Introduction to Computing Laboratory
Assignment – 6

1. Write a C program to enter any number and check whether the number is palindrome or not.
2. Write a program in C to generate first *n* number of terms of Fibonacci sequence where the value of *n* will be accepted as input.
3. Write programs in C to evaluate the following where the value of ***n*** will be accepted as input.
   (a) S = 1! + 2! + 3! + ……. *n* terms.
   (b) S = 1 + 4 + 9 + 16 + …… *n* terms.
   (c) S = $1^1 + 3^2 + 5^3$ + ……. *n* terms.
4. Write programs in C to generate the following patterns for ***n*** number of lines where the value of *n* will be accepted as input.

(a)
```
1
123
12345
1234567
```

(b)
```
1
10
101
1010
```

(c)
```
1
2 3
4 5 6
7 8 9 10
```

(d)
```
****
***
**
*
```

(e)
```
A
A B
A B C
A B C D
```