**Heritage Institute of Technology**

**Computer Science & Engineering**

**B. Tech. – 5th Semester-2020**

**LAB ASSIGNMENT**

CSEN 3153 – Object Oriented Programming Lab

**Name: Roll:**

**DAY 2**

1 a. Create a class called “College” which contains these variables – name, address, no of departments, student intake capacity, name of the departments, average percentage of students who go for higher education. Set the values of the variables using constructor overloading, and also one method showdata which prints the variables.

1 b. Write a method called “rank” in the “College” class. “rank” method has only one parameter of type College. Use this function to check which of the two colleges is better.

2. Create a class called “time” which will have three private instance variables viz hour, minute and second and also a method name “add” which will take one “time” object as parameter and print the added value of the calling “time” object and passed “time” object. In the main function declare two “time” objects and assign values using constructor and call the “add” method.

3.Create two arrays a and b with some given value:

Example

1 2 3

1 2 4

2 2

4 0

2 3

a= b=

4. Write a recursive program to implement binary search.

5. Write a class employee with instance variables salary, age and a static method to calculate the average salary and average age. Each time a new employee is created, the method should reflect the new average values.

6. Create a class outer with a static variable counter. Create two nested classes in outer class, one of which is static. Both the nested classes will have one instance variable with some initial value. Inside the constructors of those nested classes increment both the outer static variable “counter” and instance variable and print the result.

Class outer

Counter

Nested class 1(static)

Instance variable

Nested class 2(non-static)

Instance variable

Create more than one object of nested classes ( may be in a loop). Create a local class as well with instance variables and instantiate it.