**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 are

1. True -> 1
2. False -> 0

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

**ANS-** The three different types of Boolean operators are

1. AND (&&)
2. OR (||)
3. 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 operator table:

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

Or operator table:

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

Not operator table:

|  |  |
| --- | --- |
| A | Output |
| 1 | 0 |
| 0 | 1 |

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

**(5 > 4) and (3 == 5)**

**not (5 > 4)**

**(5 > 4) or (3 == 5)**

**not ((5 > 4) or (3 == 5))**

**(True and True) and (True == False)**

**(not False) or (not True)**

**ANS**

* (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- The six comparison operators are

* Equal :- ==
* Unequal : - !=
* Greater than : - >
* Less than : - <
* Greater than or equal to :- >=
* Less than or 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. Assignment operators is used to assign a value to a variable whereas equal to operator is used to compare two values.

Example: a=10 (assignment operator)

a==10(equal to operator)

**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')**

**ANS-**

spam = 0

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

**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 = 1

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. Ctrl+c

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

Ans. Break and continue statement is mostly used with the loops. When we use break statement it means the loop will end there and we use continue statement it means the next line will not execute in that loop and loop will continue to next condition.

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

Ans. Three of them will evaluate the same result.

Range(10)-> it means it print the value start from 0 to 10 times not including 10. (0,1,2,3,4,5,6,7,8,9).

Range(0,10)-> it will also give the same result because the start value is 0 if its othen than zero than the value will start from to the times we given.

Range(0,10,1)-> start from 0 and increment it for time it will also give the same result.

**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 i in Range(1,11)

print(i)

* i=1

while i<=10:

print(i)

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()