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

**True and False, using capital T and F, with the rest of the word in lowercase.**

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

**and, or, and 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 ).

**True and True is True.  
True and False is False.  
False and True is False.  
False and False is False.  
True or True is True.  
True or False is True.**

4. What are the values of the following expressions?

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

not (5 > 4)

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

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

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

(not False) or (not True)

**False  
False  
True  
False  
False  
True**

5. What are the six comparison operators?

**==, !=, <,>,<=,and >=**

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

== is the equal operator to operator that compares two values and evaluates to a Boolean, while = is the assignment operator that stores a value in a variable.

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')

**The three blocks are everything inside the if statement and the lines print('bacon') and print('ham').  
print('eggs')  
if spam > 5:  
print('bacon')  
else:  
print('ham')  
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.

**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?

**Press ctrl-C to stop a program stuck in an infinite loop.**

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

**The break statement will move the execution outside and just after a loop. The continue statement will move the execution to the start of the loop**.

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

**They all do the same thing. The range(10) call ranges from 0 up to (but not including) 10, range(0,10) explicitly tells the loop to start at 0 , and range (0,10,1) explicitly tells the loop to increase the variable by 1 on each iteration.**

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.

**for i in range (1,11):  
print(i)  
and:  
i = 1  
while i <= 10:  
print(i)  
i = i + 1**

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

**This function can be called with spam.bacon().**