Assignment On Algorithm Analysis and Array

Subject: CSW2(CSE3141)

Session: March 2022 to Aug 2022

Branch: CSE&CSIT

Section: All

- Q1. Write a program to check a number is prime or not . Calculate its time complexity with proper explanation.
- **Q2.** Write a program to find the binary equivalent of a decimal number. Calculate its time complexity.
- **Q3.** Write a program to find the reverse of a number and find its time complexity.
- **Q4.** Write a program to search an element using binary search and calculate its time complexity.
- **Q5.** Given an array, write a program to rotate its element K number of times. Explain its time complexity.
- **Q6.** Given an array of positive and negative integers, write a program to find a contiguous sub array whose sum of element is maximum.
- **Q7.** Given an array, write a program to arrange its elements in wave form such that odd elements are lesser then its neighbouring even elements.
- **Q8.** Given array of size N, containing elements from 0 to N-1. All values from 0 to N-1 are present in array and if they are not there than -1 is there to take place. Write a program to arrange values of array so that value i is store at arr[i].
- **Q9.** Write a recursive algorithm to solve Tower of Hanoi problem.
- Q10. Write a recursive function to find GCD of two number. Write the recurrence of the function and solve it for solution.
- Q11. Write a program to find all permutation of an integer list recursively.
- Q12. Write a recursive function to search an element using binary search. Analyse its time complexity.