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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Combinations** | | **and** | **or** | **Not** |
| **False** | **False** | **False** | **False** | **NA** |
| **False** | **True** | **False** | **True** | **NA** |
| **True** | **False** | **False** | **True** | **NA** |
| **True** | **True** | **True** | **True** | **NA** |
| **True** | | **NA** | **NA** | **False** |
| **False** | | **NA** | **NA** | **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? **==,!=,>,<,>=,<=**

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’ is used to check if the operands on the left and right side of the ‘equal to’ operator are equal or not and provides a Boolean value, while assignment operator assigns the value on the right side to the variable on the left side**

7. Identify the three blocks in this code:

**Block1:**

spam = 0

**Block2:**

if spam == 10:

print('eggs')

**Block3:**

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.

**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?**Ctrl+C**

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

**‘break’ causes an exit from the entire loop , while ‘continue’ skips executing what comes after ‘continue’ for that particular iteration**

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

**range (10) produces a sequence of integers from 0 (inclusive)**

**to 10 (exclusive)**

**range(0,10) produces a sequence of integers from 0 (inclusive)**

**to 10 (exclusive).**

**range(0,10,1) produces a sequence of integers from 0 (inclusive)**

**to 10 (exclusive) by step 1**

**So, here all three produces the same thing**

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.

**for i in range(11):**

**print(i)**

**i=0;**

**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?

**spam.bacon()**