**Name: Session:**

**Programming I**

**Modules in Python**

**Lab Exercise 9.29.2021**

Perform the following operations:

1. In your MyPython folder, create a new folder named Lab Exercise 9.29.2021
2. Create the following two files named my\_module.py and tempConvert.py and save them to the 9.29.2021 folder.

**# my\_module.py**

# we're going to use it in another program

def c\_to\_f(celsius):

fahrenheit = celsius \* 9.0 / 5 + 32

return fahrenheit

**#tempConvert.py**

import my\_module

celsius = float(input ("Enter a temperature in Celsius: "))

fahrenheit = my\_module.c\_to\_f(celsius)

print ("That's ", fahrenheit, " degrees Fahrenheit")

1. Run the program to make sure that it works.

**Lab Exercise Problems**

For the following problems, **submit your documented source code.**

1. Modify the code in the listing above so that you bring c\_to\_f() into the main program’s namespace. That is, change it so you can write

fahrenheit = c\_to\_f(celsius)

instead of

fahrenheit = my\_module.c\_to\_f(celsius)

1. Modify my\_module.py so that it also has a f\_to\_c(Fahrenheit) function.
2. Write a program to test my\_module for both of its functions.
3. You will now add two functions to my\_module.
4. Write a function to generate a list of five random integer numbers from 1 to 20,and print them out. The function should be added to my\_module.py and imported to a program that uses the function.
5. Write a function that prints out a random decimal number every 3 seconds for 30 seconds. The function should be added to my\_module.py and imported to a program that uses the function.
6. Use the file module\_test.py to test your module.
7. Create a module that contains the following functions:
   1. calcMean
   2. calcMedian
   3. findLargest
   4. findSmallest
   5. findRange

Save your module as statistics.py

1. Test your module with the program statTest.py