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

True and False

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 ).

|  |  |  |  |
| --- | --- | --- | --- |
| True | And | True | True |
| True | And | False | False |
| False | And | True | False |
| False | And | False | False |
| True | OR | False | True |
| True | OR | False | True |
| False | OR | True | True |
| False | OR | False | False |

Not(True) = false

Not(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)) -> True

(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 equals(>=)
* Lesser than(<)
* Lesser than or equals (< =)
* Equals(==)
* Not equals (!=)

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

* Equals to (==) we use to == to compare if both the values are equal or not(a==5)
* Assignment operator uses = to assign value to the variable(a=5)

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:**

spam = 0

**Block 2:**

if spam == 10:

print('eggs')

**Block 3:**

if spam > 5:

print('bacon')

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’)

Else 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?

‘break ‘ key word is used when we want to exist from the loop when the condition is satisfied and ‘continue’ keyword is used to skip the rest of the code in the loop when the condition is satisfied and goes to the initial expression of the loop again

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

Range(10) will consider the range of values - 0,1,2,3,4,5,6,7,8,9( this is used when we want to take the values from starting range as zero by default to particular limit-1 with always increment of 1)

Range(0,10) will consider the range of values – 0,1,2,3,4,5,6,7,8,9(this will allow to give the initial range value also instead of defaulting to zero and the increment value is defaulted as one in this)

Range(0,10,1) will consider the range of values - 0,1,2,3,4,5,6,7,8,9(this allows to give the initial range value instead of considering default value of zero to the particular limit and also we can define to which increment value we want to add instead of the default increment of 1 everytime)

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<=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()