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

Ans: The two values are True and False. It is usually used when along with a conditional statement, against which the output is either True (1) or False (0).

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

Ans:

* AND
* OR
* 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 | | | | |
| A | | B | Result | |
| 1 | | 1 | 1 | |
| 1 | | 0 | 0 | |
| 0 | | 1 | 0 | |
| 0 | | 0 | 0 | |
| OR | | | | |
| A | | B | Result | |
| 1 | | 1 | 1 | |
| 1 | | 0 | 1 | |
| 0 | | 1 | 1 | |
| 0 | | 0 | 0 | |
| NOT | | | |
| A | Result | | |
| 1 | 0 | | |
| 0 | 1 | | |

4. What are the values of the following expressions?

Ans:

(5 > 4) and (3 == 5) Sol: 0

not (5 > 4) Sol: 0

(5 > 4) or (3 == 5) Sol: 1

not ((5 > 4) or (3 == 5)) Sol: 0

(True and True) and (True == False) Sol: 0

(not False) or (not True) Sol: 1

5. What are the six comparison operators?

Ans:

* Equal to (==)
* Not equal to (!=)
* Less than (<)
* Greater than (>)
* Less than or equal to (<=)
* Greater 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 operator has only one equal to sign and an Equal to operator hass 2 equal signs

Ex:

* A = 10 : Assignment of int value 10 to variable A
* is A ==10 : Checking if the variable A has the value which is equal to the integer 10.

7. Identify the three blocks in this code:

**Ans:**

**Block 1**

spam = 0

**block 2**

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

**block 3**

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:

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 command, breaks the loop irrespective of weather the loop has reached its last iteration or not. Continue command only ends the current iteration in the loop and jumps to 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: all 3 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 1:

for i in range (1,11):

print(i)

Ans: 2:

a= 1

b = 10

while a<=b:

print(a)

a = a+1

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

Ans: spam.bacon()