**Tutorial 4**

**CSE101 : Introduction to Programming**

1. When should we use “‘’” (triple quotes) to define strings?

2. Assuming (name = “John Smith”)

a. What does name[1] return?

b. What about name[-2]?

c. What about name[1:-1]?

d. How to get the length of name?

3. What is the result of this expression: “\*” \* 10

4. What is the difference between **10 / 3** and **10 // 3**?

5. What is the result of 10 \*\* 3?

6. Given (**x = 1**), what will be the value of after we run (**x += 2**)?

7. What is the result of **float (1)**?

8. What is the result of **bool (“False”)**?

9. What are the falsy values in Python?

10.What is the result of **10 == “10”**?

11.What is the result of **“bag” > “apple”**?

12.What is the result of **not (True or False)**?”

13.Under what circumstances does the expression **18 <= age < 65** evaluate to True**?**

14. What is the difference between (3 \* 7 + 2) \* 0.1 and 3 \* 7 + 2 \* 0.1? Show how the expression is evaluated by placing appropriate brackets.

15. What is the difference between “xyz” + “45” and “xyz” + 45? What is the output?

16. What does 3 \*\* 2 \*\* 3 evaluate to? Show the brackets used for precedence.

17. Write a pseudocode which calculates and print all the factors of a number.

Consider the following:

1. The number can be positive or negative
2. The number can be prime or composite
3. In case of a negative number, print the number itself

Use nested if statements.

Analyze and write the output for the following inputs

1. -3 b) 56 c) 17 d) 1 e) 0