Sr. No.	Name of Experiment	LO Mapped
1	Implementation of stack using array.	LO1
2	Implementation of queue using array.	LO1
3	Implementation of singly linked list.	LO1
4	Implementation of Insertion sort and Selection sort	LO5
5	Implementations of doubly linked list.	LO1
6	Implementation of hashing functions with different collision resolution techniques.	LO6
7	Implementation of stack and queue using linked list	LO1
8	Implementations of Binary Search Tree	LO2
9	Implementations of Quick sort and Radix sort	LO5
10	Implementations of DFS & BFS Agorithm	LO4

EXPT NO	TITLE	LO MAPPED
1	Identify real world problem and develop the problem statement.	LO1
2	Design an Entity-Relationship (ER) / Extended Entity-Relationship (EER) Model for problem statement.	LO1
3	Mapping ER/EER to Relational schema model.	LO1
4	Create a database using DDL statements and apply integrity constraints on the tables.	LO2,LO3
5	Perform data manipulations operations on populated database.	LO3
6	Perform Authorization using Grant and Revoke.	LO2,LO3
7	Implement Basic and complex SQL queries.	LO3, LO4
8	Implementation of Views .	LO4
9	Implementation of Triggers.	LO4
10	Demonstrate database connectivity using JDBC	LO5
11	Implement functions and procedures in SQL	LO3, LO4
12	Implementation of Cursor.	LO3, LO4
13	Written Assignment 1 based on Relational Algebra.	CO3
14	Written Assignment 2 based on Transactions.	CO6

EXPT NO	TITLE	LO MAPPED
1	Write a Program to perform following a) Factorial of given number b) To test whether given input number is Armstrong or not c) To print Pascal triangle d) To print all real solution to quadratic Equation	LO1
2	Write a Program to Demonstrate a) Arithmetic Operator b) Assignment Operator c) Binary operator d) Logical Operator e) Relational Operator	LO1,LO2
3	Write a Program to Demonstrate classes and object concept in Java (Print Information of Student)	LO1,LO2
4	Write a Program to demonstrate the usage of Constructor In Java a) Default Constructor b) Parameterized Constructor	LO2
5	a) Print the sum, difference and product of two complex numbers by creating a class named 'Complex' with separate methods for each operation whose real and imaginary parts are entered by user.	LO1,LO2
	b) Write a Java program to illustrate Constructor Chaining.	
6	Write a Program to demonstrate a) Matrix Multiplication ,Addition b) Any sorting Technique using 1 dimension Array	LO1,LO2
7	Write a Program To Demonstrate various function of a) Vector b) Strings	LO1,LO2
8	a) Create a class Book and define a display method to display book information. Inherit Reference Book and Magazine classes from Book class and override display method of Book class in Reference_Book and Magazine classes. Make necessary assumptions required. b) Consider a hierarchy, where a sportsperson can either be an athlete or a hockey player. Every sportsperson has a unique name. An athlete is characterized by the event in which he/she participates; whereas a hockey player is characterised by the number of goals scored by him/her. Perform the following tasks using Java 1) Create the class hierarchy with suitable instance variables and methods. 2) Create a suitable constructor for each class. 3) Create a method named display_all_info with suitable parameters. This method should display all the information about the object of a class.	LO1,LO3
9)	Write a program to Demonstrate Polymorphism. The program should also highlight static and Dynamic Binding	LO1,LO3
10)	Write program to Demonstrate Multithreading in Java (Problem Definition will be given By Batch Professor)	LO1,LO3,LO4
11)	Write program to Demonstrate Exception Handling in Java (Problem Definition will be given By Batch Professor)	LO1,LO3,LO4
12)	Write program to Demonstrate File Handling in Java (Problem Definition will be given By Batch Professor)	LO1,LO3,LO4
13)	Write a program to create a window with four text fields for the name, street, city and pincode with suitable labels. Also windows contain a button MyInfo. When the user types the name, his street, city and pincode and then clicks the button, the types details must appear in Arial Font with Size 32, Italics	LO1,LO4,LO5
14)	Write Program to create Scientific Calculator	LO1,LO4,LO5
15)	1)Write a Java program to design a Login Form using JavaFX Controls 2)Write Java program to draw various shapes on Canvas using JavaFX	LO1,LO5,LO6

S.No.	Problem Statement	LO
1	a. Write programs in C using global and local variables having (i) different names, (ii) same names but different data types. Observe the scope of variables. b. WAP in C to show difference between call by value and call by reference parameter passing methods.	01
2	a. WAP in C++ for Encapsulation, single and multiple Inheritance. b. Write Programs in C++ and Java for Static and Dynamic Binding, Initialization and Finalization.	01
3	a. Write Programs in C++ and Java for Overloading, Polymorphism, and Exception handling.	02
4	a. Convert given infix expression to prefix in writing. b. Write arithmetic and logical Lambda functions.	02
5	a. Implement arithmetic and logical functions in Haskell. b. Implement safetail and functions in Haskell.	02
6	a. Implement recursive functions in Haskell. b. Implement higher order functions in Haskell.	02
7	Convert the given knowledge to predicate logic and solve the given query in writing.	02
8	Perform arithmetic processing using prolog.	02
9	a. Solve given queries using prolog. b. Process the given Data as directed, using prolog.	02
10	Perform the following concurrently using C++ and Java: a. Display given table of a user input number. b. Display characters from 'A' to 'Z'.	03
11	a. Write programs to handle exceptions in C++ and Java. b. Validation and Text Processing using java script.	04
12	Write following programs in C, C+, Java, Haskell and prolog and compare the working of paradigms: a. Merge sort b. Linear search	05 & 06