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

Ans: **TRUE and FALSE.**

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: 1 = True, 0 = False**

|  |  |  |  |
| --- | --- | --- | --- |
| **A** | **B** | **AND** | **OR** |
| **1** | **1** | **True** | **True** |
| **1** | **0** | **False** | **True** |
| **0** | **1** | **False** | **True** |
| **0** | **0** | **False** | **False** |

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: < less than, > Greater than**

**<= less than equal to**

**>= greater than equal to**

**== equal to, != not equal to**

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

Ans: **“=” is an assignment operator and “==” is an equal to operator.**

**To define a variable e.g age = 23 , here assignment operator is used**

**To equate value e.g**

**if a == 2:**

**print(a) # here equal to operator is used**

7. Identify the three blocks in this code:

spam = 0

if spam == 10: **block 1**

print('eggs')

if spam > 5: **block 2**

print('bacon')

else:

print('ham') **block 3**

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: <https://github.com/amigo0795/assignment/blob/main/8%20th%20q%20assignment%202.ipynb>

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

Ans: **Will stop the kernel by clicking on stop icon**.

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

Ans: **Break**: end the loop ignoring whatever is return after that in the block.

**Continue**: run repeatedly the loop without going on to the other one in the block.

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

Ans: **The result while execution for “for loop” for the three cases will be the same.**

**range(x), 0 is the default start no, x will be excluded as it is stop no.**

**range(0,x), 0 is the start no, x will be excluded as it is stop no.**

**range(0,x,y), 0 is the start no, x will be excluded as it is stop no., y is the step size whose default value is 1**

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: <https://github.com/amigo0795/assignment/blob/main/q-12%20Assignment%202>

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

Ans: **spam.bacon()**