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

A Variable of the primitive data type Boolean represent one of two values : True or False

Boolean expressions use relational and logical operators.

The result of Boolean expression is either True or False.

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

There are three basic Boolean operators : 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 ).**

AND

|  |  |  |
| --- | --- | --- |
| 1 | 1 | True |
| 0 | 0 | False |
| 0 | 1 | False |
| 1 | 0 | False |

OR

|  |  |  |
| --- | --- | --- |
| 1 | 1 | True |
| 0 | 0 | False |
| 1 | 0 | True |
| 0 | 1 | True |

NOT

|  |  |
| --- | --- |
| 0 | 1 |
| 1 | 0 |

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?

There are six comparison operators : equal to , not equal to , greater than , greater than or equal to , less than , 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.

|  |  |
| --- | --- |
| The assignment operator is used to assign a value to the variable. | The equality operator is used for comparison of two values , represents true otherwise false. |
| Eg: a=10 | Eg: a==10 |

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')

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=1

If spam==1:

Print(“Hello”)

If spam==2:

Print(“Greetings”)

Else:

Print(“Anything”)

9.If your programme is stuck in an endless loop, what keys you’ll press?

We can end the infinite loop using ctrl+c.

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

The difference between break and continue is break will break the loop , continue will continue the loop during execution of the program.

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

In a for loop range(10), range(0,10) , range(0,10,1) all results are same.

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 i in range(1,10):

For j in i:

Print(j)

o/p: 1,2,3,4,5,6,7,8,9

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