1.What are the two values of the Boolean data type? How do you write them?

--True and False

2. What are the three different types of Boolean operators?

-- and , or , not

3. Make a list of each Boolean operator's truth tables (i.e. every possible combination of Boolean values for the operator and what it evaluate ).

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Logical AND (`and`):

| Operand 1 | Operand 2 | Result |

| True | True | True |

| True | False | False |

| False | True | False |

| False | False | False |

Logical OR (`or`):

| Operand 1 | Operand 2 | Result |

| True | True | True |

| True | False | True |

| False | True | True |

| False | False | False |

Logical NOT (`not`):

| Operand | Result |

| True | False |

| False | True |

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) -- False

not (5 > 4) -- False

(5 > 4) or (3 == 5) -- True

not ((5 > 4) or (3 == 5)) -- False

(True and True) and (True == False) -- False

(not False) or (not True) -- True

5. What are the six comparison operators?

== , != ,< , > , <= , >=

6. How do you tell the difference between the equal to and assignment operators?Describe a condition and when you would use one.

# Assignment: Assigns the value 5 to variable x and 10 to y

x = 5

y = 10

# equal to: Compares the values of x and y for equality

if x == y:

print("x is equal to y")

else:

print("x is not equal to y")

7. Identify the three blocks in this code:

--

spam = 0

block 1:

if spam == 10:

print('eggs')

block 2:

if spam > 5:

print('bacon')

block 3:

else:

print('ham')

print('spam')

print('spam')

8. Write code that prints Hello if 1 is stored in spam, prints Howdy if 2 is stored in spam, and prints Greetings! if anything else is stored in spam.

-- spam = 1

if spam == 1:

print('Hello')

elif spam == 2:

print('Howdy')

else:

print('Greetings!')

9.If your programme is stuck in an endless loop, what keys you’ll press?

-- Ctrl + C

10. How can you tell the difference between break and continue?

-- The break statement terminates the loop entirely, while the continue statement skips the current iteration and proceeds to the next iteration.

11. In a for loop, what is the difference between range(10), range(0, 10), and range(0, 10, 1)?

--**range(10)** , **range(0, 10) and** **range(0, 10, 1)** have the same result since the default start value is 0, and the default step value is 1.

12. Write a short program that prints the numbers 1 to 10 using a for loop. Then write an equivalent program that prints the numbers 1 to 10 using a while loop.

-- # Using a for loop

for num in range(1, 11):

print(num)

# Using a while loop

num = 1

while num <= 10:

print(num)

num += 1

13. If you had a function named bacon() inside a module named spam, how would you call it after importing spam?

-- import spam

spam.bacon()