1. What are the Boolean data type's two values? How do you go about writing them?

Boolean data types are used to take a decision or to find its correct or not.

Eg: a = True

b = False

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

& 🡺 AND operator

| 🡺 OR operator

== 🡺 To check if the values are equal or not

< 🡺 lesser comparison

> 🡺 greater comparison

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 ).

a = 10

b = 20

examples where it will have True always:

* if a == 10:
* if a < b:
* if a > 0;
* if a <= 10 & b >=20
* if a< 20 | b > 20

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) 🡺 False

not (5 > 4) 🡺 True

(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 different types of reference operators?

6. How do you tell the difference between the equal to and assignment operators?

Single = is assignment operator and == is the equal comparison operator

7. Describe a condition and when you would use one.

8. Recognize the following three blocks in this code:

Updated with the color coding of the different blocks and the first if is the full block

spam = 0

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

print('spam')

print('spam')

9. Create a programme that prints. If 1 is stored in spam, prints Hello; if 2 is stored in spam, prints Howdy; and if 3 is stored in spam, prints Salutations! if there's something else in spam.

spam = 10

if spam == 1:

print(‘Hello”)

elif spam == 2:

print(“Howdy’)

elif spam ==3:

print(‘Salutations’)

else:

print(“something else”)

10.If your programme is stuck in an endless loop, what keys can you press?

In Jupyter notebook we can kill the Kernel and restart by pressing the Kerner 🡺 Restart and Clear output

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

Break: At certain condition we can come out of the whole IF/FOR block and move on to the next instruction.

Continue: When continue statement is there then it will continue to loop further by skipping the following steps in that iteration and move to the top of the for/while statement to process next iteration.

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

All are same by starting the value with 0 and ending with 9 with increment value of 1

13. Using a for loop, write a short programme that prints the numbers 1 to 10 Then, using a while loop, create an identical programme that prints the numbers 1 to 10.

for i in range(1,11):

print(i)

with while loop below:

i = 1

while i < 11:

print(i)

i = i+ 1

14. If you had a bacon() function within a spam module, what would you call it after importing spam?

spam.bacon()