COMSATS University Islamabad, Lahore Campus

Assignment #1 – FALL 2020

Course Title:	Design and Analysis of Algorithms		Course Code:	CSC301	Credit Hours: 3(2,1)
Course Instructor:	Dr. Hasan Jamal		Programme Name:	BCS	
Semester:	Batch:	Section:		Date:	15/10/2020
Deadline:	15/10/2020 before 11:59 PM		**Maximum Marks:**		**10**
Name			**Student ID**		

Important Instructions / Guidelines:

- Type your answers in this sheet and submit the assignment on Google Classroom
- No late submission allowed
- Any solution found to be copied would strictly result in zero marks

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 (int i = 1; i <= n; i++) {	
if (x < i)	
sum += foo(i);	
system.out.print(sum);	
else	
for (j = 1; j <= i; j++)	
system.out.print(i);	
system.out.println( );	
}	
foo (a) {	
for (int i = 0; i < n*n; i++)	
sum += a * i;	
return sum;	
}	