

Name of the Student:

Roll No.:

Stream: B.Tech (CSE) Semester: 3<sup>rd</sup> Sec: A (Gr. 1/2)

**Heritage Institute of Technology**  
**B.Tech (CSE) 3<sup>rd</sup> Semester**  
**Paper: Object-oriented Programming Lab (CSEN2113)**  
**Assignments on C++**

**Day 1**

- 1) WAP in C++ to make a function to accept a number as a parameter and print proper output if it is both prime and Fibonacci or not. For example,  
Input: 5  
Output: "Both prime and Fibonacci"  
Input: 7  
Output: "Prime but not Fibonacci"  
Input: 8  
Output: "Fibonacci but not prime"  
Input: 12  
Output: "Neither prime nor Fibonacci"
- 2) WAP in C++ to populate an integer array dynamically with n values, and then apply binary searching and insertion sort technique on the same array. Take n as a user input.
- 3) Create a structure named Time with three variables hour, minute and second. Using member function, add and subtract two Time variables. For example,  
Input: 1:15:20 and 2:20:25  
Output: 3:35:45  
Input: 11:55:20 and 2:20:40  
Output: 14:16:00  
Input: 23:59:59 and 1:59:59  
Output: Next day 1:59:58
- 4) Create a structure name complex number and using member functions multiply, add and subtract two complex numbers.