BCA

LESSON PLAN

EVEN SEM

(2025-26)

K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD
LESSON PLAN FOR THE SESSION 2025-26(EVEN SEMESTER)

Name of the Assistant Professor: Dr. Vandana **Class And Section: BCA sec- A&B** **Subject: mathematics foundation to computer science**	
Week 1	Introduction of syllabus, linear Programming, formulation
Week 2	Graphical representations,simplex methods for maximization n minimisation, Duality, Transportation problem,NWCM,lCM,VAM, model method
Week 3	Concepts n errors in numerical methods, Transcendental equations: Bisection method n Newton Raphson method
Week 4	Newton forward, Newton backward, lagrange's formula, problem related to these methods
Week 5	Trapezoidal rule, Simpson 1/3 rules , Problem related to these methods
Week 6	Semi group, Monoid, Group, Subgroup, Cyclic group
Week 7	Practice of unit 2,3 n 4 . Problem based ,Test , Assignment
Week 8	Proposition, logical operation, compound statement, Constraction of truth table
Week 9	Quantifiers, conditional statement, tautology, contradiction, contingency
Week 10	Logical equivalence, CNF, DNF
Week 11	Methods of proofs, Proportional logic, modus ponens, modus tollen ,proof of contradiction, Mathematical induction
Week 12	**MOCK TEST**
Week 13	Revision, Doubt class
Week 14	Revision
Week 15	**REVISION**

Name of the Assistant Professor: Ms.Poonam
Class And Section: BCA 2nd Sem (Section - A&B)
Subject: CC104, Data Structures Code : 25BCA402DS02

Week 1	Definition, Classification and Operations of Data Structures. Algorithms: Complexity, Time-Space Tradeoff.
Week 2	Arrays:. Definition and Classification of Arrays, Representation of Linear Arrays in Memory, Operations on Linear Arrays: Traversing, Inserting, Deleting, Searching, Sorting and Merging
Week 3	Searching: Linear Search and Binary Search, Comparison of Methods Sorting: Bubble Sort, Selection Sort
Week 4	Insertion Sort. Two-Dimensional Arrays, Representation of Two Dimensional Arrays in Memory, Matrices and Sparse Matrices, Multi-Dimensional Arrays **TEST -1**
Week 5	Definition, Comparison with Arrays, Representation, Types of Linked lists, Traversing, Inserting, Deleting and Searching in Singly Linked List, Doubly Linked List and Circular Linked List.
Week 6	Applications of Linked Lists: Addition of Polynomials. Hashing, Hash Tables, Types of Hash Functions, Collision, Collision Resolution with Open Addressing and Chaining.
Week 7	Stacks: Definition, Representation of Stacks using Arrays and Linked List, Operations on Stacks using Arrays and Linked List, Application of Stacks: Arithmetic Expressions, PolishNotation, Conversion of Infix Expression to Postfix Expression, Evaluation of Postfix Expression.
Week 8	Recursion: Definition, Recursive Notation, Runtime Stack, Applications of Recursion: Factorial of Number, GCD, Fibonacci Series and Towers of Hanoi. Queue Definition, Representation of Queues using Array and
Week 9	Linked List, Types of Queue: Simple Queue, Circular Queue, Double-Ended queue, Priority Queue, Operations on Simple
Week 10	Queues and Circular Queues using Array and Linked List, Applications of Queues.
Week 11	Graphs: Definition, Terminology, Representation, Traversal.
Week 12	MOCK TEST
Week 13	Trees: Definition, Terminology, Binary Trees, Traversal of Binary Tree, Binary Search Tree, Inserting, Deleting and Searching in Binary Search Tree, Height Balanced Trees:
Week 14	AVL Trees, Insertion and Deletion in AVL Tree. Doubt
Week 15	REVISION

Name of the Assistant Professor: Rupinder kaur **Class And Section: BCA 2nd Sem (A & B)** **Subject: Operating System**	
Week 1	Definition and Evaluation of Operating System Components & Services of Operating System
Week 2	Structure and Architecture of Operating System Types of Operating Systems (Batch, Multiprogramming, Time Sharing)
Week 3	Parallel, Distributed and Real-Time Systems Operating System Services, System Calls & System Programs
Week 4	Operating System Structure & Generations Process Definition and Process States
Week 5	Process State Transitions Process Control Block (PCB)
Week 6	Threads and Concept of Multithreading Benefits of Threads and Types of Threads
Week 7	Process Scheduling: Definition and Objectives Preemptive and Non-Preemptive Scheduling
Week 8	Scheduling Algorithms: FCFS and SJF Round Robin (RR) & Performance Evaluation of Scheduling Algorithms
Week 9	Process Synchronization: Introduction & Inter-Process Communication Race Condition and Critical Section Problem
Week 10	Mutual Exclusion & Semaphores Monitors and Classical Synchronization Problems
Week 11	Deadlock: System Model & CharacterizationDeadlock Prevention and Avoidance (Banker's Algorithm), Deadlock Detection, Recovery from Deadlocks
Week 12	**MOCK TEST**
Week 13	Memory Management: Logical & Physical Address, Swapping Memory Allocation (MFT, MVT), Internal & External Fragmentation, Compaction Paging and Segmentation Virtual Memory: Demand Paging & Page Replacement Algorithm
Week 14	Allocation of Frames & Thrashing
Week 15	**REVISION**

Name of the Assistant Professor: Ms. Poonam & Ms. Kamiya **Class And Section: BCA 2nd Sem (Section -A & B)** **Subject: (SEC102)Object Oriented Programming using Java Code : 25BCA402SEC01**	
Week 1	Fundamentals of Object Oriented Programming: Basic Concepts of Object Oriented Programming (OOP), Benefits and Applications of OOP.
Week 2	Java Evolution: Java Features, Difference between Java, C and C++, Java and Internet, Java Environment. Overview of Java Language: Introduction to Simple Java Program, Use of Comments
Week 3	Math function, Application of two classes, Java Program Structure, Java Tokens and statements, Implementing Java program And JVM, Command Line Arguments.
Week 4	Constants, Variables and Data Types: Constants, Variables, Data Types, Declaration of Variables, Giving values to Variables, Symbolic Constants, Type casting.
Week 5	Operators & Expressions: Arithmetic operators, Relational operators, Logical operators, Assignment operators, Increment & Decrement operators, conditional operators, Bitwise operators .
Week 6	Arithmetic Expressions, Evaluation of Expressions, Type Conversions in Expressions, Operator Precedence & Associativity
Week 7	Decision Making, Branching & Looping: Decision Making with Control Statements, Looping statements, Jump in loops, Labelled loops.
Week 8	Classes, Objects and Methods: Defining Class, Methods Declaration, Constructors, Methods Overloading, Overriding Methods, Inheritance
Week 9	Arrays, Strings and Vectors: 1D arrays, Creating an Array, 2D arrays, Strings, Vectors
Week 10	Wrapper Classes, Enumerated Types
Week 11	Inheritance: Defining, extending classes, and Implementing Interfaces. Multiple inheritance and polymorphism.
Week 12	**MOCK TEST**
Week 13	Packages: Basics of packages, System packages, Creating and accessing packages, Creating user defined packages, Adding class to a package.
Week 14	Exception Handling: Using the main keywords of exception handling: try, catch, throw, throws and finally; Nested try, Multiple catch statements, Creating user defined exceptions
Week 15	**REVISION**

Name of the Assistant Professor: Rupinder kaur
Class And Section: BCA 2nd Sem (A & B)
Subject: WEB TECHNOLOGIES (SEC103 - 25BCA402SEC02)

Week 1	Introduction to HTML, History and Objectives of HTML,Basic Structure of HTML, Header Tags, Body Tag, Paragraph Tags
Week 2	HTML Tags: FORM, TABLE, TEXTAREA, SELECT IMG, FRAME, FIELDSET, ANCHOR Tags
Week 3	Lists in HTML and DIV Tag Navbar Design and Introduction to CSS
Week 4	CSS Types and Selectors Responsiveness of Web Page
Week 5	Introduction to Bootstrap and Linking Bootstrap Classes and Grid System
Week 6	Introduction to WWW, Protocols and Programs Web Browsers, DNS, Web Hosting Provider
Week 7	Setting up Windows/Linux/Unix Web Servers Cloud Hosting and Types of Web Hosting
Week 8	Introduction to JavaScript, Variables and Arrays Functions and Events in JavaScript
Week 9	DOM Traversing and Output System (Alert, Prompt, Console) Date and String Handling in JavaScript
Week 10	Manipulating CSS through JavaScript Form Validation (Required, Length, Pattern Validators)
Week 11	Advanced JavaScript and Event Handling Combining HTML, CSS and JavaScript Introduction to AJAX, Purpose, Advantages & Disadvantages AJAX-based Web Applications and Alternatives
Week 12	**MOCK TEST**
Week 13	Introduction to XML, Uses and Key ConceptsDTD, XSD Schemas and XSL, XSLT and XML Transformation, Introduction to XHTML
Week 14	Introduction to JSON (Keys, Values, Types)Arrays and Objects in JSON
Week 15	**REVISION**

Name of the Assistant Professor: Tanshul Adhana **Class And Section: BCA Section -A&B** **Subject: Indian Constitution**	
Week 1	The history of making of the Indian Constitution & Preamble
Week 2	Fundamental Rights & Duties
Week 3	Class Test & State Policy Principles
Week 4	Structure of the Indian, President & Governor
Week 5	Prime Minister & Chief Minister
Week 6	Council Of Ministers at Union Government & State Government
Week 7	lok Sabha & Rajya Sabha
Week 8	Class Test & State secretarait
Week 9	Election Commission (Chief Election Commissioner & State Election Commissioner)
Week 10	District Administration
Week 11	Municipal Corporation
Week 12	**MOCK TEST**
Week 13	Zila Panchayat
Week 14	Presentation
Week 15	**REVISION**

Name of the Assistant Professor: Ms. Sandhya Chaudhary, Ms. Reena **Class And Section: BCA 1st Year (Sec-A+B)** **Subject: Disaster Risk Reduction and Management: Skills for Safety and Resilience**	
Week 1	Introduction to DRR: Basic concepts and terminology (Hazard, Vulnerability, Capacity, Exposure, Disaster, Risk).
Week 2	Frameworks & Policy: Understanding the Disaster Management Cycle and Legal Frameworks (DM Act 2005, DM Amendment Act 2025, SDGs
Week 3	**Assignment 1** Institutional Role: Overview of institutions in DRR (NDMA, NIDM, IMD, NDRF) and Case studies of Indian disasters.
Week 4	Preparation of an institutional or household DM plan in the local language.
Week 5	Preparedness Planning: Framework for developing DM plans and Hazard Mapping techniques (Transect walk, Chapatti diagram).
Week 6	Mitigation Strategies: Evacuation planning, mock drills, and specialized mitigation like crowd management.
Week 7	**Test-1**: Review of Unit 1 and Unit 2 basics, including Emerging Technologies (Drones, Mobile Apps for DRR).
Week 8	First Aid Essentials: Life-saving skills for disasters (CPR, wounds, choking, burns, snake bites).
Week 9	**(Assignment-2)** Hygiene & Safety: Household preparedness, water sanitation (WASH), and fire safety/electrical/LPG safety.
Week 10	Response & Support: Search and Rescue methods, psychosocial support in DRR, and public health preparednes
Week 11	**Test-2** Focus on Life-Saving Skills (Unit 3) and Disaster-specific responses (Floods, Landslides, Earthquakes).
Week 12	**MOCK TEST**
Week 13	Field Exposure: Field visits to Emergency Operations Centres or State Disaster Response Force units.
Week 14	Community Engagement: Interaction with first responders (Aapda Mitras, Red Cross) and community engagement projects.
Week 15	**REVISION**

Name of the Assistant Professor: Dr. Rakhi Wadhawan **Class And Section: BCA 4th Sem.(A+B)** **Subject: Computer System Architecture(24BCA404DS01)**	
Week 1	Analog and Digital, Digital Computer Organization and Architecture: Functional Units, Basic Organizational Concepts, Von-Neumann Architecture, Bus Structure. Data representation: Number Systems, Fixed and Floating point representation. Register Transfer and Micro operations
Week 2	Test 1 Basic concepts and types of Registers, Register Transfer Language, Data Transfer between Registers, Bus and Memory Transfer, Arithmetic, Logic and Shift Micro operations
Week 3	Assignment 1 Instruction codes, Common Bus System Architecture, Computer Instructions: Instruction Set and Instruction Cycle. Types of Instructions: Register Reference, Memory Reference and Input/output Reference.
Week 4	Classifications of Interrupts: Mask able and Non mask able, Hardware and Software. Interrupt Service Routine
Week 5	Test 2 Context Switching, Daisy Chaining, Polling and Vectored Interrupt. Interrupt Cycle
Week 6	General Register Organization, Stack Organization: Register and /memory Stack, Reverse Polish Notation.
Week 7	Three Address, Two Addresses, One Address and Zero Address. Data Transfer and Manipulation
Week 8	Assignment 2Addressing Modes: Implied, Immediate, Register Direct and Indirect Mode and Direct Address Mode.
Week 9	Data Transfer and Data Manipulation Instructions, Program Control, Reduced Instruction Set Computer (RISC) and Complex Instruction Set Computer CISC
Week 10	Memory Hierarchy, Main Memory Technologies, Auxiliary Memory, Associative Memory Hardware requisites, Working Principle and Operations
Week 11	Cache Memory Characteristics, Types of Mapping, Writing into Cache, Cache Coherence. Input-Output Organization:
Week 12	**MOCK TEST**
Week 13	Peripheral Devices, Input-Output Interface, Asynchronous Data Transfer, Modes of Transfer
Week 14	Programmed I/O and Interrupt Initiated I/O. Concepts related to Priority Interrupt: Daisy Chaining Priority and Parallel Priority Interrupt. Direct Memory Access (DMA): DMA Controller and DMA Transfer
Week 15	**REVISION**

Name of the Assistant Professor: Ms. Neetu, Ms. Reena **Class And Section: BCA 2nd Year (Sec-A+B)** **Subject: Data Communication and Computer Networks(24BCA404DS02)**	
Week 1	Data Transmission concepts, transmission impairments, switching, modulation, and multiplexing.
Week 2	Network Hardware (LAN, MAN, WAN, Wireless networks, Internet-works) and Network Software (Layer, Protocols, interfaces and services).
Week 3	Assignment 1 Reference Models: Detailed study of OSI, TCP/IP, and their comparison
Week 4	Transmission Media: Magnetic, twisted pair, coaxial cable, fibre optics, and wireless transmission.
Week 5	Data Link Layer: Framing, Error control, and Sliding window protocols (one bit, Go back n, selective repeat).
Week 6	DLL Protocols—HDLC, PPP; Medium Access Sub layer: Channel Allocation and MAC protocols – ALOHA, CSMA.
Week 7	Test-1 Collision-free protocols, IEEE 802.3, 802.4, 802.5 standards and their comparison.
Week 8	Network Layer: Design issues and Routing algorithms (shortest path, flooding, flow-based, distance vector).
Week 9	(Assignment-2) Advanced Routing: hierarchical, broadcast, multicast, and routing for mobile hosts. Congestion control algorithm, IP addressing, ARP,RARP
Week 11	Test-2 Transport Layer: Addressing, connection management, flow control, and buffering.
Week 12	**MOCK TEST**
Week 13	Internet Transport Protocol (TCP and UDP) and introduction to the Application Layer.
Week 14	Application Layer protocols: DNS, E-mail, FTP, HTTP, HTTPS, and TELNET.
Week 15	**REVISION**

Name of the Assistant Professor: Ms. Gurpreet Kaur **Class and Section: BCA-4th Semester (Sec- A&B)** **Subject: Java Programming**	
Week 1	Introduction to Java: Java Features, Java Virtual Machine (JVM), Byte code, Java API, Java DevelopmentKit (JDK), Garbage Collection.
Week 2	Language Basics: Keywords, Constants, Variables and Data Types, Operators and Expressions, Decision Making, Branching and Looping.Introducing Classes, Objects and Methods: Defining a Class, Methods Declaration, Creating Objects and accessing Class members.
Week 3	Constructors, Methods Overloading, Wrapper Classes, Inheritance, Methods Overriding, Final Class, variables and methods, Abstract Class and Methods, Interfaces.
Week 4	Arrays, Strings and Vectors: Creating and using Arrays, String operations, String Buffer, String builder, and String Tokenizer class, Vector class.
Week 5	Packages and Exceptions: Java API packages, Creating and using packages, static import, Exceptions handling, Types of Exceptions, multiple catch statements, 'throw' and 'throws', using 'finally' statement,Creating your own exceptions.
Week 6	Multithreaded Programming: Single threaded and multi-threaded program, Creating threads using Thread class, Life cycle of a Thread, Stopping and blocking a Thread, getting and setting the Thread Priority
Week 7	Synchronization, implementing the Runnable interface.Managing Input/Output Streams: Concept to fstreams, Byte and Character streams, Reading and Writing from Console and Files. Input output exceptions.
Week 8	Applet Programming: How Applets differs from Java Application, Applet Life Cycle, APPLET Tag,Running an Applet, Passing Parameters to Applet.
Week 9	Event Handling: Mechanism, The Delegation Event Model, Event Classes, Event Listener Interfaces,Adapter and inner classes
Week 10	GUI Programming: Working with Frame Window, Graphics and Text, AWT Controls and classes. Layout Applet Programming: How Applets differs from Java Application, Applet Life Cycle, APPLET Tag,Running an Applet, Passing Parameters to Applet.Event Handling: Mechanism, The Delegation Event Model, Event Classes, Event Listener Interfaces, Adapter and inner classes.
Week 11	GUI Programming: Working with Frame Window, Graphics and Text, AWT Controls and classes. Layout Managers, working with Menus.
Week 12	MOCK TEST
Week 13	Discussion of previous Year Question Paper
Week 14	Discussion of previous Year Question Paper
Week 15	REVISION

Name of the Assistant Professor: Ms. Kamiya Chugh **Class And Section: BCA 2nd Year (A+B)** **Subject: Computer Graphics (24BCA404DS04)**	
Week 1	Overview of computer graphics and its applications, Historicaldevelopment, Application areas e.g. entertainment, scientific visualization, user interfaces, Basics of raster and vector graphics, differences between raster and vector graphics
Week 2	Representation and storage formats, Graphics pipeline and rendering process, stages of the graphics pipeline (modeling, transformation, rendering), concepts of rendering primitives, vertices, and fragments.
Week 3	Coordinate systems, types of primitives (points, lines, polygons), Cartesian and homogeneous coordinate systems, transformation matrices and their applications
Week 4	Pixel operations and drawing algorithms, color models (RGB, CMYK, HSL), pixel operations (blending, interpolation), Line drawing algorithms (Digital differential analyzer algorithm, Bresenham's line drawing algorithm)
Week 5	Circle drawing algorithms (Midpoint circle algorithm, Bresenham's circle drawing algorithm).Translation, rotation, scaling in 2D space, mirror reflection basic and advance problems involving composite operations.
Week 6	Basic terminologies-window, viewport, clipping window, region codes.Mathematics of point clipping, line clipping (midpoint subdivision method.
Week 7	Cohen-Sutherland line clipping algorithm, polygon clipping (Sutherland-Hodgman polygon clipping algorithm)
Week 8	3D Graphics Programming: 3D transformations, Translation, Rotation, Scaling in 3D space, Homogeneous coordinates and transformations.
Week 9	Orthographic projection, Perspective projection and vanishing points
Week 10	Lighting and shading models: Phong reflection model, Gouraud and Phong shading techniques
Week 11	Hidden surface removal algorithms: Z-buffer algorithm, Scan line algorithm for hidden surface removal
Week 12	MOCK TEST
Week 13	Texture mapping and image rendering: Texture coordinates and mapping techniques, Texture filtering and mipmapping.
Week 14	REVISION
Week 15	REVISION

Name of the Assistant Professor: Dr. Neha Jain and Ms. Kritika Vaid **Class and Section: BCA Second year (Section A and Section B)** **Subject: Communication Skills(23CLAEEC01)**	
Week 1	Unit – I: Listening: Techniques of Effective Listening, Listening and Comprehension, Probing Questions, Barriers to Listening.
Week 2	Speaking: Pronunciation, Enunciation, Vocabulary, Fluency, Common Errors. Test 1
Week 3	Unit – II: Reading: Techniques of Effective Reading, Gathering Ideas and Information from a Given Text
Week 4	Evaluating these Ideas and Information, Interpreting the Text.
Week 5	Writing: The Writing Process, Effective Writing Strategies, Different Modes of Writing. Test 2
Week 6	Unit – III: Basic Computer Skills: Introduction to Microsoft (MS) Office Suite, Open Educational Resources, Basic Virtual Platforms,
Week 7	Trending Technologies, Machine Learning, Artificial Intelligence (AI), Internet of Things (IoT).
Week 8	Social Media: Introduction to Social Media Websites, Advantages of Social Media, Ethics and Etiquette of Social Media, How to Use Google Search Better?
Week 9	Effective Ways of Using Social Media. Digital Marketing: Introduction to Digital Marketing, Traditional Marketing versus Digital Marketing, Digital Marketing Tools, Social Media for Digital Marketing, Digital Marketing Analytics.
Week 10	Digital Ethics and Cyber Security: Digital Literacy Skills, Digital Etiquette, Digital Life Skills;
Week 11	Cyber Security: Understanding and introducing the environment of security, Types of attacks and attackers, The art of protecting secrets.
Week 12	**MOCK TEST**
Week 13	Unit – IV: Meaning of nonverbal communication, Advantages of using nonverbal communication, Introduction to modes of nonverbal communication.
Week 14	Open and Closed body language, Eye contact and Facial expression, Hand gestures, Do's and Don'ts in NVC, Learning from experts, Activities-based learning.
Week 15	**REVISION**

Name of the Assistant Professor: Ms. Renu Kumari **Class And Section: BCA-Final Year (A&B)** **Subject: E-Commerce**	
Week 1	Electronic Commerce: Overview of Electronic Commerce, Scope of Electronic Commerce, Traditional Commerce vs. Electronic Commerce, Impact of E-Commerce
Week 2	Electronic Markets, Internet Commerce, e-commerce in perspective, Application of E Commerce in Direct Marketing
Week 3	**Assignment-1**Value Chains in electronic Commerce, Supply chain, Porter's value chain Model.
Week 4	**Test-1** Inter Organizational value chains, Strategic Business unit chains, Industry value chains
Week 5	Security Threats to E-commerce: Security Overview, Computer Security Classification
Week 6	Copyright and Intellectual Property, security Policy and Integrated Security, Intellectual Property Threats
Week 7	**Assignment-2** Electronic Commerce Threats, Clients Threats, Communication Channel Threats, server Threats
Week 8	Implementing security for E-Commerce: Protecting E-Commerce Assets
Week 9	**Test-2** Protecting Intellectual Property, Protecting Client Computers
Week 10	Protecting E-commerce Channels, Insuring Transaction Integrity, Protecting the Commerce Server
Week 11	Electronic Payment System: Electronic Cash, Electronic Wallets, Smart Card, Credit and Change Card.
Week 12	**MOCK TEST**
Week 13	Business to Business E-Commerce: Inter-organizational Transitions, Credit Transaction Trade Cycle, a variety of transactions. Electronic Data Interchange (EDI)
Week 14	Introduction to EDI, Benefits of EDI, EDI Technology, EDI standards, EDI Communication, EDI Implementation, EDI agreement, EDI security
Week 15	**REVISION**

Name of the Assistant Professor:Ms. Sandhya & Ms. Gurpreet Kaur **Class and Section: BCA-6th Semester(Sec-A &B)** **Subject: Object Technologies & Programming using Java**	
Week 1	Paradigms of Programming Languages, Evolution of OOPs Methodology, Basic Concepts of OO Approach, Comparison of Object Oriented and Procedure Oriented Approaches, Benefits of OOPs, Introduction to Common OO Language, Applications of OOPs.
Week 2	Object Oriented Methodology-2: Classes and Objects, Abstraction and Encapsulation, Inheritance, Method Overriding and Polymorphism. Java Language Basics: Introduction To Java, Basic Features, Java Virtual Machine Concepts, Primitive Data Type And Variables, Java Operators, Expressions, Statements and Arrays.
Week 3	Object Oriented Concepts: Class and Objects-- Class Fundamentals, Creating objects ,Assigning object reference variables; Introducing Methods, Static methods, Constructors ,Overloading constructors; This Keyword; Using Objects as Parameters, Argument passing,Returning objects , Method overloading, Garbage Collection,
Week 4	The Finalize ( ) Method.Inheritance and Polymorphism: Inheritance Basics, Access Control, Multilevel Inheritance, Method Overriding, Abstract Classes, Polymorphism, Final Keyword
Week 5	Packages : Defining Package, CLASSPATH, Package naming, Accessibility of Packages ,using Package Members.Interfaces: Implementing Interfaces, Interface and Abstract Classes, Extends and Implements together .
Week 6	Exceptions Handling : Exception , Handling of Exception, Using try-catch , Catching Multiple Exceptions , Using finally clause , Types of Exceptions, Throwing Exceptions, Writing Exception Subclasses.
Week 7	Introduction , The Main Thread, Java Thread Model, Thread Priorities,Synchronization in Java, Inter thread Communication.
Week 8	I/O in Java : I/O Basics, Streams and Stream Classes ,The Predefined Streams, Reading from, and Writing to, Console, Reading and Writing Files , The Transient and Volatile Modifiers
Week 9	Using Instance of Native Methods.
Week 10	Strings and Characters : Fundamentals of Characters and Strings, The String Class , String Operations , Data Conversion using Value Of ( ) Methods , String Buffer Class and Methods.
Week 11	Doubt Classes and Class Test
Week 12	MOCK TEST
Week 13	Discussion of previous Year Question Paper
Week 14	Discussion of previous Year Question Paper
Week 15	REVISION

Name of the Assistant Professor: Ms. Kritika Vaid **Class and Section: BCA Final year (Section A and Section B)** **Subject: Artificial Intelligence(BCA-308)**	
Week 1	Overview of A.I: Introduction to AI, Importance of AI, AI and its related field, AI techniques, Criteria for success.
Week 2	Problems, problem space and search: Defining the problem as a state space search, Production system and its characteristics, Issues in the design of the search problem
Week 3	Heuristic search techniques : Generate and test, hill climbing, best first search technique
Week 4	Problem reduction, constraint satisfaction Test-1
Week 5	Knowledge Representation: Definition and importance of knowledge, Knowledge representation
Week 6	Various approaches used in knowledge representation, Issues in knowledge representation.
Week 7	Using Predicate Logic : Represent ting Simple Facts in logic, Representing instances and is a relationship
Week 8	Representing instances and is a relationship, Computable function and predicate. Test-2
Week 9	Natural language processing : Introduction syntactic processing, Semantic processing, Discourse and pragmatic processing.
Week 10	Learning: Introduction learning, Rote learning, Learning by taking advice, Learning in problem solving
Week 11	Learning from example-induction, Explanation based learning. Test-3
Week 12	**MOCK TEST**
Week 13	Expert System: Introduction, Representing using domain specific knowledge.
Week 14	Expert system shells. Old question Paper Discussion
Week 15	**REVISION**

Name of the Assistant Professor: Dr.Neha Jain, Ms. Reena **Class and Section: BCA 3rd Year (Sec-A+B)** **Subject: Introduction to .NET (BCA-309)**	
Week 1	The Framework of .Net: Understanding the building blocks of the .Net Platform including the CLR, CTS, and CLS.
Week 2	Architecture & Deployment: Features of .Net, deploying the .Net Runtime, and the detailed Architecture of the .Net platform.
Week 3	Namespaces & Types: Introduction to namespaces, type distinction, and the role of Types & Objects in .Net.
Week 4	Web Evolution & Review: The evolution of Web development and its transition into the .Net environment. Assignment-1
Week 5	Assemblies & Manifests: Working with Class Libraries in .Net, and introduction to Assemblies and Manifests .
Week 6	Metadata & C# Basics: Understanding Metadata and Attributes. Introduction to C# characteristics and Data types (Value vs. Reference types)
Week 7	Test-1 Variables & Memory: Default values, constants, variables, and scope. Understanding Boxing and Unboxing.
Week 8	Operators & Expressions: Arithmetic, relational, logical, bitwise, and special operators. Evolution of expressions.
Week 9	(Assignment-2) Control Structures: Operator precedence and associativity. Control constructs in C# including Decision making and Loops.
Week 10	Classes & Methods: Building the foundation of OOPs with Classes, Methods, Constructors, and Destructors
Week 11	Test-2 Overloading: Implementing the overloading of operators and functions within C# code.
Week 12	**MOCK TEST**
Week 13	Inheritance & Polymorphism: Visibility control, overriding, abstract classes & methods, and sealed classesInterfaces & Advanced Features: Working with Interfaces and C# Exception handling/Error handling.
Week 14	System Operations: Automatic memory management and Input/Output operations (Directories, Files, and Streams).
Week 15	**REVISION**