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

**Ans: The two values of the Boolean data type is 0 and 1. True=1 and false=0.**

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

**Ans: 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:**

|  |  |  |
| --- | --- | --- |
| **1st Operand** | **2nd Operand** | **Result** |
| **True** | **True** | **True** |
| **True** | **False** | **False** |
| **False** | **True** | **False** |
| **False** | **False** | **False** |

**OR:**

|  |  |  |
| --- | --- | --- |
| **1st Operand** | **2nd Operand** | **Result** |
| **True** | **True** | **True** |
| **True** | **False** | **True** |
| **False** | **True** | **False** |
| **False** | **False** | **False** |

**NOT:**

|  |  |
| --- | --- |
| **Operand** | **Result** |
| **True** | **False** |
| **False** | **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?

**Ans: < , >, == , <= , >= , !=**

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

**Ans: Equal to (==) is comparison operator used to shows relations between the operands. And Equal to (=) is assignment operator used to assign values.**

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=0**

**If(spam==1):**

**print(“Hello”)**

**elif(spam==2):**

**print(“Howdy”)**

**else:**

**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: Break: It will always break /terminate the loop**

**Continue: It Skips some part of code and continues to the next iteration.**

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

**Ans: range(10): It will print values from 0 by default till 10.**

**range(0,10): I has two parameters FROM and TO. It will print values from 0 to 1.**

**range(0,10,1): It will take three parameters FROM, TO and DIFFERENCE.**

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:**

**FOR:**

**for(i=1; i<=10, i++)**

**print(i)**

**WHILE:**

**i=0**

**while(i<=10)**

**i++**

**print(i)**

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

**Ans: spam.bacon()**