

LESSON PLAN
Session: 2024-25 (ODD SEM)

Name of Teacher- Chanchal & Jyoti
Class- BCA 1st sem
Subject-Web Development-I

WEEKS	SYLLABUS
Week1	Evolution and History of World Wide Web; Basic features; the evolution of Web development; Web Servers; Hypertext Transfer Protocol; URLs; IP Addresses; Domain Names
Week2	Searching and Web- Casting Techniques; Search Engines and Search Tools; Internet Security; The Web Programmers;
Week3	Toolbox. Introduction to Web Technologies; Introduction to HTML, CSS, and JavaScript, Introduction to Client-Side vs. Server- Side Scripting;
Week4	Hosting your Site; Internet Service Provider; Planning and designing your Web Site; Steps for developing your Site,Test
Week5	Choosing the contents; Home Page; Domain Names; Creating a Website and the Markup Languages (HTML, DHTML);
Week6	Introduction to HTML; Hypertext and HTML; HTML Document Features; HTML command Tags; Creating Links; Headers
Week7	Text styles; Text Structuring; Text colors and Background; Formatting text; Page layouts; Lists, Tables;
Week8	meta element; New HTML5 Form input Types; input and data list elements; auto complete Attribute; Page-Structure Elements; Introduction to DHTML and its features,Test
Week9	CGI; Features of Java; Java Script; Features of ASP; VBScript; Macromedia Flash; Macromedia Dreamweaver
Week10	The JavaScript execution environment; The Document Object Model ; Element access in JavaScript; Events and event handling, Handling events from the Body elements, Button elements,
Week11	Text box, and Password elements ; The DOM 2 event model ; The navigator object ; DOM tree traversal and modification;
Week12	Introduction to CSS, Block and Inline Elements, Inline Styles, using internal CSS, using external CSS, How CSS rules cascade, inheritance, why use external style sheets? ,Test
Week13	CSS3 Basics: CSS selectors, color: foreground color, background color, contrast, opacity; text: Typeface terminology, Specifying Typefaces, fonts; list tables and forms: list-style, table properties, styling forms, styling text input, Test

Week14	Layout: key concepts in positioning elements, controlling the position of elements: relative positioning, absolute positioning, fixed positioning, z-index
Week15	Float, clear, creating multi column layout with float, fixed width layout, liquid layout
Week16	layout grids, Images: controlling size of images in CSS, TEST of all syllabus
Week 17	Aligning images using CSS, centering images using CSS, background images, gradients, Media Queries, Test

LESSON PLAN

Session: 2024-25 (ODD SEM)

Name of Teacher- Nalini
Class- 1st Sem
Subject- Multidisciplinary Course

WEEKS	SYLLABUS
Week1	Introduction: Historical evolution of computers, Classification of computers, Block Diagram along its components and characteristics,
Week2	Usefulness of Computers. Human being Vs. Computer, Applications of computers in various fields.
Week3	Input/Output Devices: Keyboards, mouse, joysticks, trackballs, digitizer, voice-recognition, optical-recognition
Week4	Scanners, terminals, point-of-sale terminals, machine-vision systems, Printer & its types
Week5	Memory & Mass Storage Devices: Characteristics of memory systems, types of memory, RAM, ROM, magnetic disks-floppy disk, hard-disk;
Week6	Optical disks; Magnetic tapes; Concepts of Virtual and Cache memory
Week7	Operating System: Functions, Measuring System Performance, Assemblers, Compilers and Interpreters
Week8	Batch Processing, Multiprogramming, Multi Tasking, Multiprocessing, Time Sharing, DOS, Windows, Unix/Linux.
Week9	Data Communication: Communication Process, Data Transmission speed, Communication Types (modes), Data Transmission Medias, Modem and its working, characteristics
Week10	Types of Networks, LAN topologies, Computer Protocols, Concepts relating to networking.
Week11	Internet: Introduction to Internet, WWW and Web Browsers; Applications of Internet; connecting to internet; What is ISP?

Week12	Internet: Introduction to Internet, WWW and Web Browsers; Applications of Internet; connecting to internet; What is ISP?; Search Engines; Understanding URL; Domain name; IP Address; Web page, Website and home page.
Week13	Electronic Mail: Introduction, advantages and disadvantages, User Ids, Passwords, e-mail addresses, message components, message composition, Web Browsers and search engines.
Week14	Business Data Processing: Introduction, data storage hierarchy, Method of organizing data, File Types, File Organization, File Utilities.
Week15	Revision of whole syllabus
Week16	Revision of whole syllabus

LESSON PLAN

Session: 2024-25 (ODD SEM)

Name of Teacher- Tanu Batra
Class- 1st Sem
Subject- Multidisciplinary Course

WEEKS	SYLLABUS
Week1	Introduction: Historical evolution of computers, Classification of computers, Block Diagram along its components and characteristics,
Week2	Usefulness of Computers. Human being Vs. Computer, Applications of computers in various fields.
Week3	Input/Output Devices: Keyboards, mouse, joysticks, trackballs, digitizer, voice-recognition, optical-recognition
Week4	Scanners, terminals, point-of-sale terminals, machine-vision systems, Printer & its types
Week5	Memory & Mass Storage Devices: Characteristics of memory systems, types of memory, RAM, ROM, magnetic disks-floppy disk, hard-disk;
Week6	Optical disks; Magnetic tapes; Concepts of Virtual and Cache memory
Week7	Operating System: Functions, Measuring System Performance, Assemblers, Compilers and Interpreters
Week8	Batch Processing, Multiprogramming, Multi Tasking, Multiprocessing, Time Sharing, DOS, Windows, Unix/Linux.
Week9	Data Communication: Communication Process, Data Transmission speed, Communication Types (modes), Data Transmission Medias, Modem and its working, characteristics
Week10	Types of Networks, LAN topologies, Computer Protocols, Concepts relating to networking.

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Week13	Electronic Mail: Introduction, advantages and disadvantages, User Ids, Passwords, e-mail addresses, message components, message composition, Web Browsers and search engines.
Week14	Business Data Processing: Introduction, data storage hierarchy, Method of organizing data, File Types, File Organization, File Utilities.
Week15	Revision of whole syllabus
Week16	Revision of whole syllabus

LESSON PLAN

Session: 2024-25 (ODD SEM)

Name of Teacher- Nalini

Class- 1st Sem

Subject- Value Added Course under NEP

WEEKS	SYLLABUS
Week1	Introduction & Evolution of Digital Systems: Role & Significance of Digital Technology; Information and Communication Technology (ICT) & Tools
Week2	Computer System & its working, Software and its types
Week3	Operating Systems: Types and Functions. Problem Solving: Algorithms and Flowcharts
Week4	Communication Systems: Principles, Model & Transmission Media
Week5	Computer Networks & Internet: Concepts & Applications, WWW, Web Browsers, Search Engines
Week6	Messaging, Email, Social Networking. Computer Based Information System: Significance & Types.
Week7	E-commerce & Digital Marketing: Basic Concepts, Benefits & Challenges
Week8	Emerging Technologies and their applications: Overview of Artificial Intelligence, Machine Learning
Week9	Deep Learning; Big Data, Data Science and Big Data Analytics; Internet of Things (IoT) and Industrial Internet of Things (IIoT),
Week10	Robotics and 3D Printing; Blockchain Technology; Quantum Computing; Cloud computing and its service models
Week11	Digital India & e-Governance: Initiatives, Infrastructure, Services and Empowerment.
Week12	Digital Financial Tools: Unified Payment Interface, Aadhar Enabled Payment System, USSD, Credit / Debit Cards,
Week13	e-Wallets, Internet Banking, NEFT/RTGS and IMPS, Online Bill Payment and POS.
Week14	Cyber Security: Threats, Significance, Challenges, Precautions, Safety Measures and Tools.

Week15	REVISION OF WHOLE SYLLABUS
Week16	REVISION OF WHOLE SYLLABUS

LESSON PLAN
Session: 2024-25 (ODD SEM)

Name of Teacher- Tanu Batra

Class-

Subject- Value Added Course under NEP

WEEKS	SYLLABUS
Week1	Introduction & Evolution of Digital Systems: Role & Significance of Digital Technology; Information and Communication Technology (ICT) & Tools
Week2	Computer System & its working, Software and its types
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Week10	Robotics and 3D Printing; Blockchain Technology; Quantum Computing; Cloud computing and its service models
Week11	Digital India & e-Governance: Initiatives, Infrastructure, Services and Empowerment.
Week12	Digital Financial Tools: Unified Payment Interface, Aadhar Enabled Payment System, USSD, Credit / Debit Cards,
Week13	e-Wallets, Internet Banking, NEFT/RTGS and IMPS, Online Bill Payment and POS.
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Week15	REVISION OF WHOLE SYLLABUS
Week16	REVISION OF WHOLE SYLLABUS

Lesson Plan (July 2024 to Nov. 2024)

Name of Assistant/Associate Professor: **Dr. Maninder**

Class and Section: **B.Com 3rd SEM**

Subject: **Basics of Information Technology**. Paper: **BCH-3-06**

First Week: Essentials of Computers: Concept of data, information and data processing, Levels or type of Information.

Second Week: Uses of information, Business data Processing Cycle, Methods of data processing, Application of Electronic data processing.

Third Week: Memory and Mass Storage Devices: Introduction of Memory System, Types of Memory-Primary and Secondary Memory, RAM and ROM, Types of Secondary Storage Devices.

Fourth week: Software Concepts: Types of Software and their role, System Languages and Translators, Functions and Types of an Operating System.

Fifth week: Data Communications: Basic elements of a Communication System, Forms of Data Transmission, Data transmission speed.

Sixth week: Modes of Data Transmission: Analog and Digital data transmissions, Data Transmission Media; Wire Cables, Microwave, Fiber-optics, Communication Satellites.

Seventh week: Emerging Trends in IT: Electronic Commerce (E-Commerce), Types of E-Commerce, Advantages and Disadvantages of E-commerce, Application of E-commerce, process in e-commerce, Types of an Electronic Payment System, Security issues in E-commerce, Security

Eighth week: Schemes; Electronic data Interchange (EDI); Mobile communication, Bluetooth Communication, Infrared communication, Smart Card.

Ninth week: Computer Networks: Introduction to Computer Network, Types of Network; Local Area Network, Wide Area Network, Types of Public and Private Network, Network Topology.

Tenth week: Internet and its Application, History of Internet, Benefits of Internet, ISP, Internet Accounts,

Eleventh week: Internet Addressing, Information Technology: Impact of IT on Business environment.

Twelfth week: Applications of IT. Multimedia: Concept of Multimedia, Multimedia Components, Multimedia Applications.

Thirteenth week: Presentation with Power-Point: Features of Power-point, Creating presentation the easy way.

Fourteenth week: Working with different views, working with graphics in PowerPoint.

Fifteenth week: Sound effects and Animation effects, Printing in Power-point.

Sixteenth week: Introduction to Accounting Packages-Tally: Features of Tally, Preparation of Vouchers.

Seventeenth week: Salary statement, Maintaining of Inventory records.

Eighteenth week: Maintenance of Accounting Books and final Accounts, Generating and Printing reports.

Nineteenth week: Revision, query and test

Lesson Plan from (July 2024 to Nov. 2024)

Name of Assistant/Associate Professor: **Dr. Neeru**

Class and Section: **B.Sc 5th SEM**

Subject: **Database Management & Internet. Paper: 5.1 & 5.2**

B.Sc 5th Sem – Paper- 5.1: Database Management System. Paper-5.2: Introduction to Internet and Web Technologies.

First Week: Basic Concepts – Data, Information, Records and files. Traditional file – based Systems-File Based Approach-Limitations of File Based Approach, Database Approach-Characteristics of Database Approach, Database Management System (DBMS).

Second Week: Introduction to Internet, Benefits of Internet, WWW, Hardware and software requirement for internet, internet protocols, applications of internet.

Third Week: Components of DBMS Environment, DBMS Functions, Advantages and Disadvantages of DBMS. Classification of Database Management System. Roles in the Database Environment - Data and Database Administrator.

Fourth week: Internet Tools- Telnet, FTP, Gopher, Archie, Veronica, Mosaic, WAIS, IRC, Online Chatting, Messaging, and Conferencing Concepts, resources of internet.

Fifth week: Centralized and Client Server architecture to DBMS. Database System Architecture – Three Levels of Architecture, External, Conceptual and Internal Levels, Schemas, Mappings and Instances.

Sixth week: E-Mail mailing lists, Internet addressing, internet service provider (ISP), internet in India-Shell account, TCP/IP account, Home page and Web Site, internet accessing, internet terminology, internet security problems and solutions.

Seventh week: Data Independence – Logical and Physical Data Independence. Data Models: Records-based Data Models, Object-based Data Models, Physical Data Models and Conceptual Modeling. Hierarchical, network and relational model.

Eighth week: Overview of Intranet and its applications, Web Browsers, Search Engines, Categories of Search Engines, Searching Criterion, Surfing the Net, Hypertext Transfer Protocol (HTTP), URL.

Ninth week: Entity-Relationship Model – Entity Types, Entity Sets, Attributes and keys, Relationship, relationship sets, Role name & recursive relationship and structural constraints, Conceptual design using E-R Diagrams.

Tenth week: HTML: Internet Language, Understanding HTML, Create a Web Page, Linking to other Web Pages, Publishing HTML Pages.

Eleventh week: Relational Data Model: Introduction, Properties of Relations, Keys, Integrity Constraints over Relations, Views. Relational Database Design: Functional Dependencies, Normalization: 1st to 3rd Normal Form, BCNF, Lossless Join and Dependency preserving decomposition.

Twelfth week : Text Alignment and Lists, Text Formatting Fonts Control, E-mail Links and link within a Page, Creating HTML Forms.

Thirteenth week: SQL: Types & components of SQL, Data Definition and data types, Data definition commands

Fourteenth week: Data manipulation commands, Data Control Commands Specifying Constraints (Primary Constraint, Foreign key, Unique, Not Null) in SQL, Schema.

Fifteenth week: Creating Web Page Graphics, Putting Graphics on a Web Page, Custom Backgrounds and Colors, Creating Animated Graphics.

Sixteenth week: Basic Queries in SQL, Insert, Delete and Update operations. Inbuilt Date, String functions. Commit, Rollback, Save points. Views: Introduction, Advantages of creating views, Features, Destroying/ Altering table & Views.

Seventeenth week: Web Page Design and layout, Advanced Layout with Tables, Using Style Sheets.

Eighteenth week: Assignments and group discussion.

Nineteenth week: Revision, query and test

Lesson Plan from (July 2024 to Nov. 2024)

Name of Assistant/Associate Professor: **Dr. Madhuri**

Class and Section: **B.Sc Maths (hons.) 3rd SEM**

Subject: **Database Management System and Oracle**, Paper: **BHM236**

B.Sc Maths (Hons) 3rd Sem – Database Management System and Oracle

Code: BHM236

First Week: Basic Concepts: File systems vs DBMS, advantages and disadvantages of DBMS.

Second Week: objectives of a database. Database systems concepts and architecture.

Third Week: Data Modeling for a database: records and files, abstraction and data integration.

Fourth week: Database Management System: Relational, Network, and Hierarchical.

Fifth week: Relational Data Manipulations: Relational Algebra, Relational Calculus, SQL.

Sixth week: Relational Database Design: Functional dependencies, Finding keys; 1st to 3rd NFs, CNF, Lossy Join and Dependency preserving decomposition

Seventh week: Query Processing: General strategies for query processing, query optimization, query processor.

Eighth week: Test + Database security issues and recovery techniques

Ninth week: Introduction to Oracle: Modules of Oracle, Invoking SQLPLUS, Data types, Data Constraints

Tenth week: Test + Operators, Data manipulation: Create, Modify, Insert, Delete and Update; Searching, Matching and Oracle Functions

Eleventh week: Test + SQL*Forms: Form Construction, user-defined form, multiple-record form, Master-detail form. PL/SQL Blocks in SQL*Forms

Twelfth week: PL/SQL syntax, Data types, PL/SQL functions.

Thirteenth week: Error handling in PL/SQL, package functions, package procedures, Oracle transactions.

Fourteenth week: Test SQL*Report Writer: Selective dump report, Master-detail Report

Fifteenth week: Control-break Report, Test report.

Sixteenth week: Test + Database Triggers: Use & type of database Triggers

Seventeenth week: Test + Database Triggers Vs SQL*Forms, Database Triggers Vs. Declarative Integrity Constraints.

Eighteenth week: BEFORE vs AFTER Trigger Combinations, Creating a Trigger, Dropping a Trigger.

Nineteenth week: Revision, query and test

LESSON PLAN FROM (July 2024 to Nov. 2024)

NAME- Dr. Anil Saini
CLASS- BCA 3RD SEM
SUBJECT- DATA STRUCTURE
PAPER- BCA-202

Week 1 Introduction: Elementary data organization, Data Structure definition
Week 2 Data types vs. data structure, Categories of data structures, Data structure operations, **Week 3** Applications of data structures, Algorithms complexity and time-space tradeoff, **Week 4** Big-O Notation. Strings: Introduction, Storing strings, String operations
Week 5 Pattern matching algorithms, Arrays: Introduction, Linear arrays, Representation of linear array in memory.
Week 6 Address calculations, Traversal, Insertions, Deletion in an array,
Week 7 Multidimensional arrays, Parallel arrays, Sparse arrays.,
Week 8 Linked List: Introduction, Array vs. linked list Representation of linked lists in memory, Traversal.
Week 9 Insertion Deletion Searching in a linked list Header linked list, Circular linked list Two-way linked list,
Week 10 Threaded lists, Garbage collection, Applications of linked lists.,
Week 11 Stack: Introduction, Array and linked representation of stacks, Operations on stacks.
Week 12 Applications of stacks: Polish notation, Recursion. Queues: Introduction
Week 13 Array and linked representation of queues, Operations on queues,
Week 14 Deques, Priority Queues, Applications of queues.
Week 15 Tree: Introduction, Definition, Representing Binary tree in memory,
Week 16 Traversing binary trees, Traversal algorithms using stacks.
Week 17 Graph: Introduction, Graph theory terminology,
Week 18-19 Sequential and linked representation of graphs. REVISION.

Lesson Plan (July 2024 to Nov. 2024)

Name of Assistant/Associate Professor: **Dr. Maninder**

Class and Section: **BCA-V Sem SEC. A & B**

Subject: Paper: **Computer Graphics (BCA 302)**

Week 1 Graphics Primitives Introduction to computer graphics, Basics of Graphics systems

Week 2 Application areas of Computer Graphics, Overview of graphics systems, video-display

devices **Week 3** raster-scan systems, random scan systems graphics monitors and workstations and input

devices. **Week 4 Output Primitives:** Points and lines, line drawing algorithms mid-

point circle and ellipse algorithms **Week 5** Filled area primitives: Scan line polygon fill algorithm boundary fill

and flood fill algorithms **Week. 6**

2-D

Geometrical

Transforms:

Translation,

scaling,

rotation,

reflection and

shear transformations.

Week 7 matrix representations and homogeneous coordinates, composite transforms,

transformations between coordinate systems

Week 8 2-D Viewing: The viewing pipeline, viewing coordinate reference frame

Week 9 window to viewport coordinate transformation, viewing functions Cohen-Sutherland and Cyrus-Beck

line clipping algorithms

Week 10 Sutherland-Hodgeman polygon clipping algorithm. Revision and test

Week 11 3-D Geometric Transformations: Translation, rotation, scaling, reflection and shear

transformations, composite transformations

Week 12 3-D Viewing: Viewing pipeline, viewing coordinates, view volume

Week 13 general projection transforms and clipping. Revision and test.

Week 14 3-D Object Representation: Polygon surfaces

Week 15 quadric surfaces, spline representation

Week 16 Hermite curve, Bezier curve

Week 17 B-Spline curves, Bezier and B-Spline surfaces

Week 18 Basic illumination models, polygon-rendering methods. Revision and test.

Week 19 Syllabus related queries

Lesson Plan (July 2024 to Nov. 2024)

Name of Assistant Professor: Dr. Geeta Dalal, Mrs. Sujata
Class: BCA 5th Sem
Subject: BCA-301: MANAGEMENT INFORMATION SYSTEM

Week 1: Introduction to system and Basic System Concepts

Week 2: Types of Systems

Week 3: The Systems Approach, Information System: Definition, EDP/MIS/DSS

Week 4: Test + Characteristics, Types of information

Week 5: Role of Information in Decision-Making, Sub-Systems of an Information system
EDP and MIS management levels

Week 6: Test + System design

Week 7: System design

Week 8: Test + Developing Information Systems: Analysis

Week 9: Test + Implementation & Evaluation

Week 10: Implementation & Evaluation, Pitfalls in MIS Development

Week 11: Test + Functional MIS: A Study of Personnel, Financial and production MIS

Week 12: Introduction to e-business systems, e-commerce

Week 13: Test + technologies, applications

Week 14: Test + Decision support systems - support systems for planning

Week 15: control and decision-making

Week 16: Decision making

Week 17: Test, Assignments

Week 18: Planning, Control Decision Making

Week 19: Revision, query, assignments and test

Lesson Plan July 2024 to Nov. 2024

Name of Assistant/Associate Professor: Dr. Vandana

Class and Section: BCA 3rd sem

Subject:

Database System

Paper: BCA- 203

Week 1: Data, Information, Records and files. File Based Approach & its Limitations.

Week 2: Characteristics of Database Approach, advantages & disadvantages of database system.

Week 3: Introduction of database system & DBMS, Components of database system & DBMS.

Week 4: DBMS Functions & users, Advantages and Disadvantages of DBMS, DBMS Languages.

Week 5: Data and Database Administrator, D/b Designers, Applications Developers & Users.

Week 6: Three Levels of Architecture, External, Conceptual and Internal Levels.

Week 7: Schemas, Mappings and Instances.

Week 8: Data Independence - Logical and Physical Data Independence.

Week 9: Classification of DBMS, Centralized and Client Server architecture to DBMS.

Week 10: Records-based Data Models, Object-based Data Models.

Week 11: Physical Data Models and Conceptual Modeling.

Week 12: Entity Types, Entity Sets, Attributes Relationship Types.

Week 13: Relationship Instances and ER Diagrams, abstraction and integration.

Week 14: Basic Concepts of Hierarchical and Network Data Model, Relational Data Model.

Week 15: Database Relations, Properties of Relations, Keys, Domains.

Week 16: Integrity Constraints over Relations, Relational algebra, Relational calculus, Functional dependencies.

Week 17: Modification anomalies, 1st to 3rd NFs, BCNF, 4th and 5th NFs, Computing closures of set FDs.

Week 18: SQL: Datatypes, Basic Queries in SQL, Insert, Delete and Update Statements, Views in SQL, Strategies of query processing.

Week 19: Query optimization, query processor, Concept of security, concurrency and recovery.

Assignments, test, Revision

Lesson Plan July 2024 to Nov. 2024

Name of Assistant/Associate Professor: Dr. Anil Kumar

Class and Section: BBA-V SEM

Subject: Paper: Computer Network & Internet (BBA504)

Week 1 Introduction to network

Week 2 advantages and disadvantages of network,

Week 3 network topologies,

Week 4 analog and digital signal, analog and digital transmission

Week 5 OSI model and TCP/IP model,

Week 6 protocols and their classification

Week 7 flow control and cryptography, ranking

Week 8 Revision Class Test

Week 9 Assignment

Week 10 Overview of internet, internet service provider

Week 11 setting windows environment for dialup networking,

Week 12 search engine, searching web using search engine,

Week 13 audio on internet, newsgroup, subscribing to newsgroups

Week 14 Revision Class Test

Week 15 Intranet concepts and architecture, building corporate world wide web

Week 16 HTTP protocol, intranet infrastructure

Week 17 fundamental of TCP/IP, intranet security design,

Week 18 intranet as a business tool, future of intranet, protocols of communication

Week 19 Revision and Assignment

LESSON PLAN

Session: 2024-25 (ODD SEM)

Name of Teacher- Ms. Yogita & Dr. Chancal

Class- B.SC. 3rd semester

Subject- Data Communication and Networking, Object- Oriented Design and C++ Paper: 3.1, 3.2

WEEKS	SYLLABUS
Week1	Introduction to Computer Communications and Networking Technologies; Uses of Computer Networks; Object oriented concepts: Class, Object, Methods, Message Passing, Abstraction, Inheritance
Week2	Network Devices, Nodes, and Hosts; Types of Computer Networks and their Topologies; Network Architecture, object oriented Concepts: Polymorphism, Generosity, Overriding, Abstract Class & methods. Generalization, Aggregation, Associations
Week3	OSI Reference Model, Object modeling techniques: Introduction to object model, Dynamic model, Functional Model. Strengths & Weakness of all model
Week4	TCP/IP reference model. flow control, recursion, array, Pointers and their manipulation, strings, structures, Class and Objects, Data Hiding & Encapsulation
Week5	Analog and Digital Communications: Concept of data, signal, channel, bid-rate , maximum data-rate of channel, Data members and Member functions, Inline Functions, Static Data Members and Member Functions
Week6	Representing Data as Analog Signals, Representing Data as Digital Signals, Data Rate and Bandwidth, Friend Functions, Preprocess or Directives, Namespace, Comparing C with C++.
Week7	Capacity ,Baud Rate; Asynchronous and synchronous transmission, Constructors& Destructors: Roles and types of Constructors, data encoding techniques, Modulation techniques
Week8	Digital Carrier Systems; Guided and Wireless Transmission Media, Constructor Overloading, Roles of Destructors, Dynamic Memory Allocation: Pointers and their Manipulation
Week9	Communication Satellites; Switching and Multiplexing ;new and delete Operators ‘this’ Pointer. Console I/O: Formatted and Unformatted I/O
Week10	Dialup Networking; Analog Modem Concepts. Data Link Layer: Framing, Flow Control, Error Control, Manipulators
Week11	Error Detection and Correction; Media Access Control: Random Access Protocols, Compile-Time Polymorphism: Unary and Binary Operators overloading through Member Functions
Week12	Token Passing Protocols; Token Ring; Introduction to Ethernet, FDDI, Unary and Binary Operators overloading through Friend Functions
Week13	Wireless LANs. Network Layer and Routing Concepts: Virtual Circuits and Datagram’s; Function Overloading, virtual

	functions
Week14	Routing Algorithms: Flooding, Shortest Path Routing, Distance Vector Routing; Internetworking abstract class, virtual class
Week15	Transport layer: Elements of Transport protocol: Addressing, Connection Establishment, Flow Control, Buffering, Inheritance: Types of Derivations, Forms of Inheritance
Week16	Crash recovery. Internet Transport protocol: UDP: Introduction, Real time Transport protocol, Remote Procedure Call, Roles of Constructors and Destructors in Inheritance. Application Layer: Domain Name System, Electronic Mail, World Wide Web

LESSON PLAN (July 2024 to Nov. 2024)

NAME: JYOTI
CLASS: BBA3RDSEM
SUBJECT: DATABASE MANAGEMENT SYSTEM

WEEK1: Introduction, Database management system concepts. Definitions: Entity, attribute, Record, etc.

WEEK2: DBMS Architecture, External schema, Conceptual Schema, Internal Schema.

Week3: Data types in DBMS, Types of Keys: Primary key, secondary key

Week4: Alternate key, foreign key, schemas, types of schemas, instance of a schema.

Week 5: DBMS characteristics, difference between traditional database management system and modern database management system.

Week6: Database administrator, Role of DBA in maintaining and controlling in Database.

Week7: Database security and threats: various threats to database. Security measures in database, . Week

8: Threats in a database in detail: Availability loss, Integrity loss, confidentiality loss

Week9: Access control, flow control, data encryption, data decryption, cryptography

Week 10: Database Models: ER model, Entities and relationship and various symbols used in ER model

Week11: Relational Model: How to transform a relational model into ER model and vice versa

Week12: Information: characteristics of information. Difference between file oriented system and database system.

Week 13: Types of DBMS: distributed database management system and centralized management system

Week14: Data dictionary: types of data dictionary

Week15: Data warehousing, data mining, firewalls and database recovery.

Week16: Internet, Database, Digital libraries

Week17: Multimedia Database

Week18: Mobile database, Spatial database

Lesson Plan

July 2024 to Nov. 2024

Name of Assistant/Associate Professor: **Dr. Vandana**

Class and Section: **BCA 3rd Sem (Sec A & B)**

Subject: **Introduction to operating system**

Paper: **BCA201**

Week 1: Introduction to Operating System, its need and operating System services.

Week 2: Early systems, Structures - Simple Batch, Multiprogrammed, time shared, Personal Computer, Parallel, Distributed Systems, Real-Time Systems.

Week 3: Process Management: Process concept, Operation on processes, Cooperating Processes

Week 4: Threads, and Inter-process Communication.

Week 5: CPU Scheduling: Basic concepts, Scheduling criteria

Week 6: Scheduling algorithms: FCFS, SJF

Week 7: Round Robin & Queue Algorithms

Week 8: Deadlocks: Deadlock characterization, Methods for handling deadlocks, Banker's Algorithm

Week 9: Memory Management: Logical versus Physical address space, Swapping

Week 10: Contiguous allocation, Paging, Segmentation

Week 11: Virtual Memory: Demand paging, Performance of demand paging

Week 12: Page replacement, Page replacement algorithms, Thrashing

Week 13: File management: File system Structure

Week 14: Allocation methods: Contiguous allocation

Week 15: Linked allocation, Indexed allocation

Week 16: Free space management: Bit vector, Linked list

Week 17: Grouping, Counting, Device Management: Disk structure

Week 18: Disk scheduling: FCFS, SSTF, SCAN

Week 19: C-SCAN, LOOK, C-LOOK

Problems and syllabus Revision. Test and Assignments

LESSON PLAN

Session: 2024-25 (ODD SEM)

Name of Teacher- Ms. Yogita

Class- BCA 5TH semester

Subject- VISUAL BASIC BCA -304

WEEKS	SYLLABUS
Week1	Introduction to VB: Visual & non-visual programming, Procedural, Object-oriented and event driven programming languages
Week2	The VB environment: Menu bar, Toolbar, Project explorer, Toolbox, Properties window
Week3	Form designer, Form layout, Immediate window. Visual Development and Event Driven programming.
Week4	Basics of Programming: Variables: Declaring variables, Types of variables, Converting variables types
Week5	User-defined data types, Forcing variable declaration, Scope & lifetime of variables. Constants: Named & intrinsic.
Week6	Operators: Arithmetic, Relational & Logical operators. I/O in VB: Various controls for I/O in VB, Message box, Input Box, Print statement
Week7	Programming with VB: Decisions and conditions: If statement, If-then-else, Select-case.
Week8	Looping statements: Do-loops, For-next, While-wend, Exit statement. Nested control structures.
Week9	Arrays: Declaring and using arrays, one-dimensional and multi-dimensional arrays, Static & dynamic arrays, Arrays of array
Week10	Collections: Adding, Removing, Counting, Returning items in a collection, Processing a collection.
Week11	Programming with VB: Procedures: General & event procedures, Subroutines
Week12	Functions ,Calling procedures, Arguments- passing mechanisms
Week13	Optional arguments, Named arguments, Functions returning custom data types
Week14	Functions returning arrays. Working with forms and menus : Adding multiple forms in VB, Hiding & showing forms
Week15	. Load & unload statements, creating menu, submenu, popup menus, Activate & deactivate events
Week16	Form-load event, menu designing in VB Simple programs in VB

LESSON PLAN

Session: 2024-25 (ODD SEM)

Name of Teacher- Chanchal & Jyoti

Class- BCA 1st sem

Subject-Web Development-I

WEEKS	SYLLABUS
Week1	Evolution and History of World Wide Web; Basic features; the evolution of Web development; Web Servers; Hypertext Transfer Protocol; URLs; IP Addresses; Domain Names
Week2	Searching and Web- Casting Techniques; Search Engines and Search Tools; Internet Security; The Web Programmers;
Week3	Toolbox. Introduction to Web Technologies; Introduction to HTML, CSS, and JavaScript, Introduction to Client-Side vs. Server- Side Scripting;
Week4	Hosting your Site; Internet Service Provider; Planning and designing your Web Site; Steps for developing your Site,Test
Week5	Choosing the contents; Home Page; Domain Names; Creating a Website and the Markup Languages (HTML, DHTML);
Week6	Introduction to HTML; Hypertext and HTML; HTML Document Features; HTML command Tags; Creating Links; Headers
Week7	Text styles; Text Structuring; Text colors and Background; Formatting text; Page layouts; Lists, Tables;
Week8	meta element; New HTML5 Form input Types; input and data list elements; auto complete Attribute; Page-Structure Elements; Introduction to DHTML and its features,Test
Week9	CGI; Features of Java; Java Script; Features of ASP; VBScript; Macromedia Flash; Macromedia Dreamweaver
Week10	The JavaScript execution environment; The Document Object Model ; Element access in JavaScript; Events and event handling, Handling events from the Body elements, Button elements,
Week11	Text box, and Password elements ; The DOM 2 event model ; The navigator object ; DOM tree traversal and modification;
Week12	Introduction to CSS, Block and Inline Elements, Inline Styles, using internal CSS, using external CSS, How CSS rules cascade, inheritance, why use external style sheets? ,Test
Week13	CSS3 Basics: CSS selectors, color: foreground color, background color, contrast, opacity; text: Typeface terminology, Specifying Typefaces, fonts; list tables and forms: list-style, table properties, styling forms, styling text input, Test
Week14	Layout: key concepts in positioning elements, controlling the position of elements: relative positioning, absolute positioning, fixed positioning, z-index

Week15	Float, clear, creating multi column layout with float, fixed width layout, liquid layout
Week16	layout grids, Images: controlling size of images in CSS, TEST of all syllabus
Week 17	Aligning images using CSS, centering images using CSS, background images, gradients, Media Queries, Test

LESSON PLAN

Session: 2024-25 (ODD SEM)

Name of Teacher- Nalini
Class- 1st Sem
Subject- Multidisciplinary Course

WEEKS	SYLLABUS
Week1	Introduction: Historical evolution of computers, Classification of computers, Block Diagram along its components and characteristics,
Week2	Usefulness of Computers. Human being Vs. Computer, Applications of computers in various fields.
Week3	Input/Output Devices: Keyboards, mouse, joysticks, trackballs, digitizer, voice-recognition, optical-recognition
Week4	Scanners, terminals, point-of-sale terminals, machine-vision systems, Printer & its types
Week5	Memory & Mass Storage Devices: Characteristics of memory systems, types of memory, RAM, ROM, magnetic disks-floppy disk, hard-disk;
Week6	Optical disks; Magnetic tapes; Concepts of Virtual and Cache memory
Week7	Operating System: Functions, Measuring System Performance, Assemblers, Compilers and Interpreters
Week8	Batch Processing, Multiprogramming, Multi Tasking, Multiprocessing, Time Sharing, DOS, Windows, Unix/Linux.
Week9	Data Communication: Communication Process, Data Transmission speed, Communication Types (modes), Data Transmission Medias, Modem and its working, characteristics
Week10	Types of Networks, LAN topologies, Computer Protocols, Concepts relating to networking.
Week11	Internet: Introduction to Internet, WWW and Web Browsers; Applications of Internet; connecting to internet; What is ISP?
Week12	Internet: Introduction to Internet, WWW and Web Browsers; Applications of Internet; connecting to internet; What is ISP?; Search Engines; Understanding URL; Domain name; IP Address; Web page, Website and home page.
Week13	Electronic Mail: Introduction, advantages and disadvantages, User Ids, Passwords, e-mail addresses, message components, message composition,

	Web Browsers and search engines.
Week14	Business Data Processing: Introduction, data storage hierarchy, Method of organizing data, File Types, File Organization, File Utilities.
Week15	Revision of whole syllabus
Week16	Revision of whole syllabus

LESSON PLAN

Session: 2024-25 (ODD SEM)

Name of Teacher- Tanu Batra
Class- 1st Sem
Subject- Multidisciplinary Course

WEEKS	SYLLABUS
Week1	Introduction: Historical evolution of computers, Classification of computers, Block Diagram along its components and characteristics,
Week2	Usefulness of Computers. Human being Vs. Computer, Applications of computers in various fields.
Week3	Input/Output Devices: Keyboards, mouse, joysticks, trackballs, digitizer, voice-recognition, optical-recognition
Week4	Scanners, terminals, point-of-sale terminals, machine-vision systems, Printer & its types
Week5	Memory & Mass Storage Devices: Characteristics of memory systems, types of memory, RAM, ROM, magnetic disks-floppy disk, hard-disk;
Week6	Optical disks; Magnetic tapes; Concepts of Virtual and Cache memory
Week7	Operating System: Functions, Measuring System Performance, Assemblers, Compilers and Interpreters
Week8	Batch Processing, Multiprogramming, Multi Tasking, Multiprocessing, Time Sharing, DOS, Windows, Unix/Linux.
Week9	Data Communication: Communication Process, Data Transmission speed, Communication Types (modes), Data Transmission Medias, Modem and its working, characteristics
Week10	Types of Networks, LAN topologies, Computer Protocols, Concepts relating to networking.
Week11	Internet: Introduction to Internet, WWW and Web Browsers; Applications of Internet; connecting to internet; What is ISP?
Week12	Internet: Introduction to Internet, WWW and Web Browsers; Applications of Internet; connecting to internet; What is ISP?; Search Engines; Understanding URL; Domain name; IP Address; Web page, Website and home page.

Week13	Electronic Mail: Introduction, advantages and disadvantages, User Ids, Passwords, e-mail addresses, message components, message composition, Web Browsers and search engines.
Week14	Business Data Processing: Introduction, data storage hierarchy, Method of organizing data, File Types, File Organization, File Utilities.
Week15	Revision of whole syllabus
Week16	Revision of whole syllabus

LESSON PLAN

Session: 2024-25 (ODD SEM)

Name of Teacher- Nalini

Class- 1st Sem

Subject- Value Added Course under NEP

WEEKS	SYLLABUS
Week1	Introduction & Evolution of Digital Systems: Role & Significance of Digital Technology; Information and Communication Technology (ICT) & Tools
Week2	Computer System & its working, Software and its types
Week3	Operating Systems: Types and Functions. Problem Solving: Algorithms and Flowcharts
Week4	Communication Systems: Principles, Model & Transmission Media
Week5	Computer Networks & Internet: Concepts & Applications, WWW, Web Browsers, Search Engines
Week6	Messaging, Email, Social Networking. Computer Based Information System: Significance & Types.
Week7	E-commerce & Digital Marketing: Basic Concepts, Benefits & Challenges
Week8	Emerging Technologies and their applications: Overview of Artificial Intelligence, Machine Learning
Week9	Deep Learning; Big Data, Data Science and Big Data Analytics; Internet of Things (IoT) and Industrial Internet of Things (IIoT),
Week10	Robotics and 3D Printing; Blockchain Technology; Quantum Computing; Cloud computing and its service models
Week11	Digital India & e-Governance: Initiatives, Infrastructure, Services and Empowerment.
Week12	Digital Financial Tools: Unified Payment Interface, Aadhar Enabled Payment System, USSD, Credit / Debit Cards,
Week13	e-Wallets, Internet Banking, NEFT/RTGS and IMPS, Online Bill Payment and POS.
Week14	Cyber Security: Threats, Significance, Challenges, Precautions, Safety Measures and Tools.
Week15	REVISION OF WHOLE SYLLABUS
Week16	REVISION OF WHOLE SYLLABUS

LESSON PLAN
Session: 2024-25 (ODD SEM)

Name of Teacher- Tanu Batra

Class-

Subject- Value Added Course under NEP

WEEKS	SYLLABUS
Week1	Introduction & Evolution of Digital Systems: Role & Significance of Digital Technology; Information and Communication Technology (ICT) & Tools
Week2	Computer System & its working, Software and its types
Week3	Operating Systems: Types and Functions. Problem Solving: Algorithms and Flowcharts
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Week11	Digital India & e-Governance: Initiatives, Infrastructure, Services and Empowerment.
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Week16	REVISION OF WHOLE SYLLABUS

