RAJIV GANDHI GOVT. COLLEGE FOR WOMEN BHIWANI

HANSI ROAD, BHIWANI-127021 (HARYANA)

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Ref. No. ....

Dated ....

LESSON PLAN
SESSION 2023-24 (EVEN SEM)

Class: PGDCA II Sem

Subject: 21PGDCA202

Name of Paper: Data communication and networking

Name of Teacher: Madhu Malik

Month	Week	
February	Week 1st	Introduction to computer networks: types of Network, Network Topologies, OSI and TCP/IP Reference Models, Comparison of Models
	Week 2nd	Data communication Concept: Digital Vs Analog communications Parallel and Serial Communication, Synchronous, Asynchronous and Isochronous Communication
	Week 3rd	Communication modes: Simplex, Half duplex, Full Duplex, Multiplexing, Transmission media, Wired Twisted pair, Coaxial cable, Optical Fiber
	Week 4th	Wireless transmission: Terrestrial, Microwave, Satellite, Infrared Communication Switching Techniques: Circuit Switching, Message Switching, Packet Switching
March	Week 1st	Data Link Layer Fundamentals: Framing, Basic of Error Detection, Forward Error Correction, Cyclic Redundancy Check codes for Error Detection, Flow Control
	Week 2nd	Media Access Protocol: ALOHA, Carrier Sense Multiple Access, CSMA with Collision Detection, Token Ring, Token Bus
	Week 3rd	High Speed LAN: Standard Ethernet, Fast Ethernet, Gigabit Ethernet,10G,
	Week 4th	Holi Vacations
April	Week 1st	Wireless LANs:IEEE802.11, Bluetooth, Network Layer: IP Addressing and Routing
	Week 2nd	Network Layer Protocol:IPv4(Header Format and Services),
	Week 3rd	ARP,ICMP(Error Reporting and Query message) IPv6 (Header Format and Addressing)
	Week 4th	Transport Layer: Process to Process Delivery, UDP, TCP

May	Week 1st	**Connection Management by TCP, Basics of Congestion Control**
	Week 2nd	**Application Layer: Domain Name System (DNS),SMTP,HTTP, WWW**
	Week 3rd	**Network Security: Security Requirements and attacks, Cryptography: Symmetric Key(DES,AES), Public Key Cryptography (RSA), Firewall**
	Week 4th	**Revision and Test**

Madhu

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LESSON PLAN
SESSION 2023-24 (EVEN SEM)

Class: M.Sc II Sem
Subject: 21MCS202
Name of Paper: Data communication and networking
Name of Teacher: Madhu Malik

Month	Week	
February	Week 1st	Introduction to computer networks: types of Network, Network Topologies, OSI and TCP/IP Reference Models, Comparison of Models
	Week 2nd	Data communication Concept: Digital Vs Analog communications Parallel and Serial Communication, Synchronous, Asynchronous and Isochronous Communication
	Week 3rd	Communication modes: Simplex, Half duplex, Full Duplex, Multiplexing, Transmission media, Wired Twisted pair, Coaxial cable, Optical Fiber
	Week 4th	Wireless transmission: Terrestrial, Microwave, Satellite, Infrared Communication Switching Techniques: Circuit Switching, Message Switching, Packet Switching
March	Week 1st	Data Link Layer Fundamentals: Framing, Basic of Error Detection, Forward Error Correction, Cyclic Redundancy Check codes for Error Detection, Flow Control
	Week 2nd	Media Access Protocol: ALOHA, Carrier Sense Multiple Access, CSMA with Collision Detection, Token Ring, Token Bus
	Week 3rd	High Speed LAN: Standard Ethernet, Fast Ethernet, Gigabit Ethernet,10G,
	Week 4th	Holi Vacations
April	Week 1st	Wireless LANs:IEEE802.11, Bluetooth, Network Layer: IP Addressing and Routing
	Week 2nd	Network Layer Protocol:IPv4(Header Format and Services),
	Week 3rd	ARP,ICMP(Error Reporting and Query message) IPv6 (Header Format and Addressing)
	Week 4th	Transport Layer: Process to Process Delivery, UDP, TCP

May	Week 1st	Connection Management by TCP, Basics of Congestion Control
	Week 2nd	Application Layer: Domain Name System (DNS),SMTP,HTTP, WWW
	Week 3rd	Network Security: Security Requirements and attacks, Cryptography: Symmetric Key(DES,AES), Public Key Cryptography (RSA), Firewall
	Week 4th	Revision and Test

Madhu

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LESSON PLAN
SESSION 2023-24 (EVEN SEM)

Class: BCA II Sem
Subject: COMPUTER
Name of Paper: Computer Organization and Architecture
Name of Teacher: Madhu Malik

Month	Week	
February	Week 1st	Sequential Logic: Flip-flops, Triggering of Flip-flops, Analysis of clocked sequential circuits, State reduction and Assignment,
	Week 2nd	Flip-flop excitation, Design of counters, Design with state equations Overview of Register Transfer and Micro operations
	Week 3rd	Register Transfer Language, Register transfer, Bus and Memory transfer, Arithmetic Micro-operations,
	Week 4th	Logic Micro-operations, Shift Micro-operations, Arithmetic Logic Shift Unit
March	Week 1st	Basic Computer Organization and Design: Instruction codes, Computer registers, Computer instructions
	Week 2nd	Timing and Control, Instruction cycle, Memory-Reference Instructions, Design Basic computer, Design of Accumulator Unit
	Week 3rd	Central Processing Unit: Introduction, General Register Organization, Stack Organization
	Week 4th	**Holi Vacations**
April	Week 1st	Instruction format, Addressing Modes, Data transfer and manipulation, Program Control, Reduced Instruction Set Computer (RISC).
	Week 2nd	Pipeline Processing: Pipeline and Vector Processing, Parallel processing, Pipelining,
	Week 3rd	Arithmetic Pipeline, Instruction pipeline and Arrays Processors.
	Week 4th	Input/ Output Organization: Asynchronous Data Transfer, Programmed I/O (concepts only)
May	Week 1st	Interrupts: Types of interrupts, processing interrupts, interrupt hardware and priority
	Week 2nd	DMA: DMA Controller, DMA Transfer Modes; I/O Processor
	Week 3rd	**Revision And Test**
	Week 4th	**Revision And Test**

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LESSON PLANSESSION 2023-24(EVEN-SEMESTER)

Class:B.C.A. VI SEMESTER
Subject: COMPUTER SCIENCE
Name of Paper:ARTIDFICIAL INTELLIGENCE
Name of Teacher: Ms. NAVITA

Month	Week	Topic
Feb	Week 1st	Overview of A.I: Introduction to AI, Importance of AI, AI and its related field, AI techniques, Criteria for success.
	Week 2nd	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 3rd	Heuristic search techniques : Generate and test, hill climbing, best first search technique, problem reduction, constraint satisfaction
	Week 4th	Knowledge Representation: Definition and importance of knowledge, Knowledge representation, Various approaches used in knowledge representation, Issues in knowledge representation.
March	Week 1st	Knowledge Representation: Approaches used in knowledge representation, Issues in knowledge representation. TEST-I
	Week 2nd	Using Predicate Logic : Represent ting Simple Facts in logic, Representing instances and is_a relationship, Computable function and predicate.
	Week 3rd	Natural language processing : Introduction syntactic processing, Semantic processing, Discourse and pragmatic processing.
	Week 4th	**HOLI Break**
April	Week 1st	Learning: Introduction learning, Rote learning, Learning by taking advice, Learning in problem solving, Learning from example-induction, Explanation based learning.
	Week 2nd	Expert System: Introduction, Representing using domain specific knowledge Expert system shells
	Week 3rd	Expert System: Expert system shells
	Week 4th	Revision of all Four Units. TEST-II

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LESSON PLANSESSION 2023-24(EVEN-SEMESTER)

Class:B.Sc. II SEMESTER
Subject: COMPUTER SCIENCE
Name of Paper:PROBLEM SOLVING USING COMPUTER
Name of Teacher: Ms. NAVITA

Month	Week	Topic
Feb	Week 1st	Introduction of Computers, Characteristics of computers ,Uses of Computers
	Week 2nd	Types of Computers, Generations of Computers, Block Diagram of Computers, Input/output Device.
	Week 3rd	Concept Of Problem solving, Problem Definition, Program Design , Debugging, Types of errors in Programming, Documentation. Test -I
	Week 4th	Flowcharting, Decision Table, algorithms, Structured programming concepts, Programming Methodologies viz top down and bottom up approach
March	Week 1st	Programming using logic 'C', C fundamentals, Introduction to C, C character Set, Data types, Constants, Variables, Identifiers and keywords, Literals, Strings. Assignment-I
	Week 2nd	Different types of Operators used in C(Arithmetic, Relational, Logical or Boolean, assignment Operator, Ternary Operator, Bitwise Operator, Increment or decrement Operator).
	Week 3rd	Input Output Functions,% Format Specifiers, Control Statement: Control Loops, Conditional Execution and Nesting Of loops and Conditional statements
	Week 4th	
April	Week 1st	**HOLI Break** Function Definition, accesing and Passing arguments to a function ,function Prototypes, Recursion. Test –II
	Week 2nd	Arrays and Strings :Single&Multidimentional Arrays, Introduction to Strings ,String processing. Assignment –II
	Week 3rd	Pointer ,Structure and Union: Understanding Pointers, Pointers and Arrays ,Pointer to Function, Defining and processing Structures ,Pointer and Structure, Concept Of Union
	Week 4th	Revision of all Four Units.

Navita
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RAJIV GANDHI GOVT. COLLEGE FOR WOMEN, BHIWANI
LESSON PLAN 2023-24

Class: BCA. I sem.
Subject: 22BCA101
Name of Paper: ComputerFundamental
Name of Teacher: Preeti

Month	Week	Topic
July	Week 3th	Generations of Computers, Definition, Block diagram with components, Characterstics & classification of computer
	Week 4th	limitations of Computers, Human Being Vs Computers, Applications of Computers, Memory - RAM, ROM, cache memory.
August	Week 1st	Flash Memory, Secondary storage devices Sequential & Direct Access Devices Virtual Memory.
	Week 2nd	Computer I/O Devices, Definition of s/w, Relationship b/w h/w & s/w. Types of software.
	Week 3rd	Overview of operating system, Definition, functions of O.S.
	Week 4th	Concept of multiprogramming, multitasking, multithreading, multiprocessing, time sharing, real time, single user O.S., multi user O.S.
September	Week 1st	Computer virus, Definition, Types of viruses, Characterstics of virus, antivirus software.
	Week 2nd	Computer language - Analogy with natural language, Machine language, assembly language, High level lang, fourth generation language
	Week 3rd	Compiler, Assembler, interpreter, linker, Loader, characterstics of a good programming lang.
	Week 4th	Planning the Computer program, concept of problem solving, Problem Definition, Program Design, Debugging,

	Week 2nd	Structured programming concepts, Programming Methodologies viz, top-down & bottom-up programing, advantages & disadvantages of structured programming.
	Week 3rd	overview of networking, an introduction to computer networking, Network Types (LAN, WAN, MAN),
	Week 4th	Network Topologies, Modes of Data Transmission, forms of data transition Transmission Media.
November	Week Ist	Introduction to internet & its uses, application of internet. H/w & S/w requirement of internet. Intranet and Application of Intranet.
	Week 2nd	**Diwali break**
	Week 3rd	Revision

Teacher

HOD

RAJIV GANDHI GOVT. COLLEGE FOR WOMEN, BHIWANI
LESSON PLAN 2023-24

Class: MSc. III sem.
Subject: 21MCS303
Name of Paper: Software Engineering
Name of Teacher: Preeti

Month	Week	Topic
September	Week 2nd	Software characteristics – Classification of Software – Phases in S.E., Key challanges in Software engineering, SDLC
	Week 3rd	Software process. project, product. Component of s/w process, Process Framework, Process Assessment, S/w Reengineering, Software Reverse Engineering
	Week 4th	Software life Cycle Models – Waterfall Model, Timeboxing & Spiral Model, RAD Model, Automation through s/w environments.
October	Week 1st	Requirement Engineering – Feasibility Study. – Types of feasibility – Requirement Elicitation, Requirement Analysis
	Week 2nd	Structured analysis – DFD, Object-Oriented Modeling, Activity Diagram Data Diagram, E-R Diagram, Use case Diagram, Software Requirements specification
	Week 3rd	Purpose of SRS, Structure of SRS, IEEE template of SRS. Software Design – Principles of s/w Design, S/w Design Concepts.
	Week 4th	S/w Coding, features of s/w code, Coding Guidelines – Coding Methodology, Code verification Techniques.
November	Week 1st	Software Testing, objectives, Principles of Testing, Testing & Debugging, Test metrices, measurements, STLC, Verification, Validation
	Week 2nd	Diwali Break
	Week 3rd	Software Quality & Reliability. Types of Testing, functional & non-functional, recovery, security, stress, performance, usability, white box, static structural Testing
	Week 4th	Unit testing, Scenario Testing, Alpha, Beta

		test cases selection and execution.
December	Week Ist	Need for maintenance, categories of mainte-nance, Preventive, correctire, Perfective maintenance, cost of maintenance, S/w Reengineering, S/w reverse engineering.
	Week 2nd	S/w configuration Management Activities, change control process, S/w version control, S/w reuse, S/w Evolution.
	Week 2nd	S/w Quality Attributes, S/w Quality Assurance Plans and activities, S/w Documentation, ISO Quality Models ISO 9000, SEICMM and their relevance.

Teacher

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BHIWANI
LESSON PLAN2023-24

Class:BCA. V sem.

Subject: BCA – 301

Name of Paper:MIS

Name of Teacher: Navita

Month	Week	Topic
July	Week 3th	Introduction to system and Basic System Concepts, Types of Systems, The Systems Approach, Information System: Definition & Characteristics,
	Week 4th	Types of information, Role of Information in Decision-Making,
August	Week 1st	Sub-Systems of an Information system: EDP and MIS management levels, EDP/MIS/DSS.
	Week 2nd	An overview of Management Information System: Definition & Characteristics, Components of MIS,
	Week 3rd	Frame Work for Understanding MIS: Information requirements & Levels of Management
	Week 4th	Simon's Model of decision-Making, Assignment -I
September	Week 1st	Structured Vs Un-structured decisions, Formal vs. Informal systems.
	Week 2nd	Developing Information Systems: Analysis & Design of Information Systems:
	Week 3rd	Implementation & Evaluation, Pitfalls in MIS Development.
	Week 4th	Functional MIS: A Study of Personnel, Financial and production MIS
October	Week 1st	Assignment –II test
	Week 2nd	Functional MIS: A Study of Personnel, Financial and production MIS,
	Week 3rd	Introduction to ebusiness systems,
	Week 4th	ecommerce – technologies, applications
November	Week Ist	Decision support systems – support systems for planning, control and decision-making
	Week 2nd	Diwali break
	Week 3rd	Rivision

RAJIV GANDHI GOVT. COLLEGE FOR WOMEN

BHIWANI
LESSON PLAN2023-24

Class:BCA. V sem.
Subject: BCA – 304
Name of Paper:Visual Basic
Name of Teacher: Navita

Month	Week	Topic
July	Week 3th	Introduction to VB: Visual & non-visual programming, Procedural, Object-oriented and eventdriven programming languages,
	Week 4th	The VB environment: Menu bar, Toolbar, Project explorer, Toolbox, Properties window, Form designer, Form layout, Immediate window.
August	Week 1st	Visual Development and Event Driven programming.
	Week 2nd	Basics of Programming: Variables: Declaring variables, Types of variables, Convertingvariables types,
	Week 3rd	User-defined data types, Forcing variable declaration, Scope & lifetime ofvariables
	Week 4th	Constants: Named & intrinsic. Operators: Arithmetic, Relational & Logicaloperators
September	Week 1st	I/O in VB: Various controls for I/O in VB, Message box, Input Box, Printstatement.
	Week 2nd	Programming with VB: Decisions and conditions: If statement, If-then-else, Select-case.
	Week 3rd	Looping statements: Do-loops, For-next, While-wend, Exit statement. Nested controlstructures.
	Week 4th	Arrays: Declaring and using arrays, one-dimensional and multi-dimensionalarrays, Static & dynamic arrays, Arrays of array
October	Week 1st	Collections: Adding, Removing, Counting, Returning items in a collection, Processing a collection.
	Week 2nd	Programming with VB: Procedures: General & event procedures, Subroutines, Functions,Calling procedures,
	Week 3rd	Arguments- passing mechanisms, Optional arguments, Named arguments, Functions returning custom data types, Functions returning arrays.
	Week 4th	Working with forms and menus : Adding multiple forms in VB, Hiding & showing forms,Load & unload statements
November	Week Ist	creating menu, submenu, popup menus, Activate & deactivate events, Form-load event, menu designing in VB Simple programs in VB.
	Week 2nd	Diwali break
	Week 3rd	Rivision

Teacher

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RAJIV GANDHI GOVT. COLLEGE FOR WOMEN,
BHIWANI
LESSON PLAN2023-24

Class:BCA. I sem.
Subject: 22BCA102
Name of Paper:PC Software
Name of Teacher: Navita

Month	Week	Topic
July	Week 3th	Operating system definition and functions, Basics of Windows, icons, types of icons, taskbar, activating windows, using desktop, title bar, running applications
	Week 4th	Exploring computer, managing files and folders, coping and moving files and folders, control panel, display property
August	Week 1st	Adding and removing hardware and software, setting date and time, screensaver and appearance, using windows accessories.
	Week 2nd	Introduction to word processing interfaces, toolbars, menus, creating and editing documents, formatting documents, finding and replacing text, format painter
	Week 3rd	Header and footer, drop cap, auto text, autocorrect, spelling and grammer tool
	Week 4th	document dictionary, page formatting, bookmark, previewing and printing document.
September	Week 1st	Advanced features of MS-Word mail merge- macros, tables, file management, printing, style linking and embedding objects, templates.
	Week 2nd	Introduction to MS Excel, cell, cell address, creating and editing worksheet, formatting and essential operations, moving and coping data in excel.
	Week 3rd	Header and footer, formulas and functions, charts
	Week 4th	Cell referencing and page setup, macros, advanced features of MS excel, pivot table, pivot chart
October	Week 1st	Linking and consolidation, database management using Excel, sorting, filtering, validation
	Week 2nd	What if analysis with goal seek, conditional formatting
	Week 3rd	Presentation using MS-powerpoint- presentation, creating, manipulating and enhancing slides.
	Week 4th	Organizational charts, excel charts, word art, layering art objects
November	Week Ist	Animation and sound -Inserting recorded sound effect or inbuilt sound effects
	Week 2nd	Diwali break
	Week 3rd	Rivision

Teacher

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BHIWANI
LESSON PLAN2023-24

Class:MSc. I sem.

Subject: 21MCS104

Name of Paper:Fundamental of Web Design

Name of Teacher: Preeti

Month	Week	Topic
August	Week 3th	Introduction to SGML features- HTML,XHTML,DHTML,XML
	Week 4th	Creating xml ducuments, parsing xml document, writing well formed documents, organizing elements with namespaces, defining elements in DTD
September	Week 1st	Overview of html, basic formatting tags
	Week 2nd	Navigation links using anchor tags, lists,table tags, HTML form controls
	Week 3rd	, CSS introduction, internal, external ,inline CSS, linking CSS to web page, Client side programming,
	Week 4th	DTD and its structure, tree structure in data organization, searching with XPath
October	Week 1st	Introduction with Javascript, basic syntax, variables and data types, statements, operators , literals , functions, objects ,arrays.
	Week 2nd	Web applications and information gathering, HTTP request and response , header fields,and https, understanding same origin, sessions, Web applications proxy,
	Week 3rd	Web server- role, apache web server introduction, architecture, features, Apache's role in internet
	Week 4th	LAMP-WAMP installation and configuration- Build and install Apache Web server- verify initial configuration start, stop and status of Apache server Process
November	Week 1st	Server side programming- Server side script
	Week 2nd	PHP-Designing Dynamic web pages using PHP
	Week 3rd	Defining PHP variables, variables types, operators, control flow constructs
	Week 4th	Passing Form data between pages,
December	Week Ist	Establishing connection with MySQL database- managing database
	Week 2nd	Revision

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Class	BCA 6th	
Subject Computer science		
Name of Paper Java Programming		
Name of Teacher Minakshi		

Month	Week	
Febuary	Week Ist	Object Oriented Methodology-1: Paradigms of Programming Languages, Evolution of OOMethodology, Basic Concepts of OO Approach, Comparison of Object Oriented and
	Week 2nd	Procedure Oriented Approaches, Benefits of OOPs, Introduction to Common OO Language, Applications of OOPs .
	Week 3rd	Object Oriented Methodology-2: Classes and Objects, Abstraction and Encapsulation,
	Week 4th	Inheritance, Method Overriding and Polymorphism. Returning objects , Method overloading, Garbage Collection, The Finalize ( ) Method.
March	Week Ist	Java Language Basics: Introduction To Java, Basic Features, Java Virtual Machine
	Week 2nd	Concepts, Primitive Data Type And Variables, Java Operators, Expressions, Statements and arrays Object Oriented Concepts: Class and Objects-- Class Fundamentals, Creating objects ,
	Week 3rd	Assigning object reference variables; Introducing Methods, Static methods, Constructors , Overloading constructors; This Keyword; Using Objects as Parameters, Argument passing,
	Week 4th	**Holi Vacation**
April	Week Ist	Inheritance and Polymorphism: Inheritance Basics, Access Control, Multilevel Inheritance, Method Overriding, Abstract Classes, Polymorphism, Final Keyword.
	Week 2nd	Packages : Defining Package, CLASSPATH, Package naming, Accessibility of Packages , using Package Members.
	Week 3rd	Interfaces: Implementing Interfaces, Interface and Abstract Classes, Extends and Implements together . Operations , Data Conversion using Value Of ( ) Methods , String Buffer
	Week 4th	Exceptions Handling : Exception , Handling of Exception, Using try-catch , Catching
May	Week Ist	Multiple Exceptions , Using finally clause , Types of Exceptions, Throwing Exceptions, Writing Exception Subclasses. Multithreading : Introduction , The Main Thread, Java Thread Model, Thread Priorities, Synchronization in Java, Inter thread Communication.
	Week 2nd	I/O in Java : I/O Basics, Streams and Stream Classes ,The Predefined Streams, Readingfrom, and Writing to, Console, Reading and Writing Files , The Transient and Volatilefrom, and W
	Week 3rd	from, and Writing to, Console, Reading and Writing Files , The Transient and VolatileStrings and Characters : Fundamentals of Characters and Strings, The String Class , String

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LESSON PLAN
SESSION 2023-24 (EVEN SEM)

Department: Computer Science   **Name of Assistant Professor-RenuBala**

Class and Section-BCA 4ᵗʰSem   Subject: Data Mining

Feb2024Week1
Scope of Data Mining, working of data mining, predictive modelling of data mining,
Week 2
Architecture of Data Mining,Profitable Application of Data Mining, Data Mining Tools
Week 3
Introduction to Business Intelligence, Business Intelligence Applications
Week 4
BI Vs Data Warehouse, BI Vs Data Mining, Future of BI.
March 2024Week1
Data pre-processing overview, Data Cleaning, Data integration and transformation,
Week 2
Data Reduction, Discretization and Concept Hierarchy generation.
Week 3
Introduction to Data Mining Techniques, Data Mining vs Database management System. Association Rules
Week 4
Classification
April 2024   Week 1
Regression, Clustering
Week 2
Neural Network
Week 3
Cluster Analysis, Clustering Methods k-means, Hierarchical Clustering, Agglomerative Clustering, Divisive clustering,
Week 4
Clustering and segmentation software, Evaluating Clusters.
May Week 1
Web mining- Terminologies, Categories of web mining, web Content mining, web structure mining,
Week 2
Web usage mining, Application of web Mining, Business application using data mining, risk management and targeted marketing.
Week 3
Customer profiles and features construction, Medical applications, Scientific Applications, other Application

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LESSON PLAN
SESSION 2023-24 (EVEN SEM)

Department: Computer Science

Name of Assistant Professor-RenuBala

Class and Section- M.Sc.2nd Sem

Subject: OOP using JAVA

Feb 2024 Week 1
Basics of JAVA programming: Data Types, Variables, Operators, Control Structures including selection, Looping
Week 2
JAVA methods, Overloading, Math Class, Arrays in Java
Week 3
Objects and Classes: Basics of objects and classes in JAAVA, Constructors, Finilizer
Week 4
Visibility Modifiers, Methods and Objects, Inbuilt classes like String, Character, String Buffer, Fie, this Reference
March 2024 Week 1
Inheritance Super and sub class Overriding, Object class, Polymorhism.
Week 2
Dynamic Binding, Generic Programming, Casting Objects, Instance of Operator, Abstract Classes.
Week 3
Inteface in JAVA, Package in Java, UTIL package.
Week 4
Event Handling in JAVA: Event Tyes, mouse and Key events, GUI Basics, Panels, Frames
April 2024 Week 1
Layout Manager: Flow Layout, Border Layout, Grid Layout, GUI comonents like Buttons, Check Boxes, Radio Buttons, Labels, Text Fields, Text Areas, Combo Box, List, Scroll Bars, Sliders.
Week 2
Windows, Menu, Dialog Box, Applet and its life cycle.
Week 3
Introduction to swings. I/O programming: Text and Binary I/O. Binary I/O Classes, Object I/O. Random Access Files.
Week 4
Multithreading in Java: Thread life Cycle ad methods, Runnable Interface, ThreadSynchronisation.
May Week 1
Exception handling with Try catch and finally, Collection in Java,
Week 2
Introduction to JAVA Beans and Networking

LESSON PLAN
SESSION 2023-24 (EVEN SEM)

Department: Computer Science   **Name of Assistant Professor-RenuBala**

Class and Section- M.Sc.2nd Sem   **Subject: OOP using JAVA**

Feb 2024 Week 1   Basics of JAVA programming: Data Types, Variables, Operators, Control Structures including selection, Looping
Week 2   JAVA methods, Overloading, Math Class, Arrays in Java
Week 3   Objects and Classes: Basics of objects and classes in JAAVA, Constructors, Finilizer
Week 4   Visibility Modifiers, Methods and Objects, Inbuilt classes like String, Character, String Buffer, Fie, this Reference
March 2024 Week 1   Inheritance Super and sub class Overriding, Object class, Polymorhism.
Week 2   Dynamic Binding, Generic Programming, Casting Objects, Instance of Operator, Abstract Classes.
Week 3   Inteface in JAVA, Package in Java, UTIL package.
Week 4   Event Handling in JAVA: Event Tyes, mouse and Key events, GUI Basics, Panels, Frames
April 2024 Week 1   Layout Manager: Flow Layout, Border Layout, Grid Layout, GUI comonents like Buttons, Check Boxes, Radio Buttons, Labels, Text Fields, Text Areas, Combo Box, List, Scroll Bars, Sliders.
Week 2   Windows, Menu, Dialog Box, Applet and its life cycle.
Week 3   Introduction to swings. I/O programming: Text and Binary I/O. Binary I/O Classes, Object I/O. Random Access Files.
Week 4   Multithreading in Java: Thread life Cycle ad methods, Runnable Interface, ThreadSynchronisation.
May Week 1   Exception handling with Try catch and finally, Collection in Java,
Week 2   Introduction to JAVA Beans and Networking

RAJIV GANDHI GOVT. COLLEGE FOR WOMEN, BHIWANI
LESSON PLAN 2023-24

Class: BCA 4TH SEM

Subject: Software Engineering

Name of Paper: BCA-209

Name of Teacher: Shalu Saini

Month	Week	
February	Week 1st	**Introduction:** Software Crisis, Software Processes & Characteristics, Software life cyclemodels, Waterfall, Prototype, Evolutionary and Spiral Models.
	Week 2nd	**Software Requirements Analysis & Specifications:** Requirement engineering, requirement elicitation techniques like FAST, QFD, requirements analysis using DFD
	Week 3rd	Data dictionaries & ER Diagrams, Requirements documentation, Nature of SRS, Characteristics &organization of SRS.
	Week 4th	**Software Project Management Concepts:** The Management spectrum, The People The Problem, The Process, The Project.
March	Week 1st	**Software Project Planning:** Size Estimation like lines of Code & Function Count, Cost Estimation Models, COCOMO, Risk Management.
	Week 2nd	**REVISION**
	Week 3rd	**Software Design:** Cohesion & Coupling, Classification of Cohesiveness & Coupling, Function Oriented Design, Object Oriented Design,
	Week 4th	**Holi Break**
April	Week 1st	**Software Metrics:** Software measurements: What & Why, Token Count, Halstead Software Science Measures, Design Metrics, Data Structure Metrics
	Week 2nd	**Software Implementation:** Relationship between design and implementation, Implementation issues and programming support environment, Coding the procedural design,Good coding style.
	Week 3rd	**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
	Week 4th	**Software Maintenance:** Management of Maintenance, Maintenance Process, Reverse Engineering, Software Re-engineering, Configuration Management, Documentation
May	Week 1st	**REVISION**
	Week 2nd	**REVISION**

RAJIV GANDHI GOVT. COLLEGE FOR WOMEN, BHIWANI
LESSON PLAN 2023-24

Class: B.Sc 4TH SEM

Subject: Operating System And HTML Programming

Name of Paper: 20UCS401 and 20USECCS402

Name of Teacher: Shalu Saini

Month	Week	
February	Week 1st	**Introduction:** System Software, Resource Abstraction, OS strategies. **Types of operating systems-**Multiprogramming, Batch, Time Sharing, Single user and Multiuser, Process Control &Real Time Systems.
	Week 2nd	**Operating System Organization:** Factors in operating system design, basic OS functions, implementation consideration; process modes, methods of requesting system services-system calls and system programs.
	Week 3rd	**Process Management:** System view of the process and resources, initiating the OS, process address space, process abstraction, resource abstraction, process hierarchy.
	Week 4th	**Thread model Scheduling:** Scheduling Mechanisms, Strategy selection, non-pre-emptive and pre- emptive strategies.
March	Week 1st	**File System:** Different types of files and their access methods. directory structures, various allocation methods, disk scheduling and management and its associated algorithms
	Week 2nd	**Memory Management:** Mapping address space to memory space, memory allocation strategies, fixed partition, variable partition, paging, virtual memory
	Week 3rd	Shell Scripting: Introduction, types of shell, editors in linux, vi editor, modes of operation in vi editor; Shell scripting: writing and executing the shell script, Shell variable(user defined and system variables), System calls, Using system calls, Pipes and Filters, Decision making in Shell Scripts(If else, switch),Loops in shell, Functions, Utility programs(cut, paste, join, tr, uniq utilities),Pattern matching utility (grep).
	Week 4th	**Holi Break**
April	Week 1st	Introduction: HTML Basics, The Head, the Body, Colors, Attributes, basic formatting Tags - heading, paragraph, underline break. bold, italic, underline, superscript, subscript, font and image. Attributes - align, color, bgcolor, font face, border, size. Lists- ordered, unordered and definition, Table tag,
	Week 2nd	Navigation Links using anchor tag - internal, external, mail and image links, Relative Links, Absolute Links, Link Attributes, Using the ID Attribute to Link With in a Document.
	Week 3rd	Images: Putting an Image on a Page, Using Images as Links, Putting an Image in the Background Tables: Creating a Table, Table Headers, Captions, Spanning Multiple Columns, Styling Table.
	Week 4th	Forms: Basic Input and Attributes, Other Kinds of Inputs, Styling forms with CSS, where to Go from Here, HTML Form controls- form, text, password, text area, button, check box, radio button, select box, hidden controls.
May	Week 1st	REVISION
	Week 2nd	REVISION

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LESSON PLAN
SESSION 2023-24 (EVEN SEM)

Introduction to STL: Standard Template Library: benefits of STL, containers,

Week2

Adapters, iterator, vector, list. Working with files: C++ streams, C++ stream classes, creating. Opening Files

Week 3

Closing and deleting files, file pointers and their manipulators, Error handling during file operations

LESSON PLAN
SESSION 2023-24 (EVEN SEM)

Department: Computer Science **Name of Assistant Professor-Tamanna**

Class and Section-M.Sc. 2nd Sem **Subject: Data Mining**

Feb2024Week1
Scope of Data Mining, working of data mining,
Week 2
predictive modelling of data mining,Architecture of Data Mining,Profitable Application of Data Mining,
Week 3
Data Mining Tools ,Introduction to Business Intelligence,
Week 4
Business Intelligence Applications ,BI Vs Data Warehouse, Bi Vs Data Mining, Future of BI.
March 2024Week1
Data pre-processing overview, Data Cleaning,
Week 2
Data integration and transformation, Data Reduction, Discretization and Concept Hierarchy generation.
Week 3
Introduction to Data Mining Techniques, Data Mining vs Database management System
Week 4
Association Rules ,Classification
April 2024   Week 1
Regression, Clustering
Week 2
Neural Network ,Cluster Analysis,
Week 3
Clustering Methods k-means, Hierarchical Clustering, Agglomerative Clustering, Divisive clustering,
May Week 1
Web mining- Terminologies, Categories of web mining, web Content mining, web structure mining,
Week 2
Web usage mining, Application of web Mining, Business application using data mining,
Week 3
risk management and targeted marketing,Customer profiles and features construction, Medical applications, Scientific Applications, other Application

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LESSON PLAN
SESSION 2023-24 (EVEN SEM)

Department: Computer Science   **Name of Assistant Professor-Tamanna**

Class and Section-M.Sc. 2nd Sem   **Subject: Data Mining**

Feb2024Week1
Scope of Data Mining, working of data mining,
Week 2
predictive modelling of data mining,Architecture of Data Mining,Profitable Application of Data Mining,
Week 3
Data Mining Tools ,Introduction to Business Intelligence,
Week 4
Business Intelligence Applications ,BI Vs Data Warehouse, Bi Vs Data Mining, Future of BI.
March 2024Week1
Data pre-processing overview, Data Cleaning,
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April 2024   Week 1
Regression, Clustering
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Clustering Methods k-means, Hierarchical Clustering, Agglomerative Clustering, Divisive clustering,
May Week 1
Web mining- Terminologies, Categories of web mining, web Content mining, web structure mining,
Week 2
Web usage mining, Application of web Mining, Business application using data mining,
Week 3
risk management and targeted marketing,Customer profiles and features construction, Medical applications, Scientific Applications, other Application

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LESSON PLANSESSION 2023-24(EVEN-SEMESTER)

Class:B.C.A. VI SEMESTER

Subject: COMPUTER SCIENCE

Name of Paper:ARTIDFICIAL INTELLIGENCE

Name of Teacher: Ms. NAVITA

Month	Week	Topic
Feb	Week 1st	Overview of A.I: Introduction to AI, Importance of AI, AI and its related field, AI techniques, Criteria for success.
	Week 2nd	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 3rd	Heuristic search techniques : Generate and test, hill climbing, best first search technique, problem reduction, constraint satisfaction
	Week 4th	Knowledge Representation: Definition and importance of knowledge, Knowledge representation, Various approaches used in knowledge representation, Issues in knowledge representation.
March	Week 1st	Knowledge Representation: Approaches used in knowledge representation, Issues in knowledge representation. TEST-I
	Week 2nd	Using Predicate Logic : Represent ting Simple Facts in logic, Representing instances and is_a relationship, Computable function and predicate.
	Week 3rd	Natural language processing : Introduction syntactic processing, Semantic processing, Discourse and pragmatic processing.
	Week 4th	**HOLI Break**
April	Week 1st	Learning: Introduction learning, Rote learning, Learning by taking advice, Learning in problem solving, Learning from example-induction, Explanation based learning.
	Week 2nd	Expert System: Introduction, Representing using domain specific knowledge Expert system shells
	Week 3rd	Expert System: Expert system shells
	Week 4th	Revision of all Four Units. TEST-II

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LESSON PLANSESSION 2023-24(EVEN-SEMESTER)

Class:B.Sc. II SEMESTER

Subject: COMPUTER SCIENCE

Name of Paper:PROBLEM SOLVING USING COMPUTER

Name of Teacher: Ms. NAVITA

Month	Week	Topic
Feb	Week 1st	Introduction of Computers, Characteristics of computers ,Uses of Computers
	Week 2nd	Types of Computers, Generations of Computers, Block Diagram of Computers, Input/output Device.
	Week 3rd	Concept Of Problem solving, Problem Definition, Program Design , Debugging, Types of errors in Programming, Documentation. Test -I
	Week 4th	Flowcharting, Decision Table, algorithms, Structured programming concepts, Programming Methodologies viz top down and bottom up approach
March	Week 1st	Programming using logic 'C', C fundamentals, Introduction to C, C character Set, Data types, Constants, Variables, Identifiers and keywords, Literals, Strings. Assignment-I
	Week 2nd	Different types of Operators used in C(Arithmetic, Relational, Logical or Boolean, assignment Operator, Ternary Operator, Bitwise Operator, Increment or decrement Operator).
	Week 3rd	Input Output Functions,% Format Specifiers, Control Statement: Control Loops, Conditional Execution and Nesting Of loops and Conditional statements
	Week 4th	## HOLI Break
April	Week 1st	Function Definition, accesing and Passing arguments to a function ,function Prototypes, Recursion. Test –II
	Week 2nd	Arrays and Strings :Single&Multidimentional Arrays, Introduction to Strings ,String processing. Assignment –II
	Week 3rd	Pointer ,Structure and Union: Understanding Pointers, Pointers and Arrays ,Pointer to Function, Defining and processing Structures ,Pointer and Structure, Concept Of Union
	Week 4th	Revision of all Four Units.

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LESSON PLAN
SESSION 2023-24 (EVEN SEM)

Department: Computer Science　　　**Name of Assistant Professor-Tamanna**

Class and Section-B.Sc. 6ᵗʰSem Subject: Object Oriented Programming Using C++

Feb2024 Week1
Introduction to object oriented programming: Procedural vs. Object oriented programming, Characteristics of OOP: Objects, classes, Encapsulation, Data Abstraction, Inheritance, Polymorphism. Dynamic Binding, and Message Passing.
Week 2
Structure of C++ program: Data-types, Variables, Static Variables, Operators in C++, Arrays, Strings,
Week 3
Structure, Functions, Recursion, Control Statements.
Week 4
Introduction to Class: Class Definition, Classes and Objects, Access Specifiers: Private, Public and Protected,
March 2024 Week1
Member functions of the class, Constructor and Destructor, Parameterized Constructor,
Week 2
Copy Constructors. Inheritance: Reusability, Types of Inheritance: Single inheritance. Multiple, Multilevel, Hybrid Inheritance, Public, Private, and Protected Derivations
Week 3
Constructor and destructor in derived class, Object initialization and conversion, Nested classes Polymorphism: Function Overloading, Static Class Members, Static Member Functions, Friend Functions
Week 4
Holi Break
April 2024　　Week 1
Operator Overloading: Unary and Binary Operator Overloading. Abstract class
Week 2
Virtual function, Pure virtual function, Overloading vs. Overriding. Memory management: new, delete, object Creation at Run Time
Week 3
This Pointer. Exception handling: Throwing, Catching, Re-throwing an exception, specifying exceptions, processing unexpected exceptions, Exceptions when handling exceptions.
Week 4
Templates: Introduction, Class templates and Function templates, Overloading of template function, namespaces
May　Week1

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LESSON PLAN 2023-24

Class: BCA 4 th sem.

Subject: 22BCA401

Name of Paper: Introduction to Web Designing

Name of Teacher: Preeti

Month	Week	Topic
Jan	Week 3rd	Introduction to SGML features- HTML,XHTML,DHTML,XML, Creating xml ducuments
	Week 4th	parsing xml document, writing well formed documents, organizing elements with namespaces, defining elements in DTD
Feb	Week 1st	Overview of html, basic formatting tags , Navigation links using anchor tags, lists,table tags, HTML form controls
	Week 2nd	CSS introduction, internal, external ,inline CSS, linking CSS to web page, Client side programming,DTD and its structure, tree structure in data organization, searching with XPath
	Week 3rd	Introduction with Javascript, basic syntax, variables and data types, statements, operators,literals , functions, objects ,arrays.
	Week 4th	Web applications and information gathering, HTTP request and response, header fields,and https, understanding same origin, sessions, Web applications proxy,
March	Week 1st	Web server- role, apache web server introduction, architecture, features, Apache's role in internet
	Week 2nd	LAMP-WAMP installation and configuration- Build and install Apache Web server- verify initial configuration start, stop and status of Apache server Process
	Week 3rd	Server side programming- Server side script
	Week 4th	**Holi Vacations**
April	Week 1st	PHP-Designing Dynamic web pages using PHP
	Week 2nd	Defining PHP variables, variables types, operators, control flow constructs ,Passing Form data between pages,
	Week 3rd	Establishing connection with MySQL database- managing database
	Week 4th	Revision and test

Teacher

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LESSON PLAN 2023-24

Class: BCA II sem.

Subject: 22BCA204

Name of Paper: Operating System

Name of Teacher: Preeti

Month	Week	Topic
Feb	Week 1st	Introduction To Operating System, Needs And Operating System Services.
	Week 2nd	Structures, Simple Batch, Timeshared, Multiprocessing, Multiprogrammed, Real Time,
	Week 3rd	Personal Computers, Parallel And Distributed Systems. Process Concepts
	Week 4th	Operation On Processes, Co-Operating Processes, Threads,
March	Week 1st	Interprocess Communication, CPU Scheduling Basic Concepts.
	Week 2nd	Scheduling Criteria, Scheduling Algorithm- FCFS, SJF, Round Robin, Queue .
	Week 3rd	Deadlock Characterization, Methods For Handling Deadlock,
	Week 4th	**Holi Vacations**
April	Week 1st	Bankers Algorithm, Memory Management Introduction
	Week 2nd	Logical Versus Physical Address Space, Swapping, Physical Address Space, Contiguous Allocation.
	Week 3rd	Paging And Segmentation, Virtual Memory Introduction
	Week 4th	Demand Paging, Performance Of Demand Paging, Page Replacement, Page Replacement Algorithm
May	Week 1st	Thrashing, File System Structure, Allocation Methods- Contiguous, Linked, Indexed Allocation
	Week 2nd	Free Space Management, Bit Vector , Linked List, Grouping And Counting.
	Week 3rd	Disk Structure, Disk Scheduling-FCFS, SSTF, SCAN, C-SCAN, LOOK, C-Look.
	Week 4th	Revision And Test.

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LESSON PLAN 2023-24

Class: BCA

Subject: BCA309

Name of Paper: Introduction to .Net

Name of Teacher: Navita and Preeti

Month	Week	Topic
Jan	Week 3rd	The Framework of .Net: Building blocks of .Net Platform (the CLR, CTS and CLS), Features of .Net, Deploying the .Net Runtime
	Week 4th	Architecture of .Net platform, Introduction to namespaces & type distinction.
Feb	Week 1st	Types & Object in .Net, the evolution of Web development. Class Libraries in .Net, Introduction to Assemblies & Manifest in .Net, Metadata & attributes.
	Week 2nd	Introduction to C#: Characteristics of C#, Data types: Value types, reference types, default value, constants,
	Week 3rd	Operators and expressions: Arithmetic, relational, logical, bitwise, special operators, evolution of expressions, operator precedence & associativity
	Week 4th	Control constructs in C#: Decision making,
March	Week 1st	loops, Classes & methods variables, scope of variables, boxing and unboxing
	Week 2nd	Constructors, destructors, overloading of operators & functions.
	Week 3rd	Inheritance, visibility control, overriding
	Week 4th	**Holi Vacation**
April	Week 1st	abstract class & methods, sealed classes & methods, interfaces.
	Week 2nd	Advanced features of C#: Exception handling and error handling.
	Week 3rd	automatic memory management, Input and output (Directories, Files, and streams).
	Week 4th	Revision and Test

Teacher

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LESSON PLAN
SESSION 2023-24 (EVEN SEM)

DEPARTMENT-Computer Science

NAME OF FACULTY___Preeti_

SUBJECT   Operating System(BCA 2nd sem.)

JANURAY 2024

WEEK 3   Introduction To Operating System, Needs And Operating System Services, Structures

WEEK 4   Simple Batch, Timeshared, Multiprocessing, Multi programmed, Real Time, Personal Computers, Parallel And Distributed Systems.

FEBRUARY 2024

WEEK 1   Process Concepts, Operation On Processes, Co-Operating Processes, Threads,

WEEK 2   Interprocess Communication, CPU Scheduling Basic Concepts, Scheduling Criteria,Scheduling Algorithm- FCFS, SJF, Round Robin, Queue .

WEEK 3   Deadlock Characterization, Methods For Handling Deadlock, Bankers Algorithm, Memory Management Introduction

WEEK 4   Logical Versus Physical Address Space, Swapping, Physical Address Space, Contiguous Allocation.

MARCH 2024

WEEK 1   Paging And Segmentation, Virtual Memory Introduction

WEEK 2   Demand Paging, Performance Of Demand Paging, Page Replacement,

WEEK 3   Holi Vacations

WEEK 4   Page Replacement Algorithms

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APRIL 2024

WEEK 1	Thrashing, File System Structure, Allocation Methods-Contiguous, Linked, Indexed Allocation
WEEK 2	Free Space Management, Bit Vector , Linked List, Grouping And Counting.
WEEK 3	Disk Structure, Disk Scheduling-FCFS, SSTF, SCAN, C-SCAN, LOOK, C-Look.
WEEK 4	Revision And Test.

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RAJIV GANDHI GOVT. COLLEGE FOR WOMEN, BHIWANI
LESSON PLAN 2023-24

Class: B. Sc V Sem (comp Sci)

Subject: 20UCS506

Name of Paper: Computer Networks

Name of Teacher: Madhu Malik

Month	Week	Topic
July	Week 3th	Basic concepts: components of data communication, Standards and organization, Network classification
	Week 4th	Network topologies: Network protocol, Layered network architecture
August	Week 1st	overview of OSI Reference Model, overview of TCP/IP protocol suite
	Week 2nd	Physical Layer: cabling, Network Interface card, Transmission Media
	Week 3rd	Devices — Repeater, Hub, Bridge, Switch, Router, Gateway
	Week 4th	Data Link Layer: Framing techniques Error control, Flow control, Protocols
September	Week 1st	Shared media protocols — CSMA/CD and CSMA/CA
	Week 2nd	Network Layer: Virtual circuits and datagram approach, IP addressing methods
	Week 3rd	Routing Algorithms (adaptive and NON adaptive)
	Week 4th	Transport Layer: Transport services, Transport Layer protocol of TCP and UDP.

October	Week 1st	Application Layer : Application Layer Protocols and Services - Domain name System, HTTP, WWW
	Week 2nd	Telnet , FTP , SMTP
	Week 3rd	Network Security cryptography common Terms
	Week 4th	Firewalls, Virtual Private Networks
November	Week Ist	Revision
	Week 2nd	**Diwali break**
	Week 3rd	Revision

Madhu

Teacher   **HOD**

RAJIV GANDHI GOVT. COLLEGE FOR WOMEN, BHIWANI
LESSON PLAN 2023-24

Class: MSC Computer Science

Subject: 21MCS105

Name of Paper: Computer Architecture and Organization

Name of Teacher: Madhu Malik

Month	Week	Topic
September	Week 2nd	Boolean Algebra and Logic Gates: Basic Definition, Axiomatic Definition, Basic theorem and Properties of boolean algebra, minterms and Maxterms, logic operations Digital Logic gates
	Week 3rd	IC digital logic families, Simplification of Boolean functions: Different types map method, Product of Sum simplification NAND or NOR, Implementation Don't care condition.
	Week 4th	Tabulation method, Adder, Subtractor, Decoder, Encoder, code conversion universal gate. Sequential Logic: Flip-Flops
October	Week 1st	Triggering of Flip Flops, Analysis of clocked Sequential circuits state Reduction and Assignment
	Week 2nd	Flip-Flop Excitation, Design of counters, Design with state equations Overview of Register transfer and Microoperation
	Week 3rd	Register Transfer Language, Register Transfer, Bus and memory transfer Arithmetic Microoperations
	Week 4th	Logic micro operations, Shift microoperations Arithmetic Logic shift unit Basic computer organization and Design: Instruction codes
November	Week 1st	Computer Registers, Computer Instructions Timing and control Instruction cycle, Memory Reference Instructions, Input output and. Interrupt
	Week 2nd	Diwali Break
	Week 3rd	Design Basic computer, Design of Accumulator Logic. Programming the Basic computer: Introduction Machine Language, Assembly Language
	Week 4th	The Assembler Program Loops Programming Arithmetic and Logic operations Subroutines. I-O Programming

December	Week Ist	Central Processing Unit: Introduction General Register organization stack organization Instruction format Addressing Modes Data transfer and manipulation
	Week 2nd	Program control Reduced Instruction set Computer (RISC)
	Week 3rd	Pipeline Processing: Pipeline and vector Processing Parallel processing, Pipelining Arithmetic pipeline, Instruction pipeline and Arrays Processors

RAJIV GANDHI GOVT. COLLEGE FOR WOMEN, BHIWANI
LESSON PLAN 2023-24

Class: BCA 5TH sem

Subject: COMPUTER SCIENCE

Name of Paper: Data Communication and Networking

Name of Teacher: MADHU MALIK

Month	Week	
July	Week 1st	Introduction to Computer Communications and Networking Technologies: Uses of Computer Networks: Network Devices, Nodes, and Hosts: Types of Computer Networks and their Topologies
	Week 2nd	Network Software: Network Design issues and Protocols: Connection-Oriented and Connectionless Services.
August	Week 1st	Network Applications and Application Protocols: Computer Communications and Networking Models: Decentralized and Centralized Systems,
	Week 2nd	Distributed Systems, Client/Server Model, Peer-to-Peer Model, Web-Based Model.
	Week 3th	Network Architecture and the OSI Reference Model, TCP/IP reference model, Example Networks: The Internet, X.25, Frame Relay, ATM.
	Week 4th	Analog and Digital Communications Concepts: Concept of data, signal, channel, bid-rate, maximum data-rate of channel, Representing Data as Analog Signals,
September	Week 1st	Representing Data as Digital Signals, Data Rate and Bandwidth, Capacity, Baud Rate; Asynchrous and synchrous transmission.
	Week 2nd	data encoding techniques, Modulation techniques, Digital Carrier Systems: Guided and Wireless Transmission Media: Communication Satellites
	Week 3rd	Switching andMultiplexing: Dialup Networking: Analog Modem Concepts: DSL Service.
	Week 4th	Data Link Layer: Framing, Flow Control, Error Control: Error Detection and Correction: Sliding Window Protocols
October	Week 1st	Media Access Control: Random Access Protocols, Token Passing Protocols: Token Ring
	Week 2nd	Introduction to LAN technologies: Ethernet, switched Ethernet, VLAN, fast Ethernet, gigabit Ethernet, token ring, FDDI, Wireless LANs: Bluetooth
	Week 3rd	Network Hardware Components: Connectors, Transceivers, Repeaters, Hubs,
	Week 4th	Network Interface Cards and PC Cards, Bridges, Switches, Routers, Gateways.
November	Week 1st	Network Layer and Routing Concepts: Virtual Circuits and Datagrams: Routing Algorithms: Flooding.
	Week 2nd	**DEWALI BREAK**
	Week 3rd	Shortest Path Routing, Distance Vector Routing: Link State Routing, Hierarchical Routing.
	Week 4th	Congestion Control Algorithms: Internetworking Network Security Issues: Security threats.
December	Week Ist	Encryption Methods: Authentication: Symmetric - Key Algorithms: Public-Key Algorithms.
	Week 2nd	**REVISION**