

# CMSC 104 Section 2

## Fall 2025

### Sample Quiz 1

***Note: this is a sample quiz, intended to contain the same number and type of questions as the actual quiz. This is intended to give students practice before taking the actual quiz.***

#### Instructions:

Write your name on the top of the quiz. Answer each question. This is a “closed-book” exam; you may not use the computer or any notes as a reference. You may not work together. If you have a question, raise your hand and the instructor will come answer your question. When you are completed the exam, you may leave.

#### Part 1: True/False and Multiple Choice

There are 10 questions in this section. Each is worth 5 points. There is NO partial credit in this section.

1. True or False: when a user enters data into a Python program from the keyboard via the `input()` statement, if the user types a floating point number such as “3.14” Python will automatically convert it to a float. .
  - a. True
  - b. False**

```
Num = float(input("enter the value of pi"))
```

2. What is the difference between a syntax error and a semantic error?

- a. If you make a syntax error the program will not execute at all. A semantic error will let the program run, but it will not produce the results you want.**
  - b. If you make a semantic error the program will not execute at all. A syntax error will let the program run, but it will not produce the results you want.
  - c. Both of the above are correct. .
  - d. None of the above is correct.
- 3. True or false: Android is a commonly used operating system
  - a. True**
  - b. False
- 4. Which of the following is a hardware component of a computer?
  - a. printer
  - b. monitor
  - c. mouse
  - d. all of the above**
- 5. Which of the following are legal as the first character in a Python variable name?
  - a. Underscores \_**
  - b. Hyphens -
  - c. Ampersands &
  - d. All of the above are legal first characters
- 6. True or False: The Python symbol table contains the current value of each variable contained in the table.
  - a. True
  - b. False**
- 7. True or False: a video game program is an example of application software
  - a. True**
  - b. False
- 8. Which of the following statements is true about computer programming languages?
  - a. Machine languages require the programmer to only use the same 1's and 0's that the computer itself uses
  - b. Assembly languages don't require using 1's and 0's, but they are very simple and each instruction only does one thing
  - c. High level languages like Python are meant to be human-readable and allow the programmer to direct actions that are more meaningful to the programmer than simple instructions or 1's and 0's.
  - d. All of the above are true.**

9. True or False: “folders” and “directories” are basically the same thing: collections of files all grouped together in a single location. The only difference is which operating system we’re talking about.

- a. **True**
- b. False

10. Suppose you’re writing a “for” loop in Python. You write the following:

```
for i in range(1,10,1):  
    print("the next number is ", i)
```

Is there an error in this code? If so, what type is it?

- a. A syntax error
- b. A semantic error
- c. **There is no error in this code**
- d. None of the above is correct

## Part 2: Short answer

There are 5 questions in this section. Each is worth 8 points. Partial credit WILL be awarded in this section, so be sure to attempt to answer each question. Note: “short answer” means that it should not take you more than one or two sentences to answer each question.

11. Suppose that you write a print statement in a Python program that looks like this::

```
print("Hello" , "world")
```

What would you do differently if you did NOT want a blank space between the two words?

```
print("Hello"+"world")
```

12. What will be printed when the following two Python statements are executed?

```
A = 9%4  
print(A)
```

The number 1 is printed

13. What is a variable in Python?

A name for a location in memory that contains a value that can be changed.

14. What is the Python symbol table?

A data structure that contains all variables declared in the program. For each, it contains the name, type and the location in memory where the value can be found.

15. Explain what happens when this code is executed:

```
for i in range(1,10,1):  
    print("The next number is")  
print(i)
```

"The next number is" gets printed 9 times. Then the integer 9 is printed.

### Part 3: Coding

There is one question in this section. It is worth a total of 10 points. Partial credit WILL be awarded in this section to be sure to make your best attempt at answering the question. Note: you need not include comments in your code, unless you believe that there is something the instructor may not understand and you want to fully explain what you have done.

Write a for loop that executes exactly 5 times. Each of the five times it runs, it asks a user to input an integer. Then the program prints out the phrase "your number squared is: " and prints the square of the integer.

You don't need to include the if `__name__ == "__main__":` statement. You don't need to provide comments unless there is something you really want to make sure the instructor understands.

```
for i in range (1,6,1):  
    num = int(input("Please enter an integer: "))  
    print ("your number squared is:", num**2)
```