

**Department of Computer Science & Engineering**  
**CS2093D Hardware Lab**  
**B. Tech S4, Winter 2022-23**

**Practice Set 3: Integer Array Handling & String Handling**

1. Write a program to find the number of even and odd numbers in an array of length 'n'.
2. Write a Program to calculate the sum of numbers in an integer array of size 'n'.
3. Enter two digit numbers to an array of length 'n',
  - a) identify the number which is having highest occurrence
  - b) identify the number which is having lowest occurrence
4. Write a program to search for a number in an array of integers using Linear Search.
5. Write a program to accept 10 numbers into an integer array and find the largest and smallest number.
6. Write a program to read two nXm matrices, A and B, and compute the sum  $C = A + B$ . Hint: Use **base+index addressing** mode. (\*This question is mandatory\*)
7. Write a program to check whether a string is a palindrome or not.
8. Write a program to read two strings, concatenate them and print the output.
9. Write a program to read two strings and compare them as per the lexicographic ordering?
10. Write a program to read a string and a symbol and count the number of times the symbol is present in the string.

## **Important Instructions:**

- You are encouraged to complete all the questions.
- Minimum requirement: You are advised to complete 1 question from exercise 1 to 5 and 1 question from 7 to 10, also please note question number 6 is mandatory.
- Adhere to the academic integrity policy of CSED, NITC.
- Only the students who submitted the practice lab assignments on the due date (15.03.2023) and time (8.00 AM) in Eduserver are eligible for practice lab evaluation and Quiz.
- You are asked to report to the respective labs for practice at 8.55 AM/01.55 PM (CS01 and CS02/ CS03 and CS04).
- The Lab evaluation will begin at 9.00 AM/2.00 PM and ends at 12 PM/5.00 PM (CS01 and CS02/ CS03 and CS04).
- You must modify the assignments uploaded in the Eduserver according to the TA's request.
- The maximum Mark for the said evaluation is 3.
- All your programs must use formatted I/O.
- The modification Questions are strongly connected with the assignments of practice lab 3 only.
- Upload only a single .txt file (including all the programs)
- Files name(s): <ROLLNO>.<txt>