COMSATS University Islamabad, Lahore Campus

Assignment #1 – SPRING 2019

Course Title:	Design and Analysis of Algorithms			Course Code:		CSC301	Credit Hours:	3
Course Instructor:	Dr. Hasan Jamal			Programme Name:		BCS		
Semester:	5th	Batch:	SP17	Section:	A and B	Date:	26/2/2019	
Deadline:	1/3/2019			**Maximum Marks:**		10		

Important Instructions / Guidelines:
- Handwritten strictly.
- Maximum three persons per group are allowed for submission.
- No late submission allowed

Question: **[Marks: 4 + 4 + 2]**

For the following code snippet, provide line-by-line analysis and construct function T(n) that give the runtime of this code snippet as a function of "n". Also determine the big-Oh of for this code snippet.

```
for  (i = 1; i <= n; i++) {
    for (j = 1; j <= (n-i); j++)
        system.out.print(" ");
    for (k = 1; k <= (i-j); k++)
        system.out.print( i );
    system.out.println( );
}
```