ACADEMY OF TECHNOLOGY
Lab Assignment (Assignment 12)
Paper name: Data Structure and Algorithm
Code: PCC-CS391   **Semester: 3rd**
Discipline: CSE   **Time: 2 Hours**
Date: November 4, 2020

1. Write a program to find factorial of n.

2. Write a program to print the numbers from 1 to 10 such a way that when number is odd add 1 and when number is even subtract 1.

3. Write a program to find the $n^t h$ Fibonacci number using recursion.

4. Given an array $arr[]$ of n elements, write a recursive function to search a given element x in $arr[]$.

5. Given a *sorted* array $arr[]$ of n elements, write a function to search a given element x in $arr[]$.

   (a) using iterative method.

   (b) using recursive method.