Jyotiba Phule Govt. College, Radaur
Lesson Plan
JAN to APRIL 2024-2025
Name of the Assistant Professor – Dr. Nancy Sharma
Subject: Computer Science

Month	BCA 6thSem	BCA 4thSem	B.A 6TH Sem
JAN	Interactivity Tool - JavaScript: Introduction, Features, Data types, Operators, Statements, Functions, Event Handling, Use of Predefined Object and Methods, Frames, Windows, Tables, Images, Links		Relational Model Concepts, Codd's Rules for Relational Model, Hierarchical Data Model– Introduction, Features, Components, Example, Network Data Model– Introduction, Features, Components, Example, Differences between Hierarchical Data Model and Network Data Model Comparison of Relational Data Model with Hierarchical Data Model and Network Data Model Relational Algebra:-Selection and Projection, Set Operation, Join and Division.
FEB	Interactivity Tool - VBScript: Introduction, Features, Variables, Data Types, Numeric and Literal Constants, Arrays, Operators, Subroutine Procedures, Function Procedures, Control Statements, Strings, Message and Input Boxes, Date and Time, Event Handlers,Embedding VBScript in HTML Assignment 1 Test Interactivity Tool - Active Script Pages – Introduction, Features, Client-Server Model, Data Types, Decision Making Statements, Control statements, Use of Various Objects of ASP, Various Techniques of Connecting to Database Other Interactivity Tools - Macromedia Flash, Macromedia Dreamweaver, PHP: Basic Introduction and	Input Output in C++: Unformatted and Formatted I/O Operations. I/O using insertion and extraction operators and streams in C++. Functions: Declaration and Definition, return values, arguments, passing parameters by value, call by reference, call by pointer, Recursion, Inline Functions, Function overloading. Pointers, structures, and union in C++ Assignment 1 Test Object-oriented features of C++: Class and Objects, Data hiding & encapsulation, abstraction, Data Members and Member Functions, accessing class members, empty class, local class, global class, Scope Resolution Operator and its Uses, Static Data Members, Static Member Functions, Structure vs Class, Friend function and friend	Relational Calculus: Tuple Relational Calculus and Domain Relational Calculus. Functional Dependencies and Normalization -- Purpose, Data Redundancy, Update Anomalies, Partial/Fully Functional Dependencies, Transitive Functional Dependencies, Characteristics of Functional Dependencies, Decomposition and Normal Forms (1NF, 2NF, 3NF & BCNF). Assignment 1 Test

	Features	class. Constructors and Destructors: Constructors, Instantiation of objects, Default constructor, Parameterized constructor, Copy constructor and its use, Destructors, Dynamic initialization of objects Assignment 2	
MAR	DHTML: Introduction, Features, Events, Dynamic Positioning, Layer Object, Properties of STYLE, Dynamic Styles, Inline Styles, Event Handlers; Cascading Style Sheets (CSS): Basic Concepts, Properties, Creating Style Sheets; Common Tasks with CSS: Text, Fonts, Margins, Links, Tables, Colors; Marquee; Mouseovers; Filters and Transitions; Adding Links; Adding Tables; Adding Forms; Adding Image and Sound; Use of CSS in HTML Documents Linking and Embedding of CSS in HTML Document Assignment 2	Operator Overloading: Overloading unary and binary operators: arithmetic operators, manipulation of strings using operators. Inheritance: Derived class, base class, Accessing the base class member, Inheritance: multilevel, multiple, hierarchical, hybrid; Virtual base class, Abstract class. TEST REVISION	SQL: Data Definition and data types, Create Table, Insert Data, Viewing Data, Filtering Table Data, Sorting data, Creating Table from a Table, Destroy table, Update, View, Delete, Join, Concatenating data from Table Specifying Constraints in SQL; Primary Key, Foreign Key, Unique Key, Check Constraint, Using Functions Assignment 2 TEST REVISION

APRIL	Microsoft FrontPage: Introduction, Features, Title Bar, Menu bar, FrontPage Tool Bar, Style, FontFace and Formatting Bar, Scroll Bars XML: Introduction, Features, XML Support and Usage, Structure of XML Documents, Structures in XML, Creating Document Type Declarations, Flow Objects, Working with Text and Font, Color and Background Properties; TEST REVISION	Virtual Functions, pure virtual functions; Polymorphism & its types Exception Handling in C++: exception handling model, exception handling constructs - try, throw, catch, Order of catch blocks, Catching all exceptions, Nested try blocks, handling uncaught exceptions. TEST REVISION	PL/SQL-Introduction, Advantages of PL/SQL The Generic PL/SQL Block: PL/SQL Execution Environment; PL/SQL Character Set and Data Types, Declaration and Assignment of Variables Control Structure in PL/SQL: Conditional Control, Iterative Control, Sequential Control TEST REVISION