EECS 183 Fall 2013 Exam 1
Sample Questions

Scantron Portion

1 Consistent indenting in Python is used to:

A) Group code logically
B) Prevent errors from the interpreter
C) Make the code easier to read
D) All of the above
E) None of the above

2 Which of the following binary operators has the highest precedence? Note that this is not the fairest exam question, but good for reviewing.

A) **
B) *
C) %
D) +
E) `and`

3 Which of the following is a valid function header line? *(read carefully)*

A) `def foo()`
B) `def() foo:`
C) `def (foo)x:`
D) `foo(x): def`
E) None of the above

4 If your program needs access to the mathematical function to compute the ceiling of a number, which one of the following lines do you need?

A) `import math`
B) `import ceil`
C) `include math`
D) You don't need a line of code to do this; you already have access to that function automatically
E) None of the above

Written Portion

1 Short Answer

A) Prompt the user to input an integer value, then display that value the number of times they specified, all on the same line.

Here is an example of a possible solution running:

```
Enter number of numbers: 5
Here you go: 5 5 5 5 5
```

Write your code in the box below:

2 Understanding Python

Draw lines to match each Python programming term on the left with an example on the right. Every term must be matched, and no example will be used more than once.

Term
Relational Operator
Logical Operator
Mathematical Operator
Assignment Operator
Compound Assignment Operator

Example
=
( )
"
+=
==
+
and

3 Predict the Output

What does the following program display when it is run?

```
def foo( x ):
    y = x - 1
    while ( y > 1 ):
        if (x % y == 0):
            return False

        y -= 1

    return True

n = 10
i = 1

while ( i < n ):
    i += 1
    print i, foo( i )
```

Display the output in the box below

Bonus Question (3 points) Describe in English what function `foo()` does

4 Complete the Program

Complete the following program by writing the function `getTriangleType ()` which accepts three integer values representing the lengths of three sides of a triangle, and returns as a string the type of triangle that those sides represent. The three types of triangles are: equilateral, isosceles, and scalene. An equilateral triangle has all three sides the same length, an isosceles has two of the same length, and a scalene has three sides of different length.

Write your code to complete the `getTriangleType()` function in the box below. An example of a main program that uses it is shown below the box. That code is complete and does not need any modifications.

```
def getTriangleType(
```

```
print getTriangleType( 5, 6, 5 ) # Expected output: isosceles
print getTriangleType( 5, 5, 5 ) # Expected output: equilateral
print getTriangleType( 3, 2, 9 ) # Expected output: scalene
```