

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

Solution-

There are 2 values of Boolean datatypes-

- 1) True
- 2) 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 or True → True

True or False → True

True and False → False

True and True → True

not True → False

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)

False

5. What are the six comparison operators?

Python has six comparison operators, which are as follows:

Less than (<)

Less than or equal to (<=)

Greater than (>)

Greater than or equal to (>=)

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.

Equal to Operator – It will return True or False

Assignment Operator – It will assign the value

a=10

b=5

a==b :- False (Equal to Operator)

a=b :- value of a will be changed to 5 (assignment operator)

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

 print('eggs')

if spam > 5:

 print('bacon')

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

ctrl+c

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

Break :- Break stops loop execution & start executing statements after the loop

continue :- continue will send the excution cycle to loop again and will not print the statements after the continue statement if matched

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

```
In [17]: for i in range(10):  
    print (i)
```

0
1
2
3
4
5
6
7
8
9

```
In [18]: for i in range(0,10):  
    print (i)
```

0
1
2
3
4
5
6
7
8
9

```
In [19]: for i in range(0,10,1):  
    print (i)
```

0
1
2
3
4
5
6
7
8
9

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.

```
In [20]: for i in range(1,11):
    print(i)
```

```
1
2
3
4
5
6
7
8
9
10
```

```
In [24]: i=10
while i > 0:
    print(i)
    i=i-1
```

```
10
9
8
7
6
5
4
3
2
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 s
s.bacon()
```