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

The two values of a Boolean data type is True and False.

They are written as 0 and 1.

0 - False

1 - True

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

The three different types of Boolean operators are 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 ).

NOT Truth Table:

|  |  |
| --- | --- |
| Input | Output |
| 0 | 1 |
| 1 | 0 |

AND Truth Table :

|  |  |  |
| --- | --- | --- |
| Input | Input | Output |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

OR Truth Table:

|  |  |  |
| --- | --- | --- |
| Input | Input | Output |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

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 operator are :

( < ) – less than

( > ) – greater than

( <= ) – less than or equal to

( > =) – greater than or 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.

The equal to “==” operator is used to check whether two given operands are equal or not.

Example:

if spam == 10:

print('eggs') || In here if condition will check if spam value is equal to ten or not.

The assignment “=” operator is used to assign the value given on the right to the variable present on the left.

spam = 0 | | In here zero value is assigned to the variable name spam

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')

spam = 0

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

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.

spam = int(input())

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 can re-start the Kernel if a program is stuck in endless loop.

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

The break is a loop control statement used when we want to terminate a loop and passes to the next part of the code.

The continue keyword is used to skip the current iteration in a loop and continue to the next iteration.

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

In a for loop all of these range(10), range(0, 10), and range(0, 10, 1), will be giving 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.

Using for loop:

for i in range(1,11):

print(i)

Using while loop:

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?

spam.bacon()