussion boards.** | **Privacy, and Site-Blocking** | **Images, Frames, Forms** | **Marquee; Text Alignment** | **and Semantics. TEST** |
| **MARCH** | **Streamlining Browsing** | **Understanding HTML,**  **XHTML Syntax and** | **Linking to other Web**  **Pages: External and** | **and Text Formatting ,**  **Advanced Layout with** |  |
|  |  | **Semantic** | **Internal linking, E-mail** | **Tables** |  |
|  |  |  | **Links** |  |  |
| **APRIL** | **Cascading Style Sheets: Introduction, Inline, Internal, External CSS, Linking CSS to Web Page. Introduction to JavaScript, Basic Syntax, Variables and Data types** | **Statements, Operators, Literals, Functions, Objects, Arrays, XML: Relation between XML and HTML,** | **Goals of XML, Structure and Syntax of XML. Well Formed XML, DTD and its Structure** | **Tree Structures in data organization, Searching with XPath** | **Goals of XML, Structure and Syntax of XML Revision, Doubt Session** |

**TEACHING PLAN 2023-24 (EVEN SEMESTER)**

Name :- Dr. Anju Sharma Department:-Computer Department Class:- M.Sc (Comp. Sc) 2 year Sub:-Java Programming

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| **JAN** | JAVA History,  Java features, Java and Internet,Java and World wide Web, | Java program structure, Java tokens Java Virtual machine Data types  Operators and expressions | Decision making and Branching  Decision making and Branching | Looping classes and methods, Looping classes and methods Inheritance: using existing class  Class inheritance, | Choosing Base class Access Attributes Types of Inheritance |
| **FEB** | Abstract class , Final modifier  Doubts and discussion Test on topics covered Polymorphism  Types of Polymorphism Types of  Polymorphism | Packages: understanding packages  Defining a package Adding classes from a package to your program Understanding CLASSPATH  Revision | Doubts and Discussion Access protection in packages  Concept of interface Revision | Exception Handling Types of exceptions Types of exceptions Dealing with exceptions | Dealing with exceptions Exception Objects Doubts and Discussion Test |
| **MARCH** | Understanding Threads The Main thread Creating a thread Creating Multiple threads  Revision | Thread Priorities Synchronization Deadlocks Inter-thread communication Revision  Doubts and Discussion | I/O Basic, Byte and character structures I/O classes, Reading console | Applet basics, Applet Architecture, Applet Life Cycle,Revision  Simple Applet Display Methods | Request Repainting Using the status window The HTML APPLET  tag, Passing parameters to Applets  Revision |
| **APRIL** | Working with AWT controls,  AWT Classes Window fundamentals Working with frames Creating a frame window in an Applet Revision | Displaying information within a window Working with graphics Working with color Setting the paint mode Test | Working with fonts Exploring with Text and Graphics  Layout managers and Menus  Revision | Graphics  Layout managers and Menus | Doubts, Revision Test |

**TEACHING PLAN 2023-24 (EVEN SEMESTER)**

Name :- Dr. Kavita Sharma Department:-COMPUTER SCIENCE Class:- BCA 2ND Sub:- WEB DESIGNING

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
|  | Introduction to Internet  and World Wide Web;  Evolution and History  of World Wide Web; | Web Servers; Hypertext Transfer Protocol | Overview of  TCP/IP and its services;  URLs; Searching and  Web-Casting Techniques; |  |  |
|  |  |  |
|  | Search Engines and Search Tools; | Web publishing: hosting your site |
|  |  |  |
| **JAN** |  |  |
|  |  | Internet Service Provider; | Phases of | Choosing the | Backgrounds, Relating |
|  | Creating a Website and the | Web terminologies, | Planning and designing  your Web Site; Steps for | contents; Home Page;  Domain Names, Front | Front Page to DHTML. |
| **FEB** | Markup Languages (HTML, DHTML) |  | developing your Site; | page views, Adding pictures, Links, |  |

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| **MARCH** | Introduction to HTML; Hypertext and HTML; | HTML Document Features; HTML command Tags; | Creating Links; Headers; Text styles; Text Structuring;  Text colors and Background; Formatting text; Page layouts | Images; Ordered and Unordered lists; Inserting Graphics; Table Creation and Layouts | Frame Creation and Layouts; Working with Forms and Menus; Working with Radio Buttons; Check Boxes; Text Boxes |
| **APRIL** | Dynamic HTML, Features of DHTML  REVISION | CSSP(cascading style sheet positioning)  Revision , Test | JSSS(JavaScript assisted style sheet) | Layers of netscape, The ID attributes ,DHTML events | DOUBTS , REVISION |

**TEACHING PLAN 2023 -24 (EVEN SEMESTER)**

Name :- Dr. Rekha Department:-COMPUTER SCIENCE Class:- BCA I SEM Sub:- ‘C’ PROGRAMMING

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| **JAN** | **Overview of C: History of C, Importance of C** | **Elements of C: C character set, identifiers**  **and keywords, Data types, Constants and Variables, Assignment statement,**  **Symbolic constant** | **Program, printf(), scanf() Functions** | **Operators : Arithmetic, relational, logical, bitwise, unary, assignment, shorthand assignment operators, conditional operators**  **and increment and decrement operators** | **Expression: Arithmetic expressions,**  **evaluation of arithmetic expression, type casting and conversion, operator hierarchy & associativity.** |
| **FEB** | **Decision making & branching: Decision making with IF statement(include examples)** | **IF-ELSE statement, Nested IF statement, ELSE-IF ladder(include examples)** | **switch statement, goto statement.**  **For loops(include examples)** | **while, and do-while loop (include examples)** | **jumps in loops, break, continue**  **statement, Nested loops.** |
| **MARCH** | **Functions: Standard Mathematical functions, Input/output: Unformatted & formatted I/O**  **function in C** | **Input functions viz. getch(), getche(), getchar(), gets(),** | **output functions viz., putch(), putchar(), puts()** | **string manipulation functions and its example.** | **User defined functions: Introduction/Definition, prototype, Local and global variables,**  **passing parameters, recursion.** |
| **APRIL** | **Arrays: Definition, types, initialization, processing an array, passing**  **arrays to functions** | **Array of Strings. String constant and variables, Declaration and initialization of string** | **Input/output of string data, Introduction to pointers.**  **Algorithm development** | **Storage classes in C: auto, extern, register and static storage class, their scope, storage, & lifetime.**  **,** | **Flowcharting and Development of efficient program in C.**  **Revision, Doubt Session** |

**TEACHING PLAN 2023-24 (EVEN SEMESTER)**

Name :- Dr. Neelam Bhardwaj Department:-COMPUTER SCIENCE Class:- bba 1st Sub:-Computer Applications in Management

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| **JAN** | Introduction to Computers  – History, basic anatomy | operating system memory | input/output devices | types of computers, classification of computers | hardware and software.  Networking : Introduction, Need, Advantage and disadvantages |
| **FEB** | Network Devices, Topology and network connection | Types of Network wireless networking | Virus And Firewall | Introduction to information technologies, www, search engines, web  browsers, , | Internet Applications in business, chatting and e-mailing |
| **MARCH** | computer applications, advantages and limitations, use in offices, education, institutions, healthcare. | IP addressing, web hosting and web publishing | Data, information and Information systems, Component and capabilities of Information system | Types of information system.  Management information system, Transaction Processing System | Office Automation System,  Decision support System expert systems, executive information systems |
| **APRIL** | Multimedia , Hardware and Software requirement of Multimedia | Components, Advantage and Disadvantages of multimedia | applications in business Multimedia applications in marketing | Multimedia applications in advertising | web applications of  multimedia |

Name :- Dr. Rekha Department:- Computer Science Class:- BCA IInd Year Sub-Data Structure-II

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| **JAN** | Tree: Header nodes, Threads, Binary search trees, Searching, Insertion and deletion in a Binary search tree, | Insertion and deletion in a Binary search tree, | AVL search trees, Insertion and deletion in AVL search tree, m-way search tree | Insertion and deletion in an m-way search tree, B-trees,. | Insertion and deletion in a B-tree, B+tree, Huffman’s algorithm, |
| **FEB** | Graphs: Warshall’s algorithm for shortest path,  , | Dijkstra algorithm for shortest path, | Operations on graphs | Topological sorting | Traversal of graph, |
| **MARCH** | Sorting: Internal & external sorting,- | Radix sort, Quick sort, | Heap sort, Merge sort, Tournament sort, Searching: Liner search, binary search,custom data types | , merging, Comparison of various sorting and searching algorithms on the basis of their complexity | Test and revision. |
| **APRIL** | Files: Physical storage devices and their characteristics, Attributes of a file viz fields, records, Fixed and variable length records, Primiry and secondary keys, Classification of files, File  operations, | Comparison of various types of files, File organization: Serial, | Sequential, Indexed-  sequential, Random- access/Direct, Inverted, Multilist file  organization. Hashing: Introduction, Hashing functions and Collision resolution methods . | Dout Session | REVISION AND Tets. |

**PLAN 2023-24 (EVEN SEMESTER)**

Name :- Dr. Kavita Sharma Department:- Computer Science Class:- BCA IST Sub:- SSAD

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| **JAN** | Introduction to system, Definition and characteristics of a system, Elements of system, Types of system. | initial investigation: Introduction, Bases for planning in system analysis, Sources of project requests. | System development life cycle, Role of system analyst, Analyst/user interface, System planning. | Initial investigation, Fact finding, Information gathering, information gathering tools, Fact analysis, | TEST AND REVISION |
| **FEB** | Structured analysis, Tools of structured analysis: DFD, Data dictionary, Flow charts, Gantt charts, decision tree, decision table, structured English. | Introduction, Objective, Types, Steps in feasibility analysis, Feasibility report, Oral presentation | Cost and benefit analysis: Identification of costs and benefits, classification of costs and benefits, Methods of | decision table, structured English, Pros and cons of each tool, Feasibility study: | TEST AND ASSIGNMENT |
| **MARCH** | System Design: System design objective, Logical and physical design, Design Methodologies, structured design. | form design: Input design, Objectives of input design, | Output design, Objectives of output design, Form design. | **TEST AND PRESENTATION ON DESIGN METHODOLOGIES**  **.** | Form-Driven methodology(IP O charts), structured walkthrough. |
| **APRIL** | System testing: Introduction, Objectives of testing, Test plan, testing techniques/Types of | system tests, Quality assurance goals in system life cycle, System implementation, Process | implementation, System evaluation, System maintenance and its typ | Classification of forms, requirements of form design.  Types of forms, Layout considerations, Form control. | REVISION AND DOUBT SESSION |

**PLAN 2023-24 (EVEN SEMESTER)**

Name :- Dr. Neelam Bhardwaj Department:-Computer Science Class:-BBA 2ND YEAR Sub:-DBMS

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| **JAN** | Introduction to data base  management system – Data versus information, | record, file; data dictionary, database administrator. | functions and responsibilities; file-oriented system versus database system. | file-oriented system versus database system. | TEST AND REVISION |
| **FEB** | Database system architecture – Introduction, schemas, sub schemas | data base architecture. | Data mapping, data models,  TYPES OF DATABASE SYSTEM. | TEST AND REVISION | PRESENTATIO N ON DATA MODELS. |
| **MARCH** | Data base security  – Threats and security issues, | HOLI VACATIONS | firewalls and database recovery. distributed data base. | techniques of data base security. | Test and  revision. |
| **APRIL** | Data warehousing and data mining – Emerging data. | internet, database, digital libraries, | multimedia data base, mobile  data base,  spatial data base. | Threats and security issues, types of database systems. | REVISION AND DOUBT SESION. |

**TEACHING PLAN 2023-24 (EVEN SEMESTER)**

Name :- Ms. Parul Department:- Computer Science Class:- BCA 3rd Sub:- Artifitial Intelligence

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| **JAN** | Overview of A.I | Problems, problem space and search: | Problems, problem space and search: | Heuristic search techniques  : | Heuristic search techniques : |
| **FEB** | Knowledge Representation | Knowledge Representation | Using Predicate Logic : | Using Predicate Logic | Using Predicate Logic : |
| **MARCH** | Natural language processing | Natural language processing | Natural language processing | Learning | Learning |
| **APRIL** | Expert System: Introduction | Representing using domain specific knowledge, | Representing using domain specific knowledge, | Expert system shells | Expert system shells |

**TEACHING PLAN 2023-24 (EVEN SEMESTER)**

Name :- Dr. Sonam Department:- Computer Science Class:- BCA II Sub:- OOPS

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| **JAN** | Object Oriented Programming Concepts : Procedural Language and Object Oriented approach, and | Characteristics of OOP, user defined types, polymorphism | Getting started with C++: syntax, data types, variables | ., string, function, namespace and exception, operators | encapsulation, flow control, recursion, array and pointer, structure . |
| **FEB** | Abstracting Mechanism: classes, private and public, | Constructor and Destructor , member function | ; Memory Management: new, delete, object copying, | static members, references copy constructer, | , assignment operator, this input/output |
| **MARCH** | Inheritance and Derived Class and Base Class, , Abstract Class | Polymorphism: | Different types of Inheritance, | Overriding member function | Ambiguity in Multiple inheritance , Virtual function, Friend function, Static  function |
| **APRIL** | Exception Handling: Exception and derived class, function exception declarationTemplat e classes | unexpected exception, exception when handling exception, | , resource capture and release.  Template and Standard Template Library: | declaration, template functions, namespace, | , string, iterators, hashes, iostreams and other types. |

**TEACHING PLAN 2023-24 (EVEN SEMESTER)**

Name :- Dr. Seema Phogat Department:-COMPUTER SCIENCE Class:- M.Sc(CS)-II Sub:- Multimedia

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| Month | 1st Week | 2nd Week | 3rd Week | 4th Week | 5th Week |
| JAN | Definition of multimedia, Multimedia Basics, Where to use Multimedia, Multimedia Elements, Multimedia Application, Virtual Reality | Delivering Multimedia, Multimedia Workstation Architecture, High resolution Graphic displays; Network architecture for Multimedia systems. | Hypermedia Documents; Hypertext - Hyper Speech - HDTV and UDTV, 3D Technology. | Overview of Multimedia Software Tools - Open Source Replacements - | Multimedia Authoring - Some Useful Editing and Authoring Tools - VRML. |
| FEB | About Fonts and Face, Hypermedia and Hypertext. Images: Making Still Images, Bitmaps - 1 bit images - 8-bit gray level images - 8-bit color images- | About Fonts and Face, Hypermedia and Hypertext. Images:  Making Still Images, Bitmaps - 1 bit images - 8-bit gray level images - 8-bit color images- | MIDI vs. Digital Audi; Multimedia System Sounds | Adding Sound to Your Multimedia Project, Audio Recording. Animation | The Power of Motion- Principles of Animation - Animation by Computer - Animation Techniques, Types of Animation. |
| MARCH | Data Compression: Need for Data compression - General Data compression Scheme | Compression standards - Non-lossy compression for images - | Lossy compression for Photographs and video, Hardware Vs Software Compression, | Basics of Binary image compression Data and File Format Standards:Popular File Formats - | RTF, RIFF, GIF, PNG, TIFF, MIDI, JPEG, JFIF, AVI,WAV, BMP,WMF, MIX, MPEG standards - TWAIN |
| APRIL | Limitations of Traditional input devices - Multimedia iNput output devices - | PEN input - Working of Electronic Pen - Video and image display systems – Video display technology standards | CRT - display terminology, Flat panel display system. | The Stages of a Multimedia Project, Creativity, Organization, Communication - Hardware - Software - Text Editing and Word | Processing Tools - OCR Software - Painting and Drawing Tools Temporal and Spatial data mining.  Revision and Doubt Session |

**TEACHING PLAN 2023-24 (EVEN SEMESTER)**

Name :- Dr. Neelam Bhardwaj Department:- Computer Science Class:- BBA IIIRD YEAR Sub:- SAD

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| **JAN** | Introduction to analysis and  design: - SDLC | Case tools for analyst, role of  system analyst, doubt session,revision | ER data models,doubt session | feasibility study – economic, technical, operational | Test,Revision, doubt session |
| **FEB** | Design of Application:- DFDs, form design | screen design, report design,doubt session | structure chart, data base definition | equipment specification and selection | personnel extimates |
| **MARCH** | Implementatio n:- data  dictionary | , I-O  design,doubt session | decision tables decision trees | logical design to physical implementation | Test,Revision, doubt session |
| **APRIL** | Introduction to distributed data processing and real time system | evaluating distributing system,revision,d oubt session | designing distributed data base, | event based real time analysis tools. | State transition diagrams  ,Revision and doubt session |

**TEACHING PLAN 2023-24 (EVEN SEMESTER)**

Name :- Dr. Seema Phogat Department:- Computer Science Class:- BCA IST YR Sub:- LOC-II

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| **JAN** | Sequential Logic: Characteristics, Flip-Flops, Clocked RS,. | , T type and MasterSlave flip- flops. State table | state diagram  and state  equations | Flip-flop excitation tables | D type, JK Test,Revision, doubt session |
| **FEB** | Sequential Circuits: Designing registers  – Serial Input Serial Output (SISO), | Serial Input  Parallel Output (SIPOand and | shif Data Conversion using Value Of (  ) Methods , String Buffer  Class and Methods.t registers.  Designing counters – Asynchronous Synchronous Binary  Counters, | Modulo-N Counters and Up-Down Counters | TEST AND ASSIGNMENT |
| **MARCH** | Memory & I/O Devices: Memory Parameters, , MagnetiC | Optical Storage devices | Semiconductor RAM, ROM | , Flash  memory, I/O  Devices and their controllers. | TEST AND DOUBT SESSION |
| **APRIL** | Instruction Design & I/O  Organization: Machine instruction,. | Instruction cycle, Instruction Format and Addressing Modes | ,. I/O Interface, Interrupt structure | Program- controlled, Interrupt- controlled | Instruction set  selection, & DMA transfer,  I/O Channels, IOP |

**TEACHING PLAN 2023-24 (EVEN SEMESTER)**

Name :- Dr. Anju Sharma Department:- Computer Science Class:-BCA 3RD Sub:- E-Commerce

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| **Month** | **1st Week** | | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** | |
| **JAN** | Electronic Commerce: Overview of Electronic Commerce, Scope of Electronic Commerce | | Traditional Commerce vs.Electronic Commerce, Impact of E-Commerce, Electronic Markets, Internet Commerce | e-commerce in perspective, Application of E Commerce in DirectMarketing and Selling | Obstacles in  adopting E- Commerce Applications; Futureof ECommerce. | TEST AND ASSIGNMENT | |
|  | Value Chains in | | Industry value chains. Security Threats to E- commerce: Security Overview, Computer Security Classificatio, Copyrightand Intellectual Property | , security Policy and Integrated Security, Intellectual Property Threats, electronic Commerce Threats, |  | TEST AND ASSIGNMENT | |
|  | Electronic | |  |
|  | Commerce, Supplychain,  Porter’svalue | | Clients Threats, Communication Channel Threats,  server Threats. |
| **FEB** | chain Model  Inter | |  |
|  | Organizational | |  |
|  | value chains, | |  |
|  | Strategic Business | |  |
|  | unit chains, | |  |
|  |  |  | Assets, Protecting Intellectual Property, Protecting Client Computers, | Protecting E- | Electronic Payment System: Electronic Cash, Electronic Wallets, Smart Card, Credit  and Change Card. | TEST DOUBT SESSION | AND |
|  | Implementing |  | commerce |
|  | security for | E- | Channels, Insuring |
|  | Commerce: |  | Transaction |
| **MARCH** | Protecting | E- | Integrity, |
|  | Commerce |  | Protecting the |
|  |  |  | Commerce Server |
| **APRIL** | Business to Business E- Commerce: Inter- organizational Transitions, Credit Transaction Trade | Electronic Data Interchange (EDI): Introduction to EDI, Benefits of EDI, EDI Technology | EDI standards, EDI  Communication, EDI  Implementation, EDI agreement, EDI security | Revision of all units | TEST AND DOUBT SESSION |  |  |

**TEACHING PLAN 2023-24 (EVEN SEMESTER)**

Name :- Dr. Neelam Bhardwaj Department:- Computer Science Class:- BBA IST YR Sub:- Introduction to Computers

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| **JAN** | Introduction to Computers – History, basic anatomy, | operating system, memory, input/output devices | PRIMARY MEMORY CACHE MEMORY AND ITS TYPES. | Batch processing and multiprocessing and multi sharing operating system. | Test, Revision, doubt session |
| **FEB** | Networking – Advantage, types, devices AND NETWORK TOPOLOGIES. | network connection, wireless networking; virus and | Types of computer network LAN, MAN , WAN. | TEST AND ASSIGNMENT | SHARING OF DATA AMONG DIFFERENT RESOURCES  generations of computer and types of computer system. |
| **MARCH** | Computer applications using internet, chatting and e- mailing; | wireless networking; virus | computer applications, advantages and limitations, use in offices, education, HEALTHCARE AND MEDICINES. | USES OF INTERNET APPLICATIONS ADVANTAGE AND DISADVANTAGES. | TEST AND PRESENTATION.. |
| **APRIL** | MULTIMEDIA AND ITS  REQUIREMENTS. | HARDWARE AND SOFTWARE COMPONENTS OF MULTIMEDIA | WEB  APPLICATIONS OF MULTIMEDIA AND ITS ADVANTAGES AND DISADVANTAGES. | PRESENTATION ON MULTIMEDIA. | REVISION AND DOUBT SESSION. |

**TEACHING PLAN 2023-24 (EVEN SEMESTER)**

Name :- Dr. Kavita Sharma Department:- Computer Science Class:- BCA IST Sub:- SAD

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| **JAN** | Introduction to system, Definition and characteristics of a system, Elements of system, Types of system. | initial investigation: Introduction, Bases for planning in system analysis, Sources of project requests. | System development life cycle, Role of system analyst, Analyst/user interface, System planning. | Initial investigation, Fact finding, Information gathering, information gathering tools, Fact analysis, | TEST AND REVISION |
| **FEB** | Structured analysis, Tools of structured analysis: DFD, Data dictionary, Flow charts, Gantt charts, decision tree, decision table, structured English. | Introduction, Objective, Types, Steps in feasibility analysis, Feasibility report, Oral presentation | Cost and benefit analysis: Identification of costs and benefits, classification of costs and benefits, Methods of | decision table, structured English, Pros and cons of each tool, Feasibility study: | TEST AND ASSIGNMENT |
| **MARCH** | System Design: System design objective, Logical and physical design, Design Methodologies, structured design. | Design Methodologies, structured design. Doubt Session | form design: Input design, Objectives of input design, Output design, Objectives of output design, Form design | **TEST AND PRESENTATION ON DESIGN METHODOLOGIES.** | Form-Driven methodology(IPO charts), structured walkthrough. |
| **APRIL** | System testing: Introduction, Objectives of testing, Test plan, testing techniques/Types of | system tests, Quality assurance goals in system life cycle, System implementation, Process | implementation, System evaluation, System maintenance and its typ | Classification of forms, requirements of form design. Types of forms, Layout considerations, Form control. | REVISION AND DOUBT SESSION |

**TEACHING PLAN 2023-24 (EVEN SEMESTER)**

Name :- Ms. Parul Department:- Computer Science Class:- BCA 2ND YEAR Sub:- Software Eng.

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| **JAN** | Introduction: Software Crisis, Software Processes & Characteristics, | Software life cycle models, Waterfall, Prototype, Evolutionary and Spiral Models. | Software Requirements Analysis & Specifications: Requirement Engineering, Requirement Elicitation Techniques like FAST, QFD, requirements analysis using DFD | Data dictionaries & ER Diagrams, Requirements documentation, Nature of SRS, Characteristics & organization of SRS. | TEST AND REVISION |
| **FEB** | Software Project Management Concepts: The Management spectrum, The People The Problem, The Process, The Project. | Software Project Planning: Size Estimation like lines of Code & Function Count, | Cost Estimation Models, COCOMO, Risk  Management. | TEST AND  REVISION | PRESENTATION ON  Cost Estimation Models. |
| **MARCH** | Software Design: Cohesion & Coupling, Classification of Cohesiveness & Coupling, | Software Design: Cohesion & Coupling, Classification of Cohesiveness & Coupling, | Function Oriented Design, Object Oriented Design, Software  Metrics: Software measurements: What & Why, Token Count, Halstead Software Science Measures. | Design Metrics, Data Structure Metrics Software Implementation: Relationship between design and implementation, Implementation issues and programming support environment, Coding the procedural design, Good coding style. | Test and revision. |
| **APRIL** | Software Testing: Testing Process, Design of Test Cases, Types of Testing, Functional Testing, Structural Testing, | Test Activities, Unit Testing, Integration Testing and System Testing. | Debugging Activities. Software Maintenance: Management of Maintenance, Maintenance Process | Reverse Engineering, Software  Re-engineering, Configuration Management, Documentation. | REVISION AND DOUBT SESION. |

**Teaching plan 2023-24 even semester**

**Teacher: Sonam Class: BCA 3rd year Subject: .NET**

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| **JAN** | The Framework of  .Net: Building blocks of .Net Platform (the CLR, CTS and CLS) | Features of .Net,  Deploying the .Net Runtime, Architecture of .Net platform | Introduction  to namespaces & type distinction | .Types & Object in .Net, the evolution of Web development . | Assignment,UT1 |
| **FEB** | Class Libraries in  .Net, Introduction to Assemblies & Manifest in .Net | Metadata &  attributes . Introduction to C#: Characteristics of C#, | Characteristics  of C#, Data types: Value types, reference types, default value | Constants,  variables, scope of variables, boxing and unboxing. | Assignnment,UT2 |
| **MARCH** | Operators and expressions: Arithmetic, relational, | logical, bitwise, special operators, | evolution of expressions, operator precedence & associativity, Control | Constructs in C#:  Decision making, loops, Classes & methods: Class, methods, constructors, destructors, | .  Overloading of operators & functions.  Revision & test |
| **APRIL** | Inheritance & polymorphism: visibility control, overriding, | Abstract class & methods, sealed classes & methods, interfaces. | Advanced features of C#:  Exception handling & error handling, | Automatic memory management, Input and output (Directories, Files, and streams). | Revision & test |
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