TENTATIVE LESSON PLAN (EVEN SEMESTER)

SESSION: 2023-24

Name of the Teacher: SEEMA RANI   Department: Computer Science

Subject/Course: DIGITAL ELECTRONICS   Program: PGDCA

Semester: 2nd

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Number System and Logic Gates: Decimal, Binary, Octal and Hexadecimal Number System, Addition, Subtraction, multiplication and division of binary numbers, Number code: 8421, BCD, Grey, ASCII, EBCDIC codes	31st Jan-29Feb
2.	Conversions from one number system to another, Logic Gates: AND, OR, NOT, NAND, NOR, XOR, XNOR. Combinational Logic Circuits: Boolean operations, Basic Laws of Boolean Algebra, Demorgan's theorem, Principle of Duality, Sum-of-Products Methods, Truth Table, Karnaugh Map, Pairs, Quads, and Octets, Kamaugh Simplifications, Don't-care Conditions , Product-of sums Method.Assignment-1, Test	1st March-31st March
3.	Adder circuits: Half, Full, 4-bit adder. Flip Flop and Registers: Flip Flop: RS Latch, RS, D,T, JK Flip Flop, JK Master Slave Flip Flop, Clock wave forms, Registers: Types of Registers, Serial In Serial Out (SISO), Serial In Parallel Out (SIPO), Parallel In Serial Out (PISO), Parallel In Parallel Out (PIPO), Universal Shift Register.Assignment-2	1st April-30th April
4.	Counters and Memory: Asynchronous counters, Synchronous counters, ring counter, ripple counter, Johnson counter Memories: Basic terms and ideas, Magnetic Memory, Optical Memory, Memory Addressing, ROMs, PROMs, and EPROMs, RAMs.	1st May-14th May

TENTATIVE LESSON PLAN (EVEN SEMESTER)

SESSION: 2023-24

Name of the Teacher: SEEMA RANI   Department: Computer Science

Subject/Course: RDBMS   Programme:BSC NM

Semester: 6TH

Unit	Name of Topic/Contents	Tentative Dates/Days
1	Relational Model Concepts, Codd's Rules for Relational Model, Hierarchical Data Model– Introduction, Features, Components, Example, Network Data Model– Introduction, Features, Components, Example, Differences between Hierarchical Data Model and Network Data Model Comparison of Relational Data Model with Hierarchical Data Model and Network Data Model Relational Algebra:-Selection and Projection, Set Operation, Join and Division. Relational Calculus: Tuple	31st Jan-29Feb
2	Relational Calculus and Domain Relational Calculus. Functional Dependencies and Normalization – Purpose, Data Redundancy, Update Anomalies, Partial/Fully Functional Dependencies, Transitive Functional Dependencies, Characteristics of Functional Dependencies. Assignment-1, Test	1st March-31st March
3	Decomposition and Normal Forms (1NF, 2NF, 3NF & BCNF). SQL: Data Definition and data types, Create Table, Insert Data, Viewing Data, Filtering Table Data, Sorting data, Creating Table from a Table, Destroy table, Update, View, Delete, Join, Concatenating data from Table Specifying Constraints in SQL; Primary Key, Foreign Key, Unique Key, Check Constraint, Using Functions. Assignment-II	1st April-30th April
4	PL/SQL-Introduction, Advantages of PL/SQL, The Generic PL/SQL Block: PL/SQL Execution Environment; PL/SQL Character Set and Data Types, Declaration and Assignment of Variables, Control Structure in PL/SQL: Conditional Control, Iterative Control, Sequential Control.	1st May-14th May

TENTATIVE LESSON PLAN (EVEN SEMESTER)

SESSION: 2023-24

Name of the Teacher: SEEMA RANI   Department: Computer Science

Subject/Course: Computer Networks   Programme: BSC NM

Semester: 6TH

Unit	Name of Topic/Contents	Tentative Dates/Days
1	Introduction to Data Communication and Computer Networks; Uses of Computer Networks; Types of Computer Networks and their Topologies; Network Hardware Components: Connectors, Transceivers, Repeaters, Hubs, Network Interface Cards and PC Cards, Bridges, Switches, Routers, Gateways; Network Software: Network Design issues and Protocols; Connection-Oriented and Connectionless Services;	31st Jan-29Feb
2	OSI Reference Model; TCP/IP Model; Analog and Digital Communications Concepts: Analog and Digital data and signals; Bandwidth and Data Rate, Capacity, Baud Rate; Guided and Wireless Transmission Media; Data Link Layer Design issues; Error Detection and Correction methods; Sliding Window Protocols: One-bit, Go Back N and Selective Repeat Assignment-1, Test	1st March-31st March
3	Media Access Control: ALOHA, Slotted ALOHA, CSMA, Collision free protocols; Introduction to LAN technologies: Ethernet, Switched Ethernet, Fast Ethernet, Gigabit Ethernet; Token Ring; Introduction to Wireless LANs and Bluetooth; Routing Algorithms: Flooding, Shortest Path Routing, Distance Vector Routing; Link State Routing, Hierarchical Routing; Assignment-II	1st April-30th April
4	Congestion Control; Traffic shaping; Choke packets; Load shedding; Application Layer: Introduction to DNS, E-Mail and WWW services; Network Security Issues: Security attacks; Encryption methods; Firewalls; Digital Signatures.	1st May-14th May

TENTATIVE LESSON PLAN (EVEN SEMESTER)

SESSION: 2023-24

Name of the Teacher: SEEMA RANI   Department: Computer Science

Subject/Course: Software Lab VII   Programme: BCA

Semester: 4TH

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Introduction Program-1 Program-2 Program-3 Program-4	1st Feb-29Feb
2.	Program-5 Program-6 Program-7 Program-8 Program-9 Assignment-1 Practical Test	1st March-31st March
3.	Program-10 Program-11 Program-12 Program-13 Assignment-2	1st April-30th April
4.	Program-14 Program-15 Practical & Viva	1st May-14th May

TENTATIVE LESSON PLAN (EVEN SEMESTER)

SESSION: 2023-24

Name of the Teacher: SEEMA RANI   Department: Computer Science

Subject/Course: PROJECT   Programme: BCA

Semester: 6th

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Topic of Project and Preparation of Project Synopsis	1st Feb-29Feb
2.	Synopsis submission and Progress Report 1 preparation	1st March-31st March
3.	Progress Report 2 preparation	1st April-30th April
4.	Project preparation and final submission	1st May-14th May

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher: SUMAN　　　　　　　　　*Department: Computer Science*

Subject/Course:　　**INTERNET & COMMUNICATION NETWORKS**　　　*Program:*
PGDCA

Semester: 2nd

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*Introduction to Computer Networks and its uses, Network categorization and Hardware: Broadcast and point-to-point networks, LAN, MAN, WAN,*	*31st Jan-29Feb*
2.	*Internetworks, Topologies, Wireless networks, Network Software: Protocols, Services, network architecture, design issues, OSI Reference model, TCP/IP Reference model, Internetwork to Example Assignment-1, Test*	*1st March-31st March*
3.	*Networks: Internet, Connection-Oriented Networks – X.25, Frame Relay, ATM, Data Communication Model, Digital and Analog data and signals, Bit rate, Baud, Bandwidth, Guided Transmission Media : Twisted Pair, Coaxial cable, Optical fiber; Wireless transmission : Radio waves, microwaves, infrared waves; satellite communication. Switching: Circuit Switching, Packet Switching; Multiplexing: Frequency Division Multiplexing Time Division Multiplexing .Assignment-2*	*1st April-30th April*
4.	*Data Link Layer Design issues: Framing, error control, Flow Control, Error Detection and correction; Elementary Data Link Protocols, Sliding Window Protocols; Medium Access Control: Aloha, CSMA protocols, Collision free protocols, Limited Contention Protocols; Wavelength division Multiple access protocol, Wireless LAN Protocol: MACA; IEEE 802.3 Ethernet, IEEE 802.4 Token Bus; IEEE 802.5 Token ring, Digital Cellular, Radio: GSM, CDMA, FDDI*	*1st May-14th May*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher: SUMAN   *Department: Computer Science*

Subject/Course: DIGITAL TOOLS   *Program : BA2nd Sem*

Semester: 2nd

Unit	Name of Topic/Contents	Tentative Dates/Days
1	Introduction to internet: concept, application and uses of Internet, Internet services, search engines. Information Technology and Business: concepts of data, information and information system, effects of IT on business	31st Jan-29Feb
2	Types of information system: Transaction Processing System (TPS), Management Information System (MIS). Introduction to E-commerce; e-commerce and world wide web; e-commerce application services; Assignment-1, Test	1st March-31st March
3	Ecommerce models: B2B, B2C, C2C; electronic data interchange: benefits, components of EDI, EDI Implementation.	1st April-30th April
4	Security issues in e-commerce, M-commerce and e-governance, difference m-commerce and e-commerce, RIVISION	1st May-14th May

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher: SUMAN   *Department: Computer Science*

Subject/Course: Adv. Discrete Structure Lab   *Programme: BCA*

Semester: 2nd

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Introduction Discrete structure Program-1 Program-2 Program-3 Program-4 Program-5	1st Feb-29Feb
2.	Program-6 Program-7 Program-8 Program-9 Practical File Checking	1st March-31st March
3.	Program-10 Program-11 Program-12 Program-13 Program-14	1st April-30th April
4.	Program-15 Program-16 Practical File Checking	1st May-14th May

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher: SUMAN   *Department: Computer Science*

Subject/Course: PROJECT   *Programme: BCA*

Semester: 6th

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Topic of Project and Preparation of Project synopsis	1st Feb-29Feb
2.	Synopsis submission and Progress report 1 preparation	1st March-31st March
3.	Progress report 2 preparation	1st April-30th April
4.	Project preparation and final submission	1st May-14th May

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher: Pushpa Rani   Department: Computer Science

Subject/Course: Web Designing   Programme: PGDCA

Semester: 2nd

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	The Internet and its Advantages disadvantages, Basic Internet Protocols, World Wide Web, URL, Web Page, Web Browser, Web Servers, Client-Server model, FTP, Telnet, Search Engine. Mark Up Languages: Introduction to HyperText Markup Language (HTML), Elements, Lists, Tables, Linking documents, Frames, Forms, Creating HTML pages.	31st Jan-29Feb
2.	Cascading Style Sheets: Features, Core Syntax, Types, Style Sheets and HTML, StyleRules -Cascading and Inheritance, Text Properties, CSS Box Model, Normal Flow, Box Layout, Positioning and other useful-Style Properties.Assignment-1, Test	1st March-31st March
3.	Introduction to JavaScript, Perspective, Basic Syntax, Data Types, Variables Statements, Operators, Literals, Control statements, Functions, Arrays, Document Object Model, Built-in Objects.Assignment-2	1st April-30th April
4.	Relation between XML, HTML, SGML, Goals of XML, Structure and Syntax of XML, Well Formed XML, DTD and its Structure, Namespaces and Data Typing in XML, Transforming XML Documents. XPATH	1st May-14th May

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher: Pushpa Rani   Department: Computer Science

Subject/Course: Computer Networks   Programme: BCA

Semester: 4th

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Introduction to Computer Networks and its uses, Network categorization and Hardware: Broadcast and point-to-point networks, LAN, MAN, WAN, Internetworks, Topologies, Wireless networks, Network Software: Protocols, Services, network architecture, design issues, OSI Reference model, TCP/IP Reference model, Introduction to Example Networks: Internet, Connection-Oriented Networks – X.25, Frame Relay, ATM	31st Jan-29Feb
2.	Data Communication Model, Digital and Analog data and signals, Bit rate, Baud, Bandwidth, Guided Transmission Media : Twisted Pair, Coaxial cable, Optical fiber; Wireless transmission : Radio waves, microwaves, infrared waves; satellite communication. Switching: Circuit Switching, Packet Switching; Multiplexing: Frequency Division Multiplexing Time Division Multiplexing. Assignment-1, Test	1st March-31st March
3.	Data Link Layer Design issues: Framing, error control, Flow Control, Error Detection and correction; Elementary Data Link Protocols, Sliding Window Protocols; Medium Access Control: Aloha, CSMA protocols, Collision free protocols, Limited Contention Protocols; Wavelength division Multiple access protocol, Wireless LAN Protocol: MACA; IEEE 802.3 Ethernet, IEEE 802.4 Token Bus; IEEE 802.5 Token ring, Digital Cellular, Radio: GSM, CDMA, FDDI. Assignment-2.	1st April-30th April
4.	Network Layer, Design issues, Virtual Circuit and Datagram Subnet, Routing Algorithms, Optimality principle, Shortest path Routing, Flooding , Distance Vector Routing, Link State Routing, Hierarchical Routing, Broadcast and Multi Cast Routing, Routing for Mobile hosts, Routing in Adhoc Networks, Leaky bucket token bucket, choke packets, Load Shedding	1st May-14th May

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher: Pushpa Rani   *Department: Computer Science*

Subject/Course: Computer Networks   *Programme: BCA*

Semester: 4th

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	*Introduction of HTML. Program-1* *Program-2* *Program-3* *Program-4* *Program-5*	*1st Feb-29Feb*
2.	*Program-6* *Program-7* *Program-8* *Program-9* *Practical File Checking*	*1st March-31st March*
3.	*Program-10* *Program-11* *Program-12* *Program-13* *Program-14*	*1st April-30th April*
4.	*Program-15* *Program-16* *Practical File Checking*	*1st May-14th May*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher: Anjana Dhawan

Department: Computer Science

Subject/Course: Internet Technology

Programme: BCA4th Sem

Semester: 2nd

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Introduction to ASP.NET: .NET Frame work (CLR,CLI, BCL), ASP.NET Basics, ASP.NET Page Structure, Page Life Cycle.	31st Jan-29Feb
2.	Controls: HTML Server Controls, Web Server Controls, Web User Controls, Validation Controls, Custom Web Controls .View State, Control State, Hidden Fields, Cookies, Query Strings Assignment -1,Test	1st March-31st March
3.	Master Pages, Themes, Site Navigation. Security and User Authentication: Basic Security Guidelines, Securing ASP.NET Applications, ASP.NET Memberships and Roles Introduction to ADO.NET, Data Binding, Importing the SQL Client Namespace, Defining the Database Connection, Managing Content Using Grid View and Details View.Assignment -2	1st April-30th April
4.	Working with Files and Email: Writing and Reading Text Files, Uploading Files, Sending Email with ASP.NET. Introduction to Web Services, Ajax, Silverlight	1st May-14th May

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher: Anjana Dhawan   *Department: Computer Science*

Subject/Course: Advance C   *Programme: PGDCA*

Semester: 4th

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	*User Defined Functions: Definition of Function, function prototype, Function Calls, Function declaration, Category of Functions, Nesting of functions, Recursion, passing array to functions, passing strings to function, The scope, visibility and lifetime of variables.*	*31ˢᵗ Jan-29Feb*
2.	*Pointers: accessing the address of a variable, declaring and initialization of a pointer variable, accessing a variable through its pointer, chain of pointers, Pointer arithmetic, relationship between Pointers and arrays, pointers and character strings, pointers and structures, array of pointers, pointer as function argument, Dynamic memory allocation: malloc(), calloc(), realloc() and free( ) function, Sizeof() operator.. Assignment-1, Test*	*1ˢᵗ March-31ˢᵗ March*
3.	*File Handling: File structure, File types, Streams, Text, Binary, The file pointer, Opening a file, Closing a file, reading and writing a character, File handling function: fopen(), getc(), putc(), fclose(), feof() function. Working with string fputs() and fgets(), Standard streams in C, Using fread() and fwrite(), fprintf() and fscanf(),Flushing a stream, Direct access file, fseek() and random access to file. Assignment-2.*	*1ˢᵗ April-30ᵗʰ April*
4.	*Preprocessor: preprocessor directives, macro substitution (#define), macro with arguments, File inclusion (#include), creating header files, include user defined header files. Conditional compilation directives: # if, #else, #elif, #ifdef, #ifndef, #endif, #error, #pragma, stringizingoperator(#), token pasting operator (##)Test and Revision*	*1ˢᵗ May-14ᵗʰ May*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher: Anjana Dhawan   Department: Computer Science

Subject/Course:Advance C   Programme: PGDCA

Semester: 4th

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Introduction of Advance c Program-2 Program-3 Program-4 Program-5	1st Feb-29Feb
2.	Program-6 Program-7 Program-8 Program-9 Practical File Checking	1st March-31st March
3.	Program-10 Program-11 Program-12 Program-13 Program-14	1st April-30th April
4.	Program-15 Program-16 Practical File Checking	1st May-14th May

NAME OF FACULTY: Mrs Anu
Department: Computer Science

Subject: Problem solving using C
Class: BSC 2nd Sem
Assignment & Midterm Test: Last Week of March

Unit	Name of topic / contents	Tentative Dates/Days
1	Overview of C: History, Importance,Structure of C Program, Character Set, Constants and Variables, Identifiers and Keywords, Data Types, Assignment Statement, Symbolic Constant. Input/output: Formatted I/O Function-, Input Functions viz. scanf(), getch(), getche(), getchar(), gets(),	**January &February**
2	Output functions viz. printf(), putch(), putchar(), puts().Operators & Expression: Arithmetic, Relational, Logical, Bitwise, Unary, Assignment, Conditional Operators and Special Operators Operator Hierarchy;.Arithmetic Expressions, Evaluation of Arithmetic Expression, Type Casting and Conversion. Decision making with if statement, if-else statement, nested if statement, else-if ladder, switch and break statement, goto statement	**March**
3	Looping Statements: for, while, and do-while loop, jumps in loops. Arrays: One Dimensional arrays - Declaration, Initialization and Memory representation; Two Dimensional arrays -Declaration, Initialization and Memory representation. Functions: definition, prototype, function call, passing arguments to a function: call by value; call by reference, recursive functions, . Strings: Declaration and Initialization, String I/O, Array of Strings,	**April**
4	String Manipulation Functions: String Length, Copy, Compare, Concatenate etc., Search for a Substring.User defined data types: Structures - Definition, Advantages of Structure, declaring structure variables, accessing structure members, Structure members initialization, Array of Structures; Unions – Union definition; difference between Structure and Union.	**May**
	Subject: Operating system **Class: PGDCA 2nd Sem** **Assignment & Midterm Test: Last Week of March**	
Unit	Name of topic / contents	Tentative Dates/Days

1	**Introduction and process management Concepts**: Operating System Services, System Calls, System Programs. Process Management: Process Concepts, Operations on Processes, Process States and Process Control Block. Inter-ProcessCommunication. Scheduling Criteria, Levels of Scheduling, Scheduling Algorithms,	**January &February**
2	**Concurrent Processes**/Synchronization: Critical Section Problem, Semaphores, Classical Process Co-ordination Problems and their Solutions, Monitors, Synchronization Examples. Deadlocks: Deadlock Characterization, Deadlock Prevention and Avoidance, Deadlock detection and Recovery.	**March**
3	**Memory Management Strategies:**Swapping, Paging, Segmentation, Virtual Memory Concepts: Demand Paging, Page Replacement Algorithms, Thrashing, Storage Management: File Concepts, File Access and Allocation Methods.	**April**
4	**Secondary Storage :**Disk Structure, Disk Scheduling algorithm: FCFS, SSTF, SCAN, LOOK, C-SCAN, C-LOOK. Protection & Security: Goals & Principles of Protection, Domains of Protection, Access Matrix, Access Controls. Security: Security problem, Threats, Security tools, Classification.	**May**
	Subject: word processing **Class: BSC 2nd Sem** **Assignment & Midterm Test: Last Week of March**	
Unit	Name of topic / contents	Tentative Dates/Days
1	introduction to word processing, development of word processor, design consideration for word processed documents, creating , opening and closing documents working with multiple documents, saving documents, save an existing file under another name, save different version	**January &February**
2	formatting documents, text formatting, paragraph formatting, text aligment, tabs and its types, placing text at the tab position, paragraph spacing, working with list , paragraph border and shading, creating and applying styles	**March**
3	adding tables, adding data to a table, deleting a table, add and delete columns and rows, modifying columns and rows, images, inserting	**April**

	images, modifying images,resize an image and chart	
4	Mailmerge preparing the documents, creating the main documents, creating the data source, document formating	**May**
	Class: BSC 2nd Sem Voice Viva: Last Week of April	
	1. Program 1 2. Program 2 3. Program 3 4. Program 4	**January &February**
	5. Program 5 6. Program 6 7. Program 7 8. Program 8	**March**
	9. Program 9 10. Program 10 11. Program 11 12. Program 12	**April**
	13. Program 13 14. Program 14 15. Program 15	**May**
	Class: BSC 2nd Sem Subject: problem solving through C Voice Viva: Last Week of April	
	1. Program 1 2. Program 2 3. Program 3 4. Program 4	**January &February**
	5. Program 5 6. Program 6 7. Program 7 8. Program 8	**March**
	9. Program 9 10. Program 10 11. Program 11 12. Program 12	**April**
	13. Program 13 14. Program 14 15. Program 15	**May**

TENTATIVE LESSON PLAN (EVEN SEMESTERS)

SESSION: 2023-24

Name of the Teacher: Manoj Chahal   Department: Computer Science

Subject/Course: Client Side Scripting   Programme: Bachelor of
computer Science

Semester: 4th

Unit	Name of Topic/Contents	Tentative Dates/Days
5.	*Introduction to scripting: overview of Java Script, advantages, client side java Script, capturing user input, writing JavaScript into HTML Basic JavaScript Techniques: Data types, literals, variables and operators, Java Script arrays, dense array, operators, expressions*	*31 Jan to 29 Feb 2024*
6.	*Java Script Programming Construct: Assignment, data declaration, if, switch, while, for, do while, label, break, Continue, function call, return, with, delete, method invocation. JavaScript Functions: Types of functions in Java Script-Built in functions, User defined functions, function declaration, passing parameters, variable scope, return values, recursive functions.*	*1 March to 31 March*
7.	*Dialog boxes: Alert dialog box, prompt dialog box, confirm dialog box, window objects JavaScript Document Object Model: Understanding JDOM* Forms: Form object, properties and methods , elements: text, password, button, submit, reset, checkbox, Radio, Text Area, select & option, Other built-in Object-String object, math object, date object	*1 April to 30 April*
8.	*User defined objects: creation, instances, and objects within objects Cookies:* *Concept of cookies, setting a cookie, supply values to cookies. Errors and* *Debugging: Error, Error Handling and Debugging*	*1 May to 15 May(or up to examination)*

*1st Assignment first week of march

* Unit Test last week of march

*2nd Assignment second week of April

TENTATIVE LESSON PLAN (EVEN SEMESTERS)

SESSION: 2023-24

Name of the Teacher: Manoj Chahal   Department: Computer Science

Subject/Course: Programming with java   Programme: Bachelor of
computer Science

Semester: 4th

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Introduction: Java Features, Java Virtual Machine(JVM), Byte code, Java API, Java Development Kit (JDK), Garbage Collection. 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, Constructors, Methods Overloading, Wrapper Classes, Inheritance, Methods Overriding, Final Class, variables and methods, Abstract Class and Methods, Interfaces.	31 Jan to 29 Feb 2024
2.	Arrays, Strings and Vectors: Creating and using Arrays, String operations, String Buffer, String Builder, and StringTokenizer class, Vector class. 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.	1 March to 31 March
3.	Multithreaded Programming: Single threaded and multi-threaded program, Creating threads using Thread class, Life cycle of a Thread, Stopping and blocking a Tread, getting and setting the Thread Priority, Synchronization, implementing the Runnable interface. Managing Input/Output Streams: Concept of streams, Byte and Character streams, Reading and Writing from Console and Files. Input output exceptions.	1 April to 30 April
4.	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. GUI Programming: Working with Frame Window, Graphics and Text, AWT Controls and classes.	1 May to 15 May(or up to examination)

 *1st Assignment first week of march

* Unit Test last week of march

*2nd Assignment second week of April

TENTATIVE LESSON PLAN (EVEN SEMESTERS)

SESSION: 2023-24

Name of the Teacher: Manoj Chahal   *Department: Computer Science*

Subject/Course: Advanced Discrete Structures   *Programme: Bachelor of computer Science*

Semester:4th

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	*Programming Languages: Introduction to Programming Languages, Evolution of Programming Languages, Language Paradigms, Syntax and Semantics, Names Bindings and Scopes, Data Types, Expressions and Assignment Statements, Statement Level Control Structure, Strong and Weak Typing,Subprograms, Programs.*	*31 Jan to 29 Feb 2024*
2.	*Relations, Partial Ordered Relation, Well Ordered Relation, Hasse Diagram, Lattices, Lattice Points, 2-D Lattice, 3-D Lattice, Properties of Lattices, Distributive Lattice, Complemented Lattice, Symmetric Lattice, Asymmetric Lattice.*	*1 March to 31 March*
3.	*Boolean Algebra:Lattices as Boolean Algebra, Boolean Laws, Boolean Theorems and proofs, Logic Gates, Logic Circuits, Switching Circuits.*	*1 April to 30 April*
4.	*Fuzzy Logic: Introduction to fuzzy Logic, Classical and Fuzzy Sets,Overview of Classical Sets, Membership Function, Fuzzy Rulegeneration. Operations on Fuzzy Sets: Compliment, Intersection, Union,Combination of Operations, Aggregation Operation. Fuzzy Arithmetic: Fuzzy Numbers, Linguistic Variables, Arithmetic Operations on Intervals & Numbers*	*1 May to 15 May(or up to examination)*

*1st Assignment first week of march

* Unit Test last week of march

*2nd Assignment second week of April

TENTATIVE LESSON PLAN (EVEN SEMESTERS)

SESSION: 2023-24

Name of the Teacher: Manoj Chahal   Department: Computer Science

Subject/Course: Software lab-VIII   Programme: Bachelor
of computer Science

Semester:4th

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	• Introduction • Program 1 • Program 2 • Program 3 • Program4	31 Jan to 29 Feb 2024
2.	• Program 5 • Program 6 • Program 7 • Program 8 • Program 9	1 March to 31 March
3.	• Program 10 • Program 11 • Program 12 • Program 13	1 April to 30 April
4.	• Program 14 • Program 15 • Practical & Viva	1 May to 15 May(or up to examination)

*1st Assignment first week of march

* Practical Test last week of march

*2nd Assignment second week of April

TENTATIVE LESSON PLAN (EVEN SEMESTERS)

SESSION: 2023-24

Name of the Teacher: Manoj Chahal   *Department: Computer Science*

Subject/Course: ComputerScience lab Programme: Bachelor of Science(Computer Science)

Semester6th

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	• *Introduction* • *Program 1* • *Program 2* • *Program 3* • *Program4*	*31 Jan to 29 Feb 2024*
2.	• *Program 5* • *Program 6* • *Program 7* • *Program 8* • *Program 9*	*1 March to 31 March*
3.	• *Program 10* • *Program 11* • *Program 12* • *Program 13*	*1 April to 30 April*
4.	• *Program 14* • *Program 15* • *Practical & Viva*	*1 May to 15 May(or up to examination)*

TENTATIVE LESSON PLAN (SEMESTERS)
SESSION: 2023-24
EVEN SEMESTER

Name of the Teacher:: Ms. Poonam (Extension Lecturer)   *Department:*: Computer Science

*Subject/Course:*Object Oriented Programming using C++   *Programme:* BCA

Semester: 2ND SEM

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Introduction to C++: About C++, Character Set, Keywords, Identifiers, Constants, Punctuators, Date Types: User-Defined, Built-in, Derived Data Types, Access Modifiers.Unformatted and Formatted I/O Operations. I/O using extraction and extraction operators, Type Conversion, Type Casting. Operators in C++: Arithmetic, Relational, Logical, Bitwise, Ternary, Precedence & associativity of Operators	*31 Jan 2024 1-29 Feb 2024*
2.	Control Structures: if statement, if-else statement, nested if, if-else-if ladder, switch...case statement, break and continue, goto statement, nested switch...case statement, Loops: while loop, do...while loop, for loop. Arrays and strings: Array definition, initialization multidimensional arrays, Manipulation of array elements, String declaration and initialization, Manipulations, String handing functions.	*1-31 March 2024*
3.	Functions: Declaration and Definition, return values, arguments, passing parameters by value, call by reference, call by pointer, Recursions, Inline and external linkage Functions, storage classes. Object-Oriented Features of C++: Class and Objects, Data hiding & encapsulation, abstraction, constructors &destructors. Data Members and Member Functions, accessing class members, empty class, local class, global class, Scope Resolution Operator and its Uses, Static Data Members, Static Member Functions, Structure vs Class.	*1-30 April 2024*
4.	Object Initialization and Cleanup: Constructors, types of constructors, destructors, constant objects and constructors. Friend Function & Class: defining friend function and friend class, defining member function of a class as friend function. Exception Handling in C++: exception handling model, exception handling constructs - try, throw, catch, Order of catch blocks, Catching all exceptions, Nested try blocks, handling uncaught exceptions, unexpected(), terminate() and standard exceptions.	*1-15 May 2024*

Name of the Teacher:: Ms. Poonam (Extension Lecturer)   *Department::* Computer Science

Subject/Course: Introduction to Web Technologies   *Programme:* BCA

Semester: 2ND SEM

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Introduction to Internet and World Wide Web (WWW); Evolution and History of World Wide Web, Web Pages and Contents, Web Clients, Web Servers, Web Browsers; Hypertext Transfer Protocol, URLs; Searching, Search Engines and Search Tools. Web Publishing: Hosting website; Internet Service Provider; Planning and designing website; Web Graphics Design, Steps For Developing website	*31 Jan 2024 1-29 Feb 2024*
2.	Creating a Website and Introduction to Mark up Languages (HTML and DHTML), HTML Document Features& Fundamentals, HTML Elements, Creating Links; Headers; Text styles; Text Structuring; Text color 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, HTML5	*1-31 March 2024*
3.	Introduction to CSS (Cascading Style Sheets): Features, Core Syntax, Types, Style Sheets and HTML, Style Rule Cascading and Inheritance, Text Properties, CSS Box Model, Normal Flow Box Layout, Positioning and other useful Style Properties; Features of CSS3.	*1-30 April 2024*
4.	The Nature of JavaScript: Evolution of Scripting Languages, JavaScript-Definition, Programming for Non-Programmers, Introduction to Client–Side Programming, Enhancing HTML Documents with JavaScript. Static and Dynamic web Pages	*1-15 May 2024*

Name of the Teacher: Ms. Poonam (Extension Lecturer) *Department:* Computer Science

Subject/Course: Concepts of Operating Systems   *Programme:* BCA

Semester: 2^(ND) SEM

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Introductory Concepts: Operating System, Functions and Characteristics, Historical Evolution of Operating Systems, Operating System Structure. Types of Operating System: Real time, Multiprogramming, Multiprocessing, Batch processing. Operating System Services, Operating System Interface, Service System Calls, System Programs. Process Management: Process Concepts, Operations on Processes, Process States and Process Control Block. Inter-Process Communication.	*31 Jan 2024 1-29 Feb 2024*
2.	CPU Scheduling: Scheduling Criteria, Levels of Scheduling, Scheduling Algorithms, Multiple Processor Scheduling, Algorithm Evaluation. Synchronization: Critical Section Problem, Semaphores, Classical Problem of Synchronization, Monitors. Deadlocks: Deadlock Characterization, Methods for Handling Deadlocks, Deadlock Prevention, Deadlock Avoidance, Deadlock Detection and Recovery.	*1-31 March 2024*
3.	Memory Management Strategies: Memory Management of Single-User and Multiuser Operating System, Partitioning, Swapping, Contiguous Memory Allocation, Paging and Segmentation; Virtual Memory Management: Demand Paging, Page Replacement Algorithms, Thrashing.	*1-30 April 2024*
4.	Implementing File System: File System Structure, File System Implantation, file operations, Type of Files, Directory Implementation, Allocation Methods, and Free Space Management. Disk Scheduling algorithm- SSTF, Scan, C- Scan, Look, C-Look. SSD Management.	*1-15 May 2024*

Name of the Teacher:: Ms. Poonam (Extension Lecturer)   *Department:* Computer Science

Subject/Course LABObject Oriented Programming using C++

Programme: BCA

Semester: 2ND SEM

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	• WAP to Introduce the concept of Class and Object by performing Addition/ Subtraction/ Difference and Multiplication. • Write a C++ program to print the following lines: Your introduction, Your institute introduction • WAP which accept principle, rate and time from user and print the simple interest. • WAP to swap the values of two variables.	31 Jan 2024 1-29 Feb 2024
2.	• WAP to prompt the user to input 3 integer values and print these in forward and reversed order. • WAP to accept and display distance in feet and inches. • WAP to swap the values of two variables without using third variable. • WAP to introduce the concept of Function inside the Class and Outside the class by performing Addition/ Subtraction/ Difference and Multiplication. • WAP to swap the values of two variables using function with Call by reference.	1-31 March 2024
3.	• WAP to find factorial of a Number using Recursive Function. • WAP for INLINE function. • WAP to define the Constructor and Destructor.	1-30 April 2024
4.	• WAP to define Friend Class. • WAP to define Friend Function. • WAP to define try, throw, catch	1-15 Mayl 2024

Name of the Teacher:: Ms. Poonam (Extension Lecturer)   *Department::* Computer Science

Subject/Course: LAB Introduction to Web Technologies   *Programme:* BCA

Semester: 2ND SEM

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	• Create a web page using ordered list and unordered list. • Design a web page to show your institute with hyperlink. • Create your resume on HTML page. • Create a web page divide the web page into four frames. In one frame create three links that will display different HTML forms in the remaining three frames respectively.	*31 Jan 2024* *1-29 Feb 2024*
2.	• Create a web page to show record of the college in form of table. • Write a html code to add internal CSS on a webpage • Design a blog style personal website. • Design a web page to display your college with hyperlink. • Write a JavaScript function to calculate the sum of two numbers. • Write a JavaScript program to find the maximum number in an array.	*1-31 March 2024*
3.	• Write a JavaScript function to check if a given string is a palindrome (reads the same forwards and backwards). • Write a CSS file and attached to any 3 HTML webpages. • Use Div and span in a page and color two words with same colors.	*1-30 April 2024*

4.	• Using HTML, CSS create a styled checkbox with animation on state change
	• Design a web page which is like compose page of e-mail. It should have:
	  • Text boxes for To, CC, BCC respectively.
	  • Text field for message.
	  • Send button.
	  • Option for selecting a file for attachment
		1-15 Mayl 2024

Name of the Teacher:: Ms. Poonam (Extension Lecturer)   *Department::*
Computer Science

*Subject/Course:*LAB Concepts of Operating Systems   *Programme:* BCA

Semester: 2ND SEM

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	• Program 1 • Program 2 • Program 3 • Program 4	31 Jan 2024 1-29 Feb 2024
2.	• Program 5 • Program 6 • Program 7 • Program 8 • Program 9 • Program 10	1-31 March 2024
3.	• Program 11 • Program 12 • Program 13	1-30 April 2024
4.	• Program 14 • Program 15	1-15 Mayl 2024

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher: Sharmila Devi   *Department: Computer Science*

Subject/Course: Object Oriented Programming with C++   *Programme: BSc.Non Med.*

Semester: 4ᵗʰSem

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Object oriented Programming: Object-Oriented programming features and benefits. Object-Oriented features of C++, Class and Objects, Data Hiding & Encapsulation, Structures, Data members and Member functions, Scope resolution operator and its significance, Static Data Members, Static member functions, Nested and Local Class, Accessing Members of Class and Structure.	31ˢᵗ Jan-29Feb
2.	Constructor, Initialization using constructor, types of constructor–Default, Parameterized & Copy Constructors, Constructor overloading, Default Values to Parameters, Destructors, Console I/O: Hierarchy of Console Stream Classes, Unformatted and Formatted I/O Operations.	1ˢᵗ March-31ˢᵗ March
3.	Manipulators, Friend Function, Friend Class, Arrays, Array of Objects, Passing and Returning Objects to Functions, String Handling in C++, Dynamic Memory Management: Pointers, new and delete Operator, Array of Pointers to Objects, this Pointer, Passing Parameters to Functions by Reference & pointers.	1ˢᵗ April-30ᵗʰ April
4.	Static Polymorphism: Operators in C++, Precedence and Associatively Rules, Operator Overloading, Unary & Binary Operators Overloading, Function Overloading, Inline Functions, Merits/Demerits of Static Polymorphism	1ˢᵗ May-14ᵗʰ May

*1ˢᵗ Assignment: First week of March

* Unit Test: Last week of March

*2ⁿᵈ Assignment: First week of April

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher: Sharmila Devi   *Department: Computer Science*

Subject/Course: Operating System   *Programme: BSc.Non Med.*

Semester: 4th Sem

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Introduction: operating system, architecture, functions, characteristics, historical evolution, types: Serial batch, multiprogramming, time sharing, real time, distributed and parallel. OS as resource Manager. Computer system structures: I/O structure, storage structure, storage hierarchy. Operating system structure: system components, services, system calls, system programs, system structures.	31st Jan-29Feb
2.	Process management: process concepts, process state, process control block, operations, process scheduling, inter process communication. CPU Scheduling: scheduling criteria, levels of scheduling, scheduling algorithms, multiple processor scheduling. Deadlocks: Characterization, methods of handling, deadlock detection, prevention, avoidance, recovery.	1st March-31st March
3.	Storage Management: memory management of single-user and multiuser operating system, partitioning, swapping, paging and segmentation, virtual memory, Page replacement Algorithms, Thrashing. Process synchronization: critical section problems, semaphores. Mutual exclusion.	1st April-30th April
4.	Device and file management: Disk scheduling, Disk structure, Disk management, File Systems: Functions of the system, File access and allocation methods, Directory Systems: Structured Organizations, directory and file protection mechanisms.	1st May-14th May

1st Assignment: First week of March

* Unit Test: Last week of March*

2nd Assignment: First week of April

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher: Sharmila Devi   *Department: Computer Science*

Subject/Course: Adv. Discrete Structure Lab   *Programme: BCA*

Semester: 2nd

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Program-1 Program-2 Program-3 Program-4 Program-5	*1st Feb-29Feb*
2.	Program-6 Program-7 Program-8 Program-9 Practical File Checking	*1st March-31st March*
3.	Program-10 Program-11 Program-12 Program-13	*1st April-30th April*
4.	Program-14 Program-15 Practical File Checking	*1st May-14th May*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher: Sharmila Devi   *Department: Computer Science*

Subject/Course: C++ Lab   *Programme:BSc NM*

Semester: 4th

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Program-1 Program-2 Program-3 Program-4 Program-5	1st Feb-29Feb
2.	Program-6 Program-7 Program-8 Program-9 Practical File Checking	1st March-31st March
3.	Program-10 Program-11 Program-12 Program-13	1st April-30th April
4.	Program-14 Program-15 Practical File Checking	1st May-14th May

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher: **Kamlesh**   *Department: Computer Science*

Subject/Course: **ARTIFICIAL INTELLIGENCE**   *Program:* **BCA**

Semester: 4TH

<u>Unit</u>	<u>Name of Topic/Contents</u>	<u>Tentative Dates/Days</u>
1.	*Introduction to artificial intelligenceIntroduction: Background, Overview of AI applications, The predicate calculus: Syntax and semantic for propositional logic and FOPL, Clausal form, inference rules, resolution and unification.* *Knowledge representation: Network representation through Associative network*	*31st Jan-29Feb*
2.	*Search strategies: Strategies for state space search-data driven and goal driven search; Search algorithms- uninformed search (Depth first search, Breadth first search) and informed search (Hill climbing, Best first, A* algorithm, mini-max), computational complexity,* *Properties of search algorithms (Admissibility, Monotonicity.* *ASSIGNMENT -1*	*1st March-31st March*
3.	*Production system: Definition, Types of production system (Commutative, Non-commutative, Decomposable, Non-decomposable), Control of search in production systems. Expert System:* *Definition, Concept, Types of expert system, Rule based expert system: Architecture* *ASSIGNMENT -2 AND MID TERM TEST*	*1st April-30th April*
4.	*Definition, Concept, Types of expert system, Rule based expert system: Architecture,* *Development, Managing uncertainty in expert systems - Bayesian probability theory.*	*1st May-14th May*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher KAMLESH   *Department: Computer Science*

Subject/Course: DIGITAL TOOLS   *Program : BA2nd Sem*

Semester: 2nd

Unit	Name of Topic/Contents	Tentative Dates/Days
1	Introduction to internet: concept, application and uses of Internet, Internet services, search engines. Information Technology and Business: concepts of data, information and information system, effects of IT on business	31st Jan-29Feb
2	Types of information system: Transaction Processing System (TPS), Management Information System (MIS). Introduction to E-commerce; e-commerce and world wide web; e-commerce application services; Assignment-1, Test	1st March-31st March
3	Ecommerce models: B2B, B2C, C2C; electronic data interchange: benefits, components of EDI, EDI Implementation. *ASSIGNMENT -2*	1st April-30th April
4	Security issues in e-commerce, M-commerce and e-governance, difference m-commerce and e-commerce, RIVISION	1st May-14th May

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher: KAMLESH   *Department: Computer Science*

Subject/Course: MDC   *Programme: BA*

Semester: 2nd

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	Introduction TO INTERNET Program-1 Program-2 Program-3 Program-4 Program-5	*1ˢᵗ Feb-29Feb*
2.	Program-6 Program-7 Program-8 Program-9 Practical File Checking	*1ˢᵗ March-31ˢᵗ March*
3.	Program-10 Program-11 Program-12 Program-13 Program-14	*1ˢᵗ April-30ᵗʰ April*
4.	Program-15 Program-16 Practical File Checking	*1ˢᵗ May-14ᵗʰ May*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2023-24

Name of the Teacher: KAMLESH   *Department: Computer Science*

Subject/Course: PROJECT   *Programme: BCA*

Semester: 6th

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	Topic of Project and Preparation of Project synopsis	*1ˢᵗ Feb-29Feb*
2.	Synopsis submission and Progress report 1 preparation	*1ˢᵗ March-31ˢᵗ March*
3.	Progress report 2 preparation	*1ˢᵗ April-30ᵗʰ April*
4.	Project preparation and final submission	*1ˢᵗ May-14ᵗʰ May*