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

Boolean Data type consists of two values: True or False. In Python, they can be assigned as *a = True* or *a = False*

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

The three Boolean operators in Python 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 ).**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **A** | **B** | **A and B** | **A or B** | **Not A** |
| **False** | **False** | **False** | **False** | **True** |
| **False** | **True** | **False** | **True** | **True** |
| **True** | **False** | **False** | **True** | **False** |
| **True** | **True** | **True** | **True** | **False** |

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

**(5 > 4) and (3 == 5) 🡺** False

**not (5 > 4) 🡺** True

**(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?**

a. Equal ( == )

b. Not Equal ( != )

c. Greater than ( > )

d. Greater than equal ( >= )

e. Less than ( < )

f. Less than equal ( <= )

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

Assignment 🡺 a = 10 (Assigning a value of 10 to the variable *a*)

Equal to 🡺 a == 10 (Checking if the value assigned to a is equal to 10)

**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.**

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

*Ctrl + C* ends the execution of current program. On linux, *Ctrl+Z* forcefully exits the Python interpreter abruptly.

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

Break is used to completely terminate a looping construct. Continue is used to skip the current iteration and start the next one.

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

*range(10) 🡺 In a range of 0 (implicit, default =0) to 10 (explicit) in steps of 1 (implicit, default = 1)*

*range(0,10) 🡺 In a range of 0 (explicit) to 10(explicit) in steps of 1 (implicit, default = 1)*

*range(0,10,1) 🡺 In a range of 0(explicit) to 10(explicit) in steps of 1(explicit)*

**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.**

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

*from spam import bacon*

*bacon()*