

# INDEX

S.No	Programs	Date	Page	Sign
1.	Write a program to calculate the greatest among three numbers using the conditional operator.	01-08-24		
2.	Write a program to convert a lowercase letter to uppercase using the conditional operator.	01-08-24		
3.	Write a program to calculate the sum of the digits of a number.	01-08-24		
4.	Write a program to generate the Fibonacci series for the first n numbers.	01-08-24		
5.	Write a program to check whether a given number is a palindrome or not.	01-08-24		
6.	Write a program to calculate the average of n numbers.	22-08-24		
7.	Write a program to check whether a given string is a palindrome or not.	22-08-24		
8.	Write a program to perform a linear search in an array.	22-08-24		
9.	Write a program to find the product of two matrices.	22-08-24		
10.	Write a program to create a structure with the fields name, roll number, and grade for 3 students and display their data.	22-08-24		
11.	Write a program to create a class Student with member functions “setData” and “printDetail”. Create two objects of this class.	05-09-24		
12.	Write a program to create a class “Rectangle” with member functions to set data and print the area.	05-09-24		

S.No	Programs	Date	Page	Sign
13.	Write a program to implement inline functions.	05-09-24		
14.	Write a program to create a member function outside the class and access that member function.	05-09-24		
15.	Write a program to implement nesting of member functions.	05-09-24		
16.	Write a program to demonstrate the use of constant member functions in a class.	12-09-24		
17.	Write a program to create and manipulate an array of objects.	12-09-24		
18.	Write programs to pass objects as arguments to a function using different methods: a) Pass by value b) Pass by address c) Pass by reference	12-09-24		
19.	Write a program to demonstrate returning objects from a function.	12-09-24		
20.	Write a program to demonstrate static data members.	19-09-24		
21.	Write a program to multiply two matrices by returning an object from a function.	19-09-24		
22.	Write a program to add, subtract, divide, multiply two complex numbers using objects and class.	19-09-24		
23.	Write a program to calculate the result of the class using array of object and sort them on the basis of percentage.	19-09-24		

S.No	Programs	Date	Page	Sign
24.	Write a program how a non-member function can access private data member of a class.	23-09-24		
25.	Write a program to demonstrate how a friend function act as a bridge between two classes.	23-09-24		
26.	Write a program to demonstrate member function of one class as a friend of another class.	23-09-24		
27.	Write a program to demonstrate function overloading.	23-09-24		
28.	Write a program to demonstrate use of “this” pointer.	26-09-24		
29.	Write a program to demonstrate dynamic allocation & deallocation of memory using “new” and “delete”.	26-09-24		
30.	Write a program to demonstrate dynamic allocation & deallocation of memory in 1-D array.	26-09-24		
31.	Write a program to demonstrate dynamic allocation & deallocation of memory in 2-D array.	26-09-24		
32.	Write a program to demonstrate the use of pointers to call member functions of a class.	26-09-24		
33.	Write a program to demonstrate the use of a void pointer. Perform typecasting to access & manipulate different data types using the void pointer.	03-10-24		
34.	Write a program to demonstrate the use of constant pointers and pointers to constants. Show how they restrict modifications to either the pointer itself or the data it points to.	03-10-24		
35.	Write a program to demonstrate a function that returns a pointer. Use this function to perform basic arithmetic operations, dynamically allocate memory, and handle the results via pointers.	03-10-24		

S.No	Programs	Date	Page	Sign
36.	Write a program to create a class with a parameterized constructor. Demonstrate constructor overloading, including a constructor with default arguments.	03-10-24		
37.	Write a program to demonstrate the concept of a copy constructor. Show how deep and shallow copies are handled in different scenarios.	07-10-24		
38.	Create a program to demonstrate the use of constructors in an array of objects. Initialize the objects using a parameterized constructor and display the object values.	07-10-24		
39.	Write a program to implement a class with a destructor. Demonstrate how destructors are called when an object goes out of scope or is explicitly deleted in the case of dynamic memory allocation.	07-10-24		
40.	Write a program to demonstrate the overloading of any one unary operator in a class.	21-10-24		
41.	Write a program to demonstrate the overloading of any one binary operator in a class.	21-10-24		
42.	Write a program to overload the unary minus operator (--) for a class that represents a number. Use the operator to decrement a number and display the result.	21-10-24		
43.	Write a program to overload the (+) operator for a class Vector that represents a pair of x and y coordinates. Add two vectors and display the result.	21-10-24		
44.	Write a program to overload the (+) operator using a friend function for a Complex class representing complex numbers. Add two complex numbers and display the result.	21-10-24		

S.No	Programs	Date	Page	Sign
45.	Write a program to convert an int value into a class type Distance, where Distance has meters. Display the meters value when converted from int.	24-10-24		
46.	Write a program to create two classes: Person and Student. Make Student inherit from Person (single inheritance). Display a student's name and roll number.	24-10-24		
47.	Write a program to create a base class Employee and derive classes with public, private, and protected access. Show how the access affects data visibility.	24-10-24		
48.	Write a program with a base class Shape that has a virtual function draw(). Create derived classes Circle and Rectangle that each implement draw(). Demonstrate polymorphism by calling draw().	24-10-24		
49.	Write a program that creates a pointer to a base class Animal and points it to a derived class Dog. Show how the pointer can call a speak() function in Dog.	24-10-24		
50.	Write a program to create an abstract class Device with a pure virtual function operate(). Derive classes Printer and Scanner and implement operate() in each.	24-10-24		