

You will be provided with a Google Forms Virtual Scantron to use to submit your answers.

1. How many statements can appear in each block (the if and the else) in a conditional statement?

- A. Just one.
- B. Zero or more.
- C. One or more.
- D. One or more, and each must contain the same number.

2. What does the following code print (choose from output a, b, c or nothing)?

```
if 4 + 5 == 10:  
    print("TRUE")  
else:  
    print("FALSE")
```

- A. TRUE
- B. FALSE
- C. TRUE on one line and FALSE on the next
- D. Nothing will be printed

3. What does the following code print?

```
if 4 + 5 == 10:  
    print("TRUE")  
else:  
    print("FALSE")  
print("TRUE")
```

A. TRUE

B.
TRUE
FALSE

C.
FALSE
TRUE

D.
TRUE
FALSE
TRUE

4. What does the following code print?

```
x = -10
if x < 0:
    print("The negative number ", x, " is not valid here.")
print("This is always printed")
```

- A. This **is** always printed
- B. The negative number -10 **is not** valid here.
This **is** always printed
- C. The negative number -10 **is not** valid here.
- D. It will cause an error because every if must have an else clause.

5. Will the following code cause an error?

```
x = -10
if x < 0:
    print("The negative number ", x, " is not valid here.")
else:
    print(x, " is a positive number")
else:
    print("This is always printed")
```

- A. No
- B. Yes

6. Will the following code cause an error?

```
x = -10
if x < 0:
    print("The negative number ", x, " is not valid here.")
else:
    if x > 0:
        print(x, " is a positive number")
    else:
        print(x, " is 0")
```

- A. No
- B. Yes

7. Which of I, II, and III below gives the same result as the following nested if?

```
# nested if-else statement
x = -10
if x < 0:
    print("The negative number ", x, " is not valid here.")
else:
    if x > 0:
        print(x, " is a positive number")
    else:
        print(x, " is 0")
```

I.

```
x = -10
if x < 0:
    print("The negative number ", x, " is not valid here.")
else x > 0:
    print(x, " is a positive number")
else:
    print(x, " is 0")
```

II.

```
x = -10
if x < 0:
    print("The negative number ", x, " is not valid here.")
elif x > 0:
    print(x, " is a positive number")
else:
    print(x, " is 0")
```

III.

```
x = -10
if x < 0:
    print("The negative number ", x, " is not valid here.")
if x > 0:
    print(x, " is a positive number")
else:
    print(x, " is 0")
```

A. I only

B. II only

C. III only

D. II and III

E. I, II, and III

8. What will the following code print if $x = 3$, $y = 5$, and $z = 2$?

```
if x < y and x < z:  
    print("a")  
elif y < x and y < z:  
    print("b")  
else:  
    print("c")
```

- A. a
- B. b
- C. c
9. Given the nested **if-else** below, what will be the value **x** when the code executed successfully

```
x = 0  
a = 5  
b = 5  
if a > 0:  
    if b < 0:  
        x = x + 5  
    elif a > 5:  
        x = x + 4  
    else:  
        x = x + 3  
else:  
    x = x + 2  
print(x)
```

- A. 0
- B. 4
- C. 2
- D. 3

10. Given the nested `if-else` below, what will be the value `x` when the code executed successfully

```
x = 0
a = 0
b = -5
if a > 0:
    if b < 0:
        x = x + 5
    elif a > 5:
        x = x + 4
    else:
        x = x + 3
else:
    x = x + 2
print(x)
```

- A. 2
- B. 0
- C. 3
- D. 4

11. What is the output of the following `if` statement

```
a, b = 12, 5
if a + b:
    print('True')
else:
    print('False')
```

- A. False
- B. True

12. In a Python program, a control structure:

- A. Defines program-specific data structures
- B. Directs the order of execution of the statements in the program
- C. Dictates what happens before the program starts and after it terminates
- D. None of the above

13. What will be output of this expression:

```
'p' + 'q' if '12'.isdigit() else 'r' + 's'
```

- A. pq
- B. rs
- C. pqrs
- D. pq12

14. The 'else' statement is optional in Python

- A. TRUE
- B. FALSE

15. What signifies the end of a statement block in Python?

- A. A comment
- B. A line that is indented less than the previous line
- C. {
- D. end

16. What is the output of the following code snippet:

```
if 'bar' in {'foo': 1, 'bar': 2, 'baz': 3}:  
    print(1)  
    print(2)  
    if 'a' in 'qux':  
        print(3)  
print(4)
```

It doesn't generate any output.

- A. 1
- B. 1
2
3
4
- C. 1
2
4