Jadavpur University
Session 2021-2022, Odd Semester
Computer Programming and Numerical Methods
Group A3, BCSE 1

Function and Pointer

1. Write recursive functions for following tasks.
    a. Binary equivalent of a number.
    b. Sum of individual digits of a number passed as argument.
2. Write a C program using functions which accepts a string from the user and performs the following tasks.
    a. Counts the number of characters in the string without using string library functions.
    b. Prints the reverse of the string without using string library functions.
3. Write a C program which accepts a full name from the user prints the initials. Eg. SRT for Sachin Ramesh Tendulkar.
4. Write a program to count the number of occurrences of any two vowels in succession in a line of text.
5. Write a program that converts (Do not use any string library function):
    a. A string like “123” to integer 123.
    b. An integer like 123 to string “123”.
6. Write a C program which accepts a string from the user and performs the following tasks. (Do not use any string library function.)
    a. Check whether it is palindrome or not. [Example of a palindrome string: "abcba", "abba"]
    b. Counts the number of characters and words in it.
7. Write a program in C to store n numbers in an array and print the elements using pointers. Also compute the sum of all elements of that array using pointers.
8. Write a C function which accepts a string str1 and returns a new string str2 which is str1 with each word reversed. Do not use any string library function.
9. Write a function squeeze(s,c) which removes all occurrences of the character c from the string s.
10. Write the function strend(s,t), which returns 1 if the string t occurs at the end of the string s, and zero otherwise.