

Assignment -3

Q1. Write a program to print the following outputs using **for** loop.

(a) 1
2 2
3 3 3
4 4 4 4
5 5 5 5 5

(b) * * * * *
* * * *
* * *
* *
*

Q2. Read the age of 200 persons and then count the number of persons fall in the age group of 50 to 60.

Hint: use **for** and **continue** statements.

Q3. Design the Pascal's Triangle as given below:

```
      1
     1 1
    1 2 1
   1 3 3 1
  1 4 6 4 1
 1 5 10 10 5 1
```

Q4. Write a program to evaluate the following functions to 0.0001% accuracy.

(a) $\sin x = x - x^3/3! + x^5/5! - x^7/7! + \dots$

(b) $\cos x = 1 - x^2/2! + x^4/4! - x^6/6! + \dots$

Q5. Write a program to print the arrow star pattern.

```
      *
     **
    ***
   ****
  *****
 *****
 *****
  *****
   ****
    ***
     **
      *
```