Note: Write down the algorithm of all programming problems in the laboratory record copy

1. Add the following two binary numbers
   1000 0001
   0111 1110

   0111 0001
   1000 1110

2. Write down some popular file format for **image**, **audio** and **video** files. Also, give specific advantages and disadvantages for the same if any.

3. Write down the algorithm for the following problem. Take coordinate points of a triangle and check the following:
   a) Can we form a triangle out of these points? If yes prompt the length of the sides and perform next tasks. If no, report and stop the code.
   b) Check whether the triangle is scalene, isosceles or equilateral.
   c) Calculate area, perimeter and circum radius
   d) Check whether the triangle is right angled, acute angled or obtuse angled.

4. Write down the flowchart for finding the factorial of a given positive integer.

5. Write a computer program that uses the following macros
   #define square(x) x*x
   #define PI 3.14
   #define small INT_MIN

6. Write a code for printing Fibonacci series. Take user input for number of terms.

7. Using if and/or if else statements write a C++ program to find largest of five numbers.

8. By writing a c++ code, determine the output of the following code snippet and justify your answer in the notebook.

```
int main()
{
int a = 21;
int c ,d;
c = a++;
d= --a;
cout << c<<"\t"<<d<<endl;
return 0;
}
```

9. By writing a c++ code, determine the output of the following code snippet and justify your answer in the notebook

```
int main()
{
int x = 5, y = 5, z;
x = ++x; y = --y;
z = x + ++x;
cout << z;
return 0;
}
```

10. Write a computer program to calculate a frequency of occurrence of each face when a six-sided dice is rolled randomly for 60000 times.