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

**Answer :** True, False

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

**Answer :** 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 ).

**Answer :**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **AND** | | | **OR** | | | **NOT** | |
| **Input** | | **Output** | **Input** | | **Output** | **Input** | **Output** |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 |
| 1 | 0 | 0 | 1 | 0 | 1 |  | |
| 0 | 0 | 0 | 0 | 0 | 0 |

**4.** What are the values of the following expressions?

**Answer :**

(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?

**Answer :** >, < , != , >= , <= , ==

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

**Answer :**

**== :** Equal to operator, this is used to compare the values , Example : 5==4, 6==6

= : Assignment operator, this is used to assign a value to the variable, Example a=6

**7.** Identify the three blocks in this code:

**Answer :**

spam = 0

if spam == 10: - **Block 1**

print('eggs')

if spam > 5: - **Block 2**

print('bacon')

else: -**Block 3**

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.

**Answer :**

def test(spam):

if spam == 1:

print('Hello')

elif spam == 2:

print('Howdy')

else:

print("Greeting")

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

**Answer :** Ctr + C

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

**Answer :**

**Break:** This statement terminates the loop.

**Continue:** This statement skips the rest of the loop statement and starts the next iteration of the loop to take place

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

**Answer :** No difference among them, all of them produce the same result.

**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.

**Answer :**

**For Loop:**

for i in range(1,11):

print(i)

**While Loop:**

def test(i):

while i<11:

print(i)

i=i+1

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

**Answer:** spam.bacon()