1. Create a class Fraction {numerator, denominator} to implement addition, subtraction, multiplication and compare of two proper fractions using operator overloading. Also write suitable functions for input and output.
2. WAP to add, multiply and transpose two matrices using operator overloading. Use dynamic memory allocation: new, delete. Also provide suitable input and output functions.
3. Write a C++ program to swap two numbers using reference variables.
4. Define class Stringtype {char \*str , int length} that allows the following types of operator String concatenation using + operator String assignment using = operator String comparison using <,> and ==.
5. Declare a structure named student having the following members of appropriate type:

branch, name, roll\_no, marks in physics, marks in chemistry, marks in math, marks in computer science. write a c++ program to create an array of 30 structure variable and find out the average of 4 subjects of each student (print name, roll\_no and branch) and also find out which student (print name, roll\_no and branch) get highest marks in which subject.

1. WAP to calculate difference between two dates using operator overloading. Write suitable constructor functions for all types of date format.
2. WAP to add, and multiply two matrices using operator overloading. Use dynamic memory allocation: new, delete. Also provide suitable input and output functions.
3. Write a C++ program to implement a string object.  Include member functions to compare two strings and to concatenate two strings.
4. Create a class complex {real, imaginary}. Write a CPP program to perform the following operations using operator overloading. Multiplication of two complex number using \* Assignment operation using =, Negate the complex number using unary -
5. Write a program in C++ to find out the Fibonacci series up to a given number of terms taken from keyboard using command line argument.
6. Write a C++ program using copy constructor to copy data of an object to another object.
7. Create a function called sroot() that returns the square root of its argument. Overload sroot() three ways such that it returns the square root of an integer, a long integer and a double. To compute square root use standard library function sqrt().
8. Create a class matrix{row,col}. Overload + , \*,>>and << operator.
9. Write a program in C++ to calculate the length of a string without using ‘strlen’ function and also find out the number of vowels in that string.
10. Create a class complex {real, imaginary}. Write a CPP program to perform the following operations using operator overloading.

Equality check ii) int + Complex iii) Complex + int

1. Write a program in C++ to find out the LCM between two given numbers from keyboard using command line argument.
2. Create a class coordinate which contains two coordinate values x and y. Implement the following operations using operator overloading.

int + Coordinate ii) Coordinate + int iii) ++ Coordinate

Write constructor, copy constructor and suitable input, output function.