National University of Computer and Emerging Sciences, Lahore Campus

Course Name:	Introduction to Computing	Course Code:	CS101
Program:	BS(CS)	Semester:	Spring 2018
Duration:	1 hr	Total Marks:	25
Paper Date:	Monday, 26 Feb 2018	Weight	15
Section:	ALL	Page(s):	3
Exam Type:	Sessional 1		

Student : Name:_____ **Roll No.**_____ **Section:**_____

Instruction/Notes:
1. Solve the exam on this question paper. No rough sheets allowed!
2. Use of calculator is **not allowed**.

Question 1: What is the output of following codes? **[3+3+4 Points]**

```
int n = 10;
for (int i = 0; i < n / 2; ++i)
       cout << i - 2 * n;
```

```
int x = 12, y = 10, z = 5;
cout << (--x > y) || x/--z + 4 <= 8 && z < ++y - x;
```

```
int n = 10;
for (int i = 0, j= n-1; i < n; i++, j-=2)
{
       cout << ":";
       if (j>i++)
              cout << ")";
       else if (j >=n - i)
              cout << "|";
       else
              cout << "(";

       cout << "endl \n";
}
```

Question 2: Correct all errors logical, or syntax in following code. **[5 Points]**

```
int main(){

       int value = 1;
       int number = 9;
       do {
              cout << number << " " << value << " " << endl;
              value++;

       } while ((value < 11) || (number > value % number));
}
```

Question 3: Write C++ program for the following problem. **[10 Points]**

Input: Positive integer's **n** and **m**

Output: Number of integers between **n** and **m** (where **n**<**m**) that divide the sum **n+m.**

For example, if **n**=8, and **m**=12, the program returns 1 (because 10 is the only number between n and m which divides **n**+**m**=20); and if **n**=4 and **m**=28, the program returns 2 (because 8 and 16 are two numbers between n and m which divide **n**+**m**=32)