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

False and True are the two Boolean data type values.

False

True

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

Logical AND , OR, NOT are referred to as Boolean operators.

**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 ).**

Logical AND

|  |  |  |
| --- | --- | --- |
|  | **True** | **False** |
| **True** | True | False |
| **False** | False | False |

Logical OR

|  |  |  |
| --- | --- | --- |
|  | **True** | **False** |
| **True** | True | True |
| **False** | True | False |

Logical NOT

|  |  |
| --- | --- |
| **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 different types of reference operators?**

Operators are used to perform operations on variables and values. Python divides the operators in the following groups:

* **Arithmetic operators :** Addition(+), Subtraction(-), Multiplication(\*), Division(/), Modulus(%),Exponentiation(\*\*),Floor division(//).
* **Assignment operators :** Simple assignment(=), Incremental assignment(+=), Decrement assignment(-=), Multiplication assignment(\*=), Division assignment( /=), Modulus assignment(%=), Power assignment(\*\*=), Floor division assignment(//=), Division assignment(/=), Bitwise AND assignment(&=), Bitwise XOR assignment(^=), Right shift assignment(>>=), Left shift assignment(<<=).
* **Comparison operators :** Equal (==), Not Equal(!=), Greater than(>), Less than(<), Greater than or equal(>=), Less than or equal(<=).
* **Logical operators :** and, or, not.
* **Identity operators :**  is (both variables are same object), is not (both variables are not the same object)
* .
* **Membership operators** : in (returns True if a sequence with the specified value is present in the object) , not in(returns True if a sequence with the specified value is not present in the object).
* **Bitwise operators** : &(AND), !(OR) ,  ^(XOR) , ~(NOT) , <<(left shift) , >>(right shift).

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

Equal to by = =

Assignment by =

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

Equal to : used as conditional operator

a=10

b=12

if(a==b)

print(“same”)

Assignment : assigns value to variables.

a=5

b=”hi”

**8. Recognize the following three blocks in this code:**

spam = 0

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

print('spam')

print('spam')

output : 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=int(input("enter the value: "))

if spam==1:

print("Hello")

elif spam==2:

print("how was the day")

elif spam==3:

print("salutations!")

else:

print("nothing")

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

CTRL+C is used if the program gets stuck in an endless loop.

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

**Break:** for loop

If codition:

#code inside for/while loop

break

#code inside for/while loop

#code outside for loop

When break statement is executed it doesnot execute the remaining code inside the loop

**Continue:**

for loop

If codition:

#code inside for/while loop

continue

#code inside for/while loop

#code outside for loop

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

**range(0, 10, 1)?**

All the three above give the same result.

range(10) : gives 10 numbers starting from 0

range(0,10) : gives numbers from the specified starting number excluding the specified number

range(0,10,1): gives 10 numbers from the specified starting number with the specified interval.

**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.**

Using For loop :

for i in range(1,11):

print(i)

Usinf while loop :

i=1

while(i<11):

print(i)

i+=1

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

spam.bacon()