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

🡪 Two values of Boolean data type are True and False. We can write them as True and False.

Eg :- 5>3 🡪 which will give us output as **True** .

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

🡪 i) and

ii) or

iii) 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).

🡪 **and** Boolean operator

|  |  |  |
| --- | --- | --- |
| True | False | (Output) False |
| True | True | True |
| False | True | False |
| False | False | False |

🡪 **or** Boolean operator

|  |  |  |
| --- | --- | --- |
| True | False | (Output) True |
| True | True | True |
| False | True | True |
| False | False | False |

🡪 **not** Boolean operator

|  |  |
| --- | --- |
| True | (Output) 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?

i) > (greater than sign)

ii) < (Less than sign)

iii) >= (greater than or equal to sign)

iv) <= (less than or equal to sign)

v) == (equal sign) – Check if two are equal.

vi) != (Not equal sign)

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

🡪 Basically there are two sign

i) = This sign tells us that any value or number is assigned to particular number. Eg:- a = 2

ii) == This sign tells us to check weather the assigned value is True or False. This gives us the Boolean data type in return. We can use to check the condition in if else condition statement.

7. Identify the three blocks in this code:

**Block 1-**

spam = 0

if spam == 10:

print('eggs')

**Block 2-**

if spam > 5:

print('bacon')

else:

print('ham')

**Block 3 -**

print('spam')

print('spam')

9.If your programme is stuck in an endless loop, what keys you’ll press?

🡪 I can press ctrl + c or restart my kernel.

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

🡪 Both break and continue are used in loops.

**break -** If I wanted to immediately come out of loop then I must include break in my program. Certain condition is meet it automatically comes out of loop.

**continue –** Ifi wanted to skip the part and doesn’t want to come out of loop then I may use continue.

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

range(10) = It will give the range of numbers from 0 to 9.

range(0,10) = It will give the range of numbers from 0 to 9. Start = 0, end = 10 but it prints till 9.

Range(0,10,1) = It will give the range of numbers from 0 to 9. Start =0, end = 10 , step = 1

🡪**Hence, there is only difference in syntax. There is no any difference in output.**

13. If you had a function named bacon() inside a module named spam, how would you call it after importing spam?

🡪 I may call it as **spam.bacon()**