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

The two values of Boolean datatype is True and False.

False can be expressed as:

False

0 (any representation of number 0)

None or "" (null value)

True can be expressed as:

True

1

and it is equivalent to any value other than 0

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

The three types of Boolean operators are AND , OR , NOT

AND – to check if both are true

OR – to check if either of them is true

NOT – to check if not true

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).

AND operator

X	Y	X AND Y
True	True	True
True	False	False
False	True	False
False	False	False

OR operator

X	Y	X OR Y
True	True	True
True	False	True
False	True	True
False	False	False

NOT operator

X	NOT X
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?

Greater than : >

Greater than or equal to : >=

Less than : <

Less than or equal to : <=

Equal to : ==

Not 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.

The equal to operator checks whether the values passed on its both sides are equal and returns in boolean, while the assignment operator assigns value on its right hand side to the variable passed on its left hand side.

x=10   #assignment operator

y=10   #assignment operator

if (x==y):   #equal to operator

    print('x=y')

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')
```

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.

```
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 (or whichever that raises keyboard interrupt)

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

break stops the loop once it is executed , while continue skips the current loop when it is executed.

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) , range(0,10,1) executes in the same way in a for loop providing values from 0 to 10.

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 loop:

for i in range(10):

Print(i+1)

While loop:

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?

spam.bacon()