

## LESSON PLAN

Session 2024-2025

Class- B.A. 1<sup>st</sup> Semester

Subject: Office and Spreadsheets Tools

Paper Code: B23-SEC-101

Teacher Name- Mrs. Divya Sharma & Ms. Ritu Rani

| MONTH            | WEEK                        | TOPICS   |
|------------------|-----------------------------|--|
| <b>July</b>      | 22-07-2024 To<br>29-07-2024 | Operating System: Definition, Function of Operating systems  |
| <b>August</b>    | 03-08-2024 To<br>10-08-2024 | Types of Operating System, Basics of Operating System  |
|                  | 12-08-2024 To<br>17-08-2024 | The User Interface, Exploring Computer   |
|                  | 20-08-2024 To<br>24-08-2024 | Icons, Taskbar, Desktop, Using Menus   |
|                  | 27-08-2024 To<br>31-08-2024 | Menu Selection, Managing Files and Folders   |
| <b>September</b> | 02-09-2024 To<br>07-09-2024 | Control Panel- Display Properties, Add/Remove Hardware and Software  |
|                  | 09-09-2024 To<br>14-09-2024 | Common Utilities, Introduction to Word Processing Menus, Creating, Editing & Formatting Documents                                |
|                  | 16-09-2024 To<br>21-09-2024 | Spell Checking, Printing, Views, Tables, Word Art, Mail Merge, Macros  |
|                  | 23-09-2024 To<br>30-09-2024 | Inserting Hyperlinks, Searching for Text, Modifying Page Setup, Applying Document's Themes                                       |
| <b>October</b>   | 06-10-2024 To<br>12-10-2024 | Applying Documents Styles Sets, Inserting Header and Footers   |
|                  | 14-10-2024 To<br>19-10-2024 | Spreadsheet: Elements Of Electronic Spreadsheet, Application, Creating and Opening of Spreadsheet, Menus, Manipulations of Cells |
|                  | 21-10-2024 To<br>26-10-2024 | Enter Text Numbers and Dates, Cell Height and Width, Copying of Cells, Mathematical, Statistical, Financial Functions            |
| <b>November</b>  | 04-11-2024 To<br>09-11-2024 | Using Sound, Animation, Working with Objects, Printing   |
|                  | 11-11-2024 To<br>16-11-2024 | Creating, Modifying and Enhancing a Presentation, Types of Presentation Views  |
|                  | 18-11-2024 To<br>22-11-2024 | Drawing Different Types of Charts, Sort and Filter Data  |

## LESSON PLAN

**Session: 2024-2025**

**Class: B.A 3<sup>rd</sup> Semester (Computer Science)**

**Subject: Operating System**

**Paper Code: B23-CSE-301**

**Teacher Incharge: Ms. Sweta and Ms. Ruchi**

| Months           | Week                        | Topics   |
|------------------|-----------------------------|--|
| <b>July</b>      | 22-07-2024 To<br>31-07-2024 | Operating System: Introduction, Functions and Characteristics, Historical Evolution Of Operating System And Structure of Operating System.                                       |
| <b>August</b>    | 05-08-2024 To<br>07-08-2024 | Types Of Operating System: Real Time Operating System, Multi Programming Operating System, Multiprocessing Operating System And Batch Operating System.                          |
|                  | 12-08-2024 To<br>14-08-2024 | Operating System Services, Operating System Interface, Service System Calls, System Programs.  |
|                  | 20-08-2024 To<br>21-08-2024 | Process Management: Process Concepts, Operations on Processes, Process States and Process Control Block, Inter-Process Communication.  |
|                  | 27-08-2024 To<br>28-08-2024 | CPU Scheduling: Scheduling Criteria, Levels of Scheduling, Scheduling Algorithms, Multiple Processor Scheduling.   |
| <b>September</b> | 02-09-2024 To<br>04-09-2024 | Synchronization: Critical Section Problem, Semaphores, Classical Problem of Synchronization, Monitors.<br>Test Of Operating System; Introduction, Functions and Characteristics. |
|                  | 09-09-2024 To<br>11-09-2024 | Deadlocks: Deadlock Characterization, Methods for Handling Deadlocks, Deadlock Prevention, Deadlock Avoidance, Deadlock Detection and Recovery.                                  |
|                  | 16-09-2024 To<br>18-09-2024 | Memory Management Strategies: Memory Management of Single-User And Multi user Operating System, Partitioning, Swapping.  |
|                  | 24-09-2024 To<br>25-09-2024 | Contiguous Memory Allocation, Paging and Segmentation; Virtual Memory Management: Demand Paging.   |
|                  | 30-09-2024                  | Test Of CPU Scheduling: Levels, Algorithms and Multiple Processor Scheduling.  |
| <b>October</b>   | 01-10-2024                  | Implementing File System: File System Structure, Thrashing in Memory Management.   |
|                  | 08-10-2024 To<br>10-10-2024 | File System Implantation. File Operations, Types of Files, Directory Implementation; Structure, Operations and File Systems.   |
|                  | 15-10-2024 To<br>16-10-2024 | Test Of Deadlock Characterization, Methods for Handling Deadlocks.<br>Allocation Methods; Advantages and Disadvantages, Real World Applications                                  |
|                  | 22-10-2024 To<br>26-10-2024 | Free Space Management; Objectives, Techniques, Challenges and Applications.  |
| <b>Vacations</b> | 27-10-2024 To<br>03-11-2024 | Diwali Vacations   |
| <b>November</b>  | 04-11-2024 To<br>06-11-2024 | Disk Scheduling Algorithms: Types Of Disk Scheduling Algorithms, Metrics and Real- World Applications.   |
|                  | 11-11-2024 To<br>13-11-2024 | Disk Scheduling Algorithm- SSTF, Scan, C- Scan, Look, C-Look, SSD Management.  |
|                  | 18-11-2024 To<br>22-11-2024 | Test Of Types and Operations of Files. Page Replacement Algorithms, Evaluation.  |

## LESSON PLAN

Session: 2024-2025

Class: B.A. General

Subject: Programming with C

Paper Code: B23-CSE-303

Teacher Name: Mrs. Divya Sharma & Ms. Rozzy Dutta

| MONTH     | WEEK                        | TOPICS   |
|-----------|-----------------------------|--|
| July      | 22-07-2024 To<br>29-07-2024 | Overview Of C: History, Importance, Structure Of C   |
| August    | 03-08-2024 To<br>10-08-2024 | Character Sets, Constants and Variables, Identifiers and Keyword   |
|           | 12-08-2024 To<br>17-08-2024 | Data Types, Assignments Statements, Symbolic Constants   |
|           | 20-08-2024 To<br>27-08-2024 | Unformatted And formatted i/o Functions,<br>Input Functions Viz. Scanf (), Getch (), GetChar (), Gets () |
| September | 02-09-2024 To<br>07-09-2024 | Output Function Viz. Printf (), Putch (), Puchar (), Puts ()   |
|           | 09-09-2024 To<br>14-09-2024 | Operator and Expressions: Arithmetical, Relational,<br>Logical, Bitwise, Unary Assignment                |
|           | 16-09-2024 To<br>21-09-2024 | Conditional Operators and Special Operators, Operators<br>Hierarchy & Associativity                      |
|           | 23-09-2024 To<br>30-09-2024 | Arithmetic Expressions, Evaluation of Arithmetic Expressions,<br>Type Casting and Conversion             |
| October   | 05-09-2024 To<br>12-10-2024 | Decision Making with If Statement, If –Else Statements, Nested<br>If Statements                          |
|           | 14-10-2024 To<br>19-10-2024 | Else – If Ladder, Switch and Break Statement, Go to Statement  |
|           | 21-10-2024 To<br>26-10-2024 | Looping: For, While, Do- While, Jumps in Loops   |
|           | 21-10-2024 To<br>26-10-2024 | Functions: Definition, Prototype, Function Call, Passing<br>Arguments to a Function                      |
|           | 27-10-2024 To<br>03-11-2024 | Diwali Vacations   |
| November  | 04-11-2024 To<br>09-11-2024 | Arrays: Definition, Types, Initialization, Multidimensional<br>Array, Processing on Arrays               |
|           | 11-11-2024 To<br>22-11-2024 | Call By Value, Call by Reference, Recursive Functions  |

## LESSON PLAN

Session: 2024-2025

Subject: Problem Solving through C

Teacher Incharge: Mrs. Ritu

Class: B.Sc. (C.Sc.) - 1<sup>st</sup> Semester

Paper Code: B23-CSE-101

| MONTH     | WEEK                        | TOPICS  |
|-----------|-----------------------------|---|
| July      | 22-07-2024 To<br>27-07-2024 | Overview Of C: History, Importance, Structure of C Program,   |
| August    | 29-07-2024 To<br>03-08-2024 | Character Set, Constants and Variables, Identifiers and Keywords,   |
|           | 05-08-2024 To<br>10-08-2024 | Data Types, Assignment Statement, Symbolic Constant.  |
|           | 12-08-2024 To<br>17-08-2024 | Input/Output: Formatted I/O Function-   |
|           | 19-08-2024 To<br>24-08-2024 | Input Functions Viz. Scanf(), Getch(), Getche(), Getchar (), Gets(),  |
|           | 26-08-2024 To<br>31-08-2024 | Output Functions Viz. Printf(), Putch(), Puchar(), Puts().  |
| September | 02-09-2024 To<br>07-09-2024 | Operators & Expression: Arithmetic, Relational, Logical, Bitwise, Unary, Assignment, Conditional Operators and Special Operators  |
|           | 09-09-2024 To<br>14-09-2024 | Operator Hierarchy; Arithmetic Expressions, Evaluation of Arithmetic Expression, Type Casting and Conversion.   |
|           | 16-09-2024 To<br>21-09-2024 | Decision Making with If Statement, If Else Statement, Nested If Statement, Else-If Ladder, Switch and Break Statement, Go to Statement,                                 |
|           | 23-09-2024 To<br>28-09-2024 | Looping Statements: For, While, And Do While Loop, Jumps in Loops.  |
| October   | 30-09-2024 To<br>05-10-2024 | Arrays: One Dimensional Arrays - Declaration, Initialization and Memory Representation; Two Dimensional Arrays -Declaration, Initialization and Memory Representation.  |
|           | 07-10-2024 To<br>12-10-2024 | Functions: Definition, Prototype, Function Call, Passing Arguments to a Function: Call by Value; Call by Reference, Recursive Functions.                                |
|           | 14-10-2024 To<br>19-10-2024 | Strings: Declaration And Initialization, String I/O, Array of Strings,  |
|           | 21-10-2024 To<br>26-10-2024 | String Manipulation Functions: String Length, Copy, Compare, Concatenate Etc., Search for a Sub String.   |
|           | 27-10-2024 To<br>03-11-2024 | Diwali Vacations  |
| November  | 04-11-2024 To<br>09-11-2024 | Pointers In C: Declaring And Initializing Pointers, Accessing Address and Value of Variables Using Pointers; Pointers and Arrays.                                       |
|           | 11-11-2024 To<br>16-11-2024 | User Defined Data Types: Structures - Definition, Advantages of Structure, Declaring Structure Variables, Accessing Structure Members, Structure Members Initialization |
|           | 18-11-2024 To<br>22-11-2024 | Array Of Structures; Unions - Union Definition; Difference Between Structure and Union.   |

## LESSON PLAN

Session 2024-2025

Subject: Fundamentals of Database Systems

Teacher Incharge: Dr. Aarti Singh

Class: B.Sc. C.Sc.- 5<sup>th</sup>Semester

Paper: Paper I

| MONTH            | WEEK                        | TOPICS   |
|------------------|-----------------------------|--|
| <b>August</b>    | 01-08-24 To<br>03-08-24     | Basic Concepts – Data, Information, Records and Files. Traditional File Based Approach-Limitations of Traditional File Based Approach                      |
|                  | 05-08-24 To<br>10-08-24     | Database Approach-Characteristics of Database Approach, Database Management System (Dbms)  |
|                  | 12-08-24 To<br>17-08-24     | Components Of Dbms Environment, Dbms Functions and Components  |
|                  | 19-08-24 To<br>24-08-24     | Advantages And Disadvantages of Dbms. Actors On the Scene - Data and Database Administrator, Database Designers  |
|                  | 26-08-2024 To<br>31-08-2024 | Actors On the Scene - End Users Applications Developers and Workers Behind the Scene.  |
| <b>September</b> | 02-09-2024 To<br>07-09-2024 | Database System Architecture – Three Levels of Architecture, Schemas – External, Conceptual and Internal Level   |
|                  | 09-09-2024 To<br>14-09-2024 | Database Languages – VDL, DDL, SDL, DML, SQL, Mappings – External/ Conceptual and Conceptual/Internal  |
|                  | 16-09-2024 To<br>21-09-2024 | Instances, Data Independence – Logical and Physical Data Independence  |
|                  | 23-09-2024 To<br>30-09-2024 | Data Models: High Level, Low Level and Representational – Records- Based Data Models, Object-Based Data Models, Physical Data Models and Conceptual Models |
| <b>October</b>   | 01-10-2024 To<br>05-10-2024 | Entity-Relationship Model – Concepts, Entity Types, Entity Sets, Attributes, Relationships, Constraints, Keys, Degree, Cardinality Etc.                    |
|                  | 07-10-2024 To<br>12-10-2024 | Er Diagrams of Any Database Organization- Inventory System, Payroll System   |
|                  | 14-10-2024 To<br>19-10-2024 | Er Diagrams Of Database Organizations- Reservation System, Online Book Store Etc.  |
|                  | 21-10-2024 To<br>26-10-2024 | Classification Of Database Management System, Centralized and Client Server Architecture   |
| <b>November</b>  | 04-11-2024 To<br>09-11-2024 | Relational Data Model: Brief History, Terminology In Relational Data Structure, Relations, Properties Of Relations, Keys – Primary And Secondary Keys      |
|                  | 11-11-2024 To<br>16-11-2024 | Relation Keys- Composite, Candidate, Alternate and Foreign Key, Domains, Integrity Constraints Over Relations  |
|                  | 18-11-2024 To<br>23-11-2024 | Revision Sessions  |

## LESSON PLAN

**Session: 2024 -2025**

**Subject: Web Designing**

**Teacher Incharge: Dr. Aarti Singh**

**Class: B.Sc. C. Sc.- 5<sup>th</sup> Semester**

**Paper: Paper II**

| MONTH            | WEEK                        | TOPICS   |
|------------------|-----------------------------|--|
| <b>August</b>    | 01-08-24 To<br>03-08-24     | Introduction To Internet And World Wide Web; Evolution and History Of World Wide Web                             |
|                  | 05-08-24 To<br>08-08-24     | Basic Features; Web Browsers; Web Servers; Hypertext Transfer Protocol   |
|                  | 12-08-24 To<br>17-08-24     | URLs; Searching and Web-Casting Techniques   |
|                  | 19-08-24 To<br>24-08-24     | Search Engines and Search Tools  |
|                  | 26-08-2024 To<br>31-08-2024 | Steps For Developing Website: Choosing the Contents  |
| <b>September</b> | 02-09-2024 To<br>07-09-2024 | Steps For Developing Website: Home Page; Domain Names  |
|                  | 09-09-2024 To<br>14-09-2024 | Internet Service Provider; Planning and Designing Web Site   |
|                  | 16-09-2024 To<br>21-09-2024 | Creating a website; Web Publishing: Hosting Site;  |
|                  | 23-09-2024 To<br>30-09-2024 | Introduction To Html; Hypertext and Html; Html Document Features   |
| <b>October</b>   | 01-10-2024 To<br>05-10-2024 | Html Tags; Header, Title, Body, Paragraph, Ordered/Unordered Line  |
|                  | 07-10-2024 To<br>12-10-2024 | Creating Links; Headers; Text Styles; Text Structuring   |
|                  | 14-10-2024 To<br>19-10-2024 | Text Colors and Background; Formatting Text  |
|                  | 21-10-2024 To<br>26-10-2024 | Page Layouts; Insertion of Text, Movement of Text Images: Types of Images, Insertion of Image, Movement of Image |
| <b>November</b>  | 04-11-2024 To<br>09-11-2024 | Ordered And Unordered Lists, Inserting Graphics; Table Handling Functions Like Columns, Rows, Width, Colors      |
|                  | 11-11-2024 To<br>16-11-2024 | Frame Creation and Layouts; Working with Forms and Menus; Working with Buttons Like Radio, Check Box             |
|                  | 18-11-2024 To<br>23-11-2024 | Revision Session   |

## LESSON PLAN

Session: 2024-2025

Class: B.Sc. Non-Med. - 1<sup>st</sup> Semester

(Minor)Subject: Basics of Computer Science

Paper Code: B23-CSE-103

Teacher Incharge: Dr. Aarti Singh

| MONTH            | WEEK                        | TOPICS   |
|------------------|-----------------------------|--|
| <b>August</b>    | 01-08-2024 To<br>03-08-2024 | Introduction To Computers: Definition Of Computers, History and Generations of Computers                 |
|                  | 05-08-2024 To<br>10-08-2024 | Characteristics Of Computer, Classification of Computers   |
|                  | 12-08-2024 To<br>17-08-2024 | Fundamental Block Diagram of Computer: CPU, Input & Output Unit  |
|                  | 19-08-2024 To<br>24-08-2024 | Software: Definition Of Software, Types of Software-System Software                                      |
|                  | 26-08-2024 To<br>31-08-2024 | Application Software and Utility Software  |
| <b>September</b> | 02-09-2024 To<br>07-09-2024 | Types Of Computer Languages, Assemblers, Interpreters, Compiler  |
|                  | 09-09-2024 To<br>14-09-2024 | Introduction To Operating Systems: Types Of Operating System, Functions Of Operating System              |
|                  | 16-09-2024<br>To21-09-2024  | Windows: Introduction To Windows, Starting Windows, Desk Top, Task Bar, Opening and Closing Applications |
|                  | 23-09-2024 To<br>30-09-2024 | Icons- Creating, Renaming and Removing   |
| <b>October</b>   | 01-10-2024 To<br>05-10-2024 | Date And Time Setting, Working with Files and Folders-Creating   |
|                  | 07-10-2024 To<br>12-10-2024 | Deleting, Opening, Finding, Copying, Moving, And Renaming  |
|                  | 14-10-2024 To<br>19-10-2024 | Networking: Concept, Basic Elements of a Communication System  |
|                  | 21-10-2024 To<br>26-10-2024 | Data Transmission Media, LAN, MAN, WAN   |
| <b>November</b>  | 04-11-2024 To<br>09-11-2024 | Introduction Of Internet and Www   |
|                  | 11-11-2024 To<br>16-11-2024 | Basic Working of a Web Browser, Introduction to Popular Web Browsers                                     |
|                  | 18-11-2024 To<br>23-11-2024 | Revision Sessions  |

## LESSON PLAN

Session: 2024-2025

Class: B.Sc. Computer Application 3<sup>rd</sup> Sem

Subject: C++

Paper Code: B23-CAP-201

Teacher Incharge: Ms. Megha

| MONTH            | WEEK                        | TOPICS  |
|------------------|-----------------------------|---|
| <b>July</b>      | 22-07-2024 To<br>07-07-2024 | Introduction to C++: About C++, Character Set, Keywords   |
|                  | 29-07-2024 To<br>31-07-2024 | Identifiers, Constants, Punctuators, Data Types: User Define, Built-in, Derived Data types                    |
| <b>August</b>    | 01-08-2024 To<br>03-08-2024 | Access Modifiers, Unformatted and Formatted Input/output Operations using Extraction and Extraction Operators |
|                  | 05-08-2024 To<br>10-08-2024 | Type Conversion, Type Casting   |
|                  | 12-08-2024 To<br>14-08-2024 | Operators in C++: Arithmetic, Relational, Logical, Ternary, Precedence and associativity of Operators         |
|                  | 16-08-2024 To<br>17-08-2024 | Control Structures: If, If-else, Nested if statements   |
|                  | 20-08-2024 To<br>24-08-2024 | If-else-if ladder, Switch case statement, Break and continue  |
|                  | 27-08-2024 To<br>31-08-2024 | Goto statement, Nested switch, Case Statements  |
| <b>September</b> | 02-09-2024 To<br>07-09-2024 | Loops: While Loop, do- while loop, for loop   |
|                  | 09-09-2024 To<br>14-09-2024 | Array and Strings: Array definition, initialization, multidimensional arrays                                  |
|                  | 16-09-2024 To<br>21-09-2024 | Manipulation of array elements, string declaration and initialization, manipulations                          |
|                  | 24-09-2024 To<br>28-09-2024 | String handling functions, functions: Declaration and definition, return values, arguments                    |
|                  | 30-09-2024                  | Passing parameters by value, Call by reference, call by pointer   |
| <b>October</b>   | 01-10-2024                  | Recursions, inline and external linkage function, storage classes   |
|                  | 03-10-2024 To<br>04-10-2024 | Object oriented features of C++, class and objects  |
|                  | 07-10-2024 To<br>11-10-2024 | Data hiding and encapsulation, abstraction  |
|                  | 14-10-2024 To<br>16-10-2024 | Constructors and destructors  |
|                  | 18-10-2024 To<br>19-10-2024 | Data members and member functions, accessing class members  |
|                  | 21-10-2024 To<br>26-10-2024 | Empty class, local class  |
|                  | 27-10-2024 To<br>03-11-2024 | Diwali vacations  |
| <b>November</b>  | 04-11-2024 To<br>09-11-2024 | Global class  |
|                  | 11-11-2024 To<br>14-11-2024 | Scope resolution operators and its uses   |
|                  | 16-11-2024                  | Static data member, static member functions   |
|                  | 18-11-2024 To<br>22-11-2024 | Structure versus class  |



## LESSON PLAN

Session: 2024-2025

Class: B.Sc. C. Sc.- 3<sup>rd</sup> Semester, Non-Med. 3<sup>rd</sup> Semester (Minor)

Subject: Operating Systems

Course Code: B23-CSE-301

Teacher Incharge: Dr. Aarti Singh

| MONTH            | WEEK                        | TOPICS  |
|------------------|-----------------------------|---|
| <b>August</b>    | 01-08-2024 To<br>03-08-2024 | Introductory Concepts: Operating System, Functions and Characteristics, Historical Evolution of Operating Systems, Operating System Structure |
|                  | 05-08-2024 To<br>10-08-2024 | Types Of Operating System: Real Time, Multiprogramming, Multiprocessing, Batch Processing.  |
|                  | 12-08-2024 To<br>17-08-2024 | Operating System Services, Operating System Interface, Service System Calls, System Programs.   |
|                  | 19-08-2024 To<br>24-08-2024 | Process Management: Process Concepts, Operations on Processes, Process States and Process Control Block. Inter-Process Communication.         |
|                  | 26-08-2024 To<br>01-08-2024 | CPU Scheduling: Scheduling Criteria, Levels of Scheduling, Scheduling Algorithms, Multiple Processor Scheduling, Algorithm Evaluation         |
| <b>September</b> | 02-09-2024 To<br>07-09-2024 | Synchronization: Critical Section Problem, Semaphores, Classical Problem of Synchronization, Monitors   |
|                  | 09-09-2024 To<br>14-09-2024 | Deadlocks: Deadlock Characterization, Methods for Handling Deadlocks, Deadlock Prevention   |
|                  | 16-09-2024 To<br>21-09-2024 | Deadlock Avoidance, Deadlock Detection and Recovery.  |
|                  | 23-09-2024 To<br>30-09-2024 | Memory Management Strategies: Memory Management of Single-User and Multiuser Operating System, Partitioning                                   |
| <b>October</b>   | 01-10-2024 To<br>05-10-2024 | Swapping, Contiguous Memory Allocation, Paging and Segmentation   |
|                  | 07-10-2024 To<br>12-10-2024 | Virtual Memory Management: Demand Paging, Page Replacement Algorithms, Thrashing  |
|                  | 14-10-2024 To<br>19-10-2024 | Implementing File System: File System Structure, File System Implantation, File Operations  |
|                  | 21-10-2024 To<br>26-10-2024 | Type Of Files, Directory Implementation, Allocation Methods   |
| <b>November</b>  | 04-11-2024 To<br>09-11-2024 | Free Space Management. Disk Scheduling Algorithm- SSTF, Scan, C- Scan, Look, C-Look   |
|                  | 11-11-2024 To<br>16-11-2024 | SSD Management  |
|                  | 18-11-2024 To<br>23-11-2024 | Revision Sessions   |

## LESSON PLAN

**Session: 2024-2025**

**Class: B.Sc. C. Sc.- 5<sup>th</sup> Semester**

**Subject: Fundamentals of Database Systems**

**Paper: Paper I**

**Teacher Incharge: Dr. Aarti Singh**

| MONTH            | WEEK                        | TOPICS  |
|------------------|-----------------------------|---|
| <b>August</b>    | 01-08-2024<br>To 03-08-2024 | Basic Concepts – Data, Information, Records and Files. Traditional File Based Approach-Limitations of Traditional File Based Approach                     |
|                  | 05-08-2024 To<br>10-08-2024 | Database Approach-Characteristics of Database Approach, Database Management System (Dbms)   |
|                  | 12-08-2024 To<br>17-08-2024 | Components Of Dbms Environment, Dbms Functions and Components   |
|                  | 19-08-2024 To<br>24-08-2024 | Advantages And Disadvantages of Dbms. Actors On the Scene - Data and Database Administrator, Database Designers   |
|                  | 26-08-2024 To<br>31-08-2024 | Actors On the Scene - End Users Applications Developers and Workers Behind the Scene.   |
| <b>September</b> | 02-09-2024 To<br>07-09-2024 | Database System Architecture – Three Levels of Architecture, Schemas – External, Conceptual and Internal Level  |
|                  | 09-09-2024 To<br>14-09-2024 | Database Languages – Vdl, Ddl, Sdl, Dml, Sql, Mappings – External/ Conceptual and Conceptual/Internal   |
|                  | 16-09-2024 To<br>21-09-2024 | Instances, Data Independence – Logical and Physical Data Independence   |
|                  | 23-09-2024 To<br>30-09-2024 | Data Models: High Level, Low Level and Representational – Records-Based Data Models, Object-Based Data Models, Physical Data Models and Conceptual Models |
| <b>October</b>   | 01-10-2024 To<br>05-10-2024 | Entity-Relationship Model – Concepts, Entity Types, Entity Sets, Attributes, Relationships, Constraints, Keys, Degree, Cardinality Etc.                   |
|                  | 07-10-2024 To<br>12-10-2024 | Er Diagrams of Any Database Organization- Inventory System, Payroll System  |
|                  | 14-10-2024 To<br>19-10-2024 | Er Diagrams of Database Organizations- Reservation System, Online Book Store Etc.   |
|                  | 21-10-2024 To<br>26-10-2024 | Classification Of Database Management System, Centralized and Client Server Architecture  |
| <b>November</b>  | 04-11-2024<br>To 09-11-2024 | Relational Data Model: Brief History, Terminology in Relational Data Structure, Relations, Properties of Relations, Keys – Primary and Secondary Keys     |
|                  | 11-11-2024 To<br>16-11-2024 | Relation Keys- Composite, Candidate, Alternate and Foreign Key, Domains, Integrity Constraints Over Relations   |
|                  | 18-11-2024 To<br>23-11-2024 | Revision Sessions   |

## LESSON PLAN

Session: 2024-2025

Class: B.Sc. C. Sc.- 5<sup>th</sup> Semester

Subject: Web Designing

Paper: Paper II

Teacher Incharge: Dr. Aarti Singh

| MONTH            | WEEK                        | TOPICS  |
|------------------|-----------------------------|---|
| <b>August</b>    | 01-08-2024 To<br>03-08-2024 | Introduction To Internet And World Wide Web; Evolution and History Of World Wide Web  |
|                  | 05-08-2024<br>To10-08-2024  | Basic Features; Web Browsers; Web Servers; Hypertext Transfer Protocol  |
|                  | 12-08-2024 To<br>17-08-2024 | URLs; Searching and Web-Casting Techniques  |
|                  | 19-08-2024 To<br>24-08-2024 | Search Engines and Search Tools   |
|                  | 26-08-2024 To<br>31-08-2024 | Steps For Developing Website: Choosing the Contents   |
| <b>September</b> | 02-09-2024 To<br>07-09-2024 | Steps For Developing Website: Home Page; Domain Names   |
|                  | 09-09-2024 To<br>14-09-2024 | Internet Service Provider; Planning and Designing Web Site  |
|                  | 16-09-2024 To<br>21-09-2024 | Creating a website; Web Publishing: Hosting Site;   |
|                  | 23-09-2024 To<br>30-09-2024 | Introduction To Html; Hypertext and Html; Html Document Features  |
| <b>October</b>   | 01-10-2024 To<br>05-10-2024 | Html Tags; Header, Title, Body, Paragraph, Ordered/Unordered Line   |
|                  | 07-10-2024 To<br>12-10-2024 | Creating Links; Headers; Text Styles; Text Structuring  |
|                  | 14-10-2024 To<br>19-10-2024 | Text Colors and Background; Formatting Text   |
|                  | 21-10-2024 To<br>26-10-2024 | Page Layouts; Insertion of Text, Movement of Text   |
| <b>November</b>  | 04-11-2024 To<br>09-11-2024 | Images: Types Of Images, Insertion of Image, Movement of Image, Ordered and Unordered Lists, Inserting Graphics; Table Handling Functions Like Columns, Rows, Width, Colors |
|                  | 11-11-2024 To<br>16-11-2024 | Frame Creation and Layouts; Working with Forms and Menus; Working with Buttons Like Radio, Check Box  |
|                  | 18-11-2024 To<br>23-11-2024 | Revision Sessions   |

## LESSON PLAN

Session: 2024-2025

Class: B.A. (C.Sc.) - 1<sup>st</sup> Semester

Subject: Problem Solving through C

Course Code: B23-CSE-101

Teacher Incharge: Mrs. Ritu

| MONTH            | DATE                        | TOPICS  |
|------------------|-----------------------------|---|
| <b>July</b>      | 22-07-2024 To<br>27-07-2024 | Overview Of C: History, Importance, Structure of C Program,   |
| <b>August</b>    | 29-07-2024 To<br>03-08-2024 | Character Set, Constants and Variables, Identifiers and Keywords,   |
|                  | 05-08-2024 To<br>10-08-2024 | Data Types, Assignment Statement, Symbolic Constant.  |
|                  | 12-08-2024 To<br>17-08-2024 | Input/Output: Formatted I/O Function-   |
|                  | 19-08-2024 To<br>24-08-2024 | Input Functions Viz. Scanf(), Getch(), Getche(), Getchar(), Gets(),   |
|                  | 26-08-2024 To<br>31-08-2024 | Output Functions Viz. Printf(), Putch(), Puchar(), Puts().  |
| <b>September</b> | 02-09-2024 To<br>07-09-2024 | Operators & Expression: Arithmetic, Relational, Logical, Bitwise, Unary, Assignment, Conditional Operators and Special Operators  |
|                  | 09-09-2024 To<br>14-09-2024 | Operator Hierarchy; Arithmetic Expressions, Evaluation of Arithmetic Expression, Type Casting and Conversion.   |
|                  | 16-09-2024 To<br>21-09-2024 | Decision Making with If Statement, If else Statement, Nested If Statement, Else-If Ladder, Switch and Break Statement, Goto Statement,                                  |
|                  | 23-09-2024 To<br>28-09-2024 | Looping Statements: For, While, And Do while Loop, Jumps in Loops.  |
| <b>October</b>   | 30-09-2024 To<br>05-10-2024 | Arrays: One Dimensional Arrays - Declaration, Initialization and Memory Representation; Two Dimensional Arrays -Declaration, Initialization and Memory Representation.  |
|                  | 07-10-2024 To<br>12-10-2024 | Functions: Definition, Prototype, Function Call, Passing Arguments to a Function: Call by Value; Call by Reference, Recursive Functions.                                |
|                  | 14-10-2024 To<br>19-10-2024 | Strings: Declaration And Initialization, String I/O, Array of Strings,  |
|                  | 21-10-2024 To<br>26-10-2024 | String Manipulation Functions: String Length, Copy, Compare, Concatenate Etc., Search for a Substring.  |
|                  | 27-10-2024 To<br>03-11-2024 | <b>Diwali Vacations</b>   |
| <b>November</b>  | 04-11-2024 To<br>09-11-2024 | Pointers In C: Declaring And Initializing Pointers, Accessing Address and Value of Variables Using Pointers; Pointers and Arrays.                                       |
|                  | 11-11-2024 To<br>16-11-2024 | User Defined Data Types: Structures - Definition, Advantages of Structure, Declaring Structure Variables, Accessing Structure Members, Structure Members Initialization |
|                  | 18-11-2024 To<br>22-11-2024 | Array Of Structures; Unions - Union Definition; Difference Between Structure And Union.   |

## LESSON PLAN

**Session: 2024 -2025**

**Class: B.A. C.Sc.- 5<sup>th</sup> Semester**

**Subject: Fundamentals of Database Systems**

**Paper: Paper I**

**Teacher Incharge: Ms. Amrita**

| MONTH            | WEEK                        | TOPICS  |
|------------------|-----------------------------|---|
| <b>August</b>    | 01-08-2024 To<br>03-08-2024 | Basic Concepts – Data, Information, Records and Files. Traditional File Based Approach-Limitations of Traditional File Based Approach                     |
|                  | 05-08-2024 To<br>10-08-2024 | Database Approach-Characteristics of Database Approach, Database Management System (Dbms)   |
|                  | 12-08-2024 To<br>17-08-2024 | Components Of Dbms Environment, Dbms Functions and Components   |
|                  | 19-08-2024 To<br>24-08-2024 | Advantages And Disadvantages of Dbms. Actors On the Scene - Data and Database Administrator, Database Designers   |
|                  | 26-08-2024 To<br>31-08-2024 | Actors On the Scene - End Users Applications Developers and Workers Behind the Scene.   |
| <b>September</b> | 02-09-2024 To<br>07-09-2024 | Database System Architecture – Three Levels of Architecture, Schemas – External, Conceptual and Internal Level  |
|                  | 09-09-2024 To<br>14-09-2024 | Database Languages – Vdl, Ddl, Sdl, Dml, Sql, Mappings – External/ Conceptual and Conceptual/Internal   |
|                  | 16-09-2024 To<br>21-09-2024 | Instances, Data Independence – Logical and Physical Data Independence   |
|                  | 23-09-2024 To<br>30-09-2024 | Data Models: High Level, Low Level and Representational – Records-Based Data Models, Object-Based Data Models, Physical Data Models and Conceptual Models |
| <b>October</b>   | 01-10-2024 To<br>05-10-2024 | Entity-Relationship Model – Concepts, Entity Types, Entity Sets, Attributes, Relationships, Constraints, Keys, Degree, Cardinality Etc.                   |
|                  | 07-10-2024 To<br>12-10-2024 | Er Diagrams of Any Database Organization- Inventory System, Payroll System  |
|                  | 14-10-2024 To<br>19-10-2024 | Er Diagrams of Database Organizations- Reservation System, Online Book Store Etc.   |
|                  | 21-10-2024 To<br>26-10-2024 | Classification Of Database Management System, Centralized and Client Server Architecture  |
| <b>November</b>  | 04-11-2024 To<br>09-11-2024 | Relational Data Model: Brief History, Terminology in Relational Data Structure, Relations, Properties of Relations, Keys – Primary and Secondary Keys     |
|                  | 11-11-2024 To<br>16-11-2024 | Relation Keys- Composite, Candidate, Alternate and Foreign Key, Domains, Integrity Constraints Over Relations   |
|                  | 18-11-2024 To<br>23-11-2024 | Revision Sessions   |

**LESSON PLAN****Session: 2024-2025****Class: B.A. C. Sc.- 5<sup>th</sup> Semester****Subject: Web Designing****Paper: Paper II****Teacher Incharge: Ms. Amrita**

| <b>MONTH</b>     | <b>WEEK</b>                  | <b>TOPICS</b>   |
|------------------|------------------------------|---|
| <b>August</b>    | 01-08-2024 To<br>03-08-2024  | Introduction To Internet And World Wide Web; Evolution and History Of World Wide Web  |
|                  | 05-08-2024 To<br>10-08-2024  | Basic Features; Web Browsers; Web Servers; Hypertext Transfer Protocol  |
|                  | 12-08-2024 To<br>17-08-2024  | URLs; Searching and Web-Casting Techniques  |
|                  | 19-08-2024 To<br>24-08-2024  | Search Engines and Search Tools   |
|                  | 26-08-2024 To 31-<br>08-2024 | Steps For Developing Website: Choosing the Contents   |
| <b>September</b> | 02-09-2024 To<br>07-09-2024  | Steps For Developing Website: Home Page; Domain Names   |
|                  | 09-09-2024 To<br>14-09-2024  | Internet Service Provider; Planning and Designing Web Site  |
|                  | 16-09-2024 To<br>21-09-2024  | Creating a website; Web Publishing: Hosting Site;   |
|                  | 23-09-2024 To<br>30-09-2024  | Introduction To Html; Hypertext and Html; Html Document Features  |
| <b>October</b>   | 01-10-2024 To<br>05-10-2024  | Html Tags; Header, Title, Body, Paragraph, Ordered/Unordered Line   |
|                  | 07-10-2024 To<br>12-10-2024  | Creating Links; Headers; Text Styles; Text Structuring  |
|                  | 14-10-2024 To<br>19-10-2024  | Text Colors and Background; Formatting Text   |
|                  | 21-10-2024 To<br>26-10-2024  | Page Layouts; Insertion of Text, Movement of Text   |
| <b>November</b>  | 04-11-2024 To<br>09-11-2024  | Images: Types Of Images, Insertion of Image, Movement of Image, Ordered and Unordered Lists, Inserting Graphics; Table Handling Functions Like Columns, Rows, Width, Colors |
|                  | 11-11-2024 To<br>16-11-2024  | Frame Creation and Layouts; Working with Forms And Menus; Working With Buttons Like Radio, Check Box  |
|                  | 18-11-2024 To<br>23-11-2024  | Revision Sessions   |

## LESSON PLAN

Session: 2024-2025

Class: B.Sc. (C. Sc) & B.Sc. (N.M.) 3<sup>rd</sup> Semester

Subject: Data Management

Paper: B23-SEC-302

Teacher Incharge: Ms. Amrita

| MONTH            | WEEK                        | TOPIC   |
|------------------|-----------------------------|---|
| <b>July</b>      | 22-07-2024 To<br>27-07-2024 | Database Management System – Introduction and Purpose                                     |
|                  | 29-07-2024 To<br>31-07-2024 | Database Architectures: Centralized, Client-Server, Parallel, Distributed,                |
| <b>August</b>    | 01-08-2024 To<br>03-08-2024 | Web Based System: Web Architecture (2 Tier, 3 Tier, N-Tier Architecture)                  |
|                  | 05-08-2024 To<br>10-08-2024 | Database Storage Structures: Introduction,  |
|                  | 12-08-2024 To<br>14-08-2024 | Hashing, Data Dictionary, Data Models: Introduction to Various Data Models,               |
|                  | 16-08-2024 To<br>17-08-2024 | Cardinality Ratio & Relationships, Representation of Entities, Attributes,                |
|                  | 20-08-2024 To<br>24-08-2024 | Relationship Attributes, Relationship Set,  |
|                  | 27-08-2024 To<br>31-08-2024 | Generalization, Aggregation, Structure of Relational Database and Different Types of Keys |
| <b>September</b> | 02-9-2024 To<br>07-09-2024  | Codd's Rules and Relational Data Model  |
|                  | 09-9-2024 To<br>14-09-2024  | Relational Database Design: Basic System Development Life Cycle                           |
|                  | 16-9-2024 To<br>21-09-2024  | Database Design – Er to Relational  |
|                  | 23-9-2024 To<br>30-09-2024  | Functional Dependencies, Normalization, Normal Forms Based on Primary Keys (1Nf, 2Nf,3Nf) |
| <b>October</b>   | 01-10-2024 To<br>05-10-2024 | Sql Queries: Sql Data Definition  |
|                  | 07-10-2024 To<br>11-10-2024 | Data Types, Specifying Constraints  |
|                  | 14-10-2024 To<br>26-10-2024 | Queries For Retrieval   |
|                  | 27-10-2024 To<br>30-10-2024 | Diwali Vacations  |
| <b>November</b>  | 04-11-2024 To<br>09-11-2024 | Insertion, Deletion,  |
|                  | 11-11-2024 To<br>16-11-2024 | Updation, Introduction to Views   |
|                  | 18-11-2024 To<br>22-11-2024 | Revision  |

## LESSON PLAN

Session: 2024-2025

Class: B.com (Comp. App.)-3<sup>rd</sup> Semester

Subject: System Analysis & Design

Paper Code: BC(VOC)-506

Teacher Incharge: Ms. Simpy & Ms. Niharika

| MONTH                       | WEEK                        | TOPICS   |                            |
|-----------------------------|-----------------------------|--|----------------------------|
| <b>July</b>                 | 22-07-2024 To<br>27-07-2024 | Sad-Definition of System, Characteristics  |                            |
|                             | 29-07-2024 To<br>31-07-2024 | Revision Of Previous Topic   |                            |
|                             | 01-08-2024 To<br>03-08-2024 | Elements, Types of System  |                            |
|                             | 05-08-2024 To<br>10-08-2024 | Revision Of Previous Topic   |                            |
| <b>August</b>               | 12-08-2024 To<br>14-08-2024 | System Development Life Cycle  |                            |
|                             | 16-08-2024 To<br>17-08-2024 | Revision Of Previous Topic   |                            |
|                             | 20-08-2024 To<br>24-08-2024 | Techno-Economic Feasibility, Role of System Analyst the Process of Logical and Physical Design         |                            |
|                             | 27-08-2024 To<br>31-08-2024 | Revision Of Previous Topic   |                            |
|                             | <b>September</b>            | 02-09-2024 To<br>07-09-2024  | Form Design Input, Output  |
|                             |                             | 09-09-2024 To<br>14-09-2024  | Revision Of Previous Topic |
| 16-09-2024 To<br>21-09-2024 |                             | Form System Testing  |                            |
| 24-09-2024 To<br>28-09-2024 |                             | Revision Of Previous Topic   |                            |
| 30-09-2024                  |                             | Auditing, System Maintenance   |                            |
| <b>October</b>              |                             | 01-10-2024   | Revision Of Previous Topic |
|                             | 03-10-2024 To<br>04-10-2024 | Threats To Security  |                            |
|                             | 07-10-2024 To<br>11-10-2024 | Revision Of Previous Topic   |                            |
|                             | 14-10-2024 To<br>16-10-2024 | Control Measures   |                            |
|                             | 18-10-2024 To<br>19-10-2024 | Revision Of Previous Topic   |                            |
|                             | 21-10-2024 To<br>26-10-2024 | Practical; -The Candidates Will Develop a System Design, Such as Feasibility Study, Comparative Charts |                            |
|                             | 27-10-2024 To<br>03-11-2024 | <b>Diwali Vacations</b>  |                            |
|                             | <b>November</b>             | 04-11-2024 To<br>09-11-2024  | Impact Analysis, Etc.,     |
| 11-11-2024 To<br>14-11-2024 |                             | Revision Of Previous Topic   |                            |
| 16-11-2024                  |                             | In Their Vicinity Using Computer Applications  |                            |
| 18-11-2024 To<br>22-11-2024 |                             | Revision   |                            |



## LESSON PLAN

**Session: 2024-2025**

**Subject: WEB-Technology**

**Teacher In charge: Ms. Simpy & Ms. Niharika**

**Class: B.com-3<sup>rd</sup> Semester**

**Paper Code: BC(VOC)-505**

| MONTH            | WEEK                     | TOPICS  |
|------------------|--------------------------|---|
| <b>July</b>      | 22-07-2024 To 27-07-2024 | Introduction To HTML, Tags List-Creating Table  |
|                  | 29-07-2024 To 31-07-2024 | Linking Document Frame, Graphics to Html DocStyle Sheet,                                    |
| <b>August</b>    | 01-08-2024 To 03-08-2024 | Style Sheet Basic, Add Style to Document, Creating Style Sheet Rules-Style Sheet Properties |
|                  | 05-08-2024 To 10-08-2024 | Font, Text, List, Color and Background Color, Box, Display Properties                       |
|                  | 12-08-2024 To 14-08-2024 | Introduction To Java Script, Advantage of Java Script                                       |
|                  | 16-08-2024 To 17-08-2024 | Java Script Syntax, Datatype, Variable, Array,  |
|                  | 20-08-2024 To 24-08-2024 | Operator And Expression   |
|                  | 27-08-2024 To 31-08-2024 | Looping Constructor, Function, Digital Box  |
| <b>September</b> | 02-09-2024 To 07-09-2024 | Java Script Document Object Model   |
|                  | 09-09-2024 To 14-09-2024 | Revision Of Previous Topic  |
|                  | 16-09-2024 To 21-09-2024 | Introduction –Object in Html, Event Handling  |
|                  | 24-09-2024 To 28-09-2024 | Revision Of Previous Topic  |
|                  | 30-09-2024               | Window Object, Document Object  |
| <b>October</b>   | 01-10-2024               | Revision Of Previous Topic  |
|                  | 03-10-2024 To 04-10-2024 | Browser Object, Form Object   |
|                  | 07-10-2024 To 11-10-2024 | Navigator Screen Object   |
|                  | 14-10-2024 To 16-10-2024 | Revision Of Previous Topic  |
|                  | 18-10-2024 To 19-10-2024 | Build In Object   |
|                  | 21-10-2024 To 26-10-2024 | Revision Of Previous Topic  |
|                  | 27-10-2024 To 03-11-2024 | <b>Diwali Vacations</b>   |
| <b>November</b>  | 04-11-2024 To 09-11-2024 | User Defined Object Cookies   |
|                  | 11-11-2024 To 14-11-2024 | Revision Of Previous Topic  |
|                  | 16-11-2024 To 22-11-2024 | Revision  |

## LESSON PLAN

Session: 2024-25

Subject: Operating System

Teacher Incharge: Dr. Aarti Singh

Class: B.Sc. C.sc 3<sup>rd</sup> Semester (Major),

B.Sc. Non-Med. 3<sup>rd</sup> Semester (Minor)

Course Code: B23-CS-301

| MONTH            | WEEK                        | TOPICS  |
|------------------|-----------------------------|---|
| <b>August</b>    | 01-08-24 To<br>03-08-24     | Introductory Concepts: Operating System, Functions And Characteristics, Historical Evolution Of Operating Systems, Operating System Structure |
|                  | 05-08-24 To<br>10-08-24     | Types Of Operating System: Real Time, Multiprogramming, Multiprocessing, Batch Processing.  |
|                  | 12-08-24 To<br>17-08-24     | Operating System Services, Operating System Interface, Service System Calls, System Programs.   |
|                  | 19-08-24 To<br>24-08-24     | Process Management: Process Concepts, Operations On Processes, Process States And Process Control Block. Inter-Process Communication.         |
|                  | 26-08-2024 To<br>31-08-2024 | CPU Scheduling: Scheduling Criteria, Levels Of Scheduling, Scheduling Algorithms, Multiple Processor Scheduling, Algorithm Evaluation         |
| <b>September</b> | 02-09-2024 To<br>07-09-2024 | Synchronization: Critical Section Problem, Semaphores, Classical Problem Of Synchronization, Monitors   |
|                  | 09-09-2024 To<br>14-09-2024 | Deadlocks: Deadlock Characterization, Methods For Handling Deadlocks, Deadlock Prevention   |
|                  | 16-09-2024 To<br>21-09-2024 | Deadlock Avoidance, Deadlock Detection And Recovery.  |
|                  | 23-09-2024 To<br>30-09-2024 | Memory Management Strategies: Memory Management Of Single-User And Multiuser Operating System, Partitioning                                   |
| <b>October</b>   | 01-10-2024 To<br>05-10-2024 | Swapping, Contiguous Memory Allocation, Paging And Segmentation   |
|                  | 07-10-2024 To<br>12-10-2024 | Virtual Memory Management: Demand Paging, Page Replacement Algorithms, Thrashing  |
|                  | 14-10-2024 To<br>19-10-2024 | Implementing File System: File System Structure, File System Implantation, File Operations  |
|                  | 21-10-2024 To<br>26-10-2024 | Type Of Files, Directory Implementation, Allocation Methods   |
| <b>November</b>  | 04-11-2024 To<br>09-11-2024 | Free Space Management. Disk Scheduling Algorithm- SSTF, Scan, C- Scan, Look, C-Look   |
|                  | 11-11-2024 To<br>16-11-2024 | SSD Management  |
|                  | 18-11-2024 To<br>23-11-2024 | Revision Sessions   |

## LESSON PLAN

**Session: 2024-25**

**Class: B.Sc. Non-Med.- 1<sup>st</sup>Semester (Minor)**

**Subject: Basics of Computer Science**

**Course Code: B23-CSE-103**

**Teacher Incharge: Dr. Aarti Singh**

| <b>Month</b>     | <b>Week</b>                 | <b>Topics</b>  |
|------------------|-----------------------------|--|
| <b>August</b>    | 01-08-24 To<br>03-08-24     | Introduction To Computers: Definition Of Computers, History And Generations Of Computers                 |
|                  | 05-08-24 To<br>10-08-24     | Characteristics Of Computer, Classification Of Computers   |
|                  | 12-08-24 To<br>17-08-24     | Fundamental Block Diagram Of Computer: CPU, Input & Output Unit  |
|                  | 19-08-24 To<br>24-08-24     | Software: Definition Of Software, Types Of Software-System Software                                      |
|                  | 26-08-2024 To<br>31-08-2024 | Application Software And Utility Software  |
| <b>September</b> | 02-09-2024 To<br>07-09-2024 | Types Of Computer Languages, Assemblers, Interpreters, Compiler  |
|                  | 09-09-2024 To<br>14-09-2024 | Introduction To Operating systems: Types Of Operating System, Functions Of Operating System              |
|                  | 16-09-2024 To<br>21-09-2024 | Windows: Introduction To Windows, Starting Windows, Desk Top, Task Bar, Opening And Closing Applications |
|                  | 23-09-2024 To<br>30-09-2024 | Icons- Creating, Renaming And Removing   |
| <b>October</b>   | 01-10-2024 To<br>05-10-2024 | Date And Time Setting, Working With Files And Folders- Creating  |
|                  | 07-10-2024 To<br>12-10-2024 | Deleting, Opening, Finding, Copying, Moving, And Renaming  |
|                  | 14-10-2024 To<br>19-10-2024 | Networking: Concept, Basic Elements Of A Communication System  |
|                  | 21-10-2024 To<br>26-10-2024 | Data Transmission Media, LAN, MAN, WAN   |
| <b>November</b>  | 04-11-2024 To<br>09-11-2024 | Introduction Of Internet And WWW   |
|                  | 11-11-2024 To<br>16-11-2024 | Basic Working Of A Web Browser, Introduction To Popular Web Browsers                                     |
|                  | 18-11-2024 To<br>23-11-2024 | Revision Sessions  |

## LESSON PLAN

Session: 2024-2025

Subject: Problem Solving through C

Teacher Incharge: Mrs. Ritu

Class: BSc. (C.Sc.) - 1<sup>st</sup> Semester

Course Code: B23-CSE-101(Major)

| MONTH     | DATE                     | TOPICS   |
|-----------|--------------------------|--|
| July      | 22-07-2024 To 27-07-2024 | UNIT-I Overview Of C: History, Importance, Structure of C Program,   |
| August    | 29-07-2024 To 03-08-2024 | Character Set, Constants and Variables, Identifiers and Keywords,  |
|           | 05-08-2024 To 10-08-2024 | Data Types, Assignment Statement, Symbolic Constant.   |
|           | 12-08-2024 To 17-08-2024 | Input/Output: Formatted I/O Function-  |
|           | 19-08-2024 To 24-08-2024 | Input Functions Viz. Sscanf(), Getch(), Getche(), Getchar(), Gets (),  |
|           | 26-08-2024 To 31-08-2024 | Output Functions Viz. Printf(), Putch(), Puchar(), Puts().   |
| September | 02-09-2024 To 07-09-2024 | UNIT-I operators & Expression: Arithmetic, Relational, Logical, Bitwise, Unary, Assignment, Conditional Operators and Special Operators  |
|           | 09-09-2024 To 14-09-2024 | Operator Hierarchy; Arithmetic Expressions, Evaluation of Arithmetic Expression, Type Casting and Conversion.  |
|           | 16-09-2024 To 21-09-2024 | Decision Making with If Statement, If else Statement, Nested If Statement, Else-If Ladder, Switch and Break Statement, Goto Statement,   |
|           | 23-09-2024 To 28-09-2024 | Looping Statements: For, While, And Do while Loop, Jumps in Loops.   |
| October   | 30-09-2024 To 05-10-2024 | UNIT-II arrays: One Dimensional Arrays - Declaration, Initialization and Memory Representation; Two Dimensional Arrays -Declaration, Initialization and Memory Representation. |
|           | 07-10-2024 To 12-10-2024 | Functions: Definition, Prototype, Function Call, Passing Arguments to A Function: Call by Value; Call by Reference, Recursive Functions.                                       |
|           | 14-10-2024 To 19-10-2024 | Strings: Declaration And Initialization, String I/O, Array of Strings,   |
|           | 21-10-2024 To 26-10-2024 | String Manipulation Functions: String Length, Copy, Compare, Concatenate Etc., Search for A Substring.   |
|           | 27-10-2024 To 03-11-2024 | DIWALI VACATIONS   |
| November  | 04-11-2024 To 09-11-2024 | UNIT-IV Pointers in C: Declaring and Initializing Pointers, Accessing Address and Value of Variables Using Pointers; Pointers and Arrays.                                      |
|           | 11-11-2024 To 16-11-2024 | User Defined Data Types: Structures - Definition, Advantages of Structure, Declaring Structure Variables, Accessing Structure Members, Structure Members Initialization        |
|           | 18-11-2024 To 22-11-2024 | Array Of Structures; Unions - Union Definition; Difference Between Structure and Union.  |

## LESSON PLAN

Session: 2024-2025

Class: BA (MDC) 1<sup>st</sup> Semester

Subject: Computer Science/Computer Application

Paper Code: B23-CSE-104

Teacher Incharge: Ms. Madhu Bhatia

| MONTH     | WEEK                          | TOPICS   |
|-----------|-------------------------------|--|
| July      | 22-07-2024 To<br>31-07-2024   | Computer Fundamentals: Evolution Of Computers Through Generations, Characteristics of Computers, Strengths and Limitations of Computers, Classification of Computers, Functional. Computer Fundamentals: Evolution Of Computers Through Generations, |
| August    | 01-08-2024 To<br>10-8-2024    | Characteristics Of Computers, Strengths and Limitations of Computers, Classification of Computers, Functional Components of a Computer System, Applications of Computers in Various Fields   |
|           | 12-08-2024 To<br>17-08-2024   | Types Of Software: System Software, Application Software, Utility Software   |
|           | 19-08-2024 To<br>24-08-24     | Memory Systems: Concept Of Bit, Byte, Word, Nibble, Storage Locations and Addresses, Measuring Units of Storage Capacity, Access Time  |
|           | 26-08-2024 To<br>31-08-2024   | Concept Of Memory Hierarchy. Primary Memory – Ram, Rom, Prom, Eprom.   |
| September | 02-9-2024 To<br>07-09-2024    | Secondary Memory – Types of Storage Devices, Magnetic Tape, Hard Disk, Optical Disk, Flash Memory.   |
|           | 09-09-2024 To<br>14-09-2024   | I/O Devices: I/O Ports of a Desk Top Computer, Device Controller, Device Driver. Input Devices: Classification And Use, Keyboard   |
|           | 16-09-2024 To<br>21-09-2024   | Pointing Devices – Mouse, Touch Pad and Track Ball, Joystick, Magnetic Stripes, Scanner, Digital Camera, And Microphone<br>Output Devices:   |
|           | 23-9-2024 To<br>30-09-2024    | Speaker, Monitor, Printers: Classification, Laser, Ink Jet, Dot-Matrix. Plotter.   |
| October   | 1-10-2024 To<br>5-10-2024     | Introduction To Operating System: Definition, Functions, Features Of Operating System, Icon, Folder, File, Start Button, Task Bar, Status Buttons  |
|           | 7-10-2024 To<br>17-10-2024    | Folders, Shortcuts, Recycle Bin, Desktop, My Computer, My Documents, Windows Explorer, Control Panel.  |
|           | 18-10-2024 To<br>24-10-2024   | The Internet: Introduction To Networks and Internet, History, Internet, Working of The Internet. Modes Of Connecting to Internet. Electronic Mail: Introduction, Advantages and Disadvantages, User Ids, Passwords, E-Mail Addresses.                |
|           | 25-10-2024 To<br>31-10-2024   | Message Components, Message Composition, Mailer Features Browsers and Search Engines.  |
|           | 27-10-2024 To<br>03-11-2024   | Diwali Vacations   |
| November  | 01-11-2024 To<br>06-11-2024   | Operating System: Starting With Basics of Operating Systems and Its Functionalities<br>Computer Basics: Identify The Various Computer Hardware.  |
|           | 015-11-2024 To<br>016-11-2024 | Understanding The Working of Computer Understanding Various Types of Software Internet and E-Mail:   |
|           | 22-11-2024                    | Using Internet for Various Tasks, Creating and Using E-Mail.   |

## LESSON PLAN

**Session: 2024-2025**

**Subject: Web Designing Fundamentals**

**Teacher Incharge: Ms. Prachi**

**Class: BCA- 5<sup>th</sup> Semester**

**Paper Code: BCA-351**

| <b>Month</b>     | <b>Week</b>              | <b>Topics</b>  |
|------------------|--------------------------|--|
| <b>July</b>      | 22-07-2024 to 25-07-2024 | Introduction to Internet, History Of Internet, Uses Of Internet, Applications Of Internet                                      |
| <b>August</b>    | 05-08-2024 to 08-08-2024 | Introduction to WWW (World Wide Web), History Of WWW, Basic Features, Working Of WWW, Components of WWW                        |
|                  | 12-08-2024 to 14-08-2024 | Difference between WWW and Internet, Web Browsers, Web Servers, Workings   |
|                  | 20-08-2024 to 22-08-2024 | Difference between Web Browser and Web Server, DNS (Domain Name System), Hypertext Transfer Protocol                           |
|                  | 27-08-2024 to 29-08-2024 | TCP/IP (Transmission Control Protocol/ Internet Protocol), IP Address (Internet Protocol Address), FTP(File Transfer Protocol) |
| <b>September</b> | 02-09-2024 to 05-09-2024 | URLs, Searching and Web-Casting Techniques, Search Engines and Search Tools  |
|                  | 09-09-2024 to 12-09-2024 | Website, Steps for developing Website, Choosing the Contents, Basic Principle, Home page, Domain Names                         |
|                  | 16-09-2024 to 19-09-2024 | Internet Service Provider, Planning and Designing Website, Website Design Issues   |
|                  | 24-09-2024 to 26-09-2024 | Creating a Website, Web Publishing, Hosting Site, Web Publishing Process, Phases of website development                        |
| <b>October</b>   | 07-10-2024 to 10-10-2024 | Introduction to HTML, Hypertext and HTML, HTML Document Features, Basic Structure of HTML                                      |
|                  | 14-10-2024 to 17-10-2024 | HTML Tags, Header, Title, Body, Paragraph, Ordered/Unordered line, Creating Links, Headers, Text Styles, Text structuring      |
|                  | 21-10-2024 to 24-10-2024 | Text Colors and Background, Formatting Text, Page layouts, Insertion of Text, Movement of Text                                 |
| <b>Vacations</b> | 27-10-2024 to 03-11-2024 | Diwali Vacations   |
| <b>November</b>  | 04-11-2024 to 07-11-2024 | Images, Types of Images, Insertion of Images, Movement of Images, Ordered and Unordered lists                                  |
|                  | 11-11-2024 to 14-11-2024 | Inserting Graphics, Table handling functions like columns, rows, Width, Colors, Frame Creation and Layouts                     |
|                  | 18-11-2024 to 22-11-2024 | Working with Forms and Menus, Working with Button- like Radio, Check Box   |

## LESSON PLAN

**Session: 2024-2025**

**Subject: Operating System – I**

**Teacher Incharge: Ms. Aarti Dhiman**

**Class: BCA- 5<sup>th</sup> Semester**

**Paper: BCA-352**

| Month            | Week                     | Topics   |
|------------------|--------------------------|--|
| <b>July</b>      | 22-07-2024 to 27-07-2024 | Operating System: Definition, Characteristics, Components, Functions Examples,   |
|                  | 29-07-2024 to 31-07-2024 | Types of Operating System : Single User/ Multi User  |
| <b>August</b>    | 01-08-2024 to 03-08-2024 | Classification of Operating System: Batch, Multi programmed  |
|                  | 05-08-2024 to 10-08-2024 | Timesharing, Multiprocessing, Parallel, Distributed, Real Time, System Calls and System Programs: Process Concept, Process state |
|                  | 12-08-2024 to 14-08-2024 | Process Control Block, Process Scheduling, Scheduling Queues, Schedulers, Context Switch   |
|                  | 16-08-2024 to 17-08-2024 | Operation on Processes: Process Creation, Process Termination, Cooperating Processes   |
|                  | 20-08-2024 to 24-08-2024 | Introduction to Threads, Inter-process Communication, CPU Scheduling : Basic Concepts,   |
|                  | 27-08-2024 to 31-08-2024 | Scheduling Criteria, Scheduling Algorithms: FCFS, SJF  |
| <b>September</b> | 02-09-2024 to 07-09-2024 | Scheduling Algorithms: Priority, Round- Robin, Multilevel Queue , Multilevel Feedback Queue Scheduling                           |
|                  | 09-09-2024 to 14-09-2024 | Deadlocks: System Model, Deadlock Characterization, Methods of Handling Deadlocks, Deadlock Prevention                           |
|                  | 16-09-2024 to 21-09-2024 | Deadlock Avoidance, Deadlock Detection and Recovery, Memory Management : Introduction, Swapping                                  |
|                  | 24-09-2024 to 28-09-2024 | Contiguous Allocation: Single – Partition/ Multiple Partition Allocation   |
|                  | 30-09-2024               | External/ Internal Fragmentation, Paging: Basic Method   |
| <b>October</b>   | 01-10-2024               | Hardware , Implementation of Page Table  |
|                  | 03-10-2024 to 04-10-2024 | Segmentation: Basic Method, Hardware, Implementation of Segment table  |
|                  | 07-10-2024 to 11-10-2024 | Advantage / disadvantage of Paging/ Segmentation   |
|                  | 14-10-2024 to 16-10-2024 | Virtual Memory: Introduction, Demand Paging,   |
|                  | 18-10-2024 to 19-10-2024 | Page replacement   |
|                  | 21-10-2024 to 26-10-2024 | Page Replacement Algorithm : FIFO , Optimal, LRU, Counting, Thrashing and its cause  |
|                  | 27-10-2024 to 03-11-2024 | Diwali vacation  |
| <b>November</b>  | 04-11-2024 to 09-11-2024 | File management: file concepts, file attributes, file operations   |
|                  | 16-11-2024 to 22-11-2024 | File Access/Allocation methods, File Protection, file Recovery   |

## LESSON PLAN

**Session: 2024-2025**

**Subject: Artificial Intelligence**

**Teacher Incharge: Dr. Anju Devi**

**Class: BCA- 5<sup>th</sup> Semester**

**Paper: BCA-353**

| Month            | Week                     | Topics   |
|------------------|--------------------------|--|
| <b>July</b>      | 22-07-2024 to 27-07-2024 | Artificial Intelligence: Intelligence  |
|                  | 29-07-2024 to 31-07-2024 | AI Concepts, Various Definitions Of AI   |
| <b>August</b>    | 01-08-2024 to 03-08-2024 | Knowledge, Knowledge Pyramid,  |
|                  | 05-08-2024 to 10-08-2024 | People And Computers, What Computers Can Do Better Than People, What People Can Do Better Than Computers   |
|                  | 12-08-2024 to 14-08-2024 | Characteristics Of AI Problems, Problem Representation In AI, AI Evolution, History Of AI ,Components Of AI, Applications Areas Of AI                              |
|                  | 16-08-2024 to 17-08-2024 | The Turing Test, The Revised Turing Test   |
|                  | 20-08-2024 to 24-08-2024 | Expert System: Components Of Expert System, Knowledge Base, Inference Engine, User Interface   |
|                  | 27-08-2024 to 31-08-2024 | Features Of Expert System  |
| <b>September</b> | 02-09-2024 to 07-09-2024 | Expert System Life Cycle, Categories Of Expert System  |
|                  | 09-09-2024 to 14-09-2024 | Rule Based Vs. Model Based Expert Systems ,Advantages/Limitations Of Expert System,  |
|                  | 16-09-2024 to 21-09-2024 | Developing An Expert System: Identification, Conceptualization, Formalization, Implementation, Testing, Using An Expert System, Application Areas Of Expert System |
|                  | 24-09-2024 to 28-09-2024 | AI And Search Process: Brute Force Search  |
|                  | 30-09-2024               | Depth First/ Breadth First Search  |
| <b>October</b>   | 01-10-2024               | Heuristic Search: Hill Climbing,   |
|                  | 03-10-2024 to 04-10-2024 | Constraint Satisfaction, Means End Analysis  |
|                  | 07-10-2024 to 11-10-2024 | Best First Search, A* Algorithm  |
|                  | 14-10-2024 to 16-10-2024 | Ao* Algorithm, Beam Search   |
|                  | 18-10-2024 to 19-10-2024 | Natural Language Processing: Introduction, Need, Goal, Fundamental Problems In Natural Language Understanding  |
|                  | 21-10-2024 to 26-10-2024 | How People Overcome Natural Language Problems  |
| <b>vacations</b> | 27-10-2024 to 03-11-2024 | Diwali Vacations   |
| <b>November</b>  | 04-11-2024 to 09-11-2024 | Speech Recognition: Introduction, Advantages And Approaches  |
|                  | 11-11-2024 to 14-11-2024 | Introduction To Robotics: Parts Of Robot   |
|                  | 16-11-2024               | Controlling A Robot, Intelligent Robots  |
|                  | 18-11-2024 to 22-11-2024 | Mobile Robots, Revision  |



## LESSON PLAN

Session: 2024-25  
 Subject: Computer Networks  
 Teacher Incharge: Ms. Madhu Bhatia

Class: BCA- 5<sup>th</sup> Semester  
 Paper: BCA-354

| Month            | Week                        | Topics   |
|------------------|-----------------------------|--|
| <b>July</b>      | 24-07-2024 to<br>27-07-2024 | Introduction To Data Communication And Computer Networks;<br>Uses Of Computer Networks; Types Of computer Networks And<br>Their Topologies                   |
|                  | 28-07-2024 to<br>31-07-2024 | Network Hardware Components: Connectors, Transceivers,<br>Repeaters, Hubs, Network Interface Cards And PC Cards  |
| <b>August</b>    | 01-8-2024 to<br>10-08-2024  | Network Hardware Components: Connectors, , Bridges,<br>Switches, Routers, Gateways ,Network Software   |
|                  | 14-8-2024 to<br>17-08-2024  | Network Design Issues And Protocols, Connection-Oriented<br>And Connectionless Services; OSI Reference Model;<br>Networking Models: Distributed Systems      |
|                  | 21-8-2024 to<br>24-08-2024  | Client/Server Model, Peer-To-Peer Model, Web-Based Model<br>And Emerging File-Sharing Model  |
|                  | 28-8-2024 to<br>31-08-2024  | Analog And Digital Data And Signals; Bandwidth And Data<br>Rate, Capacity, Baud Rate, Transmission Impairment; Data Rate<br>Limits                           |
| <b>September</b> | 04-09-2024 to<br>07-09-2024 | Guided Transmission Media: Transmission Communication<br>Satellites, Switching And Multiplexing<br>Modems And Modulation Techniques; ADSL And<br>Cablemodems |
|                  | 11-09-2024 to<br>14-09-2024 | Data Link Layer Design Issues Error Detection And Correction<br>, Sliding Window Protocols: One-Bit, Go Back N And Selective<br>Repeat                       |
|                  | 18-09-2024 to<br>21-09-2024 | Media Access Control: ALOHA, Slotted ALOHA CSMA,<br>Collisionfree Protocols; Introduction To LAN Technologies  |
|                  | 25-09-2024 to<br>28-09-2024 | Ethernet, Switched Ethernet ,Fast Ethernet, Gigabitethernet;<br>Token Ring   |
| <b>October</b>   | 01-10-2024 to<br>05-10-2024 | Introduction To Wireless Lans And Bluetooth; Vlans   |
|                  | 09-10-2024 to<br>12-10-2024 | Routing Algorithms: Flooding, Shortest Path Routing, Distance<br>Vector Routing  |
|                  | 16-10-2024 to<br>19-10-2024 | Link State Routing, Hierarchical Routing   |
|                  | 23-10-2024 to<br>26-10-2024 | Congestion Control   |
|                  | 27-10-2024 to<br>3-11-2024  | Diwali Vacations   |
| <b>November</b>  | 04-11-2024 to<br>09-11-2024 | Traffic Shaping; Choke Packets   |
|                  | 11-11-2024 to<br>16-11-2024 | Load Shedding Elements Of Transport Protocols; Network<br>Security Issues: Security Attacks  |
|                  | 18-11-2024 to<br>22-11-2024 | Encryption Methods; Digital Signature; Digital Certificate   |

## LESSON PLAN

Session: 2024-2025

Class: BCA – 5<sup>th</sup> Semester

Subject: Programming using Visual Basic

Course Code: BCA-355

Teacher Incharge: Ms. Ritu

| Month            | Date                     | Topics To Be Covered   |
|------------------|--------------------------|--|
| <b>July</b>      | 22-07-2024 to 27-07-2024 | Introduction To VB: Visual & Non-Visual Programming, Procedural,   |
|                  | 29-07-2024 to 03-08-2024 | Object-Oriented, Object-Based And Event-Driven Programming Languages,  |
| <b>August</b>    | 05-08-2024 to 10-08-2024 | VB As Even-Driven And Object-Based Language,   |
|                  | 12-08-2024 to 17-08-2024 | VB Environment: Menu Bar, Toolbar, Project Explorer, Toolbox, Properties Window  |
|                  | 19-08-2024 to 24-08-2024 | Form Designer, Form Layout, Immediate Window,  |
|                  | 26-08-2024 to 31-08-2024 | Default Controls In Tool Box Visual Development And Event Driven Programming   |
| <b>September</b> | 02-09-2024 to 07-09-2024 | Basics Of Programming: Variables: Declaring Variables, Types Of Variables, Converting Variables Types,   |
|                  | 09-09-2024 to 14-09-2024 | User Defined Data Types, Forcing Variable Declaration, Scope & Lifetime Of Variables.  |
|                  | 16-09-2024 to 21-09-2024 | Constants: Named & Intrinsic, Operators: Arithmetic, Relational & Logical Operators,   |
|                  | 23-09-2024 to 28-09-2024 | Input/Output In VB: Various Controls For I/O, Message Box, Input Box, Print Statement.   |
| <b>October</b>   | 30-09-2024 to 05-10-2024 | Decision Statements In VB- If Statement, If-Then-Else, Select-Case; Looping Statements In VB: Do-Loop, For-Next, While-Wend; Exit Statement, Nested Control Structure; |
|                  | 07-10-2024 to 12-10-2024 | Arrays: Declaring And Using Arrays, One-Dimensional, Two-Dimensional And Multi-Dimensional Arrays,   |
|                  | 14-10-2024 to 19-10-2024 | Static And Dynamic Arrays, Array Of Arrays.  |
|                  | 21-10-2024 to 26-10-2024 | Procedures: General & Event Procedures, Subroutines, Functions, Calling Procedures,  |
|                  | 27-10-2024 to 03-11-2024 | <b>Diwali Vacations</b>  |
| <b>November</b>  | 04-11-2024 to 09-11-2024 | Arguments Passing Mechanisms, Optional Arguments, Named Arguments, Functions Returning Custom Data Types Simple Program Development In VB Such As Sum Of Numbers,      |
|                  | 11-11-2024 to 16-11-2024 | Greatest Among Numbers, Checking Even/Odd Number, HCF Of Two Numbers,  |
|                  | 18-11-2024 to 22-11-2024 | Generate Prime Numbers, Generate Fibonacci Series, Factorial Of A Number, Searching, Sorting, Etc.   |

## LESSON PLAN

**Session: 2024-25**

**Subject: Multimedia Tools**

**Teacher Incharge: Ms. Shivani**

**Class: BCA-5<sup>th</sup> Semester**

**Paper: BCA-356**

| Month     | Week                     | Topics  |
|-----------|--------------------------|---|
| July      | 22-07-2024 to 27-07-2024 | Basic Concepts and Definition of Multimedia, Components & Applications of Multimedia          |
|           | 29-07-2024 to 31-07-2024 | Hypermedia And Multimedia,  |
| August    | 01-08-2024 to 03-08-2024 | Multimedia Hardware and Software  |
|           | 05-08-2024 to 10-08-2024 | Multimedia Software Tools, Presentation Tools, Multimedia Authoring Introduction and Features |
|           | 12-08-2024 to 14-08-2024 | Types Of Authoring Tools: Card or Page-Based  |
|           | 16-08-2024 to 17-08-2024 | Icon Based, Time Based, Object Oriented   |
|           | 20-08-2024 to 24-08-2024 | VRML History and Features, Introduction of Graphics/Image Data Types,                         |
|           | 27-08-2024 to 31-08-2024 | File Formats Color Models in Images and Videos, Introduction of Video,                        |
| September | 02-9-2024 to 07-10-2024  | Types Of Video Signals, Analog and Digital Video  |
|           | 09-9-2024 to 14-10-2024  | Analog Video Standards- Ntsc, Pal, Seca   |
|           | 16-9-2024 to 21-10-2024  | Digital Video Standards- Chroma Subsampling, CCIR Standards, HDTV                             |
|           | 23-9-2024 to 30-10-2024  | Basic Concepts of Digital Audio, Analog Vs. Digital Audio, Digitization of Sound              |
| October   | 01-10-2024 to 05-11-2024 | Digital Audio File Format, MIDI, Quantization and Transmission of Audio                       |
|           | 07-10-2024 to 11-11-2024 | Coding Of Audio, Pulse Code Modulation,   |
|           | 14-10-2024 to 16-10-2024 | Differential Coding of Audio, Lossless Predictive Coding Introduction,                        |
|           | 18-10-2024 to 19-10-2024 | Dpcm, Dm, Adpcm   |
|           | 21-10-2024 to 26-10-2024 | Introduction of Compression Techniques, Types of Data Compression, Run Length Coding          |
|           | 27-10-2024 to 30-10-2024 | Diwali Vacations  |
| November  | 04-11-2024 to 09-11-2024 | Variable Length Coding, Dictionary-Based Coding,  |
|           | 11-11-2024 to 14-11-2024 | Transform Coding, Introduction of Image and Video Compression Techniques, JPEG Mode,          |
|           | 16-11-2024               | Video Compression Techniques: H.261   |
|           | 18-11-2024 to 22-11-2024 | H.263, Mpeg   |

## LESSON PLAN

Session: 2024-25

Class: BCA 3<sup>rd</sup> semester

Subject: Java OOP Foundations

Paper: B23-CAP-301

Teacher Incharge: Ms Simpy

| Month            | Week                     | Topics  |
|------------------|--------------------------|---|
| <b>July</b>      | 22-07-2024 to 27-07-2024 | Object Oriented Programming And Java Fundamentals: Structure Of Java Programe |
|                  | 29-07-2024 to 31-07-2024 | Classes And Objects, Data Types, Typecasting, Looping Constructs              |
| <b>August</b>    | 01-08-2024 to 03-08-2024 | Interfaces: Interface basics; Defining, Implementing And Extending            |
|                  | 05-08-2024 to 10-08-2024 | Interfaces; Implementing Multiple Inheritance Using Interfaces                |
|                  | 12-08-2024 to 14-08-2024 | Packages: Basics Of Packages, Creating And Accessing Packages                 |
|                  | 16-08-2024 to 17-08-2024 | System Packages, Creating user Defined Packages                               |
|                  | 20-08-2024 to 24-08-2024 | Exception Handling Using The Main Keyboards Of Exception Handling:            |
|                  | 27-08-2024 to 31-08-2024 | Try ,Catch, Throws And Finally; Nested Try                                    |
| <b>September</b> | 02-09-2024 to 07-09-2024 | File Handling Byte Stream, Character Steam,                                   |
|                  | 09-09-2024 to 14-09-2024 | Revision  |
|                  | 16-09-2024 to 21-09-2024 | File I/O Basics, File Operations  |
|                  | 24-09-2024 to 28-09-2024 | Revisions   |
|                  | 30-09-2024               | Multiple Catch Statements, Creating User Defined Exceptions                   |
| <b>October</b>   | 01-10-2024               | Revision  |
|                  | 03-10-2024 to 04-10-2024 | Test  |
|                  | 07-10-2024 to 11-10-2024 | AWT And Event Handling  |
|                  | 14-10-2024 to 16-10-2024 | Revision  |
|                  | 18-10-2024 to 19-10-2024 | The AWT Class Hierarchy,Events, Event sources, Event Classes                  |
|                  | 21-10-2024 to 26-10-2024 | Event Listeners, Relationship Between Event                                   |
|                  | 27-10-2024 to 03-11-2024 | Diwali Vacations  |
| <b>November</b>  | 04-11-2024 to 09-11-2024 | Event Listeners, Relationship Between Event                                   |
|                  | 11-11-2024 to 14-11-2024 | Sources And Listeners,  |
|                  | 16-11-2024               | Delegation Event Model  |
|                  | 18-11-2024 to 22-11-2024 | Creating Gui Applications Using AWT   |

## LESSON PLAN

Session 2024-2025

Class- BCA 3<sup>rd</sup> semester

Subject: Linux and Shell Programming

Paper Code-B23-CAP-302

Teacher Name- Divya Sharma & Ms Ritu Rani

| MONTH     | WEEK                     | TOPICS   |
|-----------|--------------------------|--|
| July      | 22-07-2024 to 27-07-2024 | Introduction To Linux : Linux Distributions ,Overview Of Linux Operating System , Linux Architecture ,Features Of Linux                  |
| August    | 29-08-2024 to 03-08-2024 | Accessing Linux System , Starting And Shutting Down System ,Logging In And Logging Out , Comparison Of Linux With Other Operating System |
|           | 05-08-2024 to 10-08-2024 | Commands In Linux –General Purpose Commands, File Oriented Commands Communication Oriented Commands, Process Oriented Commands           |
|           | 12-08-2024 to 17-08-2024 | Regular Expression And Filters in Linux, Simple Filters Viz. More , Wc ,Diff Sort , Uniq ,Grep ,Introducing Regular Expression           |
|           | 20-08-2024 to 31-08-2024 | Linux File System, Inodes and Structures ,File System & Its Component, Standard File System , File System Types                          |
| September | 02-09-2024 to 07-09-2024 | Processes In Linux: Starting And Stopping Processes  |
|           | 09-09-2024 to 14-09-2024 | Initialization Processes, Mechanism of Process Creation  |
|           | 16-09-2024 to 21-09-2024 | Job Control in Linux Using At, Batch, Cron, Time   |
|           | 23-09-2024 to 28-09-2024 | Shell Programming ,Vi-Editor   |
| October   | 03-10-2024 to 07-10-2024 | Shell Variables ,I/O In Shell  |
|           | 12-10-2024 to 19-10-2024 | Control Structure & Loops  |
|           | 21-10-2024 to 26-10-2024 | Subprograms ,Creating Shell Scripts  |
| November  | 04-11-2024 to 16-11-2024 | Executing Shell Scripts In Linux   |
|           | 18-11-2024 to 22-11-2024 | File System & Its Component  |

## LESSON PLAN

**Session: 2024-2025**

**Class: BCA- 3<sup>rd</sup>Semester**

**Subject: Data Base Technology**

**Paper Code: B23-CAP-303**

**Teacher Incharge : Ms Dinki**

| Month            | Week                     | Topics   |
|------------------|--------------------------|--|
| <b>July</b>      | 22-07-2024 to 27-07-2024 | Basic Concept: Data, Information, Record, Files, Schema and Instance, Limitation of File-Based Approach  |
|                  | 29-07-2024 to 30-07-2024 | Characteristics Of Database Approach, DBMS, Component of DBMS Environment  |
| <b>August</b>    | 05-08-2024 to 10-08-2024 | DBMS Functions and Component, Database Interference, Pros and Cons Of DBMS   |
|                  | 12-08-2024 to 17-08-2024 | Database Users: Data And Database Administrator, Role and Responsibilities of Database Administrator, Database Designers, Application Developers |
|                  | 19-08-2024 to 24-08-2024 | Database Architecture: 1-Tier, 2-Tier and Three Level of Architecture, External, Internal, Conceptual Levels                                     |
|                  | 26-08-2024 to 31-08-2024 | Schemas, Mapping and Instance, Data Dependence-Logical and Physical Data Dependence, Revision of Previous Topics                                 |
|                  | 28-08-2023 to 31-08-2023 | Data Models: Hierarchical, Network and Relational Models, Entity Relationship Models: Entity, Entity Set, Entity Type                            |
| <b>September</b> | 02-09-2024 to 07-09-2024 | Attributes: Types Of Attributes, Keys, Integrity Constraints Designing Of E-R Diagram, Symbolic Notation for Designing E-R Diagram               |
|                  | 09-09-2024 to 14-09-2024 | SQL: Meaning, Purpose and Needs Of SQL, Datatypes, SQL Components: DDL, DML, DQL   |
|                  | 16-09-2024 to 21-09-2024 | Basic Queries, Join Operation and Sub Queries, Views, Specifying Index   |
|                  | 23-09-2024 to 28-09-2024 | Constraints And Its Implementation In SQL, Relational Algebra: Basic Operation, Select, Project, Join  |
| <b>October</b>   | 30-10-2023               | Test of Unit 2   |
|                  | 01-10-2024 to 05-10-2024 | Relational Algebra: Basic Operation Union, Intersection, Difference, Cartesian Product, Revision of Previous Topics                              |
|                  | 07-10-2024 to 12-10-2024 | Relational Calculus: Tuple Relation and Domain Relational Calculus, Relational Algebra. Relational Calculus                                      |
|                  | 14-10-2024 to 19-10-2024 | Relational Model: Functional Dependency, Characteristics, Interference Rules for Functional Dependency   |
|                  | 21-10-2024 to 26-10-2024 | Types of Functional Dependency, Normalization: Benefits and Needs of Normalization, Normal Form on Primary Key(1NF,2NF)                          |
|                  | 27-10-2024 to 03-11-2024 | <b>Diwali Vacations</b>  |
| <b>November</b>  | 04-11-2024 to 09-11-2024 | Normal Form on Primary Key (3NF), ,4NF, Revision Of Previous Topics  |
|                  | 11-11-2024 to 16-11-2024 | Normal Form on Primary Key (BCNF), Join Dependencies Multi-Valued Dependencies   |
|                  | 18-11-2024 to 22-11-2024 | 5NF, Domain Key Normal Form<br>Test Of Unit 4  |

## LESSON PLAN

Session: 2024-25

Class: BCA 3<sup>rd</sup> Semester

Subject: Basics of Data Science using Excel

Paper: B23-MMT-104

Teacher Incharge: Ms. Madhu Bhatia

| Month     | Week                     | Topics  |
|-----------|--------------------------|---|
| July      | 25-07-2024 to 31-07-2024 | Introduction To Data Science: Definition, Importance, And Applications.   |
| August    | 1-08-2024 to 10-08-2024  | Overview Of Excel: Interface, Basic Functions, And Features.Data Types And Formats In Excel: Text, Numbers,Dates, And Custom Formats    |
|           | 16-08-2024 to 17-08-2024 | Basic Data Manipulation: Sorting, Filtering, And Basic Formulas (Sum, Average, Count) Data Import and Export: Csv, Txt, And Excel Files |
|           | 22-08-2024 to 24-08-2024 | Data Cleaning Techniques: Handling Missing Values, Duplicates, And Errors.  |
|           | 29-08-2024 to 31-08-2024 | Data Transformation: Text-To-Columns, Concatenation,  |
| September | 05-9-2024 to 07-9-2024   | Data Validation Data Visualization: Creating and Customizing Charts (Bar, Line, Pie)  |
|           | 12-09-2024 to 14-9-2024  | Descriptive Statistics: Mean, Median, Mode, Standard Deviation, And Variance,   |
|           | 19-9-2024 to 21-9-2024   | Inferential Statistics: Hypothesis Testing, T-Tests, And Chi-Square Tests.  |
|           | 26-9-2024 to 28-9-2024   | Regression Analysis: Simple Linear Regression and Multiple Regression   |
| October   | 03-10-2024 to 05-10-2024 | Predictive Modeling: Introduction To Basic Predictive Models and Their Implementation In Excel  |
|           | 10-10-2024 to 12-10-2024 | Advanced Excel Functions: V lookup, H lookup, Index match and Pivot tables.   |
|           | 17-10-2024 to 19-10-2024 | Data Analysis Tool pak: Using Excel's Built-In Data Analysis Tools Such As  |
|           | 24-10-2024 to 26-10-2024 | Descriptive Statistics. Histograms, Correlation, And Regression   |
|           | 27-10-2024 to 03-11-2024 | Diwali Vacations  |
| November  | 07-11-2024 to 09-11-2024 | What-If analysis Tools: Scenario Manager  |
|           | 14-11-2024 to 16-11-2024 | Goal Seek   |
|           | 21-11-2024 to 22-11-24   | Data Tables   |

## LESSON PLAN

**Session:2024-2025**

**Class: BA BED 1<sup>ST</sup> SEM**

**Subject: Information and Communication Technology (I) In Education-I**

**Paper: AEC2(I)**

**Teacher Incharge: Ms. Madhu Bhatia**

| MONTH     | WEEK                        | TOPICS  |
|-----------|-----------------------------|---|
| July      | 22-07-2024 To<br>31-07-2024 | How Technology Enhance Learning: Basic Theories of Communication, System Theory and Learning Theory, Historical Account of The Development of Various Educational Media (Audio, Video, Print, Storage, Display, Projection) |
| August    | 01-08-2024 To<br>10-8-2024  | Communication Process and Role of Technology in Communication, Information and Communication Technology: Meaning, Nature and Advantages   |
|           | 12-08-2024 To<br>17-08-2024 | Media Literacy and Digital Literacy-Need and Importance, Digital Divide and Enhancing Access, National ICT Policies, Curriculum, Schemes and Programs   |
|           | 19-08-2024<br>24-08-24      | Cyber Security: Privacy, Hacking, Virus, Spy Ware, Misuse, Abuse, Antivirus, Firewall, And Safe and Ethical Practices   |
|           | 26-08-2024 To<br>31-08-2024 | Computer Hardware Fundamentals (Anatomy, Input Devices, Output Devices, Storage Devices, Display Devices)   |
| September | 02-9-2024 To<br>07-09-2024  | Computer Networks-LAN, WAN, Internet –Concept and Architecture; Locating Internet Resources – Browsing, Navigating, Searching, Selecting, Evaluating, Saving and Book Marking   |
|           | 09-09-2024 To<br>14-09-2024 | Licenses – Software License, Document License, Fare Use and Privacy; File Formats and Conversion, Utility Tools, Cloud Computing: Meaning, Types, And Advantages  |
|           | 16-09-2024 To<br>21-09-2024 | Digitalization, Software- Meaning and Types<br>Source And Binary Code, Proprietary Software, Open-Source Software<br>Shareware And Freeware – Concept, Philosophy, Types, And Advantages                                    |
|           | 23-9-2024 To<br>30-09-2024  | Operating System - Meaning, Types- Windows, Linux, Macintosh<br>Navigating The Desktop, Control Panel, File Manager, Explorer, And Accessories  |
| October   | 1-10-2024 To<br>5-10-2024   | Software As Service - Online Software Tools and Applications and Their Educational Use<br>Managing The ICT Infrastructure: Software Installation, Troubleshooting of Hardware   |
|           | 7-10-2024 To<br>17-10-2024  | Seeking And Providing Help, Storage and Backup, Updating and Upgrading Software, Application Software- Meaning and Types; Word Processing, Spreadsheet, Presentation: Features and Educational Applications (Unicode)       |
|           | 18-10-2024 To<br>24-10-2024 | Drawing Tools- Diagram, Concept Maps, Timelines, Flow Charts: Educational Applications of These Tools<br>Web 2.0 Technology and Tools: Meaning, Characteristics and Types   |
|           | 25-10-2024 To<br>26-10-2024 | Social Networking and Social Bookmarking- Educational Applications<br>Blog And Micro Blog – Reflective Journaling and Other Educational Applications  |
|           | 27-11-2024 To<br>03-11-2024 | Diwali Vacations  |
| November  | 4-11-2024 To<br>6-11-2024   | Wiki- Collaborative Authoring and Projects, Instant Messaging and Its Educational Applications.   |
|           | 11-11-2024 To<br>13-11-2024 | Social Media Sharing – Video, Presentations, Audio (Podcasts), Graphics, And Text;  |
|           | 18-11-2024 To<br>20-11-2024 | Web 2.0 Tools for Creating, Sharing   |
|           | 21-11-2024 To<br>22-11-2024 | Collaborating, Networking   |



## LESSON PLAN

**Session: 2024-25**

**Class: BCA-1<sup>st</sup> Semester**

**Subject: Problem Solving through C**

**Paper: B23-CAP-101**

**Teacher Incharge: Ms. Simpy**

| Month            | Week                      | Topics   |
|------------------|---------------------------|--|
| <b>July</b>      | 22-07-2024 To 27-07-2024  | Overview Of C: History, Importance, Structure Of C Program   |
|                  | 29-07-2024 To 30-07-2024  | Character Set, Constants And Variables   |
| <b>August</b>    | 01-08-2024 To 03-08-2024  | Identifiers And Keywords, Data Types, Assignment Statement, Symbolic Constant.   |
|                  | 05-08-2024 To 10-08-2024  | Input/Output: Formatted I/O Function-, Input Functions Viz. Scanf(), Getch(), Getche().  |
|                  | 12-08-2024 To 17-08-2024  | Getchar(), Gets(), Output Functions Viz. Printf(), Putch(), Puchar(), Puts().  |
|                  | 19-08-2024 To 24-08-2024  | Revision   |
|                  | 26-08-2024 To 31-08-2024  | Operators & Expression: Arithmetic, Relational, Logical, Bitwise, Unary, Assignment, Conditional Operators And Special Operators Operator Hierarchy  |
| <b>September</b> | 02-9-2024 To 07-9-2024    | Arithmetic Expressions, Evaluation Of Arithmetic Expression, Type Casting And Conversion.  |
|                  | 09-9-2024 To 14-9-2024    | Decision Making With If Statement, If Else Statement, Nested If Statement, Else-If Ladder, Switch And Break Statement, Goto Statement.   |
|                  | 16-9-2024 To 21-9-2024    | Looping Statements: For, While, And Do While Loop, Jumps In Loops.   |
|                  | 23-9-2024 To 28-9-2024    | Test Of Decision Making Statements.  |
| <b>October</b>   | 01-10-2024 To 05-10-2024  | Functions: Definition, Prototype, Function Call, Passing Arguments To A Function: Call By Value; Call By Reference, Recursive Functions.   |
|                  | 07--10-2024 To 12-10-2024 | Strings: Declaration And Initialization, String I/O, Array Of Strings, String Manipulation Functions: String Length, Copy, Compare, Concatenate Etc., Search For A Substring.  |
|                  | 14-10-2024 To 19-10-2024  | Revision   |
|                  | 21-10-2024 To 26-10-2024  | Pointers In C: Declaring And Initializing Pointers, Accessing Address And Value Of Variables Using Pointers; Pointers And Arrays.  |
|                  | 27-10-2024 To 03-11-2024  | <b>Diwali Vacations</b>  |
|                  | 04-11-2024 To 09-11-2024  | User Defined Data Types: Structures - Definition, Advantages Of Structure.   |
| <b>November</b>  | 11-11-2024 To 16-11-2024  | Arrays: One Dimensional Arrays - Declaration, Initialization And Memory Representation; Two Dimensional Arrays -Declaration, Initialization And Memory Representation. Declaring Structure Variables, Accessing Structure Members. |
|                  | 18-11-2024 To 22-11-2024  | Structure Members Initialization, Array Of Structures; Unions - Union Definition; Difference Between Structure And Union.  |

## LESSON PLAN

Session: 2024-25

Class: BCA-1<sup>ST</sup> Semester

Subject: Foundations of Computer Science

Paper: B23-CAP-102

Teacher Incharge: Ms. Ritu Rani

| Month     | Week                      | Topics   |
|-----------|---------------------------|--|
| July      | 22-07-2024 to 27-07-2024  | Computer Fundamentals: Evolution Of Computers Through Generations, Characteristics Of Computers,   |
|           | 29-07-2024 to 30-07-2024  | Strengths And Limitations Of Computers.  |
| August    | 01-08-2024 to 03-08-2024  | Classification Of Computers, Functional Components Of A Computer System,   |
|           | 05-08-2024 to 10-08-2024  | Applications Of Computers In Various Fields.<br>Types Of Software: System Software, Application Software, Utility Software,  |
|           | 12-08-2024 to 17-08-2024  | Shareware, Freeware, Firmware, Free Software.  |
|           | 19-08-2024 to 24-08-2024  | Memory Systems: Concept Of Bit, Byte, Word, Nibble, Storage Locations And Addresses, Measuring Units Of Storage Capacity, Access Time, Concept Of Memory Hierarchy.                          |
|           | 26-08-2024 to 31-08-2024  | Primary Memory - RAM, ROM, PROM, EPROM. Secondary Memory - Types Of Storage Devices, Magnetic Tape, Hard Disk, Optical Disk, Flash Memory.   |
| September | 02-9-2024 to 07-9-2024    | I/O Devices: I/O Ports Of A Desk Top Computer, Device Controller, Device Driver.   |
|           | 09-9-2024 to 14-9-2024    | Input Devices: Classification And Use, Keyboard, Pointing Devices - Mouse, Touch Pad And Track Ball, Joystick, Magnetic Stripes, Scanner, Digital Camera, And Microphone.                    |
|           | 16-9-2024 to 21-9-2024    | Output Devices: Speaker, Monitor, Printers: Classification, Laser, Ink Jet, Dot-Matrix. Plotter.   |
|           | 23-9-2024 to 28-9-2024    | Introduction To Operating System: Definition, Functions, Features Of Operating System, Icon, Folder, File, Start Button, Task Bar, Status Buttons, Folders, Shortcuts, Recycle Bin, Desktop. |
| October   | 01-10-2024 to 05-10-2024  | My Computer, My Documents, Windows Explorer, Control Panel.  |
|           | 07--10-2024 to 12-10-2024 | The Internet: Introduction To Networks And Internet, History, Internet, Intranet & Extranet, Working Of Internet, Modes Of Connecting To Internet.   |
|           | 14-10-2024 to 19-10-2024  | Revision   |
|           | 21-10-2024 to 26-10-2024  | Electronic Mail: Introduction, Advantages And Disadvantages, User Ids, Passwords, E-Mail Addresses, Message Components, Message Composition, Mailer Features.                                |
| November  | 27-10-2024 to 03-11-2024  | <b>Diwali Vacations</b>  |
|           | 04-11-2024 to 09-11-2024  | Browsers And Search Engines. Name Of Browsers.   |
|           | 11-11-2024 to 16-11-2024  | Threats: Physical & Non-Physical Threats, Virus, Worm, Trojan, Spyware, Keyloggers, Rootkits, Adware, Cookies, Phishing, Hacking, Cracking. Computer Security                                |
|           | 18-11-2024 to 22-11-2024  | Fundamentals: Confidentiality, Integrity, Authentication, Non-Repudiation, Security Mechanisms, Security Awareness, Security Policy, Anti-Virus Software & Firewalls, Backup & Recovery.     |

## LESSON PLAN

**Session: 2024-25**

**Class: BCA- 1st Semester**

**Subject: Logical Organization of Computer**

**Paper: B23-CAP-103**

**Teacher Incharge: Ms. Ramanpreet Kaur**

| Month            | Week                     | Topics  |
|------------------|--------------------------|---|
| <b>July</b>      | 22-07-2024 to 27-07-2024 | Number Systems: Binary, Octal, Hexadecimal Etc. Conversions From One Number System to Another, BCD Number System.   |
|                  | 29-07-2024 to 30-07-2024 | BCD Codes: Natural Binary Code, Weighted Code, Self-Complimenting Code, Cyclic Code. Error Detecting and Correcting Codes.  |
| <b>August</b>    | 01-08-2024 to 03-08-2024 | Character Representations: ASCII, EBCDIC And Unicode. Number Representations: Integer Numbers - Sign-Magnitude, 1's & 2's Complement Representation.  |
|                  | 05-08-2024 to 10-08-2024 | Real Numbers Normalized Real Numbers Normalized   |
|                  | 12-08-2024 to 17-08-2024 | Revision  |
|                  | 19-08-2024 to 24-08-2024 | Binary Arithmetic: Binary Addition, Binary Subtraction, Binary Multiplication, Binary Division Using 1's and 2's Complement Representations, Addition and Subtraction with BCD Representations. |
|                  | 26-08-2024 to 31-08-2024 | Boolean Algebra: Boolean Algebra Postulates, Basic Boolean Theorems, Boolean Expressions, Boolean Functions, Truth Tables,  |
| <b>September</b> | 02-9-2024 to 07-9-2024   | Canonical Representation of Boolean Expressions: SOP And POS, Simplification of Boolean Expressions Using Boolean Postulates & Theorems.  |
|                  | 09-9-2024 to 14-9-2024   | Karnaugh-Maps (Upto Four Variables), Handling Don't Care Conditions.  |
|                  | 16-9-2024 to 21-9-2024   | Test Of Number System Conversion  |
|                  | 23-9-2024 to 28-9-2024   | Logic Gates: Basic Logic Gates – And, Or, Not, Universal Gates – Nand, Nor,   |
| <b>October</b>   | 01-10-2024 to 05-10-2024 | Other Gates – XOR, XNOR Etc. Their Symbols, Truth Tables and Boolean Expressions.   |
|                  | 07-10-2024 to 12-10-2024 | Combinational Circuits: Design Procedures, Half Adder, Full Adder, Half Subtractor, Full Subtractor,  |
|                  | 14-10-2024 to 19-10-2024 | Multiplexers, Demultiplexers, Decoder, Encoder, Comparators, Code Converters.   |
|                  | 21-10-2024 to 26-10-2024 | Sequential Circuits: Basic Flip- Flops and Their Working. Synchronous And Asynchronous Flip –Flops, Triggering of Flipflops.  |
| <b>November</b>  | 27-10-2024 to 03-11-2024 | <b>Diwali Vacations</b>   |
|                  | 04-11-2024 to 09-11-2024 | Clocked RS, D Type, JK, T Type and Master-Slave Flip-Flops. State Table, State Diagram and State Equations.   |
|                  | 11-11-2024 to 16-11-2024 | Flip-Flops Characteristics & Excitation Tables. Sequential Circuits: Designing Registers –Serial-In Serial-Out (SISO), Serial-In Parallel-Out (SIPO).   |
|                  | 18-11-2024 to 22-11-2024 | Parallel-In Serial-Out (PISO) Parallel-In Parallel-Out (PIPO) And Shift Registers.  |

## LESSON PLAN

**Session: 2024-25**

**Subject: Mathematical Foundations for Computer Science-I**

**Teacher Incharge: Ms. Richa**

**Class: BCA- 1st Semester**

**Paper: B23-CAP-104**

| Month            | Week                     | Topics   |
|------------------|--------------------------|--|
| <b>July</b>      | 22-07-2024 to 27-07-2024 | Sets And their Representations, Empty Set, Finite & Infinite Sets, Subsets, Equal Sets.          |
|                  | 29-07-2024 to 30-07-2024 | Power Sets, Universal Set, Union & Intersection of Sets, Difference of Two Sets.                 |
| <b>August</b>    | 01-08-2024 to 03-08-2024 | Complement of a Set, Venn Diagram, De-Morgan's Laws and Their Applications.                      |
|                  | 05-08-2024 to 10-08-2024 | Revision   |
|                  | 12-08-2024 to 17-08-2024 | An Introduction to Matrices and Their Types, Operations on Matrices.                             |
|                  | 19-08-2024 to 24-08-2024 | Symmetric And Skew-Symmetric Matrices, Minors, Co-Factors.                                       |
|                  | 26-08-2024 to 31-08-2024 | Determinant of A Square Matrix   |
| <b>September</b> | 02-9-2024 to 07-9-2024   | Adjoint And Inverse of a Square Matrix, Solutions of A System of Linear Equations Up to Order 3. |
|                  | 09-9-2024 to 14-9-2024   | Class Test   |
|                  | 16-9-2024 to 21-9-2024   | Quadratic Equations, Solution of Quadratic Equations.  |
|                  | 23-9-2024 to 28-9-2024   | Arithmetic Progression, Geometric Progression.   |
| <b>October</b>   | 01-10-2024 to 05-10-2024 | Harmonic Progression, Arithmetic Mean (A.M.), Geometric Mean (G.M.).                             |
|                  | 07-10-2024 to 12-10-2024 | Harmonic Mean (H.M.), Relation Between A.M., G.M. And H.M.                                       |
|                  | 14-10-2024 to 19-10-2024 | Revision   |
|                  | 21-10-2024 to 26-10-2024 | Class Test   |
| <b>November</b>  | 27-10-2024 to 03-11-2024 | <b>Diwali Vacations</b>  |
|                  | 04-11-2024 to 09-11-2024 | The Concept of Differentiation, Differentiation of Simple Functions,                             |
|                  | 11-11-2024 to 16-11-2024 | Revision   |
|                  | 18-11-2024 to 22-11-2024 | Differentiation of Simple Algebraic, Trigonometric and Exponential Functions.                    |

## LESSON PLAN

**Session:2024-2025**

**Class: B.Sc. BED 1<sup>ST</sup> SEM**

**Subject: Information and Communication Technology (ICT) In Education-I Paper: AEC2(I)**

**Teacher Incharge: Ms. Madhu Bhatia**

| MONTH            | WEEK                        | TOPICS  |
|------------------|-----------------------------|---|
| <b>July</b>      | 22-07-2024 To<br>31-07-2024 | How Technology Enhance Learning: Basic Theories of Communication, System Theory and Learning Theory, Historical Account of The Development of Various Educational Media (Audio, Video, Print, Storage, Display, Projection) |
| <b>August</b>    | 01-08-2024 To<br>10-8-2024  | Communication Process and Role of Technology in Communication, Information and Communication Technology: Meaning, Nature and Advantages   |
|                  | 12-08-2024 To<br>17-08-2024 | Media Literacy and Digital Literacy-Need and Importance, Digital Divide and Enhancing Access, National ICT Policies, Curriculum, Schemes and Programs   |
|                  | 19-08-2024<br>24-08-24      | Cyber Security: Privacy, Hacking, Virus, Spy Ware, Misuse, Abuse, Antivirus, Firewall, And Safe and Ethical Practices   |
|                  | 26-08-2024 To<br>31-08-2024 | Computer Hardware Fundamentals (Anatomy, Input Devices, Output Devices, Storage Devices, Display Devices)   |
| <b>September</b> | 02-9-2024 To<br>07-09-2024  | Computer Networks-LAN, WAN, Internet –Concept and Architecture; Locating Internet Resources – Browsing, Navigating, Searching, Selecting, Evaluating, Saving and Book Marking   |
|                  | 09-09-2024 To<br>14-09-2024 | Licenses – Software License, Document License, Fare Use and Privacy; File Formats and Conversion, Utility Tools, Cloud Computing: Meaning, Types, And Advantages  |
|                  | 16-09-2024 To<br>21-09-2024 | Digitalization, Software- Meaning and Types<br>Source And Binary Code, Proprietary Software, Open-Source Software<br>Shareware And Freeware – Concept, Philosophy, Types, And Advantages                                    |
|                  | 23-9-2024 To<br>30-09-2024  | Operating System - Meaning, Types- Windows, Linux, Macintosh<br>Navigating The Desktop, Control Panel, File Manager, Explorer, And Accessories  |
| <b>October</b>   | 1-10-2024 To<br>5-10-2024   | Software As Service - Online Software Tools and Applications and Their Educational Use<br>Managing The ICT Infrastructure: Software Installation, Troubleshooting of Hardware   |
|                  | 7-10-2024 To<br>17-10-2024  | Seeking And Providing Help, Storage and Backup, Updating and Upgrading Software, Application Software- Meaning and Types; Word Processing, Spreadsheet, Presentation: Features and Educational Applications (Unicode)       |
|                  | 18-10-2024 To<br>24-10-2024 | Drawing Tools- Diagram, Concept Maps, Timelines, Flow Charts: Educational Applications of These Tools<br>Web 2.0 Technology and Tools: Meaning, Characteristics and Types   |
|                  | 25-10-2024 To<br>26-10-2024 | Social Networking and Social Bookmarking- Educational Applications<br>Blog And Micro Blog – Reflective Journaling and Other Educational Applications  |
|                  | 27-11-2024To<br>03-11-2024  | Diwali Vacations  |
| <b>November</b>  | 4-11-2024 To<br>6-11-2024   | Wiki- Collaborative Authoring and Projects, Instant Messaging and Its Educational Applications.   |
|                  | 11-11-2024 To<br>13-11-2024 | Social Media Sharing – Video, Presentations, Audio (Podcasts), Graphics, And Text;  |
|                  | 18-11-2024 To<br>20-11-2024 | Web 2.0 Tools for Creating, Sharing   |
|                  | 21-11-2024 To<br>22-11-2024 | Collaborating, Networking   |

## LESSON PLAN

**Session: 2024-25**

**Class: M.Sc.- III Sem**

**Subject: Object Oriented Analysis and Design Using UML**

**Paper Code- MS-15**

**Teacher Name- Ms. Divya Sharma & Ms. Ritu Rani**

| MONTH            | WEEK                        | TOPICS   |
|------------------|-----------------------------|--|
| <b>August</b>    | 03-08-2024 to<br>10-08-2024 | UML Principles Of Modeling , UML Things- Structural , Behavioural, Grouping, Annotational, Relationship in UML , Dependency, Association, Generalization realization , Overview Of Diagrams In UML – Class Diagram ,Object Diagram, Use Case Diagram ,Sequence Diagram |
|                  | 12-08-2024 to<br>17-08-2024 | Collaboration Diagram, State Chart Diagram, Activity Diagram, Component Diagram, Use Case Diagram, Deployment Diagram , UML Semantic Rules-Name scope Visibility ,Integrity  |
|                  | 20-08-2024 to<br>24-08-2024 | Execution Mechanism In The UML –Specification, Adornments , Common Divisions ,Extensibility Mechanisms ,Modeling As A Design Technique-Abstraction ,Encapsulation ,Modularity ,Hierarchy   |
|                  | 27-08-2024 to<br>31-08-2024 | Typing, Concurrency, Persistence of Object, Purpose of Modeling, Class Model-Object and Classes , Link and Association,  |
| <b>September</b> | 02-09-2024 to<br>07-09-2024 | Aggregation, Link Attributes & Link Class, Abstract Class, Metadata , Constraints Constructing Class Diagrams  |
|                  | 09-09-2024 to<br>14-09-2024 | State Modeling: Event, State, Activity, Action, Transition & Condition, State Diagrams, Nested State Diagrams, Signal Generalization , Concurrency, Relationship between Class and State Models  |
|                  | 16-09-2024 to<br>21-09-2024 | Interaction Modeling, Use Case Models, Use Case Diagrams, Sequence Model, Procedural Sequence Model, Activity Model, Special Construct For Activity Models   |
|                  | 23-09-2024 to<br>30-09-2024 | Generalization & Inheritance, Association ends, Multiplicity, Role Name, Ordering, Qualifications  |
| <b>October</b>   | 07-10-2024 to<br>12-10-2024 | System Analysis & Design: System Deployment Stages, System Conception analysis, Domain Class Model, Domain State Model, Iterating the Analysis   |
|                  | 14-10-2024 to<br>19-10-2024 | Application Interaction Model, Application Class Model, Application State Model, Adding Operation, System Design: Estimating Performance   |
|                  | 21-10-2024 to<br>26-10-2024 | Allocating Subsystems to Processors and Tasks, Management of Data Stores, Handling Global Resources, Choosing Software Control Strategies, Handling Boundary Conditions,   |
|                  | 27-10-2024 to<br>03-10-2024 | Diwali Vacations   |
| <b>November</b>  | 04-11-2024 to<br>09-11-2024 | Realize Use Cases with Operations, Designing Algorithms, Adjustment of Inheritance, Organize Classes And Organizations   |
|                  | 11-11-2024 to<br>16-11-2024 | Setting Trade Off Priorities, Selecting an Architect Style, Class design: Binding Gap  |
|                  | 18-11-2024 to<br>22-11-2024 | Make A Reuse Plan, Organize the System into Subsystem, Identifying Concurrency   |

## LESSON PLAN

**Session: 2024-25**

**Class: M.Sc.- III Semester**

**Subject: Advanced Database Systems**

**Paper Code -MS 15-32**

**Teacher Incharge: Ms. Ramanpreet Kaur**

| Month            | Week                     | Topics  |
|------------------|--------------------------|---|
| <b>August</b>    | 01-08-2024 to 03-08-2024 | Database System Concepts and Architecture: Three Schema Architecture, Data Independence                                     |
|                  | 05-08-2024 to 10-08-2024 | ER Diagrams, Naming Conventions and Design Issues   |
|                  | 12-08-2024 to 14-08-2024 | Relational Model Constraints and Relational Database Schema, EER Model: Subclasses, Super Classes,                          |
|                  | 16-08-2024 to 17-08-2024 | Inheritance, Specialization and Generalization  |
|                  | 20-08-2024 to 24-08-2024 | Constraints And Characteristics of Specialization and Generalizations   |
|                  | 27-08-2024 to 31-08-2024 | Object Model: Overview of Object-Oriented Concepts, Object Identity, Object Structure                                       |
| <b>September</b> | 02-09-2024 to 07-09-2024 | Type Constructors, Encapsulations of Operations, Methods and Persistence, Type Hierarchies And Inheritance, Complex Objects |
|                  | 09-09-2024 to 14-09-2024 | Query Processing and Optimization: Using Heuristics in Query Optimization   |
|                  | 16-09-2024 to 21-09-2024 | Revision  |
|                  | 24-09-2024 to 28-09-2024 | Semantic Query Optimization, Database Tuning in Relational Systems  |
|                  | 30-09-2024               | Database For Advance Applications: Architecture of Parallel Database  |
| <b>October</b>   | 01-10-2024               | Distributed Database Concepts, Data Fragmentation, Replication and Allocation Techniques.                                   |
|                  | 03-10-2024 to 04-10-2024 | Distributed Database Concepts, Data Fragmentation, Replication and Allocation Techniques.                                   |
|                  | 07-10-2024 to 11-10-2024 | Class Test  |
|                  | 14-10-2024 to 16-10-2024 | Overview Of Client Server Architecture, Active Database Concepts and Triggers, Temporal Databases                           |
|                  | 18-10-2024 to 19-10-2024 | Spatial And Multimedia Databases, Deductive Databases, XML Schema, Documents and Databases                                  |
|                  | 21-10-2024 to 26-10-2024 | Principles Of Big Data: Ontologies and Semantics, Classifications   |
|                  | 27-10-2024 to 03-11-2024 | Diwali Vacations  |
| <b>November</b>  | 04-11-2024 to 09-11-2024 | The Simplest of Ontologies, Ontologies, Classes with Multiple Parents, Choosing A Class Model                               |
|                  | 11-11-2024 to 14-11-2024 | Data Integration and Software Interoperability  |
|                  | 16-11-2024               | Versioning and Compliance Issues  |
|                  | 18-11-2024 to 23-11-2024 | Stepwise Approach to Big Data Analysis, Failures and Legalities   |
|                  | 25-11-2024 to 30-11-2024 | Revision  |

## LESSON PLAN

Session: 2024-25

Class: M.Sc.- III Semester

Subject: Computer Network

Paper: MS-15-33

Teacher Incharge: Dr. Anju Devi

| Month     | Week                     | Topics  |
|-----------|--------------------------|---|
| August    | 01-08-2024 to 03-08-2024 | Introduction To Computer Networks and Its Uses, Network Categorization and Hardware   |
|           | 05-08-2024 to 10-08-2024 | Topologies; Network Software: Protocols, Services, Network Architecture, Design Issues for The Layers   |
|           | 12-08-2024 to 14-08-2024 | OSI Reference Model, TCP/IP Reference Model, Comparison of OSI And TCP/IP Models  |
|           | 16-08-2024 to 17-08-2024 | Introduction To Example Networks: Internet, ISDN, X.25, Frame Relay, ATM, Data Communication Model, Digital and Analog Data and Signals           |
|           | 20-08-2024 to 24-08-2024 | Asynchronous And Synchronous Transmission; Bit Rate, Baud, Bandwidth, Transmission Impairment   |
|           | 27-08-2024 to 31-08-2024 | Channel Capacity; Guided Transmission Media; Wireless Transmission; Satellite Communication, Switching; Multiplexing                              |
| September | 02-09-2024 to 07-09-2024 | Spread Spectrum; Local Loop; Modems And ADSL, Internet Over Cable; ADSL Versus Cable; The Mobile Telephone System                                 |
|           | 09-09-2024 to 14-09-2024 | Encoding: NRZ, NRZ-I, Manchester and Differential Manchester Encoding   |
|           | 16-09-2024 to 21-09-2024 | Data Link Layer Design Issues; Framing, Error Detection and Correction, Flow Control: Sliding Window Protocols; Medium Access Control: Aloha      |
|           | 24-09-2024 to 28-09-2024 | CSMA Protocols, Collision Free Protocols, Limited Contention Protocols, Wavelength Division Multiple Access Protocol, Wireless LAN Protocol: MACA |
|           | 30-09-2024               | High Speed Lans; Ethernet LAN, Fast Ethernet, Gigabit Ethernet  |
| October   | 01-10-2024               | Binary Exponential Backoff Algorithm; Token Ring And FDDI; Introduction to Wireless Lans  |
|           | 03-10-2024 to 04-10-2024 | Network Layer Design Issues, Virtual Circuit and Datagram Subnet  |
|           | 07-10-2024 to 11-10-2024 | Routing Algorithms: Optimality Principle, Shortest Path Routing   |
|           | 14-10-2024 to 16-10-2024 | Flooding, Distance Vector Routing, Link State Routing   |
|           | 18-10-2024 to 19-10-2024 | Hierarchical Routing, Broadcast and Multi Cast Routing, Routing For Mobile Hosts  |
|           | 21-10-2024 to 26-10-2024 | Congestion Control Algorithms: General Principals; Congestion Control In Virtual – Circuit Subnets  |
|           | 27-10-2024 to 03-11-2024 | Diwali Vacations  |
| November  | 04-11-2024 to 09-11-2024 | Congestion Control in Datagram Subnets: Choke Packets, Load Shedding; Random, Early Detection   |
|           | 11-11-2024 to 14-11-2024 | Jitter Control; Quality of Service: Over Provisioning, Buffering, Traffic Shaping   |
|           | 16-11-2024               | Leaky Bucket, Token Bucket  |
|           | 18-11-2024 to 23-11-2024 | Resource Reservation  |
|           | 25-11-2024 to 30-11-2024 | Admission Control, Packet Scheduling  |



## LESSON PLAN

**Session: 2024-25**

**Subject: Advanced Operating Systems**

**Teacher Incharge: Ms Simpy**

**Class: M.Sc.- III Semester**

**Paper MSc-15-34**

| Month            | Week                        | Topics   |
|------------------|-----------------------------|--|
| <b>August</b>    | 01-08-2024 to<br>03-08-2024 | Introduction To Distributed Systems, Hardware Concepts, Software Concepts, Design Issues                                     |
|                  | 05-08-2024 to<br>10-08-2024 | Communication In Distributed System,   |
|                  | 12-08-2024 to<br>14-08-2024 | Lay Red Protocols, ATM Networks, The Client-Server Model   |
|                  | 16-08-2024 to<br>17-08-2024 | Remote Procedure Call, Group Communication   |
|                  | 20-08-2024 to<br>24-08-2024 | Synchronization In Distributed System  |
|                  | 27-08-2024 to<br>31-08-2024 | Clock Synchronization, Mutual Exclusion, Election Algorithms   |
| <b>September</b> | 02-09-2024 to<br>07-09-2024 | Atomic Transactions, Deadlocks in Distributed Systems  |
|                  | 09-09-2024 to<br>14-09-2024 | Process And Processors in Distributed System Threads, System Models, Processors Allocation, Scheduling In Distributed System |
|                  | 16-09-2024 to<br>21-09-2024 | Fault Tolerance, Real Time, distributed System   |
|                  | 24-09-2024 to<br>28-09-2024 | Distributed File Systems, Distributed File System Design, Distributed File System Implementation                             |
|                  | 30-09-2024                  | Trends In Distributed File System.   |
| <b>October</b>   | 01-10-2024                  | Distributed Shared Memory, Introduction, What Is Shared Memory?  |
|                  | 03-10-2024 to<br>04-10-2024 | Object Based Distributed Shared Memory   |
|                  | 07-10-2024 to<br>11-10-2024 | Real Time and Mobile Operating System; Basic Model of Real Time System   |
|                  | 14-10-2024 to<br>16-10-2024 | Revision of Previous Topics  |
|                  | 18-10-2024 to<br>19-10-2024 | Characteristics, Applications of Real Time Systems   |
|                  | 21-10-2024 to<br>26-10-2024 | Real Time Task scheduling  |
|                  | 27-10-2024 to<br>03-11-2024 | Diwali Vacations   |
| <b>November</b>  | 04-11-2024 to<br>09-11-2024 | Handling Resources Sharing   |
|                  | 11-11-2024 to<br>14-11-2024 | Mobile Operating Systems, Micro Kernel Design, Clients Server Resources Access   |
|                  | 16-11-2024                  | Revision of Previous Topics  |
|                  | 18-11-2024 to<br>22-11-2024 | Processes And Threads, Memory Management   |

## LESSON PLAN

Session: 2024-25

Class: M. Sc- 1st Semester

Subject: Advance Computer Architecture

Paper: M24-CSE-102

Teacher Name: Dr. Anju Devi

| Month     | Week                     | Topics   |
|-----------|--------------------------|--|
| August    | 01-08-2024 to 03-08-2024 | Computational Model: Computational Model, Computer Architecture, Parallel Processing: Types and Levels of Parallelism, Instruction Level Parallel (ILP) Processors |
|           | 05-08-2024 to 10-08-2024 | Classification Of Parallel Architectures, Relationships Between Programming Languages and Parallel Architecture  |
|           | 12-08-2024 to 14-08-2024 | Dependencies Between Instructions, Principle and General Structure of Pipelines  |
|           | 16-08-2024 to 17-08-2024 | Pipelined Processing Instructions, Performance Measures of Pipeline  |
|           | 20-08-2024 to 24-08-2024 | Code Scheduling For ILP-Processors: Basic Block Scheduling, Loop Scheduling and Global Scheduling  |
|           | 27-08-2024 to 31-08-2024 | Superscalar Processors: Emergence Of Superscalar Processors, Tasks of Superscalar Processing- Parallel Decoding  |
| September | 02-09-2024 to 07-09-2024 | Superscalar Instruction Issue, Shelving, Register Renaming   |
|           | 09-09-2024 to 14-09-2024 | Parallel Execution, Preserving Sequential Consistency of Instruction Execution and Exception Processing  |
|           | 16-09-2024 to 21-09-2024 | Comparison Of VLIW & Superscalar Processors  |
|           | 24-09-2024 to 28-09-2024 | Branch Handling: Branch Problem, Approaches to Branch Handling-Delayed Branching   |
|           | 30-09-2024               | Branch Detection & Prediction Schemes  |
| October   | 01-10-2024               | Branch Penalties and Schemes to Reduce Them  |
|           | 03-10-2024 to 04-10-2024 | Multiway Branches, MIMD Architectures: Concepts of Distributed and Shared Memory MIMD Architectures  |
|           | 07-10-2024 to 11-10-2024 | UMA, NUMA, CC-NUMA & COMA Models of Multiprocessors  |
|           | 14-10-2024 to 16-10-2024 | Direct Interconnection Networks: Metrics For Performance Measures; Interconnection Topologies: Linear Array  |
|           | 18-10-2024 to 19-10-2024 | Ring, Chordal Rings, Star, Tree, 2D Mesh, Barrel Shifter, Hypercube, Dynamic Interconnection Networks: Single Shared Buses   |
|           | 21-10-2024 to 26-10-2024 | Comparison Of Bandwidths of Locked, Pended & Split Transaction Buses   |
|           | 27-10-2024 to 03-11-2024 | Diwali Vacations   |
| November  | 04-11-2024 to 09-11-2024 | Abider Logics, Crossbar, Multistage Networks- Omega  |
|           | 11-11-2024 to 14-11-2024 | Cache Coherence Protocols: Cache Coherence Problem, Causes   |
|           | 16-11-2024               | Hardware Based Protocols- Snoopy Cache Protocol  |
|           | 18-11-2024 to 23-11-2024 | Directory Schemes- Full Map Directory, Limited Directory   |
|           | 25-11-2024 to 30-11-2024 | Chained Directory  |

## LESSON PLAN

Session: 2024-2025

Class: M.COM 3<sup>rd</sup> Semester

Subject: Computer Applications in Business

Paper Code: MC 301

Teacher Incharge: Ms Naina and Ms. Ruchi

| MONTH     | WEEK                        | TOPICS  |
|-----------|-----------------------------|---|
| August    | 01-08-2024 To<br>06-08-2024 | Computer System: Meaning, Scope, Architecture, Types, Functions And Components.   |
|           | 12-08-2024to<br>13-08-2024  | Basics Computer Organization: Central Processing Unit Types And Characteristics Of CPU.   |
|           | 20-08-2024 To<br>27-08-2024 | Software: Introduction, Types, Software Applications and Characteristics of Software.<br>Input Devices, Output Devices and Storage Devices in Computer System.                          |
| September | 02-09-2024 To<br>03-09-2024 | Application Software: Introduction, Types, Characteristics of Application Software, Word Processing: Introduction.  |
|           | 09-09-2024 To<br>10-09-2024 | Word Processing Software, Types and Real-World Applications<br>Introduction To Spreadsheets and Types.  |
|           | 16-09-2024 To<br>17-09-2024 | Introduction To Databases, Tables and Queries<br>Test Of Meaning, Scope and Types of Computer System.   |
|           | 24-09-2024 To<br>30-09-2024 | Reports And Term Generations: Introduction Types, Benefits and Challenges, Fuzzy Logics.<br>Applications, Advantages and Disadvantages of Fuzzy Logics                                  |
| October   | 07-10-2023 To<br>08-10-2024 | Information Technology in Business: Concept of Information Technology Introduction to Network and Types of Networks, Local Area Network: Introduction, Characteristics and Applications |
|           | 14-10-2024 To<br>15-10-2024 | Wide area network: Introduction, Characteristics, Applications<br>And Types, Concept of Metropolitan Area Network and Types.  |
|           | 21-10-2024 To<br>22-10-2024 | Test Of Computer Networking and Its Types.<br>Electronic Data Processing, Intranet and Extranet.  |
|           | 27-10-2024 To<br>03-11-2024 | Diwali Vacations  |
| November  | 04-11-2024 To<br>05-11-2024 | Concept And Evolution Of World Wide Web, Types and Applications Of World Wide Web.  |
|           | 11-11-2024 To<br>13-11-2024 | Multimedia Technologies; Introduction and Types of Multimedia Technology, Video Conferencing.   |
|           | 18-11-2024 To<br>20-11-2024 | Broadband Networking; Planning and Designing Web Pages, Types and Principles Of Web Designing.  |
|           | 25-11-2024 To<br>30-11-2024 | System Software: Introduction, Operating System, User Interface.  |

## LESSON PLAN

Session: 2024-2025

Class: B.Sc.(MM)V Semester

Subject: Application of Multimedia

Paper: 501

Teacher Incharge: Ms. Amrita

| Month            | Week                     | Topic  |
|------------------|--------------------------|--|
| <b>July</b>      | 22-07-2024 To 27-07-2024 | Multimedia Based Presentation                          |
|                  | 29-07-2024 To 31-07-2024 | Concept Of Interactive Learning Material               |
| <b>August</b>    | 01-08-2024 To 03-08-2024 | Multimedia Networks: Retail and Banking Business       |
|                  | 05-08-2024 To 10-08-2024 | Application In Interactive Television                  |
|                  | 12-08-2024 To 14-08-2024 | Multimedia Kiosks                                      |
|                  | 16-08-2024 To 17-08-2024 | Multimedia Use in Training and Education               |
|                  | 20-08-2024 To 24-08-2024 | Multimedia In Distance Learning                        |
|                  | 27-08-2024 To 31-08-2024 | Multimedia For Marketing and Advertising               |
| <b>September</b> | 02-9-2024 To 07-10-2024  | Multimedia Use In Museum And Galleries                 |
|                  | 09-9-2024 To 14-10-2024  | Multimedia Messaging Service                           |
|                  | 16-9-2024 To 21-10-2024  | Concept Generation of Multimedia Project               |
|                  | 23-9-2024 To 30-10-2024  | Process and Stages of Multimedia Production            |
| <b>October</b>   | 01-10-2024 To 05-11-2024 | Multimedia Production Team Member                      |
|                  | 07-10-2024 To 11-11-2024 | Implementation And Distribution of Multimedia Products |
|                  | 14-10-2024 To 26-10-2024 | Multimedia Messaging Service                           |
|                  | 27-10-2024 To 30-10-2024 | Diwali Vacations                                       |
| <b>November</b>  | 04-11-2024 To 09-11-2024 | Gaming Consoles and LAN Gaming                         |
|                  | 11-11-2024 To 16-11-2024 | Multimedia In Medical Science Education                |
|                  | 18-11-2024 To 22-11-2024 | Multimedia In Cinema Production                        |

## LESSON PLAN

Session: 2024-25

Class: B.SC.(MM)V Semester

Subject: Communication Technologies Paper: 502

Teacher Incharge: Mrs Ritu

| Month            | Week                     | Topic  |
|------------------|--------------------------|--|
| <b>July</b>      | 22-07-2024 to 27-07-2024 | Brief Introduction to Mass Communication Technologies: Printing, Photography,    |
|                  | 29-07-2024 to 31-07-2024 | Audiography, Videography,  |
| <b>August</b>    | 01-08-2024 to 03-08-2024 | Cinematography   |
|                  | 05-08-2024 to 10-08-2024 | Communication Satellites: Types, Structure and Functioning                       |
|                  | 12-08-2024 to 14-08-2024 | The Process of Radio, Television Broadcasting                                    |
|                  | 16-08-2024 to 17-08-2024 | The Process of Web Broadcasting  |
|                  | 20-08-2024 to 24-08-2024 | Wireless Networks: Wireless Network Architecture, Wireless Switching Techniques, |
|                  | 27-08-2024 to 31-08-2024 | Wireless Communication Problem, Wireless Network Reference Model                 |
| <b>September</b> | 02-9-2024 to 07-10-2024  | Wireless Networking Issues & Standards   |
|                  | 09-9-2024 to 14-10-2024  | Bluetooth: User Scenarios, Architecture  |
|                  | 16-9-2024 to 21-10-2024  | Radio Bands and Frequencies  |
|                  | 23-9-2024 to 30-10-2024  | Satellite Radio and Web Radio  |
| <b>October</b>   | 01-10-2024 to 05-11-2024 | Infra Red Vs Radio Transmission  |
|                  | 07-10-2024 to 11-11-2024 | Infrastructure And Ad-Hoc Network,   |
|                  | 14-10-2024 to 26-10-2024 | Television standards: NTSC, PAL and SECAM<br>Interactive Television              |
|                  | 27-10-2024 to 30-10-2024 | Diwali Vacations   |
| <b>November</b>  | 04-11-2024 to 09-11-2024 | HDTV, IPTV, Display technology: CRT  |
|                  | 11-11-2024 to 16-11-2024 | Plasma, LCD & LED, Direct to Home (DTH)  |
|                  | 18-11-2024 to 22-11-2024 | Fiber Optics Conditional Access System, Pay Per View System                      |

## LESSON PLAN

Session: 2024-25

Class: B.Sc. (MM) V Semester

Subject: Web Technologies

Paper: 503

Teacher Incharge: Ms. Amrita

| Month            | Week                     | Topic  |
|------------------|--------------------------|--|
| <b>July</b>      | 22-07-2024 to 27-07-2024 | Planning And Designing A Website, Maintaining View State, Connecting And Hosting Database, Choosing A Web Server For Hosting,        |
|                  | 29-07-2024 to 31-07-2024 | DNS, Configuration And Optimization Settings, Promotion And Maintenance Of Website, Uniform Resource Locators (URLs) & Web Browsers, |
| <b>August</b>    | 01-08-2024 to 03-08-2024 | Semantic Web Applications and Services, Semantic Search, E-Learning, Semantic Bioinformatics,  |
|                  | 05-08-2024 to 10-08-2024 | Knowledge Base, XML Based Web Services, Creating OWL-S Ontology for Web Services,  |
|                  | 12-08-2024 to 14-08-2024 | Semantic Search Technology, Web Search Agents and Semantic Methods   |
|                  | 16-08-2024 to 17-08-2024 | Web Technologies: Terminology & Applications; Active X Components.   |
|                  | 20-08-2024 to 24-08-2024 | XML, Chat Applets, Ajax, Servlet   |
|                  | 27-08-2024 to 31-08-2024 | Java Beans, J2me, Sql, Ftp   |
| <b>September</b> | 02-9-2024 to 07-09-2024  | Android: Ice Cream Sandwich, Jellybean   |
|                  | 09-9-2024 to 14-09-2024  | Sessional Week (Revision Week)   |
|                  | 16-9-2024 to 21-09-2024  | Peer To Peer and Cloud Network   |
|                  | 23-9-2024 to 30-09-2024  | Social Network Analysis  |
| <b>October</b>   | 01-10-2024 to 05-10-2024 | Development Of the Social Networks Analysis  |
|                  | 07-10-2024 to 11-10-2024 | Electronic Sources for Network Analysis  |
|                  | 14-10-2024 to 26-10-2024 | Electronic Discussion Networks   |
|                  | 27-10-2024 to 30-10-2024 | Diwali Vacations   |
| <b>November</b>  | 04-11-2024 to 09-11-2024 | Blogs And Online Communities   |
|                  | 11-11-2024 to 16-11-2024 | Web Based Networks   |
|                  | 18-11-2024 to 22-11-2024 | Building Semantic Web Applications with Social Network Features  |

## LESSON PLAN

Session: 2024-25

Class: B.Sc. (MM) V Semester

Subject: Special Effects

Paper: 504

Teacher Incharge: Ms. Amrita

| Month            | Week                     | Topic   |
|------------------|--------------------------|---|
| <b>July</b>      | 22-07-2024 to 27-07-2024 | Introduction To After Effects, Overview to After Effects  |
|                  | 29-07-2024 to 31-07-2024 | Application And Scope of After Effects  |
| <b>August</b>    | 01-08-2024 to 03-08-2024 | Creating a Composition  |
|                  | 05-08-2024 to 10-08-2024 | Managing Multiple Composition   |
|                  | 12-08-2024 to 14-08-2024 | Adding Layers to A Composition  |
|                  | 16-08-2024 to 17-08-2024 | Mixing Audio with Fades   |
|                  | 20-08-2024 to 24-08-2024 | Trimming Audio Layers   |
|                  | 27-08-2024 to 31-08-2024 | Introduction To Key Frames and Motion Path<br>Scaling Motion Path                                     |
| <b>September</b> | 02-9-2024 to 07-09-2024  | Copying, Nudging, Scale Values and Opacity Value  |
|                  | 09-9-2024 to 14-09-2024  | Layer Management Selecting, Moving, Soloing Layer, Duplicating Layer, Renaming Layer, Replacing Layer |
|                  | 16-9-2024 to 21-09-2024  | Trimming And Motion Blur, Introduction to Modes, Masks, Mattes  |
|                  | 23-9-2024 to 30-09-2024  | Applying Blending Modes   |
| <b>October</b>   | 01-10-2024 to 05-10-2024 | Creating And Transforming Mask Luminance Range Issues   |
|                  | 07-10-2024 to 11-10-2024 | Rotoscopy, Planning Layers Inside Masks   |
|                  | 14-10-2024 to 26-10-2024 | Applying Effects and Common Effect Controls<br>Lightening In 3d                                       |
|                  | 27-10-2024 to 30-10-2024 | Diwali Vacations  |
| <b>November</b>  | 04-11-2024 to 09-11-2024 | Creating And Managing Shadows<br>Nesting And Pre-Composition  |
|                  | 11-11-2024 to 16-11-2024 | Formatting And Randomizing Text, Color Management   |
|                  | 18-11-2024 to 22-11-2024 | Luminance Range Issues, Nesting and Pre-Composition   |

## LESSON PLAN

Session: 2024-25

Class: B.Sc.(MM)-III Semester

Subject: Content Writing and Scripting

Paper: B23-MMT-301

Teacher Incharge: Ms. Shivani

| Month            | Week                     | Topics  |
|------------------|--------------------------|---|
| <b>July</b>      | 22-07-2024 To 27-07-2024 | Writing: Origin, Role and Scope Language,                                     |
|                  | 29-07-2024 To 31-07-2024 | Dialects And Script Analytical Writing & Descriptive Writing Self-Expressions |
| <b>August</b>    | 01-08-2024 To 03-08-2024 | Poetry, SHER-O-SHAYARI  |
|                  | 05-08-2024 To 10-08-2024 | Essentials Of Good Writing  |
|                  | 12-08-2024 To 14-08-2024 | Writing For Formal Communication<br>Creating User Interface                   |
|                  | 16-08-2024 To 17-08-2024 | Writing For Radio and Television Voice-Overs                                  |
|                  | 20-08-2024 To 24-08-2024 | Writing News and Commercials  |
|                  | 27-08-2024 To 31-08-2024 | Writing For Computer Aided Courseware   |
| <b>September</b> | 02-09-2024 To 07-09-2024 | Writing For Dynamic Website   |
|                  | 09-09-2024 To 14-09-2024 | Features Of Writing for Web   |
|                  | 16-09-2024 To 21-09-2024 | Using Colors, Images, Audio and Hyperlinks                                    |
|                  | 24-09-2024 To 30-09-2024 | Researching Online Resources  |
| <b>October</b>   | 01-10-2024 To 04-10-2024 | Issues Of Copyright   |
|                  | 07-10-2024 To 11-10-2024 | Writing Fiction and Non-Fiction   |
|                  | 14-10-2024 To 16-10-2024 | Types of Screenplays- Proposal Script,  |
|                  | 18-10-2024 To 19-10-2024 | Shooting Script   |
|                  | 21-10-2024 To 26-10-2024 | Postproduction Script   |
|                  | 27-10-2024 To 30-10-2024 | Diwali Vacations  |
| <b>November</b>  | 04-11-2024 To 09-11-2024 | Layout of a Story: Theme  |
|                  | 11-11-2024 To 16-11-2024 | Characters, Situation, Background   |
|                  | 18-11-2024 To 22-11-2024 | Linking And Developing a Screenplay   |



## LESSON PLAN

**Session: 2024-25**

**Class: B.Sc.(MM)-III Semester**

**Subject: Advertisement Design**

**Paper: B23-MMT-302**

**Teacher Incharge: Ms. Ruchi**

| Month            | Week                     | Topic   |
|------------------|--------------------------|---|
| <b>July</b>      | 22-07-2024 to 27-07-2024 | Advertising: Concept, Nature, Definitions, Basic Theories and Applications of Advertising.  |
|                  | 29-07-2024 to 31-07-2024 | Advertising Objectives, Functions and Significance Importance Of Research in Advertising and Types of Research in Advertising.  |
| <b>August</b>    | 01-08-2024 to 03-08-2024 | Types And Classification of Advertising, Specialized Advertising  |
|                  | 05-08-2024 to 10-08-2024 | Indian Languages, Challenges in Advertising, Approaches to Overcome Challenges.   |
|                  | 12-08-2024 to 14-08-2024 | Advertising Design: Idea Generation; Techniques for Idea Generation,  |
|                  | 16-08-2024 to 17-08-2024 | Challenges In Idea Generation, Design Principles and Strategy.  |
|                  | 20-08-2024 to 24-08-2024 | Client Study and Product Goal Setting; Client Study Methods, Benefits and Challenges of Product Goal Setting.   |
|                  | 27-08-2024 to 31-08-2024 | Planning Layout Design and Typefaces, Creating Effective Punch Lines; Characteristics of Effective Punchlines, Types and Techniques for Crafting Punchlines.                        |
| <b>September</b> | 02-9-2024 to 07-10-2024  | Test of Advertising: Definitions, Nature, Basic Theories and Applications. Advertising Design: Headings, Illustrations.   |
|                  | 09-9-2024 to 14-10-2024  | Organization Of Visual Artworks in Advertising Design, Design Checklists and Testing; Testing Illustration Design, Illustration Design Trends.                                      |
|                  | 16-9-2024 to 21-10-2024  | Role And Responsibilities Of Graphic Artists, E-Mailers In Advertising Design, Emailers Design ; Benefits And Tools, Seo In Advertising Design, Seo Benefits, Techniques And Tools. |
|                  | 23-9-2024 to 30-10-2024  | Mobile Marketing, Advertising Agencies: Structure and Functioning, Monetization and Revenue Generation.   |
| <b>October</b>   | 01-10-2024 to 05-11-2024 | Ethical Issues in Advertising, Campaign Planning: Defining Campaign Planning, Benefits of Campaign Planning.  |
|                  | 07-10-2024 to 11-11-2024 | Test Of Idea Generations and Principles in Advertising Design, Challenges In Campaign Planning, The Planning Cycle in Advertising.  |
|                  | 14-10-2024 to 26-10-2024 | Brand Vs Social Budget Setting; Budget Allocation Strategies, Typical Budget Allocation, Strategy Planning; Strategy Planning Process, Levels and Types.                            |
|                  | 27-10-2024 to 30-10-2024 | Diwali Vacations  |
| <b>November</b>  | 04-11-2024 to 09-11-2024 | Benefits And Challenges of Strategy Planning, Brand   |

|  |                          |  |
|--|--------------------------|--|
|  |                          | Management; Objectives. Tools And Functions, Benefits and Challenges of Brand Management.                              |
|  | 11-11-2024 to 16-11-2024 | Social Criticism of Advertising; Critiques, Theoretical Perspectives.  |
|  | 18-11-2024 to 22-11-2024 | Laws In Advertising; Types of Laws, State Laws and International Laws, Negative Consequences and Regulatory Responses. |

## LESSON PLAN

Session: 2024-2025

Class: B.Sc. (MM) 3<sup>rd</sup> Sem

Subject: Web Designing using Dreamweaver

Paper: B23-MMT-303

Teacher Incharge: Ms. Amrita

| Month            | Week                     | Topic  |
|------------------|--------------------------|--|
| <b>July</b>      | 22-07-2024 to 27-07-2024 | The Basic Dreamweaver Environment, Creating A Site Profile, The Importance of a Site Profile |
|                  | 29-07-2024 to 31-07-2024 | Organizing The Files & Folders, Folder and File Naming Rules                                 |
| <b>August</b>    | 01-08-2024 to 03-08-2024 | Creating Folders and Webpage Files   |
|                  | 05-08-2024 to 10-08-2024 | Opening A File for Editing, Titling Pages, Creating Divisions                                |
|                  | 12-08-2024 to 14-08-2024 | Adding Headings, Paragraph Vs. Line Breaks, Tags: Logical Vs. Physical                       |
|                  | 16-08-2024 to 17-08-2024 | Lists, Linking to Other Websites, Linking to The User Files, Inserting Images on Web Pages   |
|                  | 20-08-2024 to 24-08-2024 | Changing Images into Links, Adding an Email Link. CSS Design                                 |
|                  | 27-08-2024 to 31-08-2024 | Working Of Style Sheet, Starting A Style Sheet, Font   |
| <b>September</b> | 02-9-2024 to 07-09-2024  | Margins, Link, Colors, Stylish Headlines, Paragraphs   |
|                  | 09-9-2024 to 14-09-2024  | Types Of Images, Organizing Images, Inserting and Formatting Tables.                         |
|                  | 16-9-2024 to 21-09-2024  | Form Elements, Head Elements, Page Templates   |
|                  | 23-9-2024 to 30-09-2024  | Form Objects, Accessible Forms   |
| <b>October</b>   | 01-10-2024 to 05-10-2024 | Flash Elements   |
|                  | 07-10-2024 to 11-10-2024 | Multimedia Contents  |
|                  | 14-10-2024 to 26-10-2024 | Browser, Compatibility Testing,  |
|                  | 27-10-2024 to 30-10-2024 | Diwali Vacations   |
| <b>November</b>  | 04-11-2024 to 09-11-2024 | Uploading The Website on Web, Testing Website Online,  |
|                  | 11-11-2024 to 16-11-2024 | Uploading Changes,   |
|                  | 18-11-2024 to 22-11-2024 | Maintaining Website  |

## LESSON PLAN

**Session: 2024-2025**

**Class: B.Sc. (MM) 3<sup>rd</sup> Semester**

**Subject: Vector Graphics**

**Paper: B23-MMT-304**

**Teacher Incharge: Ms. Ramanpreet**

| Month            | Week                     | Topic  |
|------------------|--------------------------|--|
| <b>July</b>      | 22-07-2024 to 27-07-2024 | Design: Function And Process<br>User Interface: Title Bar, Menu Bar, Color Palette, And Toolbox  |
|                  | 29-07-2024 to 31-07-2024 | Page Counter Bar: Add Page, Remove Page And master Pages<br>.  |
| <b>August</b>    | 01-08-2024 to 03-08-2024 | Create And Edit Geometric and Organic Shapes: Bezier, Linear, Angular  |
|                  | 05-08-2024 to 10-08-2024 | Smooth And Close Path. View Modes: Normal, Wireframe, Draft, Enhanced And pixels   |
|                  | 12-08-2024 to 14-08-2024 | Selection And Distributing: Skewing, Blending, Curve Lines, Straight Lines, Rotating An object, Group And                                    |
|                  | 16-08-2024 to 17-08-2024 | Ungroup, Break Apart And colouring. Shape Tools - Weld   |
|                  | 20-08-2024 to 24-08-2024 | Trim, Intersect, Simplify, And Front minus Back, Back Minus Front Font and Different Types of Font Family's: Application and Characteristics |
|                  | 27-08-2024 to 31-08-2024 | Text Tool: Entering Artistic Text, Entering Paragraph text   |
| <b>September</b> | 02-9-2024 to 07-10-2024  | Converting Text Formatting Text, Font Size Characteristics Image Tool: Import, Trace and Edit Then Export                                    |
|                  | 09-9-2024 to 14-10-2024  | Color: Color Scheme, Color Theory, Gradient Tool, Effects - Lens, Power Clip, Perspective, Rollover, Convert to Bitmap                       |
|                  | 16-9-2024 to 21-10-2024  | Page Setup: Size Setup And edit Business Card: Size, Elements And functions  |
|                  | 23-9-2024 to 30-10-2024  | Poster: Size, Element, Characteristics And functions   |
| <b>October</b>   | 01-10-2024 to 05-11-2024 | Logo: Types, Process And characteristics   |
|                  | 07-10-2024 to 11-11-2024 | Editing Tools: Attach, Detach Bevel, Chamfer, Extrude  |
|                  | 14-10-2024 to 26-10-2024 | Bridge, Insert Vertex, Weld, Target Weld, Connect  |
|                  | 27-10-2024 to 30-10-2024 | Diwali Vacations   |
| <b>November</b>  | 04-11-2024 to 09-11-2024 | Adobe In design: Interface, Menu And toolbar   |
|                  | 11-11-2024 to 16-11-2024 | Master Page: Function And Characteristics Managing and Transforming Objects Text Formatting: Heading and Body Text                           |
|                  | 18-11-2024 to 22-11-2024 | Column And Layout: Functions Graphics, Styles Sheet and Pre-Flight, Printing Pdf   |

## LESSON PLAN

Session:2024-25

Class: B.Sc. (MM)1<sup>st</sup> Semester

Subject: Arts & Creativity

Paper: B23-MMT-101

Teacher Incharge: Ms. Taranjeet

| Month            | Week                     | Topic  |
|------------------|--------------------------|--|
| <b>July</b>      | 22-07-2024 to 27-07-2024 | Art: Meaning And Definition of Art   |
|                  | 29-07-2024 to 31-07-2024 | Indian Aesthetics: Ras, Bhav, Shadaang   |
| <b>August</b>    | 01-08-2024 to 03-08-2024 | Auchitya, Alankaar, Rasa, Nispatti   |
|                  | 05-08-2024 to 10-08-2024 | Elements of art: Point, Line, Form, Shape, Space, Colour, Texture,   |
|                  | 12-08-2024 to 14-08-2024 | Understanding Of Light and Shadow  |
|                  | 16-08-2024 to 17-08-2024 | Perception Of Color and Color Wheel  |
|                  | 20-08-2024 to 24-08-2024 | Principles of art: Balance, Rhythm, Harmony, Contrast, Proportion,   |
|                  | 27-08-2024 to 31-08-2024 | Unity Perspectives on The Creative Process<br>Landscapes and Composition   |
| <b>September</b> | 02-9-2024 to 07-10-2024  | Techniques of Different Art Styles: Water Color, Acrylic Painting, Pencil Color, Spray Painting, Pastel Color      |
|                  | 09-9-2024 to 14-10-2024  | Design: Concept,2D Shape Design, Character Designing: Creating Appealing Characters with A Distinctive Personality |
|                  | 16-9-2024 to 21-10-2024  | Creating A Range of Characters That Work Together as A “Cast”  |
|                  | 23-9-2024 to 30-10-2024  | Typography And Its Types   |
| <b>October</b>   | 01-10-2024 to 05-11-2024 | Calligraphy  |
|                  | 07-10-2024 to 11-11-2024 | Digital Tools: Overview Of Photoshop   |
|                  | 14-10-2024 to 26-10-2024 | Interface Understanding of Pen Tool, Brush Tool  |
|                  | 27-10-2024 to 30-10-2024 | Diwali Vacations   |

|                 |                          |  |
|-----------------|--------------------------|--|
| <b>November</b> | 04-11-2024 to 09-11-2024 | Brush Panel Shading and Painting Techniques In Photoshop |
|                 | 11-11-2024 to 16-11-2024 | Use Of Opacity, Flow and Pattern                         |
|                 | 18-11-2024 to 22-11-2024 | Digital Painting   |

## LESSON PLAN

Session: 2024-25

Class: B.Sc. (MM) 1<sup>st</sup> Semester

Subject: Introduction to Computer Programming

Paper: B23-MMT-102

Teacher Incharge: Ms. Shivani

| Month            | Week                     | Topics   |
|------------------|--------------------------|--|
| <b>July</b>      | 22-07-2024 to 27-07-2024 | C Fundamentals: Problem Definition, Algorithms,  |
|                  | 29-07-2024 to 31-07-2024 | Flow Chart and Their Symbol  |
| <b>August</b>    | 01-08-2024 to 03-08-2024 | Variables, C Token   |
|                  | 05-08-2024 to 10-08-2024 | C Expression, Constant   |
|                  | 12-08-2024 to 14-08-2024 | Data Types<br>Standard Library: Input/Output   |
|                  | 16-08-2024 to 17-08-2024 | Operator And Expression: Precedence of Arithmetic Operations                           |
|                  | 20-08-2024 to 24-08-2024 | Type Conversion in Expression  |
|                  | 27-08-2024 to 31-08-2024 | Operator Precedence and Associability  |
| <b>September</b> | 02-09-2024 to 07-09-2024 | Managing Input and Output Operations   |
|                  | 09-09-2024 to 14-09-2024 | Decision Making Statements   |
|                  | 16-09-2024 to 21-09-2024 | Array: One Dimensional Array, Declaration and Initialization of One-Dimensional Array  |
|                  | 24-09-2024 to 30-09-2024 | Two-Dimensional Array  |
| <b>October</b>   | 01-10-2024               | Multidimensional Array   |
|                  | 03-10-2024 to 04-10-2024 | String: Declaration And Initializing Variable  |
|                  | 07-10-2024 to 11-10-2024 | String Handling, Functions: Definition of Functions, Element of User Defined Functions |
|                  | 14-10-2024 to 16-10-2024 | Return Values and Their Types Functions,   |
|                  | 18-10-2024 to 19-10-2024 | Function Calls, Function Declaration   |
|                  | 21-10-2024 to 26-10-2024 | Recursion  |

|                 |                          |  |
|-----------------|--------------------------|--|
|                 | 27-10-2024 to 30-10-2024 | Diwali Vacations   |
| <b>November</b> | 04-11-2024 to 09-11-2024 | Structure And Union: Definition Structure, Declaring Structure Variables |
|                 | 11-11-2024 to 16-11-2024 | Assessing Structure Variable, Structure Initialization                   |
|                 | 18-11-2024 to 22-11-2024 | Union  |



## LESSON PLAN

Session: 2024-2025

Class: B.SC(MM) 1<sup>st</sup> Semester

Subject: Fundamentals of Multimedia

Paper Code: B23-MMT-103

Teacher Incharge: Ms. Prachi

| Month            | Week                        | Topics   |
|------------------|-----------------------------|--|
| <b>July</b>      | 22-07-2024 To 25-07-2024    | Introduction To Multimedia, Categories of Multimedia, Applications of Multimedia, Multimedia Equipment                             |
| <b>August</b>    | 05-08-2024 To<br>08-08-2024 | Key Elements of Multimedia: Text, Audio, Video, Graphics, Animation, Hardware and Software Requirements for Multimedia             |
|                  | 12-08-2024 To<br>14-08-2024 | Multimedia Authoring Tools, Difference Between Hypermedia and Hypertext, Significance of Multimedia, Desktop Publishing Software   |
|                  | 20-08-2024 To<br>22-08-2024 | Categories Of DTP, Basic Design Concepts, Fundamental Principles, User Interface Design, Basic Principles of User Interface Design |
|                  | 27-08-2024 To<br>29-08-2024 | Hypermedia Authoring Concepts, Hypermedia Design Elements, Principles of Hypermedia  |
| <b>September</b> | 02-09-2024 To<br>05-09-2024 | Process of Multimedia Production: Multimedia Production, Phases of Multimedia Production   |
|                  | 09-09-2024 To<br>12-09-2024 | Multimedia Projects and Its Stages, Product Development Life Cycle and Its Stages  |
|                  | 16-09-2024 To<br>19-09-2024 | Various File Formats: Text, Audio, Graphics, And Animation, Multimedia Compression Techniques                                      |
|                  | 24-09-2024 To<br>26-09-2024 | File Compression Techniques, Creating Web Based Multimedia   |
|                  | 07-10-2024 To<br>10-10-2024 | Difference Between Lossy and Lossless Compression, Different Techniques Used in Compression  |

|                  |                             |  |
|------------------|-----------------------------|--|
|                  | 14-10-2024 To<br>17-10-2024 | Video Compression Techniques, Introduction to Animation, Types of Animation Techniques                     |
|                  | 21-10-2024 To 24-10-2024    | Use of Animation in Multimedia, Difference Between Multimedia and Animation, Basic Principles of Animation |
| <b>Vacations</b> | 27-10-2024 To 03-11-2024    | Diwali Vacations   |
| <b>November</b>  | 04-11-2024 To 07-11-2024    | Animation Software, Difference Between 2D And 3D Animation   |
|                  | 11-11-2024 To 14-11-2024    | Audio And Video Integration Understanding Basics, Basic Audio and Video Integration Techniques             |
|                  | 18-11-2024 To 21-11-2024    | Animation Effects, Production Process of Animation Step by Step  |

## LESSON PLAN

Session: 2024-2025

Class: B.SC(MM) 1<sup>st</sup> Semester

Subject: Computer Application

Paper Code-B23-MMT-104

Teacher Incharge : Divya Sharma

| MONTH            | WEEK                     | TOPICS   |
|------------------|--------------------------|--|
| <b>July</b>      | 22-07-2024 to 27-07-2024 | Origin Of Computers  |
|                  | 29-07-2024 to 31-07-2024 | Evolution And Generation of Computer   |
| <b>August</b>    | 03-08-2024 to 10-08-2024 | Characteristics of Computer  |
|                  | 12-08-2024 to 17-08-2024 | Types of Computers   |
|                  | 20-08-2024 to 24-08-2024 | Block Diagram of Computer  |
|                  | 27-08-2024 to 31-08-2024 | Basic Components of Computer, Input Devices  |
| <b>September</b> | 02-09-2024 to 07-09-2024 | Output Devices   |
|                  | 09-09-2024 to 14-09-2024 | Storage Organization: Primary & Secondary Storage  |
|                  | 16-09-2024 to 21-09-2024 | Introduction To Software   |
|                  | 23-09-2024 to 30-09-2024 | Types Of Software: System Software, Application Software, Utility Software                                     |
| <b>October</b>   | 05-10-2024 to 12-10-2024 | Operating System And Its Functions   |
|                  | 14-10-2024 to 19-10-2024 | Introduction To MS Windows And Its Various Versions  |
|                  | 21-10-2024 to 26-10-2024 | Introduction To MS Word And its Uses   |
|                  | 27-10-2024 to 30-10-2024 | Diwali Vacations   |
| <b>November</b>  | 04-11-2024 to 09-11-2024 | Various Menus, Toolbars & Buttons, Paragraph And Page Formatting, Creation And Working With Tables, Mail Merge |
|                  | 11-11-2024 to 16-11-2024 | Introduction To MS Power Point and Its Uses  |
|                  | 18-11-2024 to 22-11-2024 | Creating New Presentation  |

## LESSON PLAN

Session:2024-25

Class: B.Sc.(C. Sc) III Sem.B.Sc (N.M.) 3<sup>rd</sup> Sem.

Subject: Data Management

Paper: B23-SEC-302

Teacher Incharge: Ms. Amrita

| Month     | Week                     | Topic   |
|-----------|--------------------------|---|
| July      | 22-07-2024 to 27-07-2024 | Database Management System – Introduction and Purpose                                     |
|           | 29-07-2024 to 31-07-2024 | Database Architectures: Centralised, Client-Server, Parallel, Distributed,                |
| August    | 01-08-2024 to 03-08-2024 | Web based system: Web architecture (2 tier, 3 tier, N-tier Architecture)                  |
|           | 05-08-2024 to 10-08-2024 | Database Storage Structures: Introduction,  |
|           | 12-08-2024 to 14-08-2024 | Hashing, Data Dictionary, Data Models: Introduction to various data models,               |
|           | 16-08-2024 to 17-08-2024 | Cardinality Ratio & Relationships, Representation of entities, attributes,                |
|           | 20-08-2024 to 24-08-2024 | relationship attributes, relationship set,  |
|           | 27-08-2024 to 31-08-2024 | Generalization, aggregation, Structure of relational Database and different types of keys |
| September | 02-9-2024 to 07-09-2024  | Codd's rules and Relational data model  |
|           | 09-9-2024 to 14-09-2024  | Relational Database design: Basic System Development Life Cycle                           |
|           | 16-9-2024 to 21-09-2024  | Database Design – ER to Relational  |
|           | 23-9-2024 to 30-09-2024  | Functional dependencies, Normalization, Normal forms based on primary keys (1NF, 2NF,3NF) |
| October   | 01-10-2024 to 05-10-2024 | SQL queries: SQL data definition  |
|           | 07-10-2024 to 11-10-2024 | data types, specifying constraints,   |
|           | 14-10-2024 to 26-10-2024 | Queries for retrieval   |
|           | 27-10-2024 to 30-10-2024 | Diwali Vacations  |
| November  | 04-11-2024 to 09-11-2024 | insertion, deletion,  |
|           | 11-11-2024 to 16-11-2024 | Updation, introduction to views   |
|           | 18-11-2024 to 22-11-2024 | Revision  |

## LESSON PLAN

Session: 2024-25

Class: M. Sc- 1<sup>st</sup> Semester

Subject: Mathematical Foundation of Computer Science    Paper: M24-CSE-101

Teacher Name: Ms. Raman Preet Kaur

| Month            | Week                     | Topics   |
|------------------|--------------------------|--|
| <b>August</b>    | 01-08-2024 To 03-08-2024 | Mathematical Logic: Propositional Calculus - Propositions and Connectives,                                   |
|                  | 05-08-2024 To 10-08-2024 | Semantics - Truth Assignment and (Truth Tables, Validity and Satisfiability, Tautology                       |
|                  | 12-08-2024 To 14-08-2024 | Adequate Set of Connectives; Equivalence and Normal Forms; Compactness and Resolution;                       |
|                  | 16-08-2024 To 17-08-2024 | Formal Reducibility - Natural Deduction System and Axioms] System; Soundness and Completeness                |
|                  | 20-08-2024 To 24-08-2024 | Revision   |
|                  | 27-08-2024 To 31-08-2024 | Combinatorics: Basic Counting Functions, Recurrence Relations. Pigeon Hole Principle.                        |
| <b>September</b> | 02-09-2024 To 07-09-2024 | Structured Sets: Set, Relation homomorphism, Cosets, Ring and Field Sum And Product, Balls and Bins Problems |
|                  | 09-09-2024 To 14-09-2024 | Generating Functions, Recurrence Relations. Proof Techniques,  |
|                  | 16-09-2024 To 21-09-2024 | Principle Of Mathematical Induction, Pigeonhole Principle.   |
|                  | 24-09-2024 To 28-09-2024 | Structured Sets: Set, Relation - Algebraic System: Groups, Semi Groups, Monoid                               |
|                  | 30-09-2024               | Homomorphism, Cosets, Ring Field (Definition), Relation, Equivalence Relations                               |
| <b>October</b>   | 01-10-2024               | Poset, Lattices, Hasse Diagram, Boolean Algebra  |
|                  | 03-10-2024 To 04-10-2024 | Revision   |
|                  | 07-10-2024 To 11-10-2024 | Graph Theory: Introduction - Graph Terminologies - Types of Graphs - Sub Graph- Multi Graph Regular Graph    |
|                  | 14-10-2024 To 16-10-2024 | Isomorphic Graphs Sub-Graph Euler Graph- Hamiltonian Graph –Related Problems.                                |
|                  | 18-10-2024 To 19-10-2024 | Test   |
|                  | 21-10-2024 To 26-10-2024 | Revision   |
|                  | 27-10-2024 To 03-11-2024 | <b>Diwali Vacations</b>  |
| <b>November</b>  | 04-11-2024 To 09-11-2024 | Trees –Properties- Distance and Centers Types- Rooted Tree- Tree Enumeration                                 |
|                  | 11-11-2024 To 14-11-2024 | Labeled Tree-Unlabeled Tree-Spanning Tree  |
|                  | 16-11-2024               | Fundamental Circuits-Cut Sets-Properties   |
|                  | 18-11-2024 To 23-11-2024 | Fundamental Circuits-Cut Sets-Connectivity, Separability-Related Problems.                                   |
|                  | 25-11-2024 To 30-11-2024 | Revision   |

## LESSON PLAN

**Session: 2024-25**

**Class: M.SC 1<sup>st</sup> Semester**

**Subject: Advanced Data Structure and Algorithms**

**Paper code:MSC-CSE-103**

**Teacher Name: Aarti Dhiman**

| Month     | Week                     | Topics   |
|-----------|--------------------------|--|
| July      | 22-07-2024 To 27-07-2024 | Trees AVL Trees, Splay Trees, B-Trees, Red-Black Trees                                 |
|           | 29-07-2024 To 31-07-2024 | Heaps: Binomial Heaps, Fibonacci Heaps, Pairing Heaps                                  |
| August    | 01-08-2024 To 03-08-2024 | Pairing Gea heaps  |
|           | 05-08-2024 To 10-08-2024 | Depth First Search (DFS)   |
|           | 12-08-2024 To 14-08-2024 | Breadth First Search (BFS)   |
|           | 16-08-2024 To 17-08-2024 | Strongly Connected Components (SCC)  |
|           | 20-08-2024 To 24-08-2024 | Memory Allocation System   |
|           | 27-08-2024 To 31-08-2024 | Memory Pool Allocation   |
| September | 02-09-2024 To 07-09-2024 | Garbage Collection Algorithms  |
|           | 09-09-2024 To 14-09-2024 | Graph Algorithms: Shortest Path Algorithms (Dijkstra's, Bellman-Ford)                  |
|           | 16-09-2024 To 21-09-2024 | Minimum Spanning Tree (Kruskal's, Prim's), Network Flow (Ford-Fulkerson, Edmonds-Karp) |
|           | 24-09-2024 To 28-09-2024 | Dynamic Programming: Matrix Chain Multiplication                                       |
|           | 30-09-2024 To 01-10-2024 | Longest Common Subsequences (LCS)<br>Knapsack Problems                                 |
| October   | 03-10-2024 To 04-10-2024 | Travelling Salesman Problem (TSP)  |
|           | 07-10-2024 To 11-10-2024 | Approximations Algorithms' Introduction to NP Completeness                             |
|           | 14-10-2024 To 16-10-2024 | Approximations Techniques (Greedy, Local search, Linear Programming)                   |
|           | 18-10-2024 To 19-10-2024 | Specific Problem (Vertex Cover, Travelling Salesman Problem, Set Cover)                |
|           | 21-10-2024 To 26-10-2024 | Parallel Algorithm: Introduction To Parallel Computing                                 |
|           | 27-10-2024 To 03-11-2024 | Diwali Vacation  |

|                 |            |    |   |
|-----------------|------------|----|---|
| <b>November</b> | 04-11-2024 | To | Parallel Sorting (Bitonicsort, Parallel Merge Sort)                       |
|                 | 09-11-2024 |    |   |
|                 | 16-11-2024 | To | Parallel Graph Algorithm (Parallel BFS, Parallel DFS), Parallel Algorithm |
|                 | 22-11-2024 |    | and Analysis  |

## LESSON PLAN

Session: 2024-25

Class: M. Sc- 1<sup>st</sup> Semester

Subject: Object-Oriented Programming with Java Paper: M24-CSE-104

Teacher Name: Aarti Dhiman

| Month            | Week                     | Topics  |
|------------------|--------------------------|---|
| <b>August</b>    | 01-08-2024 to 03-08-2024 | Introduction To Java: History Features, And Applications; Basics of Java Programming: Syntax, Variables, Data Types, Operators,         |
|                  | 05-08-2024 to 10-08-2024 | Expressions, And Statements; Control Flow: Decision-Making Statements (If, Else-if, Switch), Looping Statements (For, While, Do-While), |
|                  | 12-08-2024 to 14-08-2024 | Methods: Declaring Methods, Passing Parameters, Method Overloading, And Recursion;  |
|                  | 16-08-2024 to 17-08-2024 | Arrays: Declaring, Initializing, And Manipulating Arrays  |
|                  | 20-08-2024 to 24-08-2024 | Array Operation and Algorithms  |
|                  | 27-08-2024 to 31-08-2024 | Classes And Objects: Declaring Classes, Creating Objects, Constructor   |
| <b>September</b> | 02-09-2024 to 07-09-2024 | Encapsulation: Access Modifiers (Public, Private, Protected, Default), Getters, and setters; Inheritance                                |
|                  | 09-09-2024 to 14-09-2024 | Extending Classes, Method Overriding, Super Keyword, And Method Overloading;  |
|                  | 16-09-2024 to 21-09-2024 | Polymorphism: Method Overriding, Dynamic Method Dispatch  |
|                  | 24-09-2024 to 28-09-2024 | Abstract Classes; Interfaces: Defining Interfaces   |
|                  | 30-09-2024               | Implementing Interfaces, And Using Interface Reference  |
| <b>October</b>   | 01-10-2024               | Package Creating Using Packages, Importing Classes and Packages.  |
|                  | 03-10-2024 to 04-10-2024 | Exception Handling: Understanding Exceptions, Try-Catch Block   |
|                  | 07-10-2024 to 11-10-2024 | Keywords And Finally Block, File Handling Reading and Writing Files Using File Input/output Stream                                      |
|                  | 14-10-2024 to 16-10-2024 | File output stream, File reader   |
|                  | 18-10-2024 to 19-10-2024 | Filewriter, Multithreading, Creating Using Thread Lifecycle   |
|                  | 21-10-2024 to 26-10-2024 | Synchronization Thread Communication. Applet Programming, Applet Life Cycle, Applet Graphic Programming                                 |
|                  | 27-10-2024 to 03-11-2024 | <b>Diwali Vacations</b>   |
|                  | 04-11-2024 to 09-11-2024 | Event Handling: AWT Classes, ActionListener, Mouse listener. Mouse motion listener, Layout Managers                                     |
|                  | 11-11-2024 to 14-11-2024 | Generics: Introduction To Generis, Generic Classes. Generic Methods, Java Database Connectivity (JDBC)                                  |



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|-----------------|--------------------------|--|
| <b>November</b> | 16-11-2024               | Connecting To Databases. Execuring SQL Queries, Handling Transaction       |
|                 | 18-11-2024 to 23-11-2024 | Managing Resources: Gui Programming: Introduction to Swings                |
|                 | 25-11-2024 to 30-11-2024 | Creating Graphical User Interface (GUI), Event Handling, Layout Management |

## LESSON PLAN

Session: 2024-25

Subject: Operating System – I

Teacher Incharge: Ms. Aarti Dhiman

Class: BCA- 5<sup>th</sup> Semester

Paper: BCA-352

| Month     | Week                     | Topics   |
|-----------|--------------------------|--|
| July      | 22-07-2024 to 27-07-2024 | Operating System: Definition, Characteristics, Components, Functions Examples,   |
|           | 29-07-2024 to 31-07-2024 | Types of Operating System : Single User/ Multi User  |
| August    | 01-08-2024 to 03-08-2024 | Classification of Operating System: Batch, Multi programmed  |
|           | 05-08-2024 to 10-08-2024 | Timesharing, Multiprocessing, Parallel, Distributed, Real Time, System Calls and System Programs: Process Concept, Process state |
|           | 12-08-2024 to 14-08-2024 | Process Control Block, Process Scheduling, Scheduling Queues, Schedulers, Context Switch   |
|           | 16-08-2024 to 17-08-2024 | Operation on Processes: Process Creation, Process Termination, Cooperating Processes   |
|           | 20-08-2024 to 24-08-2024 | Introduction to Threads, Inter-process Communication, CPU Scheduling : Basic Concepts,   |
|           | 27-08-2024 to 31-08-2024 | Scheduling Criteria, Scheduling Algorithms: FCFS, SJF  |
| September | 02-09-2024 to 07-09-2024 | Scheduling Algorithms: Priority, Round- Robin, Multilevel Queue , Multilevel Feedback Queue Scheduling                           |
|           | 09-09-2024 to 14-09-2024 | Deadlocks: System Model, Deadlock Characterization, Methods of Handling Deadlocks, Deadlock Prevention                           |
|           | 16-09-2024 to 21-09-2024 | Deadlock Avoidance, Deadlock Detection and Recovery, Memory Management : Introduction, Swapping                                  |
|           | 24-09-2024 to 28-09-2024 | Contiguous Allocation: Single – Partition/ Multiple Partition Allocation   |
|           | 30-09-2024               | External/ Internal Fragmentation, Paging: Basic Method   |
| October   | 01-10-2024               | Hardware , Implementation of Page Table  |
|           | 03-10-2024 to 04-10-2024 | Segmentation: Basic Method, Hardware, Implementation of Segment table  |
|           | 07-10-2024 to 11-10-2024 | Advantage / disadvantage of Paging/ Segmentation   |
|           | 14-10-2024 to 16-10-2024 | Virtual Memory: Introduction, Demand Paging,   |
|           | 18-10-2024 to 19-10-2024 | Page replacement   |
|           | 21-10-2024 to 26-10-2024 | Page Replacement Algorithm : FIFO , Optimal, LRU, Counting, Thrashing and its cause  |
|           | 27-10-2024 to 03-11-2024 | Diwali vacation  |
| November  | 04-11-2024 to 09-11-2024 | File management: file concepts, file attributes, file operations   |
|           | 16-11-2024 to 22-11-2024 | File Access/Allocation methods, File Protection, file Recovery   |