

**Exercise 1. Declare and Print a pointer**

Write a program to declare and initialize a pointer to an integer variable. Then, print the value of the pointer and the value of the integer variable. (0.5 point)

**Exercise 2. Passing arguments by reference.**

Declare and define swap function. (0.75 point)

```
void swap(int *a, int *b);
```

Write a program to test the swap function. (0.75 point)

**Exercise 3. Loop thru string using pointers:**

Write a C program to read and store a string then print the string using pointers.

```
Enter any string : CSC215
```

```
The entered string is : CSC215 (1 point)
```

**Exercise 4. Loop thru string using pointers:**

Write your implementation of strlen() function call it `mystrlen` (1 point)

The strlen() function takes a string as an argument and returns its length.

**Exercise 5. Loop thru string using pointers:**

Write a program in C to count the number of vowels and consonants in a string using a pointer.

```
Input a string: string
```

```
Number of vowels: 1
```

```
Number of constant: 5 (1 point)
```

**Lab assignment: ToUpperCase:**

(5 points)

Write a C program to convert string from lowercase to uppercase string using pointers.

```
Enter your text: This is a Text
```

```
Uppercase string : THIS IS A TEXT
```

**Bonus exercise:**

(5 points)

Write a program in C to find the largest element using Dynamic Memory Allocation.