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

Ans-) Booleans represent one of two values: True or False.

When you compare two values, the expression is evaluated and Python returns the Boolean answer:

print(15 > 10)…………Result will be “True”  
print(15 == 10)……………. Result will be “True”  
print(15 < 10)………….. Result will be “False”

If you write programs such that:-

a = 200  
b = 33  
  
if b > a:  
  print("b is greater than a")  
else:  
  print("b is not greater than a")

When you run above program first of all my python will check whether the given condition is ‘True’ or ‘False’ afterword it start to print as given above condition.

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

Ans-) AND, OR & NOT are the three different types of Boolean Operator.

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 Truth Table | | |
| A | B | AB |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

|  |  |  |
| --- | --- | --- |
| OR Truth Table | | |
| A | B | AB |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

|  |  |
| --- | --- |
| NOT Truth Table | |
| A in | A out |
| 0 | 1 |
| 1 | 0 |

Ans-)

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?

Ans-) They are:-

* Less Than(<)
* Greater Than(>)
* Less Than or Equal(<=)
* Equal to or Greater Than(>=)
* 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.

Ans-) [The “**=**” is an](https://www.geeksforgeeks.org/operators-c-c/)[assignment operator](https://www.geeksforgeeks.org/assignment-operators-in-c-c/) 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.

For example:-

1. If we write code a = 5 that means a is assigned and containing value 5. This is an example of assignment operator.
2. If we write a code a == 5 that means python is trying to compare given value and the result will be False (bool). Instead of a == 5, if you write

5 == 5 then after running it our result will be True (bool)

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.

Ans-)

spam = int(input())

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?

Ans-) I will press ctrl+C or use ‘break’ statement to get outside of my infinity loop.

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

Ans-) Break means to get outside of loop and continue means skip the rest of the code inside loop.

Continue Skip the iteration if the variable i is 3, but continue with the next iteration:

for i in range(9):  
  if i == 3:  
    continue  
  print(i)

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

Ans-) In range(10) means by default it will range from 0 to 10 ie range (0,10). Therefore we can say that range(10) is same equal to range(0,10).

In Range(0,10,1) here you will find that last digit is stand for direction of range. If it has positive sign then it means that range will go/work range in forward direction. If last digit is negative then it will go/work range in negative direction.

Please find the below example of few code :-

1. x = range(10)

for i in x:

print(i)

1. a = range(0,10)

for o in a:

print(o)

1. y = range(0,10,1)

for p in y:

print(p)

The output of the above three example will be same.

Please find the below negative Range example:-

1) b = range(10, 0, -1)

for q in b:

print(q)

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.

Ans-)

1. x = range(1, 11)

for i in x:

print(i)

1. a = 0

while a < 10:

a = a + 1

print(a)

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

Ans-) NOT UNDERSTOOD THE QUESTION.