**Assignment 0 – Programming Test**

**Assigned:** Monday, August 27, 2018

**Due:** Friday, August 31, 2018 11:59 pm

**Overview**

This assignment is a means for us to understand and assess your prior experience with programming and programming concepts. You should fill in the questions that follow.

This is an **individual** assignment.

This assignment is **closed book**, **closed browser**, **closed notes**, etc. which means that the only source of information you may rely on is your brain.

**How to Submit**

* Add your answers into this document, and upload a .doc, .docx, or .pdf document to Canvas by the due date/time (see above).

**Answer each of the following questions in the space provided.**

1. (2 pts) In one sentence define what a **variable** is.

A variable is something that gets named that stores a given value.

Once a variable is defined, that variable can be used repeatedly.

1. (3 pts) In a language that you prefer or in pseudocode, declare three variables each of a different data type. Assign a value of your choice to each of the variables.

(for Python)

numFive = 5

stringFive = “5”

listOfFiveFives = [5, 5, 5, 5, 5]

1. (1 pts) What is the value of **myPick**? (Assume zero-based numbering)

var fruits = [“Apple”, “Banana”, “Orange”]

var myPick = fruits[1]

The value of myPick is “Banana”.

1. (2 pts) Using the array above, in a language that you prefer or in pseudocode, change the value of “**Orange**” to “**Watermelon**”. (Assume zero-based numbering)

(in Python)

fruits[2] = “Watermelon”

1. (9 pts) Write a function/method (in a language that you prefer or in pseudocode) ***multiple()*** which prints the numbers from 1 to 27. For multiples of three, print "Three!" instead of the number.

(in Python)

def multiple():

for num in range(1, 28):

if num % 3 == 0:

print ("Three!")

if num % 3 != 0:

print (num)

1. (5 pts) Write a function/method (in a language that you prefer or in pseudocode) ***biggerNumber(a,b)*** that returns the biggest of two given numbers (or any of the two numbers if they are equal).

(in Python)

def biggerNumber(a, b):

if a == b:

return a

elif a > b:

return a

return b

1. (2 pts) What will the following code print? Explain why.

x = 27  
if (x < 0)

print Negative changed to zero)

else if (x > 0)

print(Greater than zero)

else if (x == 27)

print(My birthday!!)

else

print(Not found)

The code will print:

Greater than zero.

Because of the else if statements, the code will stop running once a satisfactory condition is found. In the above code, 27 is obviously positive, so the first condition is not satisfied. But the second condition is, so it stops further going through the code after that.

1. (2 pts) What will the following code print?

myAge = ""

for (i = 0; i < 9; i++) {

myAge = myAge + i

}

print(myAge)

This code will print “012345678”. Since myAge is a string, in Javascript, ints that are concatenated to strings will also become strings.