

COMPUTER LABORATORY 7

Task 1: Copy the program given below. Save (as maxArray.cpp), compile and run it.

```
#include <iostream>
using namespace std;
int main ()
{
    const int n = 5; // number of elements in the array
    double x[n], max;
    // get the elements of the array
    cout << "input " << n << " numbers" << endl;
    for(int i=0; i<n; ++i)
        cin >> x[i];
    // first element is assumed to be maximum
    max = x[0];
    for (int i=1; i<n; i++)
    {
        if (x[i] > max) max = x[i];
    }
    cout << "maximum is " << max << endl;
    // system("pause");          // You may uncomment this line on Dev-C++
    return 0;
}
```

Task 2: Read a sequence of characters from the screen and check whether it is palindrome and output the result like yes or no.

Hint: Palindrome is a sequence of characters which is same as its reverse e.g. kek

Task 3: Write a C++ program that reads components of two vectors **A** = (a1, a2, a3) and **B** = (b1, b2, b3) and outputs the dot (scalar) product and the angle in degrees between the vectors.

Homework2: Deadline 24/05/2020 until 23:59. Send only a PDF file to eee146gaun@gmail.com

Write a program that, when given a string *st*, encrypts *st* with Spartacus encryption. (Spartacus encryption circular shifts each English character in a string by 2 positions; 'a' becomes 'c', 'D' becomes 'F', 'z' becomes 'b', ...)

Examples :

seCrEt --> ugEtGv

Output Should look exactly like this:

> Please enter a string:

> yAZ

> aCB

ASCII TABLE:

A -> 65	a -> 97
B -> 66	b -> 98
C -> 67	c -> 99
...	...
Y -> 89	y -> 121
Z -> 90	z -> 122