

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

Ans: There are just two values of type bool: True and **False**.

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

Ans : These **operators** are and , or , and 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 ).

Ans : And operator

A	B	Output
0	0	0
0	1	0
1	0	0
1	1	1

OR operator

A	B	Output
0	0	0
0	1	1
1	0	1
1	1	1

Not opearator

A	Output
0	1
1	0

4. What are the values of the following expressions?

Ans :  $(5 > 4)$  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?

Operator	Description	Example
<code>==</code>	If the values of two operands are equal, then the condition becomes true.	<code>(a == b)</code> is not true.
<code>!=</code>	If values of two operands are not equal, then condition becomes true.	<code>(a != b)</code> is true.
<code>&lt;&gt;</code>	If values of two operands are not equal, then condition becomes true.	<code>(a &lt;&gt; b)</code> is true. This is similar to <code>!=</code> operator.
<code>&gt;</code>	If the value of left operand is greater than the value of right operand, then condition becomes true.	<code>(a &gt; b)</code> is not true.
<code>&lt;</code>	If the value of left operand is less than the value of right operand, then condition becomes true.	<code>(a &lt; b)</code> is true.
<code>&gt;=</code>	If the value of left operand is greater than or equal to the value of right operand, then condition becomes true.	<code>(a &gt;= b)</code> is not true.
<code>&lt;=</code>	If the value of left operand is less than or equal to the value of right operand, then condition becomes true.	<code>(a &lt;= b)</code> is true.

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 assignment operator** 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.

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')
```

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("Enter the value of Spam"))  
  
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 : CTRL+C

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

- Ans: A **break** statement, when used inside the loop, will terminate the loop and exit. ...
- A **continue** statement will stop the current execution when used inside a loop, and the control will go back to the start **of** the loop.

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

Ans: All will give the same value from 0 to 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.

Ans: Using For loop

```
for x in range(1,11):  
    print(x)
```

Using While loop

```
i=1  
  
while i<11:  
    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?

Ans spam.bacon()