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

The values for Boolean data type are True and False. We write them as True, False respectively.

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

and, or and not are called to as Boolean operators.

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 Truth Table | | |
| Inputs | | Output |
| True | True | True |
| True | False | False |
| False | True | False |
| False | False | False |

|  |  |  |
| --- | --- | --- |
| or Truth Table | | |
| Inputs | | Output |
| True | True | True |
| True | False | True |
| False | True | True |
| False | False | False |

|  |  |
| --- | --- |
| not Truth Table | |
| Input | Output |
| True | False |
| False | True |

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?

The six comparison operators are >, <, >=, <=, ==, !=

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

= (equal to) is used to assign a value to variable. Whereas the assignment operators in combination with = like +=,-= etc will perform addition and subtraction between right operand and left operand respectively and will assign the value to left operand.

Eg: a= 10 will simply assign the value 10 to a.

a=10,b=20

a+=b means a =a+b

now a(left operand) will be added to b (right operand) and result (a+b) which is 30 will be assigned to ‘a’.

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs') => First Block

if spam > 5:

print('bacon') => Second Block

else:

print('ham')

print('spam') => These three statements come under third block

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.

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?

We will press “CTRL+C” to stop the program if we stuck in an end-less loop.

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

break => terminates the loop without executing the next iterations.

continue => skips the current iteration of loop, executes the next iterations.

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

All will return the same output ( 0 to 9 numbers), but the above three functions are different variations of range function.

range(end), range(start,end), range(start,end,step) are three variations of range function with different parameters.

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 = 1

while(i<=10):

print(i)

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

If we import like:

import spam => I will call bacon() using “spam.bacon()”

from spam import bacon => I will call bacon() using “bacon()”