

MIDTERM EXAMINATION

Course: **CS161 – COMPUTER SCIENCE I**

Time: **60** minutes

Term: **1** – Academic year: **2012-2013**

Lecturer(s): **Dr. Dinh Ba Tien**

Student name:

Student ID:

(Notes: Neither books nor laptops, phones allowed)

Question 1. Give a short answer and a simple example to each of the following questions:

- a. How can you print out the numbers in C++ with the alignment to the right?
- b. What are a function prototype (or declaration) and a function definition?

Question 2. What does the following program fragment do? Explain and give a couple of examples for the input and output.

```
int x, s=0;

cout << "Please enter a positive integer number: ";
cin >> x;
while (x>0)
{
    s += x%10;
    x /= 10;
}
cout << "Result = " << s << endl;
```

Question 3. You are asked to write a program which reads integer numbers inputted from a user until he/she inputs 0. Print out the sum of the longest consecutive series in which the values are increasing.

E.g.: Input: 27 36 15 24 24 78 67 72 2341 16 0

Output: 141

Question 4. Given an integer numbers x, y is a new number which is composed based on the reverse of all the digits in x. For example: x = 7628, y = 8267.

You are asked to write a function which takes an input argument x and return 1 if y is a prime number and 0 if y is not.

-- GOOD LUCK --