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

True and False. The first letter should be in upper case

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 )

|  |  |  |  |
| --- | --- | --- | --- |
| Variable a | Variable b | AND | OR |
| 0 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 |
| 1 | 0 | 0 | 1 |
| 1 | 1 | 1 | 1 |

NOT

|  |  |
| --- | --- |
| Variable 1 | output |
| 0 | 1 |
| 1 | 0 |

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) : Flase

(not False) or (not True): True

5. What are the six comparison operators?

Less than (<)

Greater than (>)

Less than or equal to (<=)

Greater than or equal to (>=)

Equal to (==)

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

Assignment operators are used to assign the values to the variables. Ex : x=y+z

Equal to used compare the values of two variables. Ex: 3==5

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

print('spam')

print('spam')

Three blocks are everything inside the if statement and the lines print(‘eggs’), print(‘bacon’)

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.

if spam == 1:

print('Hello')

if 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 is used with the switch statement, and it can also used within the while loop, do-while loop, or the for-loop

The continue statement is not used with the switch statement, but it can be used within the while loop, do-while loop, or for-loop

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

Range(10): start@ start number and strop@-1 position

Range(0,10): start@ start number and stop@-1 that is 0,1,2,3,4,5,6,7,8,9

Range(0,10,1): start@ start number to stop@-1 with step size = 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.

a. using for loop

for i in range(1,11):

print(i)

b. using while loop

i = 1

while(i<=10):

print(i)

i += 1

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

I didn’t understand this question