## **Assignment 5**

**1.** Write a program to print all elements of an array using the function.

Input

Input elements: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Output

Array elements: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

2. Write a program to find the sum of array elements using the function

Input

Input array elements: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Output

Sum of array: 55

**3.** Write a function takes a matrix then return the sum of main diagonal (major diagonal) elements of the matrix.

Input:

123

456

789

Output: 15

4. Write a function takes string then return the most repeated char

Input aaabca

Output: a

5. Write a function receive string and convert it to lowercase

Input: AbCD
Output: abcd

6. Write a function to check all chars are digits or not

input: 12354 Output: True Input: a123 Output: False

7. Write a function to reverse int using recursion

input: 5324 Output:4235

8. Write a function to return the max digit in int

Input:5234 Output: 5

**9.**Write a C program to find reverse of a given string using loop.

Input: Hello Output: olleH

**10.**Write a CPP program to count the total number of words in a string.

Input string: I love Code.

Output

Total number of words: 3

## **Pointer**

**11.** Write a function that takes an array of integers with size 10 and return an array with **EVEN** numbers only.

**Input:** { 4,7,3,9,2,13,6,7,8,11} **Output:** { 4,2,6,8}

- **12.** Write a function to swap two numbers <u>Using Pointer</u> and display in main function the values before and after swapping,
- **13**. Write a program to dynamically allocate memory for an integer array, read values from the user, and print them.

Input: 19215 Output: 19215

14. Find the output: (Don't USE Visual Studio or Codeblocks)
#include <iostream>
using namespace std;
int main()
{
 int arr[] = {4, 5, 6, 7};
 int \*p = (arr + 1);
 cout << \*arr + 9;
 return 0;
}</pre>
a) 12 b) 14 c) 13 d) Error

15. What will happen in this code? (Don't USE Visual Studio or Codeblocks)

```
int a = 100, b = 200;
int *p = &a, *q = &b;
p = q;
```

- a) b is assigned to a
- b) p now points to b
- c) a is assigned to b
- d) q now points to a

## **Bounce:**

**1.** Write a C++ program to change every letter in a given string with the letter following it in the alphabet (i.e., a becomes b, p becomes q, z becomes a).

Example:

Input: w3resource Output: x3sftpvsdf

**2.** Write a C++ program to capitalize the first letter of each word in a given string. Words must be separated by only one space.

Example:

Sample Input: cpp string exercises Sample Output: Cpp String Exercises

**3.** Complete the function/method so that it returns the url with anything after the anchor (#) removed.

Examples

Input: www.code.com#about

Output www.code.com

Input: www.code.com?page=1
Output: www.code.com?page=1