

Government College, Chhachhrauli

Summary of Lesson Plan Odd Semester (July-Nov. 2025)

Name of Teacher: Mr. Lakhvinder Singh

Academic Session: 2025-26

Class: BCA I

Semester: 1st

Subject & Code: Foundations of Computer Science (CC-B) (B23-CAP-102)

Sr. No.	Unit	Topic/Chapters to be covered	Duration	Assignment and Tests
1	1	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.	22.07.2025 - 05.08.2025	
2	1	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.	06.08.2025 - 20.08.2025	
3	2	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.	21.08.2025 - 04.09.2025	
4	2	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.	06.09.2025 - 20.09.2025	Assignment-1
5	3	The Internet: Introduction to networks and internet, history, Internet, Intranet & Extranet, Working of Internet, Modes of Connecting to Internet.	22.09.2025 - 06.10.2025	
6	3	Electronic Mail: Introduction, advantages and disadvantages, User Ids, Passwords, e-mail addresses, message components, message composition, mailer features. Browsers and search engines.	08.10.2025 - 18.10.2025	Mid Term Examination
7	4	Threats: Physical & non-physical threats, Virus, Worm, Trojan, Spyware, Keyloggers, Rootkits, Adware, Cookies, Phishing, Hacking, Cracking.	27.10.2025 - 10.11.2025	Assignment-2
8	4	Computer Security Fundamentals: Confidentiality, Integrity, Authentication, Non-Repudiation, Security Mechanisms, Security Awareness, Security Policy, anti-virus software & Firewalls, backup & recovery.	11.11.2025 - 24.11.2025	

Note:-

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Government College, Chhachhrauli

Summary of Lesson Plan Odd Semester (July-Nov. 2025)

Name of Teacher: Mr. Lakhvinder Singh

Academic Session: 2025-26

Class: M.Sc. C.S. (Software) II

Semester: 3rd

Subject & Code: Machine Learning using Python (CC-10) (M24-CSE-302)

Sr. No.	Unit	Topic/Chapters to be covered	Duration	Assignment and Tests
1	1	Python Programming: Strings - String slices, immutability, string functions and methods, string module; Lists, Tuples, Dictionaries: Lists - Lists as arrays Traversing a List, list operations, list slices, list methods, Map, Filter and Reduce, list loop, mutability, aliasing, cloning lists, list parameters; Dictionaries - operations and methods; advanced list processing - list comprehension; Tuples - tuple assignment, tuple as return value.	06.08.2025 - 20.08.2025	
2	1	Files and Modules: Files and exception - text files, reading and writing files, format operator; command line arguments, errors and exceptions, handling exceptions, modules.	21.08.2025 - 04.09.2025	
3	2	Packages in Python: PANDAS, NUMPY, SCIKIT-LEARN, MATPLOTLIB. NumPy - Introduction, Nddarray Object ,Data types, Array Attributes, Array Creation Routines, Indexing & Slicing, Advanced Indexing, Broadcasting, Iterating Over Array, Array Manipulation, Binary Operators, String Functions, Mathematical Functions, Mathematical Functions, Arithmetic Operations, Statistical Functions, Linear Algebra, Matplotlib(Used for data visualization), Histogram Using Matplotlib.	06.09.2025 - 20.09.2025	
4	2	Pandas: Performing data cleaning and analysis, Loading data with Pandas (data manipulation and analysis), Working with and Saving data with Pandas. Using Scikit-Learn for Linear Regression, Logistic Regression, Decision Tree, Naive Bayes, KNN, SVN, k Mean Clustering, Random Forest.	22.09.2025 - 06.10.2025	Assignment-1
5	3	Introduction to Machine Learning – Well defined learning problems, Designing a Learning System, Issues in Machine Learning. The Concept Learning Task - General-to-specific ordering of hypotheses, Find-S, List then eliminate algorithm, Candidate elimination algorithm, Inductive bias Decision Tree Learning - Decision tree learning algorithm-Inductive bias- Issues in Decision tree learning.	08.10.2025 - 18.10.2025	
6	4	Bayesian Learning: Bayes theorem, Concept learning, Bayes Optimal Classifier, Naïve Bayes classifier, Bayesian belief networks, EM algorithm.	27.10.2025 - 10.11.2025	Mid Term Examination
7	4	Computational Learning Theory: Sample Complexity for Finite Hypothesis spaces, Sample Complexity for Infinite Hypothesis spaces, The Mistake Bound Model of Learning. Instance-Based Learning – k-Nearest Neighbour Learning, Locally Weighted Regression, Radial basis function networks, Case-based learning.	11.11.2025 - 24.11.2025	Assignment-2
8		Revision	25.11.2025 - Till exams	

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***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-November, 2025)

Name of Teacher :- Dr. Vishal Verma

Class and Section :- BCA-3rd Sem

Subject Name and Code :- Java OOP Foundations (B23-CAP-301) Theory

1.	22.07.2025-31.07.2025	Object Oriented Programming and Java Fundamentals: Structure of Java programs
2.	01.08.2025-15.08.2025	Classes and Objects, Data types, Type Casting, Looping Constructs.
3.	16.08.2025-31.08.2025	Interfaces: Interface basics; Defining, implementing and extending interfaces; Implementing multiple inheritance using interfaces Assignment-1
4.	01.09.2025-15.09.2025	Packages: Basics of packages, Creating and accessing packages, System packages, Creating user defined packages
5.	16.09.2025-30.09.2025	Exception handling using the main keywords of exception handling: try, catch, throw, throws and finally; Nested try, multiple catch statements, creating user defined exceptions. Assignment-2
6.	01.10.2025-15.10.2025	File Handling Byte Stream, Character Stream, File I/O Basics, File Operations Class Test
7.	16.10.2025-31.10.2025	AWT and Event Handling: The AWT class hierarchy, Events, Event sources, Event classes, Event Listeners
8.	01.11.2025-15.11.2025	Relationship between Event sources and Listeners, Delegation event model, Creating GUI applications using AWT.
9.	16.11.2025-24.11.2025	Revision & Problems Handling

Lesson Plan

Odd Semester (July-November, 2025)

Name of Teacher :- Dr. Vishal Verma

Class and Section :- BCA-3rd Sem

Subject Name and Code :- Java OOP Foundations (B23-CAP-301) Practical

1.	22.07.2025-31.07.2025	1. WAP to print Welcome Message. 2. WAP to demonstrate the concept of classes and objects.
2.	01.08.2025-15.08.2025	3. WAP to implement Constructors. 4. WAP to implement Method Overloading. 5. WAP to implement Constructor Overloading. 6. WAP to demonstrate the concept of Object Passing and Returning.
3.	16.08.2025-31.08.2025	7. WAP to demonstrate Call by Value and Call by Reference. 8. WAP to demonstrate the use of static keyword and static block. 9. WAP to find the sum of 10 numbers using Command Line Arguments in Java. 10. WAP to find the largest number from given n numbers using 1-D arrays.
4.	01.09.2025-15.09.2025	11. WAP to find the addition of two matrices 12. WAP to demonstrate Single Inheritance 13. WAP to demonstrate Hierarchical Inheritance 14. WAP to implement Multi-Level Inheritance
5.	16.09.2025-30.09.2025	15. WAP to implement Method Overriding in Java 16. WAP to demonstrate the concept of Dynamic Method Dispatch 17. WAP to illustrate the concept of Abstract classes in Java 18. WAP to illustrate the concept of packages in Java
6.	01.10.2025-15.10.2025	19. WAP to find the area of Rectangle and Circle using the concept of interfaces in Java 20. WAP to illustrate the concept of exception handling in Java using try catch block 21. WAP to illustrate the concept of using multiple catch blocks for exception handling. 22. WAP to illustrate the concept of using nested try blocks for exception handling.
7.	16.10.2025-31.10.2025	23. WAP to illustrate the use of throw and throws statement for exception handling. 24. WAP to demonstrate own exception classes. 25. WAP to illustrate various String Operation in Java 26. WAP to demonstrate Java Applets.
8.	01.11.2025-15.11.2025	27. WAP to demonstrate the Event Handling for ActionEvent, MouseEvent, ItemEvent and AdjustmentEvent using Frames.

		28. WAP to demonstrate the use of various Layout Managers. 29. Write Applet code to add two integers in textbox and their sum should appear in third textbox. 30. Write AWT program in Java to find the sum, Multiplication and average of three numbers entered in three Text fields by clicking the corresponding Labeled Button. The result should be appearing in fourth text field. 31. What are various stream classes in Java? Write Java code to read character from a file and write into another file.
9.	16.11.2025-24.11.2025	Revision & Problems Handling

Lesson Plan

Odd Semester (July-November, 2025)

Name of Teacher :- Dr. Vishal Verma

Class and Section :- BCA-3rd Sem

Subject Name and Code :- Data Base Technologies (B23-CAP-303) Theory

1.	22.07.2025-31.07.2025	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.	01.08.2025-15.08.2025	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.	16.08.2025-31.08.2025	Data Models: Hierarchical, Network and Relational Data Models. Entity-Relationship Model: Entity, Entity Sets, Entity Type, Attributes: Type of Attributes, Keys, Integrity Constraints, Designing of ER Diagram, Symbolic Notations for Designing ER Diagram Assignment-1
4.	01.09.2025-15.09.2025	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.
5.	16.09.2025-30.09.2025	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.	01.10.2025-15.10.2025	Relational Model: Functional Dependency, Characteristics, Inference Rules for Functional Dependency, Types of Functional Dependency. Class Test
7.	16.10.2025-31.10.2025	Normalization: Benefits and Need of Normalization, Normal Forms Based on Primary Keys- (1NF, 2NF, 3NF, BCNF)
8.	01.11.2025-15.11.2025	Multi-valued Dependencies, 4 NF, Join dependencies, 5 NF, Domain Key Normal Form.
9.	16.11.2025-24.11.2025	Revision & Problems Handling

Lesson Plan

Odd Semester (July-November, 2025)

Name of Teacher :- Dr. Vishal Verma

Class and Section :- BCA-3rd Sem

Subject Name and Code :- Data Base Technologies (B23-CAP-303) Practical

1.	22.07.2025-31.07.2025	1. Construct an ER Diagram for Company Database.
2.	01.08.2025-15.08.2025	2. Construct an ER Diagram for Hospital Database. 3. Construct an ER Diagram for Library Database.
3.	16.08.2025-31.08.2025	4. Construct an ER Diagram for University Database. 5. Construct an ER Diagram for Banking Database.
4.	01.09.2025-15.09.2025	6. Write SQL queries to implement DDL commands (CREATE TABLE, DROP TABLE and ALTER TABLE). 7. Write SQL queries to implement DML commands (INSERT, DELETE and UPDATE)
5.	16.09.2025-30.09.2025	8. Write SQL queries to implement SELECT command to query database. 9. Write SQL Queries showing the use of operators in SQL.
6.	01.10.2025-15.10.2025	10. Write SQL Queries using Group by and HAVING clause. 11. Write SQL Queries for aggregate functions.
7.	16.10.2025-31.10.2025	12. Write SQL Queries to create views (CREATE VIEW). 13. Write SQL Query to implement the concept of Joins.
8.	01.11.2025-15.11.2025	14. Write SQL Query to understand the concepts of ROLL BACK and COMMIT. 15. Given an unnormalized relation, perform step-by-step normalization to convert it into 1NF, 2NF and 3NF.
9.	16.11.2025-24.11.2025	Revision & Problems Handling

Lesson Plan

Odd Semester (July-November, 2025)

Name of Teacher :- Dr. Vishal Verma

Class and Section :- BCA-3rd Sem

Subject Name and Code :- Data Management (B23-SEC-302) Theory

1.	22.07.2025-31.07.2025	Database Management System – Introduction and Purpose
2.	01.08.2025-15.08.2025	Database Architectures: Centralized, Client-Server, Parallel, Distributed, Web based system: Web architecture (2 tier, 3 tier, N-tier Architecture)
3.	16.08.2025-31.08.2025	Database Storage Structures: Introduction, Indexing, Hashing, Data Dictionary. Assignment-1
4.	01.09.2025-15.09.2025	Data Models: Introduction to various data models, Cardinality Ratio & Relationships, Representation of entities, attributes, relationship attributes, relationship set,
5.	16.09.2025-30.09.2025	Generalization, aggregation, Structure of relational Database and different types of keys, Codd's rules and Relational data model Assignment-2
6.	01.10.2025-15.10.2025	Relational Database design: Basic System Development Life Cycle, Database Design – ER to Relational Class Test
7.	16.10.2025-31.10.2025	Functional dependencies, Normalization, Normal forms based on primary keys (1NF, 2NF, 3NF)
8.	01.11.2025-15.11.2025	SQL data definition, data types, specifying constraints, Queries for retrieval, insertion, deletion, updation, introduction to views.
9.	16.11.2025-24.11.2025	Revision & Problems Handling

Lesson Plan

Odd Semester (July-November, 2025)

Name of Teacher :- Dr. Vishal Verma

Class and Section :- BCA-3rd Sem

Subject Name and Code :- Data Management (B23-SEC-302) Practical

1.	22.07.2025-31.07.2025	1. Write SQL queries to create EMPLOYEE and DEPARTMENT relations using DDL commands
2.	01.08.2025-15.08.2025	2. Write SQL queries to implement DML commands (INSERT, DELETE and UPDATE) on EMPLOYEE and DEPARTMENT relations
3.	16.08.2025-31.08.2025	3. Write SQL queries to implement SELECT command to query database. 4. Write SQL Queries showing the use of operators in SQL.
4.	01.09.2025-15.09.2025	5. Write SQL Queries using Group by and HAVING clause. 6. Write SQL Queries for aggregate functions.
5.	16.09.2025-30.09.2025	7. Write SQL Queries to create views (CREATE VIEW).
6.	01.10.2025-15.10.2025	8. Write SQL Query to implement the concept of Joins.
7.	16.10.2025-31.10.2025	9. Write SQL Query to understand the concepts of ROLL BACK and COMMIT.
8.	01.11.2025-15.11.2025	10. Given an unnormalized relation, perform step-by-step normalization to convert it into 1NF, 2NF and 3NF.
9.	16.11.2025-24.11.2025	Revision & Problems Handling

Lesson Plan

Odd Semester (July-November, 2025)

Name of Teacher :- Dr. Vishal Verma

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

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

1.	01.08.2025-15.08.2025	Introduction to Java – History, features and applications; Basics of Java Programming: syntax, variables, Data Types, Operators, Expressions and statement
2.	16.08.2025-31.08.2025	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.	01.09.2025-15.09.2025	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.	16.09.2025-30.09.2025	Interfaces: Defining interfaces, implementing interfaces, and using interface references Packages: Creating and using interfaces, importing classes and packages Assignment – 2
5.	01.10.2025-15.10.2025	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 Class Test
6.	16.10.2025-31.10.2025	Multithreading: Creating threads, thread lifecycle, synchronization, thread communication Applet Programming, Applet Life Cycle, Applet Graphics Programming Event Handling: AWT Classes, ActionListener, MouseListener, MouseMotionListener, Layout Managers
7.	01.11.2025-15.11.2025	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.	16.11.2025-24.11.2025	Revision & Problems Handling

Lesson Plan

Odd Semester (July-November, 2025)

Name of Teacher :- Dr. Vishal Verma

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

Subject Name and Code :- Practical-2 (M24-CSE-106)

1.	01.08.2025-15.08.2025	1. WAP to print Welcome Message. 2. WAP to convert temperature from Celsius to Fahrenheit. 3. WAP to generate the first N prime numbers. 4. WAP to calculate the area and perimeter of a rectangle using a classes and object. 5. WAP to implement Method Overloading.
2.	16.08.2025-31.08.2025	6. WAP to implement Constructor Overloading. 7. WAP to demonstrate the concept of Object Passing and Returning. 8. WAP to find the sum of 10 numbers using Command Line Arguments in Java. 9. WAP to find the largest and smallest number from given N numbers using 1-D arrays. 10. WAP to find the frequency of each element in a 1-D array
3.	01.09.2025-15.09.2025	11. WAP to find the addition of two matrices 12. WAP to demonstrate Single Inheritance 13. WAP to demonstrate Hierarchical Inheritance 14. WAP to implement Multi-Level Inheritance 15. WAP to demonstrate Method Overriding in Java by implementing a base class Shape and derived classes like Circle and Rectangle
4.	16.09.2025-30.09.2025	16. WAP to demonstrate the concept of Dynamic Method Dispatch 17. WAP to illustrate the concept of Abstract classes in Java 18. WAP to illustrate the concept of packages in Java 19. WAP to find the area of Rectangle and Circle using the concept of interfaces in Java 20. WAP to illustrate the concept of exception handling in Java using try catch block
5.	01.10.2025-15.10.2025	21. WAP to illustrate the concept of using multiple catch blocks for exception handling. 22. WAP to illustrate the concept of using nested try blocks for exception handling. 23. WAP to illustrate the use of throw and throws statement for exception handling. 24. WAP to demonstrate own exception classes. 25. WAP to illustrate various String Operation in Java
6.	16.10.2025-31.10.2025	26. WAP to demonstrate Java Applets. 27. WAP to demonstrate the Event Handling for ActionEvent,

		MouseEvent, ItemEvent and AdjustmentEvent using Frames. 28. WAP to demonstrate the use of various Layout Managers.
7.	01.11.2025-15.11.2025	29. Write Applet code to add two integers in textbox and their sum should appear in third textbox. 30. Write AWT program in Java to find the sum, Multiplication and average of three numbers entered in three Text fields by clicking the corresponding Labeled Button. The result should be appearing in fourth text field. 31. What are various stream classes in Java? Write Java code to read character from a file and write into another file.
8.	16.11.2025-24.11.2025	Revision & Problems Handling

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Summary of Lesson Plan

Name: Dr. Neha Saini Academic Session: 2025-26.

Class: BCA II Semester: III Subject & Code: **Basics of Data Science Using Excel (B23-CAP-304)**

Sr.No .	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	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.	22.07.2025 – 05.08.2025	
2.	I and II	Basic Data Manipulation: Sorting, filtering, and basic formulas (SUM, AVERAGE, COUNT). Data Import and Export: CSV, TXT, and Excel files.	06.08.2025 – 20.08.2025	
3.	II and III	Data Cleaning Techniques: Handling missing values, duplicates, and errors. 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.	21.08.2025 – 04.09.2025	Assignment I
4.	III	Inferential Statistics: Hypothesis testing, t-tests, and chi-square tests. Regression Analysis: Simple linear regression and multiple regression.	06.09.2025 – 20.09.2025	Test I
5.	III	Predictive Modeling: Introduction to basic predictive models and their implementation in Excel.	22.09.2025 – 06.10.2025	Assignment II
6.	IV	Advanced Excel Functions: VLOOKUP, HLOOKUP, INDEX-MATCH, and PivotTables	08.10.2025 – 18.10.2025	Test II

7.	IV	\Data Analysis ToolPak:6+*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 and Revision of Entire Syllabus	27.10.2025 – 10.11.2025	
8.		Revision of Entire Syllabus	11.11.2025-24.11.2025	

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Government College Chhachhrauli

Summary of Lesson Plan

Name: Dr. Neha Saini Academic Session: 2025-26.

Class: M.Sc. I Semester: I Subject & Code: **Advanced Data Structures (M24-CSE-103)**

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	Trees: AVL Trees, Splay Trees, B Trees, Red Black Trees	01/08/25 to 15/08/25	
2.	I	Heaps: Binomial Heaps, Fibonacci Heaps, Pairing Heaps	16/08/25 to 31/08/25	
3.	II	Graphs: Graphs Representations, Depth First Search (DFS), Breadth First Search (BFS), Topological Sorting, Strongly Connected Components (SCC)	01/09/25 to 15/09/25	
4.	II	Memory Allocation: Buddy System, Memory Pool Allocation, Garbage Collection Algorithms	16/09/25 to 30/09/25	Assignment-1
5.	III	Graph Algorithms: Shortest Path Algorithms(Dijkstra's, Bellman-Ford, Floyd-Warshall), Minimum Spanning Tree (Kruskal's, Prim's), Network Flow (Ford-Fulkerson, Edmonds-Karp)	01/10/25 to 18/10/25	Test-1
6.	III& IV	Dynamic Programming: Matrix Chain Multiplication, Longest Common Subsequence(LCS), Knapsack Problems, Travelling Salesman Problem (TSP) Approximation Algorithms: Introduction to NP-Completeness, Approximation Techniques (Greedy, Local Search, Linear Programming),	27/10/25 to 10/11/25	Assignment-2

7.	IV	Specific Problems(Vertex Cover, Travelling Salesman problem, Set Cover), Parallel Algorithms: Introduction to Parallel computing, Parallel Sorting(Bitonic Sort, Parallel Merge Sort), Parallel Graph Algorithms (Parallel BFS, Parallel DFS), Parallel Algorithm Design and Analysis	11/11/25 to 24/11/25	Test-2
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Government College Chhachhrauli

Summary of Lesson Plan

Name: Dr. Neha Saini Academic Session: 2025-26.

Class: BCA IIISemester: V Subject & Code: **Database Management System (B23-VOC-129)**

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	Database Management System (DBMS): Concept, Data, Information, Records, File, Schema and instance etc.; Limitations of File-based approach; Characteristics of Database Approach; DBMS: Components, Functions, Database Interfaces, Advantages and Disadvantages; Database Users: Data; Database Administrator: Role and Responsibilities, Database Designers, Application developers etc.	22.07.2025 – 05.08.2025	
2.	I	Database System Architecture- 1 Tier, 2-Tier and three levels of architecture: External, Conceptual and internal level, schemas, mapping and instances , Data independence –Logical and Physical Data Independence	06.08.2025 – 20.08.2025	
3.	II	Data Models: Hierarchical, network ; Relational data models: Entity Relationship Model: entity, entity sets, entity type; Attributes: Type of attributes, keys; Integrity constraints; Designing of ER Diagram; Symbolic notations for designing ; ER Diagram.	21.08.2025 – 04.09.2025	Assignment I
4.	III	SQL: Meaning, purpose and need of SQL; Data Types; SQL Components: DDL, DML, DCL and DQL , basic queries, join operations and sub-queries;	06.09.2025 – 20.09.2025	Test I

5.	III	Views; Specifying Indexes; Constraints and its implementation in SQL ; Relational Algebra: Basic Operations: select, project, join, union, intersection, difference and Cartesian product etc.; Relational Calculus: Tuple Relational and Domain Relational Calculus, Relational Algebra v/s Relational Calculus	22.09.2025 – 06.10.2025	Assignment II
6.	IV	Relational Model: Functional Dependency – characteristics, inference rules and types; Normalization: benefits and need,	08.10.2025 – 18.10.2025	Test II
7.	IV	normal forms; Based on primary keys – (1NF, 2 NF, 3 NF, BCNF), Multi-valued Dependencies, 4 NF, join dependencies, 5 NF, domain key normal form	27.10.2025 – 10.11.2025	
8.		Revision	11.11.2025- 24.11.2025	

Note:-

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Government College Chhachhrauli

Summary of Lesson Plan

Name: Dinesh Parkash

Academic Session: 2025-26. (1-3)

Class: BCA

Semester: 5th

Subject & Code: Back-end development, B23-CAP-502

Sr.No .	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	Introduction to back-end Development: Overview of backend, Client-server architecture, Introduction to web servers and database.	22.07.2025 – 05.08.2025	
2.	I	Programming Languages and Tools: Introduction to server side languages (e.g., Node.js), Syntax and semantics of chosen server-side language	06.08.2025 – 20.08.2025	
3.	II	Programming Languages: Version control with Git, Introduction to IDEs (Integrated Development Environments) of chosen language, Writing and executing basic server-side scripts	21.08.2025 – 04.09.2025	
4.	II	Performance Optimization and Security: Caching strategies, Query optimization	06.09.2025 – 20.09.2025	Assignment 1
5.	III	Database Management: Introduction to databases and DBMS (SQL and NoSQL), Designing a database schema,	22.09.2025 – 06.10.2025	
6.	III	CRUD operations (Create, Read, Update, Delete), Connecting applications to a database	08.10.2025 – 18.10.2025	Mid Term Exam (13.10.2025)
7.	IV	Server-Side Frameworks: Overview of popular server-side frameworks (e.g., Express.js), Building a simple application using a framework.	27.10.2025 – 10.11.2025	Assignment 2

8.	IV	API Development: RESTful API concepts, Designing and documenting APIs, Authentication and authorization basics Web security best practices (SQL injection, XSS, CSRF)	11.11.2025- 24.11.2025	
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Government College Chhachhrauli

Summary of Lesson Plan

Name: Dinesh Parkash

Academic Session: 2025-26.(4-6)

Class: B.Sc.

Semester: 5th

Subject & Code: Data Structures & B23-CSE-501

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	Data Structure Definition, Data Type vs. Data Structure, Classification of Data Structures, Data Structure Operations, Applications of Data Structures. Algorithm Specifications: Performance Analysis and Measurement (Time and Space Analysis of Algorithms- Average, Best and Worst Case Analysis).	22.07.2025 – 05.08.2025	
2.	I	Arrays: Introduction, Linear Arrays, Representation of Linear Array in Memory, Two Dimensional and Multidimensional Arrays, Sparse Matrix and its Representation, Operations on Array: Algorithm for Traversal, Selection, Insertion, Deletion and its implementation.	06.08.2025 – 20.08.2025	
3.	II	String Handling: Storage of Strings, Operations on Strings viz., Length, Concatenation, Substring, Insertion, Deletion, Replacement, Pattern Matching	21.08.2025 – 04.09.2025	
4.	II	Linked List: Introduction, Array vs. linked list, Representation of linked lists in Memory, Traversing a Linked List, Insertion, Deletion, Searching into a Linked list, Type of Linked List.	06.09.2025 – 20.09.2025	Assignment 1
5.	III	Stack: Array Representation of Stack, Linked List Representation of Stack, Algorithms for Push and Pop, Application of Stack: Polish Notation, Postfix Evaluation Algorithms, Infix to Postfix Conversion, Infix to Prefix Conversion, Recursion.	22.09.2025 – 06.10.2025	

6.	III	Introduction to Queues: Simple Queue, Double Ended Queue, Circular Queue, Priority Queue, Representation of Queues as Linked List and Array, Applications of Queue. Algorithm on Insertion and Deletion in Simple Queue and Circular Queue. Priority Queues.	08.10.2025 – 18.10.2025	Mid Term Exam
7.	IV	Tree: Definitions and Concepts, Representation of Binary Tree, Binary Tree Traversal (Inorder, postorder, preorder), Binary Search Trees – Definition, Operations viz., searching, insertions and deletion;	27.10.2025 – 10.11.2025	Assignment 2
8.	IV	Searching and Sorting Techniques, Sorting Techniques: Bubble sort, Merge sort, Selection sort, Quick sort, Insertion Sort. Searching Techniques: Sequential Searching, Binary Searching.	11.11.2025- 24.11.2025	

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Government College Chhachhrauli

Summary of Lesson Plan

Name: Dinesh Parkash

Academic Session: 2025-26.

Class: PGDCA

Semester: 1st

Subject & Code: Data Structures M24-CAP-103

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	Introduction: Algorithmic notation – Programming principles – Creating programs Analyzing programs. Arrays: One dimensional array, multidimensional array, pointer arrays.	04.08.2025 – 20.08.2025	
2.	I	Searching: Linear search, Binary Search, Fibonacci search. Sorting techniques: Internal sorting - Insertion Sort, Selection Sort, Shell Sort, Bubble Sort, Quick Sort, Heap Sort, Merge Sort and Radix Sort.	21.08.2025 – 04.09.2025	
3.	II	Stacks: Definition – operations - applications of stack. Queues: Definition - operations Priority queues – Dequeues – Applications of queue.	06.09.2025 – 20.09.2025	Assignment 1
4.	II	Linked List: Singly Linked List, Doubly Linked List, Circular Linked List, linked stacks, Linked queues, Applications of Linked List – Dynamic storage management – Generalized list.	22.09.2025 – 06.10.2025	
5.	III	Trees: Binary tree, Terminology, Representation, Traversals, Applications – Binary search tree – AVL tree. B Trees: B Tree indexing, operations on a B Tree, Lower and upper bounds of a B Tree - B + Tree Indexing – Trie Tree Indexing.	08.10.2025 – 18.10.2025	Mid Term Exam
6.	IV	Graph: Terminology, Representation, Traversals – Applications - spanning trees, shortest path and Transitive closure, Topological sort. Sets: Representation - Operations on sets Applications.	27.10.2025 – 10.11.2025	Assignment 2

7.	IV	Files: queries - Sequential organization – Index techniques. External sorting.	11.11.2025- 24.11.2025	
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Government College Chhachhrauli

Summary of Lesson Plan

Name: Dinesh Parkash

Academic Session: 2025-26.

Class: M.Sc.

Semester: 3rd

Subject & Code: Mobile Applications Development, M24-CSE-301

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	Introduction: Mobile Applications, Characteristics and Benefits, Application Models, Mobile devices Profiles. Basics of Android, Importance and scope, Android Versions, Features of Android, Android Architecture, Android Stack, Android Applications Structure, Android Emulator, Android SDK, Overview of Android Studio, Android and File Structure, Android Virtual Device Manager, DDMS, LogCat, Understanding Activities.	04.08.2025 – 20.08.2025	
2.	I	Android User Interface: Measurements – Device and pixel density independent measuring units. Layouts – Linear, Relative, Grid and Table Layouts.	21.08.2025 – 04.09.2025	
3.	II	User Interface (UI) Components – Editable and non-editable Text Views, Buttons, Radio and Toggle Buttons, Checkboxes, Spinners, Dialog and pickers, List View, Spinner View. Event Handling – Handling clicks or changes of various UI components. Intents and Broadcasts:	06.09.2025 – 20.09.2025	Assignment 1
4.	II	Intent – Using intents to launch Activities, Explicitly starting new Activity, Implicit Intents, Passing data to Intents, Getting results from Activities, Native Actions, using Intent to dial a number or to send SMS Services- Callbacks and Override in application, Application Signing, API keys for Google Maps, Publishing application to the Android Market.	22.09.2025 – 06.10.2025	
5.	III	Fragments – Creating fragments, Lifecycle of fragments, Fragment states, Adding fragments to Activity, adding, removing and replacing fragments with fragment transactions, interfacing between fragments and Activities, Multi-screen Activities.	08.10.2025 – 18.10.2025	Mid Term Exam

6.	IV	Location and Mapping: location based services, Mapping, Google Maps activity, Working with MapView and MapActivity; Playing and Recording of Audio and Video in application; Sensors and Near Field Communication; Native libraries and headers, Building client server applications.	27.10.2025 – 10.11.2025	Assignment 2
7.	IV	Using Graphics: Canvas Drawing, Shadows, and Gradients. Persisting Data to files: Saving to Internal Storage, Saving to External Storage Introduction to SQLite database: creating and opening a database, creating tables, inserting retrieving and deleting data, Registering Content Providers, Using content Providers (insert, delete, retrieve and update)	11.11.2025- 24.11.2025	

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Government College Chhachhrauli

Summary of Lesson Plan

Name: Dr. Navneet Garg

Academic Session: 2025-26.

Class: BCA-1

Semester: Ist Sem

Subject & Code: **Problem Solving through C**

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	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	22.07.2025 – 05.08.2025	
2.	I	Input Functions viz. scanf(), getch(), getche(), getchar(), gets(), output functions viz. printf(), putchar(), puts().	06.08.2025 – 20.08.2025	Assignment 1
3.	II	Operators & Expression: Arithmetic, Relational, Logical, Bitwise, Unary, Assignment, Conditional Operators and Special Operators Operator Hierarchy; Arithmetic Expressions.	21.08.2025 – 04.09.2025	Test
4.	II	Evaluation of Arithmetic Expression, Type Casting and Conversion. Decision making with if statement, if else statement, nested if statement, else-if ladder, switch and break statement, goto statement, Looping Statements: for, while, and do while loop, jumps in loops.	06.09.2025 – 20.09.2025	Assignment 2
5.	III	Unit-III Arrays: One Dimensional arrays - Declaration, Initialization and Memory representation; Two Dimensional arrays - Declaration, Initialization and Memory representation. Functions: definition, prototype, function call,	22.09.2025 – 06.10.2025	
6.	III	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.	08.10.2025 – 18.10.2025	Test

7.	IV	Pointers in C: Declaring and initializing pointers, accessing address and value of variables using pointers; Pointers and Arrays.	27.10.2025 – 10.11.2025	test
8.	IV	User defined data types: Structures - Definition, Advantages of Structure, declaring structure variables, accessing structure members, Structure members initialization, Array of Structures; Unions - Union definition; difference between Structure and Union.	11.11.2025- 24.11.2025	

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Government College Chhachhrauli

Summary of Lesson Plan

Name: Dr. Navneet Garg

Academic Session: 2025-26.

Class: B.Sc-1

Semester: Ist Sem

Subject & Code: **Problem Solving through C**

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	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	22.07.2025 – 05.08.2025	
2.	I	Input Functions viz. scanf(), getch(), getche(), getchar(), gets(), output functions viz. printf(), putchar(), puts().	06.08.2025 – 20.08.2025	Assignment 1
3.	II	Operators & Expression: Arithmetic, Relational, Logical, Bitwise, Unary, Assignment, Conditional Operators and Special Operators Operator Hierarchy; Arithmetic Expressions.	21.08.2025 – 04.09.2025	Test
4.	II	Evaluation of Arithmetic Expression, Type Casting and Conversion. Decision making with if statement, if else statement, nested if statement, else-if ladder, switch and break statement, goto statement, Looping Statements: for, while, and do while loop, jumps in loops.	06.09.2025 – 20.09.2025	Assignment 2
5.	III	Unit-III Arrays: One Dimensional arrays - Declaration, Initialization and Memory representation; Two Dimensional arrays - Declaration, Initialization and Memory representation. Functions: definition, prototype, function call,	22.09.2025 – 06.10.2025	
6.	III	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.	08.10.2025 – 18.10.2025	Test

7.	IV	Pointers in C: Declaring and initializing pointers, accessing address and value of variables using pointers; Pointers and Arrays.	27.10.2025 – 10.11.2025	test
8.	IV	User defined data types: Structures - Definition, Advantages of Structure, declaring structure variables, accessing structure members, Structure members initialization, Array of Structures; Unions - Union definition; difference between Structure and Union.	11.11.2025- 24.11.2025	

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Government College Chhachhrauli

Summary of Lesson Plan

Name: Mukul Sharma

Academic Session: 2025-26.

Class: BCA

Semester: 1st

Subject & Code: B23-CAP-103

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	Number Systems: Binary, Octal, Hexadecimal etc. Conversions from one number system to another, BCD Number System. BCD Codes: Natural Binary Code, Weighted Code, Self-Complimenting Code, Cyclic Code.	22.07.2025 – 05.08.2025	
2.	I	Error Detecting and Correcting Codes. Character representations: ASCII, EBCDIC and Unicode. Number Representations: Integer numbers - sign-magnitude, 1's&2's complement representation. Real Numbers normalized floating point representations.	06.08.2025 – 20.08.2025	
3.	II	Binary Arithmetic: Binary Addition, Binary Subtraction, Binary Multiplication, Binary Division using 1's and 2's Complement representations, Addition and subtraction with BCD representations. Boolean Algebra: Boolean Algebra Postulates, basic Boolean Theorems, Boolean Expressions	21.08.2025 – 04.09.2025	Assignment 1
4.	II	Boolean Functions, Truth Tables, Canonical Representation of Boolean Expressions: SOP and POS, Simplification of Boolean Expressions using Boolean Postulates & Theorems, Karnaugh-Maps (upto four variables), Handling Don't Care conditions.	06.09.2025 – 20.09.2025	
5.	III	Logic Gates: Basic Logic Gates – AND, OR, NOT, Universal Gates – NAND, NOR, Other Gates – XOR, XNOR etc. Their symbols, truth tables and Boolean expressions.	22.09.2025 – 06.10.2025	
6.	III	Combinational Circuits: Design Procedures, Half Adder, Full Adder, Half Subtractor, Full Subtractor, Multiplexers, Demultiplexers, Decoder, Encoder, Comparators, Code Converters	08.10.2025 – 18.10.2025	Test 1

7.	IV	Sequential Circuits: Basic Flip- Flops and their working. Synchronous and Asynchronous Flip – Flops, Triggering of Flip- Flops, Clocked RS, D Type, JK, T type and Master-Slave Flip-Flops. State Table, State Diagram and State Equations. Flip-flops characteristics & Excitation Tables.	27.10.2025 – 10.11.2025	Assignment 2
8.	IV	Sequential Circuits: Designing registers –Serial-In Serial-Out (SISO), Serial-In Parallel-Out (SIPO), Parallel-In Serial-Out (PISO) Parallel-In Parallel-Out (PIPO) and shift registers.	11.11.2025- 24.11.2025	

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Government College Chhachhrauli

Summary of Lesson Plan

Name: Mukul Sharma

Academic Session: 2025-26.

Class: B.sc

Semester: 1st

Subject & Code: **B23-CSE-301**

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	Introductory Concepts: Operating System, Functions and Characteristics, Historical Evolution of Operating Systems, Operating System Structure. Types of Operating System: Real time, Multiprogramming, Multiprocessing, Batch processing.	22.07.2025 – 05.08.2025	
2.	I	Operating System Services, Operating System Interface, Service System Calls, System Programs. Process Management: Process Concepts, Operations on Processes, Process States and Process Control Block. Inter-Process Communication.	06.08.2025 – 20.08.2025	
3.	II	CPU Scheduling: Scheduling Criteria, Levels of Scheduling, Scheduling Algorithms, Multiple Processor Scheduling, Algorithm Evaluation. Synchronization: Critical Section Problem, Semaphores, Classical Problem of Synchronization, Monitors.	21.08.2025 – 04.09.2025	
4.	II	Deadlocks: Deadlock Characterization, Methods for Handling Deadlocks, Deadlock Prevention, Deadlock Avoidance, Deadlock Detection and Recovery.	06.09.2025 – 20.09.2025	Assignment 1
5.	III	Memory Management Strategies: Memory Management of Single-User and Multiuser Operating System, Partitioning, Swapping, Contiguous Memory Allocation .	22.09.2025 – 06.10.2025	
6.	III	Paging and Segmentation; Virtual Memory Management: Demand Paging, Page Replacement Algorithms, Thrashing.	08.10.2025 – 18.10.2025	Test 1

7.	IV	Implementing File System: File System Structure, File System Implantation, file operations, Type of Files, Directory Implementation	27.10.2025 – 10.11.2025	Assignment 2
8.	IV	Allocation Methods, and Free Space Management. Disk Scheduling algorithm- SSTF, Scan, C- Scan, Look, C-Look. SSD Management.	11.11.2025- 24.11.2025	

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Government College Chhachhrauli

Summary of Lesson Plan

Name: Mukul Sharma

Academic Session: 2025-26.

Class: PGDCA

Semester: 1st

Subject & Code: M24-CAP-102

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	Introduction to Operating Systems: Definition, types, and functions of an operating system; System Structures: Operating system services, system calls, system programs, and system structure; Process Management	22.07.2025 – 05.08.2025	
2.	I	Process concept, process scheduling, operations on processes, inter-process communication; CPU Scheduling: Scheduling criteria, scheduling algorithms (FCFS, SJF, Priority, Round Robin, Multilevel Queue Scheduling).	06.08.2025 – 20.08.2025	
3.	II	Memory Management: Memory Hierarchy, Types of memory, memory allocation techniques; Paging and Segmentation: Basic concepts, paging, segmentation, segmentation with paging; Virtual Memory	21.08.2025 – 04.09.2025	
4.	II	Demand paging, page replacement algorithms, allocation of frames, thrashing; File Systems: File concepts, access methods, directory and disk structure, file system mounting, file sharing, protection.	06.09.2025 – 20.09.2025	Assignment 1
5.	III	Introduction to Linux: History, features, architecture of Linux; Linux File System: File and directory structure, file permissions, standard file types.	22.09.2025 – 06.10.2025	
6.	III	File and directory operations (ls, cp, mv, rm, mkdir), text processing (cat, grep, sort), system status (ps, top, df, du); Shell Scripting: Introduction to shell, shell variables, control structures (if, case, while, for), writing simple shell scripts.	08.10.2025 – 18.10.2025	Test 1

7.	IV	Process Management in Linux: Managing processes (ps, top, kill, nice), job scheduling (cron, at); User and Group Management: Creating and managing users and groups, file permissions, changing ownership (chown, chgrp); Networking in Linux: Basic network commands (ifconfig, ping, netstat, ssh).	27.10.2025 – 10.11.2025	Assignment 2
8.	IV	Configuring network interfaces; System Administration: Package management (installing and removing software using rpm, dpkg, apt-get), backup and restore, logging; Security: Basic security concepts, user authentication.	11.11.2025- 24.11.2025	

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Government College Chhachhrauli

Summary of Lesson Plan

Name: Mukul Sharma

Academic Session: 2025-26.

Class: PGDCA

Semester: 1st

Subject & Code: M24-CAP-108

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	Computer Fundamentals: Basics of computers, basic computer organization, storage hierarchy, storage devices, input-output devices. Computer Software. Introduction to operating systems.	22.07.2025 – 05.08.2025	
2.	I	Planning the computer program: Purpose of program planning, algorithm, flowcharts, decision tables, pseudocodes.	06.08.2025 – 20.08.2025	
3.	II	Digital Fundamentals: Information representation - number systems, number system conversion; Computer codes - BCD code, EBCDIC code, ASCII, Unicode.	21.08.2025 – 04.09.2025	
4.	II	Binary arithmetic; Binary logic - Boolean algebra, Boolean functions, truth table, simplification of Boolean functions (upto 4 variables only), K-map, digital logic gates.	06.09.2025 – 20.09.2025	Assignment 1
5.	III	Elements of C language: C character set, identifiers & keywords, data types: declaration & definition. Operators: Arithmetic relational, logical, bitwise, unary, assignment and conditional operators & their hierarchy & associativity	22.09.2025 – 06.10.2025	
6.	III	Data input/output. Control statements: Sequencing, Selection: if and switch statement; iteration: for, while, and dowhile loop; break, continue, goto statement.	08.10.2025 – 18.10.2025	Test 1

7.	IV	Functions in C language: Definition, prototype, passing parameters, recursion, Data structure: arrays, structures, union.	27.10.2025 – 10.11.2025	Assignment 2
8.	IV	String ,data files. Pointers: Declaration, operations on pointers, array of pointers, pointers to arrays.	11.11.2025- 24.11.2025	

Note:-

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Government College Chhachhrauli

Summary of Lesson Plan

Name: Amarpreet Singh

Academic Session: 2025-26.

Class: BCA-III Semester: 5th Subject & Code: Network Infrastructure and Data Communication
(B23-CAP-503)

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	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)	22.07.2025 – 05.08.2025	
2.	I	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	06.08.2025 – 20.08.2025	
3.	II	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	21.08.2025 – 04.09.2025	Assignment 1
4.	II	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;	06.09.2025 – 20.09.2025	
5.	III	Wireless Transmission ; Communication Satellites; Switching, its types(Circuit/Message/Packet) Multiplexing & its types Modulation & its types Modems:-ADSL, Cable Modem	22.09.2025 – 06.10.2025	
6.	III	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	08.10.2025 – 18.10.2025	MST-1

7.	IV	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	27.10.2025 – 10.11.2025	Assignment 2
8.	IV	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	11.11.2025- 24.11.2025	

Government College Chhachhrauli

Summary of Lesson Plan

Name: Amarpreet Singh

Academic Session: 2025-26.

Class: BCA-II Semester: 3rd

Subject & Code: Linux and Shell Programming (B23-CAP-302)

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	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.	22.07.2025 – 05.08.2025	
2.	I	Commands in Unix/Linux: General-Purpose commands, File oriented commands, Communication-oriented commands, process oriented commands and other commonly used commands.	06.08.2025 – 20.08.2025	
3.	II	Regular expressions & Filters in Linux: Regular expressions and their use, Simple filters viz. more, wc, diff, sort, uniq, grep, sed, etc.	21.08.2025 – 04.09.2025	Assignment 1
4.	II	Linux/Unix file system: Linux/Unix files, inodes and structure and file system, File system components,	06.09.2025 – 20.09.2025	
5.	III	Standard file system, File system types, file system mounting and unmounting.	22.09.2025 – 06.10.2025	

6.	III	Processes in Linux : starting and stopping processes, initialization Processes, mechanism of process creation, Job control - at, batch, cron, time, Signal handling.	08.10.2025 – 18.10.2025	MST-1
7.	IV	Shell Programming: vi editor, shell variables, I/O in shell, control structures, loops, subprograms	27.10.2025 – 10.11.2025	Assignment 2
8.	IV	Command line programming, creating shell scripts	11.11.2025- 24.11.2025	

Government College Chhachhrauli

Summary of Lesson Plan

Name: Amarpreet Singh

Academic Session: 2025-26.

Class: M.Sc(CS)

Semester: 1st

Subject & Code: Mathematical Foundantion of Computer Science

(M24-CSE-101)

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	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	22.07.2025 – 05.08.2025	
2.	I	Combinatories : Basic counting sum and product, balls and bins problems, generating functions, recurrence relation. Proof techniques principle of mathematical induction, pigeonhole principle.	06.08.2025 – 20.08.2025	
3.	II	Structured Stes : Set relation - Algebraic System: Groups, Semi groups, monoid,homomorphism, cosets,	21.08.2025 – 04.09.2025	Assignment 1
4.	II	Ring and field (definition), Relation, Equivalence relations, Poset,Lattices, Hasse diagram, Boolean algebra	06.09.2025 – 20.09.2025	
5.	III	Graph Theory: Introduction - Graph Terminologies- Types of Graphs- Sub Graph - MultiGraph - Regular Graph - Isomorphism	22.09.2025 – 06.10.2025	
6.	III	-Isomorphic Graphs -Sub-graph - Euler Graph - Hamiltonian Graph - Related problems.	08.10.2025 – 18.10.2025	MST-1

7.	IV	Truth Trees - Properties- Distance and Centres - Types - Rooted Tree - Tree Enumeration Labeled Tree - Unlabeled Tree - Spanning Tree -	27.10.2025 – 10.11.2025	Assignment 2
8.	IV	Fundamental Circuits- Cut Sets -Properties - Fundamental Circuit and Cut-set- Connectivity- Separability – Related problems.	11.11.2025- 24.11.2025	

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: Dr. BhawnaSharmaAcademic Session: 2025-26.

Class: B.Sc-1st Sem (Minor)

Subject: B23-CSE-103, Basics of Computer Science

Unit	Topic/Chapters to be covered	Duration	Assignment and Tests
I	Introduction to Computers: Definition of computers, History and Generations of Computers, Characteristics of Computer, Fundamental Block diagram of Computer: CPU, Input & Output Unit.	22.07.2025 – 05.08.2025	Assignment-I
I& II	Fundamental Block diagram of Computer: CPU, Input & Output Unit. Software: Definition of Software, Types of Software: System Software, Application Software and Utility Software.	06.08.2025 – 20.08.2025	
II& III	Types of Computer Languages, Assemblers, Interpreters and Compilers Introduction to Operating Systems: Types of Operating System, Functions of Operating System.	21.08.2025 – 04.09.2025	Assignment-II
III & IV	Windows: Introduction to Windows, Starting Windows, Desktop, Taskbar, Opening and Closing Applications. Icons: Creating, Renaming and Removing. Date and Time Settings, Icons: Creating, Renaming and Removing. Date and Time Settings,	06.09.2025 – 20.09.2025	
IV	Networking: Concept, Basic Elements of Communication System, Data Transmission Media, LAN, MAN, WAN.	08.10.2025 – 18.10.2025	

IV	Introduction to Internet and WWW, Basic Working of a Web Browser, Introduction to Popular Web Browsers	27.10.2025 – 10.11.2025	
	Revision & Tests	11.11.2025 – 24.11.2025	

Government College Chhachhrauli

Summary of Lesson Plan

Name: Dr. Bhawna Sharma Academic Session: 2025-26.

Class: BCA-5th Sem Subject : B23-CAP-501, Software Engineering

Unit	Topic/Chapters to be covered	Duration	Assignment and Tests
Unit-I	Introduction: Program Vs Software, Software Engineering, Program Paradigms, Software Crisis- Problem & Causes, Phases In Software Development: Requirement Analysis, Software Design, Coding, Testing, Maintenance, Software Development Process Models: Waterfall, Prototype, Evolutionary & Spiral Models, Role Of Metrics.	22.07.2025 – 05.08.2025	Assignment-I
Unit-I	Feasibility Study, Software Requirement Analysis & Specifications: SRS, Need For SRS, Characteristics Of SRS, Components Of SRS, Problem Analysis, Information Gathering Tools, Requirement Specification, Validation & Metrics. Structured Analysis & Tools: Data Flow Diagram, Data Dictionary, Decision Table, Decision Trees, Structured English, Entity-Relationship Diagrams.	06.08.2025 – 20.08.2025	
Unit-II	Software Project Planning: Cost Estimation, Static, Single And Multivariate Models, COCOMO Model, Putnam Resource Allocation Model, Risk Management, Project Scheduling, Personnel Planning, Team Structure, Software Configuration Management, Quality Assurance, Project Monitoring	21.08.2025 – 04.09.2025	
Unit-II	Software Requirement Analysis And Specifications: Structured Analysis, Data Flow Diagrams, Data Dictionaries, Entity-Relationship Diagrams, Software Requirement And Specifications, Behavioral And Non-Behavioral Requirements.	06.09.2025 – 20.09.2025	Test-I
Unit-III	Software Project Planning: Cost Estimation: Cocomo Model, Project Scheduling, Staffing & Personnel Planning, Team Structure, Software Configuration Management, Quality Assurance Plans, Project Monitoring Plans, Risk Management. Software Design: Design Fundamentals, Problem Partitioning And Abstraction, Design Methodology, Cohesion & Coupling.	08.10.2025 – 18.10.2025	Assignment -II

Unit-III	Software Testing: Unit Testing, Integration Testing, Validation Gtesting, System Testing, Alpha & Beta Testing. Software Maintenance: Types Of Maintenance, Management Of Maintenance, Maintenance Process, Maintenance Characterestics.	27.10.2025 – 10.11.2025 Diwali Break (19.10.2025 – 26.10.2025)	
III (contd.)	Software Maintenance: Types Of Maintenance, Management Of Maintenance, Maintenance Process, Maintenance Characterestics.	11.11.2025 – 24.11.2025	Test

Government College, Chhachhrauli

Summary of Lesson Plan

Name: Dr. Bhawna Sharma Academic Session: 2025-26.

Class: M.Sc-1st Sem Subject : M24-CSE-102, Advanced Computer Architecture

Unit	Topic/Chapters to be covered	Duration	Assignment and Tests
I	Computational Model: Basic Computation Model, Computer Architecture, Classification Of Parallel Architectures, Relationships Between Programming Languages And Parallel Architectures Parallel Processing: Types And Levels Of Parallelism, Instruction Level Parallel (ILP) Processors	04.08.2025 – 19.08.2025	
I	Dependencies Between Instructions, Principle And General Structure Of Pipelines, Performance Measures Of Pipeline, Pipelined Processing Instructions. Code Scheduling For ILP Processors - Basic Block Scheduling, Loop Scheduling, Global Scheduling	20.08.2025 – 04.09.2025	Assignment 1
II	Superscalar Processors: Emergence Of Superscalar Processors, Tasks Of Superscalar Processing – Parallel Decoding, superscalar instruction issue, shelving, register renaming, parallel execution, preserving sequential consistency of instruction execution & exception processing.	06.09.2025 – 20.09.2025	
II	Comparison Of VLIW & Superscalar Processors Branch Handling: Branch Problem, Approaches To Branch Handling – Delayed Branching, Branch Detection And Prediction Schemes, Branch Penalties And Schemes To Reduce Them, Multiway Branches.	08.10.2025 – 18.10.2025	
III	MIMD Architectures: Concepts Of Distributed And Shared Memory MIMD Architectures, UMA, NUMA, CCNUMA & COMA Models of multiprocessors.	27.10.2025 – 10.11.2025	Assignment 2
IV	Dynamic Interconnection Networks: Single Shared Buses, Comparison Of Bandwidths Of Locked, Pended & Split Transaction Buses, Arbiter Logics, Crossbar, Multistage Networks – Omega. Cache Coherence Protocols: Cache Coherence Problem, Causes, Hardware Based Protocols- Snoopy Cache Protocols, Directory Schemes- Full Map Directory, Limited Directory, Chained Directory.	11.11.2025 – 24.11.2025	Test

Government College Chhachhrauli

Summary of Lesson Plan

Name: Dr. Bhawna Sharma Academic Session: 2025-26.

Class: M.Sc-3rd Sem Subject : M24-CSE-307, Principles of Programming Language

Unit	Topic/Chapters to be covered	Duration	Assignment and Tests
I	Preliminaries: History, Impact Of Programming Paradigms, Role Of Programmng Languages, Good Language, Effects Of Programming Environment, Translators And Virtual Architectures, Binding And Binding Time, Language Syntax, Analysis Of Program, Synthesis Of Object Program, Formal Translation Models: BNF Grammars, General Parsing, Language Translation, Recursive Descent Parsing.	04.08.2025 – 19.08.2025	Assignment-I
II	Formal languages and automata: The Chomsky Hierarchy Of Formal Languages, Regular Grammars, Regular Expressions, Finite State Automata, Context Free Grammars, Pushdown Automata, Ambiguous Grammars. Language Semantics: Attribute Grammars, Denotational Semantics, Program Verification And Validation, Data Objects, Variables, Constants, Data Types, Declaration, Type Checking, Type Casting, Type Promotion, Enumerators, Composite Data Types.	20.08.2025 – 04.09.2025	
Unit-III	Object Oriented Concepts: Structured Data Types, Abstract Data Types, Information Hiding, Subprogram Concepts, Good Program Design, Type Definitions, Type Equivalence, Inheritance, Derived Classes, Abstract Classes, Polymorphism, Inheritance And Software Reuse.	06.09.2025 – 20.09.2025	
Unit-III	Sequence Control: Implicit And Explicit Sequence Control, Sequence Control Within Arithmetic Expressions, Sequence Control Between Statements, Sequencing With Non Arithmetic Expressions, Subprogram Sequence Control.	08.10.2025 – 18.10.2025	Test-I
Unit-IV	Miscellaneous Topics: Parameter Passing Techniques, Static And Dynamic Scoping, Storage Of Variables, Static Storage, Heap Storage Management, Distributed Processing, Processor Design, Hardware And Software Architectures, Network Programming, Evolution Of Scripting Languages, Applets, Xml	27.10.2025 – 10.11.2025	Assignment -II

	Revision	11.11.2025 – 24.11.2025	
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Government College Chhachhrauli

Summary of Lesson Plan

Name: Dr. Bhawna Sharma Academic Session :2025-26.

Class: PGDCASemester: Ist **Subject: M24-CAP-101, Client-Side Web Technology**

Unit	Topic/Chapters to be covered	Duration	Assignment and Tests
I	Basics of Front End Development: Overview of web development (Front End vs. Back End), Understanding the MERN stack and its components, Tools and environments (text editors, browsers, version control with Git); HTML (HyperText Markup Language): Structure of an HTML document, HTML elements and attributes, Forms and input types, Semantic HTML (header, footer, article, section, nav).	04.08.2025 – 19.08.2025	Assignment-I
I	CSS (Cascading Style Sheets): Basics of CSS (syntax, selectors, properties), CSS Box Model, Positioning and layout (float, flexbox, grid), Responsive design (media queries, mobile-first design). Basics of JavaScript: Introduction to JavaScript, Variables, data types, and operators, Control structures (if, else, switch, loops); Functions and Scope: Defining and invoking functions, Function expressions and arrow functions, Scope and closures	20.08.2025 – 04.09.2025	
II	Objects and Arrays: Creating and manipulating objects, Array methods and iteration; Regular Expressions: Introduction to RegExp, Regular expression usage, Modifiers, RegExp patterns, RegExp methods, String methods for RegExp.	06.09.2025 – 20.09.2025	
II	DOM Manipulation and Events: Selecting and manipulating DOM elements, Event handling and delegation, Creating and appending elements dynamically. Introduction to React: Overview and advantages of React, Setting up a React development environment (using Create React App). JSX (JavaScript XML): Understanding JSX syntax, Embedding expressions in JS, JSX best practices; Components and Props: Functional and class components, Props and component communication, Prop types and default props.	08.10.2025 – 18.10.2025	Test-I

III	State and Lifecycle: Understanding state in React, State management in class components, Lifecycle methods (componentDidMount, componentDidUpdate, componentWillUnmount); Event Handling and Forms: Handling events in React, Controlled vs. uncontrolled components, Form handling and validation	27.10.2025 – 10.11.2025	Assignment -II
III	React Router: Introduction to React Router, Setting up and configuring routes, Navigating between routes and passing parameters; State Management with Redux: Introduction to Redux, Setting up Redux with React, Actions, reducers, and store, Connecting Redux to React components; Advanced Hooks: Using built-in hooks (useEffect, useContext, useReducer), Creating custom hooks, Managing side effects with useEffect	11.11.2025 – 24.11.2025	

Government College Chhachhrauli

Summary of Lesson Plan

Name: Dr. Bhawna Sharma Academic Session :2025-26.

Class: PGDCASemester: Ist **Subject : M24-CAP-104, Programming in JAVA**

Unit	Topic/Chapters to be covered	Duration	Assignment and Tests
I	Introduction to Java: History, features, and applications; Basics of Java programming: Syntax, variables, data types, operators, expressions, and statements; Control flow: 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	04.08.2025 – 19.08.2025	Assignment-I
II	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, super keyword, and method overloading; Polymorphism: Method overriding, dynamic method dispatch, and abstract classes. Interfaces: Defining interfaces, implementing and using interface references. Packages: Creating and using packages, importing classes and packages.	20.08.2025 – 04.09.2025	
III	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; Multithreading: Creating threads, thread lifecycle, synchronization, thread communication. Applet programming, Applet life Cycle, Applet Graphics programming.	06.09.2025 – 20.09.2025	

IV	Event Handling: AWT Classes, ActionListener, MouseListener, MouseMotionListener, Layout managers	08.10.2025 – 18.10.2025	Test-I
IV	Generics: Introduction to generics, generic classes and generic methods, Java Database Connectivity (JDBC): Connecting to databases, executing SQL queries, handling transactions, and managing resources; GUI	27.10.2025 – 10.11.2025	Assignment -II
IV	GUI Programming: Introduction to Swing for creating graphical user interfaces (GUIs)	11.11.2025 – 24.11.2025	

Government College Chhachhrauli

Summary of Lesson Plan

Name: Mr. Parveen Kumar

Academic Session: 2025-26

Class: B.ComII Semester: 3rd Subject & Code: **MDC (Multi Disciplinary Course)
Programming in C))**

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	Overview of C: History, Importance, Structure of C Program, Character Set, Constants and Variables, Identifiers and Keywords, Data Types, Assignment Statement, Symbolic Constant.	22.07.2025 – 05.08.2025	
2.	I	Input/output: Unformatted & Formatted I/O Function, Input Functions viz. scanf(), getch(), getche(), getchar(), gets(), output functions viz. printf(), putchar(), puts().	06.08.2025 – 20.08.2025	Assignment 1
3.	II	Operators & Expression: Arithmetic, Relational, Logical, Bitwise, Unary, Assignment, Conditional Operators and Special Operators	21.08.2025 – 04.09.2025	Test 1
4.	II	Operator Hierarchy & Associativity. Arithmetic Expressions, Evaluation of Arithmetic Expression, Type Casting and Conversion. Decision making with if statement	06.09.2025 – 20.09.2025	Assignment 2
5.	III	if-else statement, nested if statement, else-if ladder, switch and break statement, goto statement	22.09.2025 – 06.10.2025	Mid Term
6.	III	Looping: for, while, and do-while loop, jumps in loops. Functions: definition, prototype, function call,	08.10.2025 – 18.10.2025	Test 2
7.	IV	passing arguments to a function: call by value, call by reference, recursive functions.	27.10.2025 – 10.11.2025	Test 3
8.	IV	Arrays: Definition, types, Initialization, multidimensional arrays, Processing on Arrays.	11.11.2025- 24.11.2025	Test 4

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

Government College Chhachhrauli

Summary of Lesson Plan

Name: Mr. Parveen Kumar

Academic Session: 2025-26.

Class: B.Com Semester: 1st Subject & Code: **MDC(Multi Disciplinary Course)**

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	Computer and Latest IT Gadgets, Evolution of Computer & its applications, Basic of Hardware and software, Application software, Systems Software,	22.07.2025 – 05.08.2025	
2.	I	Utility Software, Central Processing Unit. Input devices, Output devices, Computer Memory & storage, Mobile Apps.	06.08.2025 – 20.08.2025	Assignment 1
3.	II	Functions of Operating System, Operating System for Desktop and Laptop, Operating System for Mobile Phone and Tablets. User Interface for Desktop and Laptop, Management.	21.08.2025 – 04.09.2025	Test 1
4.	II	Task Bar, Icons & Shortcuts, Running an Application, Operating System Simple Setting, Changing system Date and Time, Removing & Sharing Printers, File and folder	06.09.2025 – 20.09.2025	Assignment 2
5.	III	Basic of Computer Networks, Local Area Network (LAN), Wide Area Network (WAN), Network Topology, Internet, Applications of Internet.	22.09.2025 – 06.10.2025	Mid Term
6.	III	Website Address and URL, Popular Web Browsers, Popular Search engines, Searching on the Internet.	08.10.2025 – 18.10.2025	Test 2
7.	IV	Using E-mails, Opening Email account, Mailbox: Inbox and Outbox. 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,	27.10.2025 – 10.11.2025	Test 3
8.	IV	Social Networking: Facebook, Twitter, LinkedIn, Instagram, Instant Message (WhatsApp, Facebook, Messenger, Telegram), Introduction to Blogs, Digital Locker	11.11.2025- 24.11.2025	Test 4

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: Mr. Parveen Kumar

Academic Session: 2025-26.

Class: B.Com I/BBA I/B.Sc. I Semester: 1st Subject & Code: SEC(Skill Enhancement Course B23-SEC-103)

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	Computer and Latest IT Gadgets, Evolution of Computer & its applications, Basic of Hardware and software, Application software, Systems Software,	22.07.2025 – 05.08.2025	
2.	I	Utility Software, Central Processing Unit. Input devices, Output devices, Computer Memory & storage, Mobile Apps.	06.08.2025 – 20.08.2025	Assignment 1
3.	II	Functions of Operating System, Operating System for Desktop and Laptop, Operating System for Mobile Phone and Tablets. User Interface for Desktop and Laptop, Management.	21.08.2025 – 04.09.2025	Test 1
4.	II	Task Bar, Icons & Shortcuts, Running an Application, Operating System Simple Setting, Changing system Date and Time, Removing & Sharing Printers, File and folder	06.09.2025 – 20.09.2025	Assignment 2
5.	III	Basic of Computer Networks, Local Area Network (LAN), Wide Area Network (WAN), Network Topology, Internet, Applications of Internet.	22.09.2025 – 06.10.2025	Mid Term
6.	III	Website Address and URL, Popular Web Browsers, Popular Search engines, Searching on the Internet.	08.10.2025 – 18.10.2025	Test 2
7.	IV	Using E-mails, Opening Email account, Mailbox: Inbox and Outbox. Creating and sending a new E-mail, replying to an E-mail message, Forwarding an E-mail message Searching E-mails, Attaching files with E-mail, E-mail Signature,	27.10.2025 – 10.11.2025	Test 3
8.	IV	Social Networking: Facebook, Twitter, LinkedIn, Instagram, Instant Message (WhatsApp, Facebook, Messenger, Telegram), Introduction to Blogs, Digital Locker	11.11.2025- 24.11.2025	Test 4

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: Ms. Priya Rani

Academic Session: 2025-26.

Class: B.A. Semester: 3rd Subject & Code: **MDC (Multi Disciplinary Course)**

Programming in C))

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	Overview of C: History, Importance, Structure of C Program, Character Set, Constants and Variables, Identifiers and Keywords, Data Types, Assignment Statement, Symbolic Constant.	22.07.2025 – 05.08.2025	
2.	I	Input/output: Unformatted & Formatted I/O Function, Input Functions viz. scanf(), getch(), getche(), getchar(), gets(), output functions viz. printf(), putchar(), puts().	06.08.2025 – 20.08.2025	Assignment 1
3.	II	Operators & Expression: Arithmetic, Relational, Logical, Bitwise, Unary, Assignment, Conditional Operators and Special Operators	21.08.2025 – 04.09.2025	Test 1
4.	II	Operator Hierarchy & Associativity. Arithmetic Expressions, Evaluation of Arithmetic Expression, Type Casting and Conversion. Decision making with if statement	06.09.2025 – 20.09.2025	Assignment 2
5.	III	if-else statement, nested if statement, else-if ladder, switch and break statement, goto statement	22.09.2025 – 06.10.2025	Mid Term
6.	III	Looping: for, while, and do-while loop, jumps in loops. Functions: definition, prototype, function call,	08.10.2025 – 18.10.2025	Test 2
7.	IV	passing arguments to a function: call by value, call by reference, recursive functions.	27.10.2025 – 10.11.2025	Test 3
8.	IV	Arrays: Definition, types, Initialization, multidimensional arrays, Processing on Arrays.	11.11.2025- 24.11.2025	Test 4

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: Ms. Priya Rani

Academic Session: 2025-26.

Class: B.A. Semester: 1st Subject & Code: **MDC(Multi Disciplinary Course)**

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	Computer and Latest IT Gadgets, Evolution of Computer & its applications, Basic of Hardware and software, Application software, Systems Software,	22.07.2025 – 05.08.2025	
2.	I	Utility Software, Central Processing Unit. Input devices, Output devices, Computer Memory & storage, Mobile Apps.	06.08.2025 – 20.08.2025	Assignment 1
3.	II	Functions of Operating System, Operating System for Desktop and Laptop, Operating System for Mobile Phone and Tablets. User Interface for Desktop and Laptop, Management.	21.08.2025 – 04.09.2025	Test 1
4.	II	Task Bar, Icons & Shortcuts, Running an Application, Operating System Simple Setting, Changing system Date and Time, Removing & Sharing Printers, File and folder	06.09.2025 – 20.09.2025	Assignment 2
5.	III	Basic of Computer Networks, Local Area Network (LAN), Wide Area Network (WAN), Network Topology, Internet, Applications of Internet.	22.09.2025 – 06.10.2025	Mid Term
6.	III	Website Address and URL, Popular Web Browsers, Popular Search engines, Searching on the Internet.	08.10.2025 – 18.10.2025	Test 2
7.	IV	Using E-mails, Opening Email account, Mailbox: Inbox and Outbox. 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,	27.10.2025 – 10.11.2025	Test 3
8.	IV	Social Networking: Facebook, Twitter, LinkedIn, Instagram, Instant Message (WhatsApp, Facebook, Messenger, Telegram), Introduction to Blogs, Digital Locker	11.11.2025- 24.11.2025	Test 4

Note:-

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

➤ E-Mail: pkamaltanish@gmail.com

Government College Chhachhrauli

Summary of Lesson Plan

Name: Ms. Priya Rani

Academic Session: 2025-26.

Class: B.A. Semester: 3rd Subject & Code: SEC(Skill Enhancement Course)Advance IT Skill))

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	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	22.07.2025 – 05.08.2025	
2.	I	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	06.08.2025 – 20.08.2025	Assignment 1
3.	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],	21.08.2025 – 04.09.2025	Test 1
4.	II	eWallet, PoS [Point of Sale], Internet Banking, National Electronic Fund Transfer (NEFT), Real Time Gross Settlement (RTGS), Immediate Payment Service (IMPS), Online Bill Payment	06.09.2025 – 20.09.2025	Assignment 2
5.	III	Cyber Security: Cyber Security, Defining Cyberspace, Architecture of cyberspace, Regulation of cyberspace, Concept of cyber security, Issues and challenges of cyber security. Classification of cybercrimes, Common cybercrimes- cybercrime targeting computers and mobiles, cybercrime against women and children,	22.09.2025 – 06.10.2025	Mid Term
6.	III	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.	08.10.2025 – 18.10.2025	Test 2
7.	IV	Overview of Futureskills: Introduction to Internet of Things (IoT), Big Data Analytics, Cloud Computing,	27.10.2025 – 10.11.2025	Test 3
8.	IV	Virtual Reality, Artificial Intelligence, Social & Mobile, Blockchain Technology, 3D Printing/ Additive Manufacturing, Robotics Process Automation.	11.11.2025- 24.11.2025	Test 4

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Government College Chhachhrauli

Summary of Lesson Plan

Name: Ms. Priya Rani

Academic Session: 2025-26.

Class: B.A. Semester: 1st Subject & Code: SEC(Skill Enhancement Course B23-SEC-103)

Sr. No.	Unit	Topics/Chapters to be covered	Duration	Assignments and Tests
1.	I	Computer and Latest IT Gadgets, Evolution of Computer & its applications, Basic of Hardware and software, Application software, Systems Software,	22.07.2025 – 05.08.2025	
2.	I	Utility Software, Central Processing Unit. Input devices, Output devices, Computer Memory & storage, Mobile Apps.	06.08.2025 – 20.08.2025	Assignment 1
3.	II	Functions of Operating System, Operating System for Desktop and Laptop, Operating System for Mobile Phone and Tablets. User Interface for Desktop and Laptop, Management.	21.08.2025 – 04.09.2025	Test 1
4.	II	Task Bar, Icons & Shortcuts, Running an Application, Operating System Simple Setting, Changing system Date and Time, Removing & Sharing Printers, File and folder	06.09.2025 – 20.09.2025	Assignment 2
5.	III	Basic of Computer Networks, Local Area Network (LAN), Wide Area Network (WAN), Network Topology, Internet, Applications of Internet.	22.09.2025 – 06.10.2025	Mid Term
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8.	IV	Social Networking: Facebook, Twitter, LinkedIn, Instagram, Instant Message (WhatsApp, Facebook, Messenger, Telegram), Introduction to Blogs, Digital Locker	11.11.2025- 24.11.2025	Test 4

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