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

The *boolean* data type is either True or False. In Python, boolean variables are defined by the True and False keywords.

>>> a = True

>>> type(a)

<class 'bool'>

>>> b = False

>>> type(b)

<class 'bool'>

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).

condition 1 (e.g., X)	condition 2 (e.g., Y)	NOT X (~ X)	X AND Y (X && Y)	X OR Y (X || Y)
false	false	true	false	false
false	true	true	false	true
true	false	false	false	true
true	true	false	true	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?

- Less than (<)
- Less than or equal to (<=)
- Greater than (>)
- Greater 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.

= is an It is an assignment operator.

== is an It is a relational or comparison operator.

a = 10

b = 4

if (a == b):

   print("a is equal to b\n");

else:

  print("a and b are not equal\n");

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')
```

if spam == 10: 1st block

if spam > 5: 2nd block

Else: third block

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?

Break statement ends the current statement execution.

continue statement skips the rest of the loop statement and starts the next iteration of the loop to take place.

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

No difference all will print 0 to 9

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.12. Write a s

```
for i in range(1,11):
    print(i)
```

```
#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?

spam. bacon().