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

**Ans : The two values of Boolean data type is true and fasle**

**We can write them as “True” and “False”**

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

**Ans: The Boolean operators 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 ).

AND OR

|  |  |  |
| --- | --- | --- |
| A | B | Y |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

|  |  |  |
| --- | --- | --- |
| A | B | Y |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

NOT

|  |  |
| --- | --- |
| A | B |
| 1 | 0 |
| 0 | 1 |

4. What are the values of the following expressions?

(5 > 4) and (3 == 5)  **ANS : False**

not (5 > 4) **ANS : False**

(5 > 4) or (3 == 5) **ANS : True**

not ((5 > 4) or (3 == 5)) **ANS : False**

(True and True) and (True == False) **ANS : False**

(not False) or (not True) **ANS : True**

5. What are the six comparison operators?

**Ans : the six comparison operators are ( > Greater than ) , ( < Lessor than ), ( >= Greaterthan equal ) , ( <= Lessorthan equal) , (== Equal To Equal ), ( != Not Equal )**

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 : equal to operator will be used to check whether the two give value are equal or not the sample condition is**

**True == True**

**Assignment : assignment operator will perform assigning the given value into the variable. The sample code is**

**A=20**

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs') # block A

if spam > 5: # block A

print('bacon') # block A, block B inside block A

else: # block A, block B

print('ham') # block A, block C inside block A

print('spam') # block A, block C

print('spam') # block A end

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.

**spam = 10**

**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?

ANS : **I will press ctrl + c to kill the endless loop program**

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

**Ans Break : The break statement will be used to brake the loop which means stop the loop it will also not execute the for else block.**

**Continue : The continue statement will be used to proceed the next iteration of the loop**

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

**ANS : There is no difference between the above statement they all return the same output**

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 Loop :**

**for i in range(1,11):**

**print(i)**

**While Loop :**

**i = 0**

**while i < 10:**

**print(i+1)**

**i= i+1**

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

**Ans : This function can be called with spam. bacon().**