INSY 5336 – Python Programming

Spring 2018

INSTRUCTIONS:

1. You must use a scantron to record your answers. Use a pencil to bubble in your answers.
2. Please write your name on the scantron.
3. You MAY NOT use your books, notes, calculators, smartwatches, mobile devices, computers, or other devices.
4. All questions are based on **Python 3**.

Consider the following assignment:

s = “Hello”

1. Which of the following would you use to display ‘HelloHello’?
2. print(s \* 2)
3. print(s + s)
4. print(2 \* s)
5. **All of the above**
6. Only A and C

Consider the following assignment:

aList = [1, 5, 3, 5, 6, 8, 2, 5, 9, 5]

1. What does the command aList.count(5) display?
2. 2
3. **4**
4. 1
5. It gives a syntax error
6. Which of the following will give the sum of the elements in the list?
7. **sum(aList)**
8. aList.sum()
9. sum.aList()
10. None of the above
11. What does 20 % 7 evaluate to in Python?
12. **6**
13. 2
14. 1
15. Gives a syntax error

Consider the following assignment:

pets = [‘goldfish’, ‘cat’, ‘dog’, ‘rat’]

1. What will pets[2] return?
2. [‘goldfish’, ‘cat’]
3. [‘goldfish’, ‘cat’, ‘dog’]
4. **[‘dog’] NOTE: This should be ‘dog’**
5. [‘cat’]
6. What will pets.index(‘rat’) return?
7. -1
8. 1
9. 2
10. **3**
11. Which of the following is an invalid Python variable name?
12. 2my\_account
13. my!account
14. my\_account
15. myAccount
16. **Both A and B**

1. What does the following expression evaluate to?

5 + 3 \* (8 + 1) / 2

1. 36
2. **18.5**
3. 18
4. None of the above

9. What does the following expression evaluate to?

6 \* 8 / (4 \*\* 2)

1. 3
2. 24
3. 6.5
4. **None of the above (SHOULD BE 3.0) 🡪 TRICKY ONE**

10. What will the following code print?

lst = [23, 35, 89, 95, 10, -3]

temp = lst[-3]

if temp > 32:

print(“It is cool”)

elif temp > 86:

print(“It is hot!”)

else:

print(“It is freezing!”)

1. **It is cool**
2. It is hot!
3. It is freezing!
4. Syntax error

11. Which of the following is the correct **if** clause to determine whether **y** is in the range **10** through **50**, inclusive?

|  |  |
| --- | --- |
| A. | **if 10 < y or y > 50:** |
| B. | **if 10 > y and y < 50:** |
| C. | **if y >= 10 and y <= 50:** |
| D. | **if y >= 10 or y <= 50:** |

12. What are the values that the variable **num** contains through the iterations of the following **for** loop?

**for num in range(4):**

|  |  |
| --- | --- |
| A. | **1, 2, 3, 4** |
| B. | **0, 1, 2, 3, 4** |
| C. | **1, 2, 3** |
| D. | **0, 1, 2, 3** |

13. Suppose x = 1, y = -1, and z = 1. What will be displayed by the following statement?

if x > 0:

if y > 0:

print("x > 0 and y > 0")

elif z > 0:

print("x < 0 and z > 0")

1. x > 0 and y > 0
2. x < 0 and z > 0
3. x < 0 and z < 0
4. **nothing displayed**

14. Which of the following is equivalent to x != y?

A) not (x == y)

B) x > y and x < y

C) x > y or x < y

D) x >= y or x <= y

1. A and B
2. **A and C**
3. B and C
4. C and D

15. What will be displayed by the following code?

def f1(x = 1, y = 2):

x = x + y

y += 1

print(x, y)

f1() #Call function

1. 1 3
2. 3 1
3. The program fails because x and y are not passed to the function.
4. 1 1
5. **3 3**

16. What is the output of the following code segment?

def main():

a = 8

b = 3

print(a//f1(a, b))

def f1(a, b):

return a%b

main()

1. 2
2. 3
3. **4**
4. 5

17. Give the output of following code

a = True

b = False

c = True

if not a and not b:

print(1)

elif c or not a and b:

print(2)

elif not a and not b and c:

print(3)

else:

print(4)

1. 4
2. 3
3. **2**
4. 1

|  |  |
| --- | --- |
| 18. What will be the output of the following piece of code? |  |

score = 95

if (score > 90):

print(“Outstanding”)

if (score > 60):

print(“Passed”)

if (score < 70):

print(“Good”)

elif (score > 80):

print(“Excellent”)

1. Outstanding
2. Passed
3. Excellent
4. **Outstanding, Passed, Excellent**

19. Which of the following for loops is equivalent to the code below?

i = 3

while (i < 10):

print(i)

i += 2

1. for i in range (3,10):

print(i)

1. for i in range (3,9):

print(i)

1. for i in range (2,10,3):

print(i)

1. **for i in range (3,10,2):**

**print(i)**

20. What is the output of the following code?

for in range (0,10):

if(i % 5 == 0):

print(i)

1. 5
2. **0 5**
3. 0 5 10
4. 0 10

21. What is the output of this code?

list\_one = [2, 3, 4, 5, 6]

for index in range(len(list\_one)):

list\_one[index] \*=2

print(list\_one)

1. [0, 1, 2, 3, 4]
2. **[4, 6, 8, 10, 12]**
3. [2, 3, 4, 5, 6]
4. Syntax error

22. What is the output of this code?

a=10

b=20

def change():

global b

a=45

b=56

change()

print(a)

print(b)

1. **10  
   56**
2. 45  
   56
3. 10  
   20
4. Syntax Error

23. What will be the value of the variable **list2** after the following code executes?

list1 = [1, 2, 3]

list2 = []

for element in list1:

list2.append(element)

list1 = [4, 5, 6]

|  |  |
| --- | --- |
| A. | **[1, 2, 3]** |
| B. | [4, 5, 6] |
| C. | [1, 2, 3, 4, 5, 6] |
| D. | Nothing; this code is invalid |

24. Assume that you have the following assignment:

aList = [2, 4, 3, 1, 8, 6]

The command to get a sorted list called aList is:

1. aList.sort()
2. list.sort(aList)
3. aList = sorted(aList)
4. **All of the above**

25. Suppose list1 is [2, 33, 222, 14, 25], What is list1[:-1] ?  
A**. [2, 33, 222, 14].**  
B. Error  
C. 25  
D. [25, 14, 222, 33, 2]