

### List of Programs To Practice

- 1.a.Find the largest and smallest number from an array using function template.
  - 1.b.Write a program using class for calculator to have addition/subtraction/multiplication/division/modulus
  - 2.a.Sort an array using function template from a given array of 10 elements.
  - 2.b.Write a program using class for calculator to have addition/subtraction/multiplication/division/modulus
  - 3.a.Write a program for matrix addition using function template
  - 3.b.Write a program to find the area of different shapes using function overloading
  - 4.a.Find the area and perimeter of a rectangle using class template
  - 4.b.Program to understand the working of a function template to swap two numbers
  - 5.a.Print mark list of a student using class ( for 4 students)
  - 5.b.Overload the operator -- to add decrement data of two objects
  - 6.a.Create a class student and Search a record of a particular student form a list
  - 6.b.Write a inline function to find square of a number.
  - 7.a.Write a program using classes to save different types of instruments in the list
  - 7.b.Write a program to show the use of copy constructor
  - 8.a.Write inline function to find factorial of a number
- A Fruit stall has a following fruits
- |         |          |
|---------|----------|
| Banana  | 40/dozen |
| Grapes  | 100/kg   |
| Oranges | 65/dozen |
| Apples  | 150/kg   |
| Papaya  | 85/kg    |
- Read the name of the user and the number of fruits he is buying.Write a program to print the bill of fruit shopping of fruits .
- 8.b.Write a program using inline function two find maximum number out of two numbers.
  - 9.a.A company is having N no of employees. Calculate their net salary the with the following details of HRA,DA and TAX on basic salaryIf basic salary is in between 80000 to 60000 then HRA = 30% DA = 20% Tax= 10% If the basic is in between 59000 to 40000 HRA = 25% (on basic) DA = 12% Tax= 8% If basic is below 39000 DA = 12% Tax= 8% For basic more than 80000 HRA = 30% (on basic) DA = 30% Tax= 20%

9.b. Write a program to show the use of copy constructor

10.a. Write a program using constructors and destructors and show how the constructors are overloaded.

10.b. Write a class for employee of a company to enter his personal details as empno, empname, dept and salary. Write a function to search a particular employee.

11.a. Write a class to print calculate percentage and print the grades with as shown in the table ( take 4 students)

PERCENTAGE OF MARKS OBTAINED	LETTER GRADE	GRADE POINT	PERFORMANCE
80.00 AND ABOVE	O	10	OUTSTANDING
75.00 – 79.99	A	9	EXCELLENT
70.00 – 74.99	B	8	VERY GOOD
60.00 – 69.99	C	7	GOOD
50.00 – 59.99	D	6	FAIR
45.00 – 49.99	E	5	AVERAGE
40.00 – 44.99	P	4	PASS
LESS THAN 40.00	F	0	FAIL

11.b. Write an inline function to find minimum number out of two numbers.

12.a. Write a program to access the private data of a class using friend function find the addition of two complex numbers.

12.b. Write program to overload >> and << operators

13.a. Create a class student and search a record of a particular student from a list

13.b. Write a program to add private data of two different classes using friend function.

14.a. Calculate internal marks of cpp lab using friend function the marks are divided into viva, observation and record

14.b. Write a program to print absolute value of a number using function overloading

15.a. A Book stall has collection of books of computers, history, general knowledge, kids collection, novels. Store the details of the book along with their

titles author name and price. Write a program for searching of the a particular book by author name.

S.No.	BookTitle	Author	Price
1	Lets c++	Yashwant Kanetkar	229.99
2	C++ for beginners ..Masters	Ankit Asthana	349.95
3	C++: The Complete Reference, 4th Edition	Herbert Schildt	548.85
4	The Penguin History of Early India: From the Origins to AD 1300 Kindle Edition	Romila Thapar	223.39
5	Raau: (Original Book on Bajirao- Mastani)	N.S.Inamdar	340.00

15.b. Find factorial of a number using inline function