1. Write a java program:
   1. To calculate and display the area of a rectangle.
   2. To multiply two arrays and display the result
   3. To sort the elements in ascending and descending order using bubble sort algorithm.
2. Write a java program to create an Employee database which stores following information about the Employee: Name, Emp\_id, department, age, and designation. Perform the following operations:
   1. Read and display the details of at least five Employees.
   2. Calculate and display the sum of salary of all the employees of “sales” department.
   3. Retrieve the details of “highest paid manager” in the purchase department.
3. Write a Java program using encapsulation and constructors to create a class to represent a complex number and perform the following operations:
   1. Addition of two complex numbers
   2. Subtraction of two complex numbers
   3. Compare two complex numbers.
4. Write a java program to define a base class called person which stores information about a person such as name, age, gender. Derive two new classes employee and student and extend the base class methods in derived class to read and display the details that are specific to student and employee. Display the details of at least five students and five employees.
5. Write a java program using compile time polymorphism (method overloading) to compare two strings. The program should implement two different versions of strcmp the first version of usrstrcmp () that compares two string the second version should compare only specified number of characters from first string with second string and display the results.
6. Write a C++ program to define a base class bank, which holds various details of customers such as name, account number, balance and member functions to read, display and an abstract method to calculate rate of interest earned by all the account holders. Derive three classes namely City-Bank, SBI-bank, Canara-bank from this base class, which are offering different rate of interests. Extend the calculate method of base class with in these derived classes to calculate and display the interest earned by all the account holders of these banks.
7. Write a multi-threaded java program to illustrate producer consumer problem.
8. Write a java program to read two positive integers and perform the division operation on them and display the result if a user enters a positive integer and non-zero denominator. Else, If the input is negative or the denominator is zero, generate negative number input and divide by zero exception to handle the scenario.
9. Write a java program to illustrate the concept of packages and interfaces in java.
10. Write a java program that connects to a database using JDBC and does add deletes, modify and retrieve operations.
11. Write a java servlet program which displays cookie id.
12. Create a registration form using JSP, servelet, JDBC, MySQL.