

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

A boolean data type is declared with the bool keyword and can only take the values true or false .

When the value is returned, true = 1 and false = 0 .

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

The three basic boolean operators are: AND, OR, and NOT

3. Make a list of each Boolean operators truth tables (i.e. every possible combination of Boolean values for the operator and what it evaluate ).

AND

A	B	C
0	0	0
0	1	0
1	0	0
1	1	1

OR

A	B	C
0	0	0
0	1	1
1	0	1
1	1	1

NOT

A	C
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)=FALSE`

`(not False) or (not True)=TRUE`

## 5. What are the six comparison operators?

less than (<)

greater than (>)

Less Than or Equal To (<=)

Greater than equal to (>=)

Equal To (=)

Not Equal (!=)

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

The “=” **is an assignment operator is used to assign** the value on the right to the variable on the left.

The ‘==’ **operator** checks whether the two given operands are **equal** or not. If so, it returns true. Otherwise it returns false.

if u want to check a and b are same or not we use is equal to operator

## 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')
1)print('ham')
2)print('spam')
3)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.

```
spam=int(input("enter a number"))
```

```
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?

cntrl c

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

A break ends the execution to the end of the loop and continue moves 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)?

range(10) = defines range upto 10

range(0, 10) = defines the range as between 0 and 10.

range(0, 10, 1) defines the range as between 0 and 10 with steps of 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.

For Loop:

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

While Loop:

```
i = 1  
while i < 11:  
    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?

```
import spam as sp  
sp.bacon()
```