Government College, Chhachhrauli

Summary of Lesson Plan

Name of Teacher: Mr. Lakhvinder Singh Academic Session:*2024-25*

Class: BCA Semester:5th Subject:BCA–351 Web Designing

Unit	Topic/Chapters to be covered	Duration	Assignment and Tests
1	Introduction to Internet and World Wide Web; Evolution and History of World Wide Web; Basic Features; Web Browsers; Web Servers; Hypertext Transfer Protocol.	**22July to 31 July**	
1	URLs; Searching and Web- Casting Techniques; Search Engines and Search Tools.	**01 Aug to 15 Aug**	
2	Steps for Developing Website; Choosing the Contents; Home Page; Domain Names; Internet Service Provider; Planning and Designing Web Site; Creating a Website; Web Publishing: Hosting Site.	**16 Aug to 31 Aug**	
2	Introduction to HTML; Hypertext and HTML; HTML Document Features.	**01 Sep to 15 Sep**	Assignment-1
3	HTML Tags; Header, Title, Body, Paragraph, Ordered/Unordered Line, Creating Links; Headers; Text Styles; Text Structuring.	**16 Sep to 30 Sep**	Test-1
3	Text Colors and Background; Formatting Text; Page layouts; Insertion of Text, Movement of Text.	**01 Oct to 15Oct**	Test- 2
4	Images: Types of Images, Insertion of Image, Movement of Image, Ordered and Unordered lists; Inserting Graphics; Table Handling Functions like Columns, Rows, Width, Colours; Frame Creation and Layouts.	**16 Oct to 31 Oct**	Assignment-2
4	Working with Forms and Menus; Working with Buttons like Radio, Check Box.	**01 Nov to 15 Nov**	
	Revision	**16 Nov to 22 Nov**	

Government College, Chhachhrauli

Summary of Lesson Plan

Name of Teacher: Mr. Lakhvinder Singh Academic Session:*2024-25*

Class: M.Sc. Comp. Sc. (Software) Sem: 3rd Sub:MS-15-32Advance Database Systems

Unit	Topic/Chapters to be covered	Duration	Assignment and Tests
1	Database System Concepts and Architecture: Three - Schema Architecture and Data Independence, ERDiagrams, Naming conventions and Design Issues. Relational Model Constraints and Relational DatabaseSchemas.	**01 Aug to 15 Aug**	
1	EER model: Subclasses, Super classes, Inheritance, Specialization and Generalization, Constraints andcharacteristics of specialization and Generalization.	**16 Aug to 31 Aug**	
2	Object Model: Overview of Object-Oriented concepts, Object identity, Object structure, Type constructors,Encapsulation of operations, Methods, and Persistence, Type hierarchies and Inheritance, Complex objects.	**01 Sep to 15 Sep**	
2	Query Processing and Optimization: Using Heuristics in Query Optimization, Semantic Query Optimization,Database Tuning in Relational Systems.	**16 Sep to 30 Sep**	Assignment-1
3	Databases for Advance Applications: Architecture for parallel database; Distributed database concepts, Datafragmentation, Replication, and allocation techniques, Overview of Client-Server Architecture.	**01 Oct to 15Oct**	Test-1
3	Active DatabaseConcept and Triggers, Temporal Databases Concepts, Spatial and Multimedia Databases, Deductive Databases,XML Schema, Documents and Databases.	**16 Oct to 31 Oct**	Test- 2
4	Principles of Big Data: Ontologies and Semantics: Classifications, The Simplest of Ontologies, Ontologies, Classes with Multiple Parents.	**01 Nov to 15 Nov**	Assignment-2
4	Choosing a Class Model. Data Integration and Software InteroperabilityVersioning and Compliance Issues, Stepwise Approach to Big Data Analysis, Failures and Legalities &**Revision**	**16 Nov to 30 Nov**	

Lesson Plan
Odd Semester (July-November, 2024)

Name of Teacher :- Dr. Vishal Verma

Class and Section :- BCA-5th Sem

Subject Name and Code :- Programming using VB

1.	22.07.2024-31.07.2024	Introduction to VB: Visual & Non-Visual programming, Procedural, Object-Oriented, Object-Based and Event-Driven Programming Languages, VB as Even-Driven and Object-Based Language.
2.	01.08.2024-15.08.2024	VB Environment: Menu bar, Toolbar, Project explorer, Toolbox, Properties Window, Form Designer, Form Layout, Immediate window, Default Controls in Tool Box Visual Development and Event Driven programming.
3.	16.08.2024-30.08.2024	Basics of Programming: Variables: Declaring Variables, Types of variables, Converting Variables Types, User Defined Data Types, Forcing Variable Declaration, Scope & Lifetime of Variables. Constants: Named & Intrinsic, Operators: Arithmetic, Relational & Logical operators, Input/output in VB: Various Controls for I/O, Message box, Input Box, Print statement. Program Development in VB such as Sum of Numbers etc. **Assignment-1**
4.	01.09.2024-15.09.2024	Decision Statements in VB - if statement, if-then-else, select-case etc. Program Development in VB such as Greatest among Numbers, Checking Even/Odd Number etc. **Class Test**
5.	16.09.2024-30.09.2024	Looping Statements in VB: do-loop, for-next, while-wend; Exit statement, Nested Control Structure. Program Development in VB such as HCF of Two Numbers, Generate Prime Numbers, Generate Fibonacci Series, Factorial of a Number etc. **Assignment-2**
6.	01.10.2024-15.10.2024	Arrays: Declaring and using Arrays, One-dimensional, Two-dimensional and Multi-dimensional Arrays, Static and Dynamic arrays, Array of Arrays. Program Development in VB such as Searching, Sorting, etc.
7.	16.10.2024-31.10.2024	Procedures: General & Event Procedures, Subroutines, Functions, Calling Procedures,
8.	01.11.2024-15.11.2024	Arguments - Passing Mechanisms, Optional Arguments, Named Arguments, Functions Returning Custom Data Types
9.	16.11.2024-24.11.2024	Revision & Problems Handling

Note:-

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Lesson Plan
Odd Semester (July-November, 2024)

Name of Teacher :- Dr. Vishal Verma

Class and Section :- BCA-3rdSem

Subject Name and Code :- Data Base Teachnologies

1.	22.07.2024-31.07.2024	Basic Concepts – Data, Information, Records, Files, Schema and Instance etc. Limitations of File Based Approach, Characteristics of Database Approach, Database Management System (DBMS), Components of DBMS Environment, DBMS Functions and Components, Database Interfaces, Advantages and Disadvantages of DBMS.
2.	01.08.2024-15.08.2024	Database Users: Data and Database Administrator, Role and Responsibilities of Database Administrator, Database Designers, Application Developers etc. Database System Architecture – 1-Tier, 2-Tier & Three Levels of Architecture, External, Conceptual and Internal Levels, Schemas, Mappings and Instances, Data Independence – Logical and Physical Data Independence.
3.	16.08.2024-30.08.2024	Data Models: Hierarchical, Network and Relational Data Models. **Assignment-1**
4.	01.09.2024-15.09.2024	SQL: Meaning, Purpose and Need of SQL, Data Types, SQL Components: DDL, DML, DCL and DQL, Basic Queries, Join Operations and Sub-queries, Views, Specifying Indexes. Constraints and its Implementation in SQL. **Class Test**
5.	16.09.2024-30.09.2024	Relational Algebra: Basic Operations: Select, Project, Join, Union, Intersection, Difference, and Cartesian Product etc. Relational Calculus: Tuple Relational and Domain Relational Calculus. Relational Algebra Vs. Relational Calculus. **Assignment-2**
6.	01.10.2024-15.10.2024	Relational Model: Functional Dependency, Characteristics, Inference Rules for Functional Dependency, Types of Functional Dependency.
7.	16.10.2024-31.10.2024	Normalization: Benefits and Need of Normalization, Normal Forms Based on Primary Keys- (1NF, 2NF, 3NF, BCNF)
8.	01.11.2024-15.11.2024	Multi-valued Dependencies, 4 NF, Join dependencies, 5 NF, Domain Key Normal Form.
9.	15.11.2024-22.11.2024	Revision & Problems Handling

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Lesson Plan
Odd Semester (July-November, 2024)

Name of Teacher :- Dr. Vishal Verma

Class and Section :- M.Sc.-1st Sem Comp. Sc. (Software)

Subject Name and Code :- Object Oriented Programming with JAVA (M24-CSE-104)

1.	01.08.2024-15.08.2024	Introduction to Java – History, features and applications; Basics of Java Programming: syntax, variables, Data Types, Operators, Expressions and statement
2.	16.08.2024-30.08.2024	Decision Making statements (if, else-if, switch), Looping statements (for, while, do-while), and branching; Methods: Declaring methods, passing parameters, method overloading, and recursion; Arrays: Declaring, initializing, and manipulating arrays, Array operations and algorithms
3.	01.09.2024-15.09.2024	Classes and Objects: Declaring classes, creating objects, constructors and instance variables; Encapsulation: Access modifiers (public, private, protected, default), getters and setters; Inheritance: Extending classes, method overriding, dynamic method dispatch, and abstract classes; **Assignment – 1**
4.	16.09.2024-30.09.2024	Interfaces: Defining interfaces, implementing interfaces, and using interface references Packages: Creating and using interfaces, importing classes and packages **Class Test**
5.	01.10.2024-15.10.2024	Exception Handling: Understanding exceptions, try-catch block, throw and throws keywords, and finally block; File Handling: Reading from and writing to files using FileInputStream, FileOutputStream, FileReader and FileWriter **Assignment – 2**
6.	16.10.2024-31.10.2024	Multithreading: Creating threads, thread lifecycle, synchronization, thread communication Applet Programming, Applet Life Cycle, Applet Graphics Programming Event Handling: AWT Classes, ActionListner, MouseListener, MouseMotionListener, Layout Managers
7.	01.11.2024-15.11.2024	Generics: Introduction to Generics, Generic Classes, Generic Methods Java Database Connectivity (JDBC): Connecting to databases, executing SQL queries, handling transactions, and managing resources GUI Programming: Introduction to swing for creating graphical user interfaces (GUIs), event handling, layout managers.
8.	16.11.2023-30.11.2024	Revision & Problems Handling

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Lesson Plan
Odd Semester (July-November, 2024)

Name of Teacher :- Dr. Vishal Verma

Class and Section :- M.Sc.-1st Sem Comp. Sc. (Software)

Subject Name and Code :- Object Oriented Programming with JAVA (M24-CSE-104)

1.	01.08.2024-15.08.2024	1. WAP to print Welcome Message. 2. WAP to demonstrate the concept of classes and objects. 3. WAP to implement Constructors.
2.	16.08.2024-30.08.2024	1. WAP to implement Method Overloading. 2. WAP to implement Constructor Overloading. 3. WAP to demonstrate the concept of Object Passing and Returning. 4. WAP to demonstrate Call by Value and Call by Reference. 5. WAP to demonstrate the use of static keyword and static block.
3.	01.09.2024-15.09.2024	1. WAP to demonstrate the use of Command Line Arguments in Java. 2. WAP to find the largest number from given n numbers using 1-D arrays. 3. WAP to find the addition of two matrices 4. WAP to demonstrate Single Inheritance 5. WAP to demonstrate Hierarchical Inheritance 6. WAP to implement Multi-Level Inheritance 7. WAP to implement Method Overriding in Java
4.	16.09.2024-30.09.2024	1. WAP to demonstrate the concept of Dynamic Method Dispatch 2. WAP to illustrate the concept of Abstract classes in Java 3. WAP to illustrate the concept of packages in Java 4. WAP to illustrate the concept of interfaces in Java 5. WAP to illustrate the concept of multi-threading in Java 6. WAP to illustrate the concept of Synchronization in Java
5.	01.10.2024-15.10.2024	1. WAP to illustrate the concept of exception handling in Java using try catch block 2. WAP to illustrate the concept of using multiple catch blocks for exception handling. 3. WAP to illustrate the concept of using nested try blocks for exception handling. 4. WAP to illustrate the use of throw and throws statement for exception handling. 5. WAP to demonstrate own exception classes.
6.	16.10.2024-31.10.2024	1. WAP to illustrate various String Operation in Java 2. WAP to demonstrate Java Applets. 3. WAP to demonstrate the Event Handling for ActionEvent, MouseEvent, ItemEvent and AdjustmentEvent using Frames.

7.	01.11.2024-15.11.2024	1. WAP to demonstrate the use of various Layout Managers. 2. WAP to demonstrate the Menus in Java. 3. WAP to create simple calculator in Java using Frame and Event Handling.
8.	16.11.2023-30.11.2024	Revision & Problems Handling

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Lesson Plan
Odd Semester (July-November, 2024)

Name of Teacher :- Dr. Vishal Verma

Class and Section :- M.Sc.-3rd Sem Comp. Sc. (Software)

Subject Name and Code :- Advanced Database Systems (Lab)

1.	22.07.2024-31.07.2024	4. To Study the Basics of SQL with its components. 5. To Study the Data Types used in Oracle/SQL.
2.	01.08.2024-15.08.2024	1. Write SQL queries to implement DDL commands (CREATE TABLE, DROP TABLE and ALTER TABLE). 2. Write SQL queries to implement DML commands (INSERT, DELETE, UPDATE and SELECT).
3.	16.08.2024-30.08.2024	1. Write SQL Queries showing the use of operators in SQL. 2. Write SQL Queries using Group by and HAVING clause.
4.	01.09.2024-15.09.2024	1. Write SQL Queries for aggregate functions. 2. Write SQL Queries to create views (CREATE VIEW).
5.	16.09.2024-30.09.2024	1. Write SQL Query to implement the concept of Joins. 2. Write SQL Query to understand the concepts of ROLL BACK and COMMIT.
6.	01.10.2024-15.10.2024	1. To study the basics of PL/SQL with its features. 2. WAP to add two numbers using PL/SQL.
7.	16.10.2024-31.10.2024	1. WAP to check whether the number entered in even or odd using PL/SQL. 2. WAP to find greatest of two numbers using PL/SQL.
8.	01.11.2024-15.11.2024	1. WAP to find the sum of first N natural numbers using PL/SQL. 2. WAP to fetch the Salary of an EMPLOYEE whose EmpNo is entered by the user using PL/SQL.
9.	16.11.2023-30.11.2024	Revision & Problems Handling

Note:-

The teaching of topics to the students on the dates/days mentioned in the above lesson plan may not be exactly followed and may have little variations/fluctuations because of some unforeseen circumstances. For example: various Functions/Activities organized by the College *(Musical Meet, Blood Donation, Important Days Celebrations, Co-Curricular/Extra-curricular Activities etc.*), Response of Students in the Class, Request of Students for Repetition of some specific Topics, Unpredicted Leaves, Restricted Holidays etc.

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Government College, Chhachhrauli

Summary of Lesson Plan

Name of Teacher : Dr. Neha Saini Academic Session : 2024-25

Class: BCA I Semester : I Subject : Fundamentals of Computer Science

Unit	Topic/Chapters to be covered	Duration	Assignment and Tests
I	Computer Fundamentals: Evolution of Computers through generations, Characteristics of Computers, Strengths and Limitations of Computers, Classification of Computers, Functional Components of a Computer System, Applications of computers in Various Fields. Types of Software: System software, Application software, Utility Software, Shareware, Freeware, Firmware, Free Software.	22/07/24-31/07/24	
I	Memory Systems: Concept of bit, byte, word, nibble, storage locations and addresses, measuring units of storage capacity, access time, concept of memory hierarchy. Primary Memory - RAM, ROM, PROM, EPROM. Secondary Memory - Types of storage devices, Magnetic Tape, Hard Disk, Optical Disk, Flash Memory.	01/08/24-15/08/24	**Ist Assignment**
II	I/O Devices: I/O Ports of a Desk Top Computer, Device Controller, Device Driver. Input Devices: classification and use, keyboard, pointing devices - mouse, touch pad and track ball, joystick, magnetic stripes, scanner, digital camera, and microphone Output Devices: speaker, monitor, printers: classification, laser, ink jet, dot-matrix. Plotter.	16/08/24-31/08/24	**Ist Test**
II	Introduction to Operating System: Definition, Functions, Features of Operating System, Icon, Folder, File, Start Button, Task Bar, Status Buttons, Folders, Shortcuts, Recycle Bin, Desktop, My Computer, My Documents, Windows Explorer, Control Panel.	01/09/24-15/09/24	
III	The Internet: Introduction to networks and internet, history, Internet, Intranet & Extranet, Working of Internet, Modes of Connecting to Internet.	16/09/24-30/09/23	**IInd Assignment**
III	Electronic Mail: Introduction, advantages and disadvantages, User Ids, Passwords, e-mail addresses, message components, message composition, mailer features. Browsers and search engines.	01/10/24-15/10/24	**IInd Test**

IV	Threats: Physical & non-physical threats, Virus, Worm, Trojan, Spyware, Keylogers, Rootkits, Adware, Cookies, Phishing, Hacking, Cracking. Computer Security Fundamentals: Confidentiality, Integrity, Authentication, Non-Repudiation, Security Mechanisms, Security Awareness, Security Policy, anti-virus software & Firewalls, backup & recovery.	16/10/24-26/10/24	
	DIWALI VACATIONS	27/10/24-03/11/24	
I and II	Revision of Unit I and II.	04/11/24-15/11/24	
III and IV	Revision of Unit III and IV.	16/11/24-22/11/24	**Full Syllabus Test**

Government College, Chhachhrauli

Summary of Lesson Plan

Name of Teacher: Dr. Neha Saini Academic Session:2024-25

Class: BCA II Semester: III Subject Basics of Data Science Using Excel

Unit	Topic/Chapters to be covered	Duration	Assignment and Tests
I	Introduction to Data Science: Definition, importance, and applications. Overview of Excel: Interface, basic functions, and features. Data Types and Formats in Excel: Text, numbers, dates, and custom formats.	22/07/24-31/07/24	**Assignment 1**
I and II	Basic Data Manipulation: Sorting, filtering, and basic formulas (SUM, AVERAGE, COUNT).Data Import and Export: CSV, TXT, and Excel files. Data Cleaning Techniques: Handling missing values, duplicates, and errors.	01/08/24-15/08/24	**Test 1**
II and III	Data Transformation: Text-to-columns, concatenation, and data validation. Data Visualization: Creating and customizing charts (bar, line, pie).Descriptive Statistics: Mean, median, mode, standard deviation, and variance.	16/08/24-31/08/24	
III	Inferential Statistics: Hypothesis testing, t-tests, and chi-square tests.Regression Analysis: Simple linear regression and multiple regression. Predictive Modeling: Introduction to basic predictive models and their implementation in Excel.	01/09/24-15/09/24	**Assignment II**
IV	Advanced Excel Functions: VLOOKUP, HLOOKUP, INDEX-MATCH, and PivotTables.	16/09/24-30/09/24	
IV	Data Analysis ToolPak:Using Excel's built-in data analysis tools such as Descriptive Statistics, Histograms, Correlation, Regression. What-If Analysis Tools: Scenario Manager, Goal Seek, and Data Tables.	01/10/23-15/10/24	**Test II**
I	Revision of Unit I	16/10/24-26/10/24	

	DIWALI VACATIONS	27/10/24-03/11/24	
II	Revision of Unit II	04/11/24-15/11/24	
III and IV	Revision of Unit III and Unit IV	16/11/24-22/11/24	**Test of Entire Syllabus**

Government College, Chhachhrauli

Summary of Lesson Plan

Name of Teacher: Dr. Neha Saini Academic Session:2024-25

Class: M.Sc. Ist Year Semester:Ist Subject:Advance Data Structures

Unit	Topic/Chapters to be covered	Duration	Assignment and Tests
1	Trees: AVL Trees, Splay Trees, B Trees, Red Black Trees	01 Aug to 15 Aug	
1	Heaps: Binomial Heaps, Fibonacci Heaps, Pairing Heaps	16 Aug to 31 Aug	
2	Graphs: Graphs Representations, Depth First Search (DFS), Breadth First Search (BFS), Topological Sorting, Strongly Connected Components (SCC)	01 Sep to 15 Sep	
2	Memory Allocation: Buddy System, Memory Pool Allocation, Garbage Collection Algorithms	16 Sep to 30 Sep	**Assignment-1**
3	Graph Algorithms: Shortest Path Algorithms(Dijkstra's, Bellman-Ford, Floyd-Warshall), Minimum Spanning Tree (Kruskal's, Prim's), Network Flow (Ford-Fulkerson, Edmonds-Karp)	01 Oct to 15 Oct	**Test-1**
3	Dynamic Programming: Matrix Chain Multiplication, Longest Common Subsequence(LCS), Knapsack Problems, Travelling Salesman Problem (TSP)	16 Oct to 26 Oct	**Test- 2**
	DIWALI VACATIONS	27 Oct to 03 Nov	
4	Approximation Algorithms: Introduction to NP-Completeness, Approximation Techniques (Greedy, Local Search, Linear Programming), Specific Problems(Vertex Cover, Travelling Salesman problem, Set Cover)	04 Nov to 15 Nov	**Assignment-2**
4	Parallel Algorithms: Introduction to Parallel Computing, Parallel Sorting (Bitonic Sort, Parallel Merge Sort), Parallel Graph Algorithms (Parallel BFS, Parallel DFS0, Parallel Algorithm Design and Analysis. **Revision**	16 Nov to 30 Nov	

Lesson Plan
ODD Semester (July-Dec.2024)

Name of Teacher :- DINESH PARKASH

Class :- M.Sc. 3rd Sem

Subject Name and Code :- MS-15-31 OBJECT ORIENTED ANALYSIS AND DESIGN USING UML

1.	**22 July-31 July**	UML: Principles of modeling, UML Things – Structural, Behavioral, Grouping, Annotational. Relationships in UML – Dependency, Association, Generalization, Realization. Overview of diagrams in UML – Class diagram, Object diagram, Use-Case diagram, Sequence diagram, Collaboration diagram,
2.	**01 Aug- 15 Aug**	Statechart diagram, Activity diagram, Component diagram, Deployment diagram. UML Semantic Rules – Names, Scope, Visibility, Integrity, Execution. Mechanisms in the UML – Specifications, Adornments, Common Divisions, Extensibility Mechanisms.
3.	**16 Aug- 31 Aug**	Modeling as a Design Technique: Abstraction, Encapsulation, Modularity, Hierarchy, Typing, Concurrency, Persistence of objects. Purpose of modeling, Class Model – Object & Class, Links & Associations,
4.	**01 Sept.- 15 Sept**	Generalization & Inheritance, Association Ends - Multiplicity, Role names, Ordering, Qualification, Aggregation, Link attributes & Link class, Abstract class, Metadata, Constraints. Constructing class diagram.
	16 Sept.- 30 Sept	State Modeling: Event, State, Activity, Action, Transitions & Conditions, State diagrams, Nested state diagrams, signal generalization, concurrency, relationships between class and state models.
5.	**1 Oct.-15 Oct.**	Interaction Modeling: use case models, use case relationships, sequence models, procedural sequence models, activity models, special constructs for activity models.
6.	**16 Oct- 26 Oct.**	System Analysis & design: System development stages, system conception, analysis, domain class model, domain state model, iterating the analysis. Application interaction model, application class model, application state model, adding operations
7.	**4 Nov. -22 Nov. 24**	System Design: estimating performance, make a reuse plan, organize the system into subsystem, identifying concurrency, allocating subsystems to processors and tasks, management of data stores, handling global resources, choosing software control strategies, handling boundary conditions, setting trade-off priorities, selecting an architect style. Class Design: bridging gap, realize use cases with operations, designing algorithms, design optimization, adjustment of inheritance, organize classes & associations.

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***Curricular/Extra-curricular Activities etc.*), Response of Students in the Class, Request of Students for Repetition of some specific Topics, Unpredicted Leaves, Restricted Holidays etc.**

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Lesson Plan
ODD Semester (July-Dec.2024)

Name of Teacher :- DINESH PARKASH

Class :- B.Sc. 5th Sem

Subject Name and Code :- Fundamentals of Data Base Systems

1.	**22 July-31 July**	Basic Concepts – Data, Information, Records and files. Traditional file Based ApproachLimitations of Traditional File Based Approach, Database Approach-Characteristics of Database Approach,
2.	**01 Aug- 15 Aug**	Database Management System (DBMS), Components of DBMS Environment, DBMS Functions and Components, Advantages and Disadvantages of DBMS.
3.	**16 Aug- 31 Aug**	Actors on the Scene - Data and Database Administrator, Database Designers, End users Applications Developers and Workers behind the Scene.
4.	**01 Sept.- 15 Sept**	Database System Architecture – Three Levels of Architecture, Schemas – External, Conceptual and Internal Level, Database Languages – VDL, DDL, SDL, DML, SQL, Mappings – External/ Conceptual and Conceptual/Internal, Instances, Data Independence – Logical and Physical Data Independence
	16 Sept.- 30 Sept	Data Models: High Level, Low Level and Representational – Records- based Data Models, Object-based Data Models, Physical Data Models and Conceptual Models
5.	**1 Oct.-15 Oct.**	Entity-Relationship Model – Concepts, Entity Types, Entity Sets, Attributes, Relationships, Constraints, Keys , Degree, Cardinality etc. ER Diagrams of any Database Organization- Inventory System, Payroll System, Reservation System, Online Book Store etc.
6.	**16 Oct- 26 Oct.**	Classification of Database Management System, Centralized and Client Server architecture
7.	**4 Nov. -22 Nov. 24**	Relational Data Model:-Brief History, Terminology in Relational Data Structure, Relations, Properties of Relations, Keys – Primary, Secondary, Composite, Candidate, Alternate and Foreign Key, Domains, Integrity Constraints over Relations.

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Lesson Plan
ODD Semester (July-Dec.2024)

Name of Teacher :- DINESH PARKASH

Class :- B.Sc. 5th Sem

Subject Name and Code :- Web Designing

1.	**22 July-31 July**	Introduction to Internet and World Wide Web; Evolution and History of World Wide Web; Basic Features;
2.	**01 Aug- 15 Aug**	Web Browsers; Web Servers; Hypertext Transfer Protocol; URLs; Searching and WebCasting Techniques; Search Engines and Search Tools
3.	**16 Aug- 31 Aug**	Steps for Developing Website; Choosing the Contents; Home Page; Domain Names;
4.	**01 Sept.- 15 Sept**	Internet Service Provider; Planning and Designing Web Site; Creating a Website; Web Publishing: Hosting Site;
	16 Sept.- 30 Sept	Introduction to HTML; Hypertext and HTML; HTML Document Features; HTML Tags; Header, Title, Body, Paragraph, Ordered/Unordered Line,
5.	**1 Oct.-15 Oct.**	Creating Links; Headers; Text Styles; Text Structuring; Text Colors and Background; Formatting Text; Page layouts; Insertion of Text, Movement of Text
6.	**16 Oct- 26 Oct.**	Images: Types of Images, Insertion of Image, Movement of Image, Ordered and Unordered lists; Inserting Graphics;
7.	**4 Nov. -22 Nov. 24**	Table Handling Functions like Columns, Rows, Width, Colours; Frame Creation and Layouts; Working with Forms and Menus; Working with Buttons like Radio, Check Box;

Note:-

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Students can ask any query on my E-Mail ID also

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Lesson Plan
ODD Semester (July-Dec.2024)

Name of Teacher :- DINESH PARKASH

Class :- PGDCA

Subject Name and Code :- CS-DE- 13 Data Structures

1.	**22 July-31 July**	Introduction: Algorithmic notation – Programming principles – Creating programsAnalyzing programs. Arrays: One dimensional array, multidimensional array, pointer arrays. Searching: Linear search, Binary Search, Fibonacci search.
2.	**01 Aug- 15 Aug**	Stacks: Definition – operations - applications of stack. Queues: Definition - operations - Priority queues – Dequeues – Applications of queue.
3.	**16 Aug- 31 Aug**	Linked List: Singly Linked List, Doubly Linked List, Circular Linked List, linked stacks, Linked queues, Applications of Linked List – Dynamic storage management – Generalized list.
4.	**01 Sept.- 15 Sept**	Trees: Binary tree, Terminology, Representation, Traversals, Applications – Binary search tree – AVL tree.
	16 Sept.- 30 Sept	B Trees: B Tree indexing, operations on a B Tree, Lower and upper bounds of a B Tree - B + Tree Indexing – Trie Tree Indexing.
5.	**1 Oct.-15 Oct.**	Graph: Terminology, Representation, Traversals – Applications - spanning trees, shortest path and Transitive closure, Topological sort.
6.	**16 Oct- 26 Oct.**	Sets: Representation - Operations on sets – Applications. Files: queries - Sequential organization – Index techniques. External sorting.
7.	**4 Nov. -22 Nov. 24**	Sorting techniques: Internal sorting - Insertion Sort, Selection Sort, Shell Sort, Bubble Sort, Quick Sort, Heap Sort, Merge Sort and Radix Sort.

Note:-

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Lesson Plan
Odd Semester (July-Nov. 2024)

Name of Teacher :- Dr. Navneet Garg

Class and Section :- BCA 1st

Subject Name and Code :- Problem Solving through C

1.	**22 July to 15 Aug**	**Unit- I** Overview of C: History, Importance, Structure of C Program, Character Set, Constants and Variables, Identifiers and Keywords, Data Types, Assignment Statement, Symbolic Constant. Input/output: Formatted I/O Function
2.	**15 Aug to 31 Aug**	Input Functions viz. scanf(), getch(), getche(), getchar(), gets(), output functions viz. printf(), putch(), putchar(), puts(). **Unit- II** Operators & Expression: Arithmetic, Relational, Logical, Bitwise, Unary, Assignment, Conditional Operators and Special Operators Operator Hierarchy; Arithmetic Expressions.
3.	**01 Sep to 15 Sep**	Evaluation of Arithmetic Expression, Type Casting and Conversion. Decision making with if statement, ifelse statement, nested if statement, else-if ladder, switch and break statement, goto statement, Looping Statements: for, while, and dowhile loop, jumps in loops.
4.	**15 Sep to 30 Sep**	**Unit- III**Arrays: One Dimensional arrays - Declaration, Initialization and Memory representation; Two Dimensional arrays -Declaration, Initialization and Memory representation. Functions: definition, prototype, function call,
5.	**01 Oct to 15 Oct**	passing arguments to a function: call by value; call by reference, recursive functions. Strings: Declaration and Initialization, String I/O, Array of Strings, String Manipulation Functions: String Length, Copy, Compare, Concatenate etc., Search for a Substring.
6.	**16 Oct to 31 Oct**	**Unit- IV** Pointers in C: Declaring and initializing pointers, accessing address and value of variables using pointers; Pointers and Arrays. User defined data types: Structures - Definition,
7.	**01 Nov to Onwards**	Advantages of Structure, declaring structure variables, accessing structure members, Structure members initialization, Array of Structures; Unions - Union definition; difference between Structure and Union.

Note:-

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Lesson Plan
Odd Semester (July-Nov. 2024)

Name of Teacher :- Dr. Navneet Garg

Class and Section :- M.Sc (Computer Science) 3rd Sem

Subject Name and Code :- Advanced Operating System

1.	**01 Aug to 15 Aug**	**Unit- I** Introduction to Distributed Systems, Hard ware concepts, Software concepts, Design issues. Communication in Distributed Systems, Lay red Protocols, ATM networks
2.	**15 Aug to 31 Aug**	The Client – server model, Remote Procedure call, Group communication. **Unit- II** Synchronization in Distributed System, Clock Synchronization, Mutual Exclusion, Election algorithms, Atomic transactions, Deadlocks in Distributed Systems.
3.	**01 Sep to 15 Sep**	Process and processors in Distributed System threads, System Models, Processors allocation, Scheduling in Distributed System, Fault tolerance, Real time Distributed System.
4.	**15 Sep to 30 Sep**	**Unit- III** Distributed File Systems, Distributed File System Design, Distributed File System implementation, Trends in Distributed File System. Distributed Shared Memory,
5.	**01 Oct to 15 Oct**	Introduction, What is Shared memory?, Consistency models, Page based Distributed Shared memory, Shared – variable Distributed Shared memory, Object based Distributed Shared Memory.
6.	**16 Oct to 31 Oct**	**Unit- IV** REAL TIME AND MOBILE OPERATING SYSTEMS : Basic Model of Real Time Systems, Characteristics, Applications of Real Time Systems, Real Time Task Scheduling,
7.	**01 Nov to Onwards**	Handling Resource Sharing, Mobile Operating Systems, Micro Kernel Design, Client Server Resource Access, Processes and Threads, Memory Management

Note:-

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Lesson Plan
Odd Semester (July –Nov 24)

Name of Teacher :- Dr. Navneet Garg

Class and Section :- PGDCA

Subject Name and Code :- OPERATING SYSTEMS and CS-DE-15

1.	**024 JulyAug to 15 Aug**	Introductory Concepts: Operating system functions and characteristics, historical evolution of operating systems,
2.	**15 Aug to 31 Aug**	Real time systems, Distributed systems, O/S services, system calls, system programs.
3.	**1 Sep to 15 Sep**	CPU Scheduling: Process concept, Process scheduling, scheduling criteria, Scheduling algorithms.
4.	**16 Sep. to 30 Sept**	Deadlocks: Deadlock characterization, Deadlock prevention and avoidance, Deadlock detection and recovery.
5.	**1 Oct to 15 Oct**	Storage Management: Storage allocation methods: Single contiguous allocation, Multiple contiguous allocation, Paging; Segmentation, Virtual memory concepts,
6.	**16 Oct to 31 Oct**	Demand Paging, Page replacement Algorithms, Thrashing.
7.	**1 Nov to 15 Nov**	**Test And Assignment**
8.	**16 Nov to Onwards**	**Revision and Doubt**

Note:-

The teaching of topics to the students on the dates/days mentioned in the above lesson plan may not be exactly followed and may have little variations/fluctuations because of some unforeseen circumstances. For example: various Functions/Activities organized by the College *(Musical Meet, Blood Donation, Important Days Celebrations, Co-Curricular/Extra-curricular Activities etc.*), Response of Students in the Class, Request of Students for Repetition of some specific Topics, Unpredicted Leaves, Restricted Holidays etc.

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Government College, Chhachhrauli

Summary of Lesson Plan

Name of Teacher : Dr. Navneet Garg
Academic Session :(2024-25)
Class : BCA
Semester : V(odd Sem)
Subject : BCA-352 OPERATING SYSTEM – I

Unit	Topic/Chapters to be covered	Duration	Assignment and Tests
Unit-I	Operating System: Definition, Characteristics, Components, Functions, Examples, Types of Operating System: Single User/Multi User	22 july to 15 Aug	
Unit-I	Classification of Operating System: Batch, Multiprogrammed, Timesharing, Multiprocessing, Parallel, Distributed, Real Time; System Calls and System Programs: Process Control, File Manipulation, Device Manipulation, Information Maintenance, Communications	15 Aug to 31 Aug	Assignment-I
Unit-II	Process Management: Process concept, Process states and Process Control Block; Process Scheduling: Scheduling Queues, Schedulers, Context Switch; Operation on Processes: Process Creation, Process Termination; Cooperating Processes	1 Sept to 15 Sept	Test-I
Unit-II	Introduction to Threads, Inter-process Communication; CPU Scheduling: Basic Concepts, Scheduling Criteria, Scheduling Algorithms: FCFS, SJF, Priority, Round-Robin, Multilevel Queue, Multilevel Feedback Queue Scheduling	16 Sept to 30 Sept	
Unit-III	Deadlocks: System Model, Deadlock Characterization, Methods of Handling Deadlocks, Deadlock Prevention, Deadlock Avoidance, Deadlock Detection and Recovery Memory Management: Introduction, Swapping, Contiguous Allocation: Single-Partition/Multiple Partition Allocation, External/Internal Fragmentation; Paging: Basic Method, Hardware, Implementation of Page table	1Oct to 15 Oct	Assignment -II

Unit-III	Segmentation: Basic Method, Hardware, Implementation of Segment Table, Advantages/Disadvantages of Paging/Segmentation, Virtual Memory: Introduction, Demand Paging, Page Replacement, Page Replacement Algorithms: FIFO, Optimal, LRU, Counting; Thrashing and its cause;	16 Oct to 31Oct	
Unit-IV	File Management: File Concepts, File Attributes, File Operations, File Types, File Access/Allocation Methods, File Protection, File Recovery	1 Nov to 10 Nov	Test-II
	Revision	11 Nov onwards	

Lesson Plan
ODD Semester (July-Dec.2024)

Name of Teacher :- AMARPREET SINGH

Class :- M.Sc. 3th Sem

Subject Name and Code :- Computer Networks

1.	**22 July-31 July**	Introduction to Data Communication & Computer Networks, Uses of Computer Networks, Types of Computer Networks (LAN,MAN & WAN), Difference, Types of Network Topology (Star, Bus, Mesh, Tree & Hybrid)
2.	**01 Aug- 15 Aug**	Network Hardware Components: Connectors, Transceivers, Repeaters, Hubs, Network Interface Cards and PC Cards, Bridges, Switches, Routers, Gateways, Design issues, Network Software, Protocols, Need of Protocol , Elements, Protocol Hierarchies, Connection Oriented and Connection Less Services
3.	**16 Aug- 31 Aug**	OSI Reference Model : Layers, Networking Models: Distributed Systems, Client/Server Model, (Two Tier/Three Tier), Peer-to-Peer Model, Web-Based Model and Emerging File-Sharing Model, Web-Based Model and Emerging File-Sharing Model
4.	**01 Sept.- 15 Sept**	Introduction to Analog and Digital data and signals, Analog and Digital data and signals Bandwidth and Data Rate, Capacity, Baud Rate; Transmission Impairment; Data Rate Limits; Guided Transmission Media;
5.	**16 Sept.- 30 Sept**	Wireless Transmission ; Communication Satellites; Switching, its types(Circuit/Message/Packet) Multiplexing & its types Modulation & its types Modems:-ADSL, Cabl e Modem
6.	**1 Oct.-15 Oct.**	Data Link Layer Functions Error detection/correction Flow Control Algorithms.. Stop and Wait Sliding Window Protocol Media Access Control: ALOHA, Slotted ALOHA, CSMA,Collision free protocols
7.	**16 Oct- 26 Oct.**	Introduction to LAN technologies : Ethernet, Switched Ethernet, Fast Ethernet, Gigabit Ethernet;Token Ring, Introduction to Wireless LANs, Bluetooth Routing Algorithms: Introduction, Classification of Routing Algo: adaptive and Non Adap Distance Vector Routing Flooding, Shortest Path Routing, Link State Routing, Hierarchical Routing
8.	**4 Nov. -22 Nov. 24**	Congestion, Causes, General Principle of Congestion Control, Traffic shaping (Leaky Bucket), Token Bucket Traffic shaping (Leaky Bucket),Token Bucket Elements of Transport Protocols, Difference Between TCP and UDP Network Security Issues Security Attacks and Issues Encryption and Decryption Methods, Digital Signature, Digital Certificates

Note:-

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Lesson Plan
ODD Semester (July-Dec.2024)

Name of Teacher :- AMARPREET SINGH

Class :- M.Sc. 1st Sem

Subject Name and Code :- .Mathematical Foundantion of Computer Science

1.	**22 July-31 July**	Mathematical Logic: Propositional calculus - propositions and connectives, syntax;Semantics - truth assignments and truth tables, validity and satisfiability, tautology;Adequate set of connectives; Equivalence and normal forms; Compactness and resolution;Formal reducibility - natural deduction system and axiom system; Soundness and completeness
2.	**01 Aug- 15 Aug**	Combinatories : Basic counting sum and product, balls and bins problems, generating functions, recurrence relation. Proof techniques principle of mathematical induction,pigeonhole principle.
3.	**16 Aug- 31 Aug**	Structured Stes : Set relation - Algebraic System: Groups, Semi groups, monoid,homomorphism, cosets,
4.	**01 Sept.- 15 Sept**	Ring and field (definition), Relation, Equivalence relations, Poset,Lattices, Hasse diagram, Boolean algebra
5.	**16 Sept.- 30 Sept**	Graph Theory: Introduction - Graph Terminologies- Types of Graphs- Sub Graph - MultiGraph - Regular Graph - Isomorphism
6.	**1 Oct.-15 Oct.**	-Isomorphic Graphs -Sub-graph - Euler Graph -Hamiltonian Graph - Related problems.
7.	**16 Oct- 26 Oct.**	Truth Trees - Properties- Distance and Centres - Types - Rooted Tree - Tree EnumerationLabeled Tree - Unlabeled Tree - Spanning Tree -
8.	**4 Nov. -22 Nov. 24**	Fundamental Circuits- Cut Sets -Properties - Fundamental Circuit and Cut-set- Connectivity-Separability - Relatedproblems.

Note:-

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Lesson Plan
ODD Semester (July-Dec.2024)

Name of Teacher :- AMARPREET SINGH

Class :- B.C.A. 5th Sem

Subject Name and Code :- Computer Networks

1.	**22 July-31 July**	Introduction to Data Communication & Computer Networks, Uses of Computer Networks, Types of Computer Networks (LAN,MAN & WAN), Difference, Types of Network Topology (Star, Bus, Mesh, Tree & Hybrid)
2.	**01 Aug- 15 Aug**	Network Hardware Components: Connectors, Transceivers, Repeaters, Hubs, Network Interface Cards and PC Cards, Bridges, Switches, Routers, Gateways, Design issues, Network Software, Protocols, Need of Protocol , Elements, Protocol Hierarchies, Connection Oriented and Connection Less Services
3.	**16 Aug- 31 Aug**	OSI Reference Model : Layers, Networking Models: Distributed Systems, Client/Server Model, (Two Tier/Three Tier), Peer-to-Peer Model, Web-Based Model and Emerging File-Sharing Model, Web-Based Model and Emerging File-Sharing Model
4.	**01 Sept.- 15 Sept**	Introduction to Analog and Digital data and signals, Analog and Digital data and signals Bandwidth and Data Rate, Capacity, Baud Rate; Transmission Impairment; Data Rate Limits; Guided Transmission Media;
5.	**16 Sept.- 30 Sept**	Wireless Transmission ; Communication Satellites; Switching, its types(Circuit/Message/Packet) Multiplexing & its types Modulation & its types Modems:-ADSL, Cabl e Modem
6.	**1 Oct.-15 Oct.**	Data Link Layer Functions Error detection/correction Flow Control Algorithms.. Stop and Wait Sliding Window Protocol Media Access Control: ALOHA, Slotted ALOHA, CSMA, Collision free protocols
7.	**16 Oct- 26 Oct.**	Introduction to LAN technologies : Ethernet, Switched Ethernet, Fast Ethernet, Gigabit Ethernet; Token Ring, Introduction to Wireless LANs, Bluetooth Routing Algorithms: Introduction, Classification of Routing Algo: adaptive and Non Adap Distance Vector Routing Flooding, Shortest Path Routing, Link State Routing, Hierarchical Routing
8.	**4 Nov. -22 Nov. 24**	Congestion, Causes, General Principle of Congestion Control, Traffic shaping (Leaky Bucket), Token Bucket Traffic shaping (Leaky Bucket),Token Bucket Elements of Transport Protocols, Difference Between TCP and UDP Network Security Issues Security Attacks and Issues Encryption and Decryption Methods, Digital Signature, Digital Certificates

Note:-

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Lesson Plan
ODD Semester (July-Dec.2024)

Name of Teacher :- AMARPREET SINGH

Class :- B.C.A. 2nd Sem

Subject Name and Code :- Linux and Shell Programming

1.	**22 July-31 July**	Introduction to Unix/Linux: Evolution of Unix/Linux, Unix/Linux distributions, Linux/Unix operating system, Linux/Unix architecture, Features of Linux/Unix, Interfacing with Unix/Linux system.
2.	**01 Aug- 15 Aug**	Commands in Unix/Linux: General-Purpose commands, File oriented commands, Communication-oriented commands, process oriented commands and other commonly used commands.
3.	**16 Aug- 31 Aug**	Regular expressions & Filters in Linux: Regular expressions and their use, Simple filters viz. more, wc, diff, sort, uniq, grep, sed, etc.
4.	**01 Sept.- 15 Sept**	Linux/Unix file system: Linux/Unix files, inodes and structure and file system,
5.	**16 Sept.- 30 Sept**	File system components, standard file system, file system types, file system mounting and unmounting.
6.	**1 Oct.-15 Oct.**	Processes in Linux : starting and stopping processes, initialization Processes, mechanism of process creation, Job control - at, batch, cron, time, Signal handling.
7.	**16 Oct- 26 Oct.**	Shell Programming: vi editor, shell variables, I/O in shell, control structures, loops, subprograms
8.	**4 Nov. -22 Nov. 24**	Command line programming, creating shell scripts

Note:-

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Lesson Plan
Odd Semester (July 2023- November 2023)

Name of Teacher-Dr. Bhawna Sharma

Class and Section- BCA III$^{rd\ year}$ Semester V

Subject Name & Code: BCA-356: Multimedia Tools

1	22 July to 10 Aug	Multimedia: Basic Concept, Definition, Components & Applications of Multimedia; Hypermedia and Multimedia; Multimedia Hardware and Software; Multimedia Software Tools; Presentation Tools. **Assignment 1**
2	11 Aug to 25 Aug	Multimedia Authoring: Introduction, Features, Types of Authoring Tools: Card or Page-Based, Icon- Based, Time-Based, Object-Oriented; VRML: History, Features. **Test 1**
3	26 Aug to 5 Sept	Images: Graphics/Image Data Types, File Formats; Color Models in Images and Video; Video: Introduction, Types of Video Signals; Analog and Digital Video.
4	6 Sept to 20 Sept	Analog Video Standards: NTSC, PAL, SECA; Digital Video Standards: Chroma Subsampling, CCIR Standards, HDTV. **Assignment II**
5	21 Sept to 5 Oct	Digital Audio: Basic Concepts, Analog vs. Digital Audio, Digitization of Sound; Digital Audio File Formats, MIDI Quantization and Transmission of Audio: Coding of Audio;
6	05 Oct to 20 Oct	Pulse Code Modulation; Differential Coding of Audio; Lossless Predictive Coding; DPCM; DM; ADPCM. **Test II**
7	21 Oct to 30 Oct	Compression Techniques: Introduction, Types of Data Compression, Run-Length Coding, Variable- Length Coding, Dictionary-Based Coding.
8	1 Nov to 10 Nov	Transform Coding Image and Video Compression Techniques: JPEG Standard for Image Compression; JPEG Mode, Video Compression Techniques: H.261, H.263, MPEG.
9	11 Nov Onwards	Revision and Test

Government College, Chhachhrauli

Summary of Lesson Plan

Name of Teacher : Dr. Bhawna Sharma
Academic Session :(2024-25)
Class : BSc. (Comp.Science) 2nd year (Major)//
Class: Bsc 2nd Year (Minor)
Semester : III sem
Subject : Operating System

Unit	Topic/Chapters to be covered	Duration	Assignment and Tests
Unit-I	Operating System: Definition, Characteristics, Components, Functions, Examples, Types of Operating System: Single User/Multi User	22 july to 15 Aug	
Unit-I	Classification of Operating System: Batch, Multiprogrammed, Timesharing, Multiprocessing, Parallel, Distributed, Real Time; System Calls and System Programs: Process Control, File Manipulation, Device Manipulation, Information Maintenance, Communications	15 Aug to 31 Aug	Assignment-I
Unit-II	Process Management: Process concept, Process states and Process Control Block; Process Scheduling: Scheduling Queues, Schedulers, Context Switch; Operation on Processes: Process Creation, Process Termination; Cooperating Processes	1 Sept to 15 Sept	Test-I
Unit-II	Introduction to Threads, Inter-process Communication; CPU Scheduling: Basic Concepts, Scheduling Criteria, Scheduling Algorithms: FCFS, SJF, Priority, Round-Robin, Multilevel Queue, Multilevel Feedback Queue Scheduling	16 Sept to 30 Sept	
Unit-III	Deadlocks: System Model, Deadlock Characterization, Methods of Handling Deadlocks, Deadlock Prevention, Deadlock Avoidance, Deadlock Detection and Recovery Memory Management: Introduction, Swapping, Contiguous Allocation: Single-Partition/Multiple Partition Allocation, External/Internal Fragmentation; Paging: Basic Method, Hardware, Implementation of Page table	1Oct to 15 Oct	Assignment -II

Unit-III	Segmentation: Basic Method, Hardware, Implementation of Segment Table, Advantages/Disadvantages of Paging/Segmentation, Virtual Memory: Introduction, Demand Paging, Page Replacement, Page Replacement Algorithms: FIFO, Optimal, LRU, Counting; Thrashing and its cause;	16 Oct to 31Oct	
Unit-IV	File Management: File Concepts, File Attributes, File Operations, File Types, File Access/Allocation Methods, File Protection, File Recovery	1 Nov to 10 Nov	Test-II
	Revision	11 Nov onwards	

Lesson Plan
Odd Semester (July-Nov. 2024)

Name of Teacher :- Ms. Priya Rani

Class and Section :- B.A. 3rd Semester

Subject Name and Code :-ADVANCE IT SKILLS (SEC)

1.	**22 July to 15 Aug**	**Unit- I** WWW and E-Governance - Website Address and URL, Introduction to IP, Address, ISP and Role of ISP, Internet Protocol, Modes of Connecting Internet (HotSpot, Wifi, LAN Cable, BroadBand, USB Tethering), Identifying and uses of IP/MAC/IMEI of various devices, Downloading Web Pages, Printing Web Pages
2.	**15 Aug to 31 Aug**	Introduction to Blogs, Basics of E-commerce, Netiquettes, Overview of e-Governance Services like Railway Reservation, Passport, eHospital [ORS], Accessing e-Governance Services on Mobile
3.	**01 Sep to 15 Sep**	**Unit- II** Digital Financial Tools and Applications Digital Financial Tools, Understanding OTP [One Time Password]and QR [Quick Response] Code, UPI [Unified Payment Interface], AEPS [Aadhaar Enabled Payment System], USSD[Unstructured Supplementary Service Data], Card [Credit / Debit], eWallet, PoS [Point of Sale], Internet Banking,
4.	**15 Sep to 30 Sep**	National Electronic Fund Transfer (NEFT), Real Time Gross Settlement (RTGS), Immediate Payment Service (IMPS), Online Bill Payment **Unit- III** Cyber Security: Cyber Security, Defining Cyberspace, Architecture of cyberspace, Regulation of cyberspace, Concept of cyber security, Issues and challenges of cyber security.
5.	**01 Oct to 15 Oct**	Classification of cybercrimes, Common cybercrimes- cybercrime targeting computers and mobiles, cybercrime against women and children, financial frauds, social engineering attacks, malware and ransomware attacks, zero day and zero click attacks, Cybercriminals modus-operandi , Reporting of cybercrimes, Remedial and mitigation measures, Legal perspective of cybercrime, IT Act 2000 and its amendments, Cybercrime and offences, Organisations dealing with Cybercrime and Cyber security in India.
6.	**16 Oct to 31 Oct**	**Unit- IV** Overview of Futureskills: Introduction to Internet of Things (IoT), Big Data Analytics, Cloud Computing,
7.	**01 Nov to Onwards**	Virtual Reality, Artificial Intelligence, Social & Mobile, Blockchain Technology, 3D Printing/ Additive Manufacturing, Robotics Process Automation.

Note:-

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Lesson Plan
Odd Semester (July-Nov. 2024)

Name of Teacher :- Ms. Priya Rani

Class and Section :- B.A. 1st

Subject Name and Code :- Skill Enhancement Skill (SEC)

1.	**22 July to 15 Aug**	**Unit- I** Computer and Latest IT Gadgets, Evolution of Computer & its applications, Basic of Hardware and software, Application software, Systems Software, Utility Software, Central Processing Unit.
2.	**15 Aug to 31 Aug**	Input devices, Output devices, Computer Memory & storage, Mobile Apps. **Unit- II** Functions of Operating System, Operating System for Desktop and Laptop, Operating System for Mobile Phone and Tablets.
3.	**01 Sep to 15 Sep**	User Interface for Desktop and Laptop, Task Bar, Icons & Shortcuts, Running an Application, Operating System Simple Setting, Changing system Date and Time, Removing & Sharing Printers, File and folder Management.
4.	**15 Sep to 30 Sep**	**Unit- III** Basic of Computer Networks, Local Area Network (LAN), Wide Area Network (WAN), Network Topology, Internet, Applications of Internet.
5.	**01 Oct to 15 Oct**	Website Address and URL, Popular Web Browsers, Popular Search engines, Searching on the Internet. **Unit- IV** Using E-mails, Opening Email account, Mailbox: Inbox and Outbox.
6.	**16 Oct to 31 Oct**	Creating and sending a new E-mail, replying to an E- mail message, Forwarding an E-mai message Searching E-mails, Attaching files with E-mail, E-mail Signature,
7.	**01 Nov to Onwards**	Social Networking: Facebook, Twitter, Linkedln, Instgram, Instant Message (WhatsApp, Facebook, Messenger, Telegram), Introduction to Blogs, Digital Locker

Note:-

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Lesson Plan
Odd Semester (July-Nov. 2024)

Name of Teacher :- Ms. Priya Rani

Class and Section :- B.A. 3rd Semester

Subject Name and Code :- Programming With C (MDC)

1.	**24 July to 15 Aug**	Overview of C: History, Importance, Structure of C Program, Character Set, Constants and Variables, Identifiers and Keywords, Data Types, Assignment Statement, Symbolic Constant.
2.	**15 Aug to 31 Aug**	Input/output: Unformatted & Formatted I/O Function, Input Functions viz. scanf(), getch(), getche(), getchar(), gets(), output functions viz. printf(), putch(), putchar(), puts().
3.	**01 Sep to 15 Sep**	Operators & Expression: Arithmetic, Relational, Logical, Bitwise, Unary, Assignment, Conditional Operators and Special Operators
4.	**15 Sep to 30 Sep**	Operator Hierarchy & Associativity. Arithmetic Expressions, Evaluation of Arithmetic Expression, Type Casting and Conversion. Decision making with if statement
5.	**01 Oct to 15 Oct**	if-else statement, nested if statement, else-if ladder, switch and break statement, goto statement Looping: for, while, and do-while loop, jumps in loops.
6.	**16 Oct to 31 Oct**	Functions: definition, prototype, function call, passing arguments to a function: call by value, call by reference, recursive functions.
7.	**01 Nov to Onwards**	Arrays: Definition, types, Initialization, multidimensional arrays, Processing on Arrays.

Note:-

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- **E-Mail: pkamaltanish@gmail.com**

Lesson Plan
Odd Semester (July-Nov. 2024)

Name of Teacher :- Ms. Priya Rani

Class and Section :- B.A. 1st

Subject Name and Code :- Multi Disciplinary Course (MDC)

1.	**24 July to 15 Aug**	Computer Fundamentals: Evolution of Computers through generations, Characteristics of Computers, Strengths and Limitations of Computers, Classification of Computers, Functional Components of a Computer System
2.	**15 Aug to 31 Aug**	Applications of computers in Various Fields. Types of Software: System software, Application software, Utility Software. Memory Systems: Concept of bit, byte, word, nibble, storage locations and addresses, measuring units of storage capacity, access time.
3.	**01 Sep to 15 Sep**	concept of memory hierarchy, Primary Memory - RAM, ROM, PROM, EPROM. Secondary Memory - Types of storage devices, Magnetic Tape, Hard Disk, Optical Disk, Flash Memory. I/O Devices: I/O Ports of a Desk Top Computer, Device Controller, Device Driver.
4.	**15 Sep to 30 Sep**	Input Devices: classification and use, keyboard, pointing devices - mouse, touch pad and track ball, joystick, magnetic stripes, scanner, digital camera, and microphone Output Devices: speaker, monitor, printers: classification, laser, ink jet, dot-matrix. Plotter.
5.	**01 Oct to 15 Oct**	Introduction to Operating System: Definition, Functions, Features of Operating System, Icon, Folder, File, Start Button, Task Bar, Status Buttons, Folders, Shortcuts, Recycle Bin, Desktop, My Computer, My Document.
6.	**16 Oct to 31 Oct**	Windows Explorer, Control Panel The Internet: Introduction to networks and internet, history, Internet, Working of the Internet, Modes of Connecting to Internet.
7.	**01 Nov to Onwards**	Electronic Mail: Introduction, advantages and disadvantages, User Ids, Passwords, e-mail addresses, message components, message composition, mailer features. Browsers and search engines.

Note:-

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