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

Answer: Boolean data type values are True and False. We have to write True and False with capital T and F.

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

Answer: The three different types of Boolean operators are and, or, and 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 ).

Answer:

|  |  |
| --- | --- |
| **Boolean operator's combination** | **Evaluate** |
| False and False | False |
| False and True | False |
| False or False | False |
| False or True | True |
| not False | True |
| not True | False |
| True and False | False |
| True and True | True |
| True or False | True |
| True or True | True |

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)

Answer:

|  |  |
| --- | --- |
| **Expressions** | **Values** |
| (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?

Answer: 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.

Answer: (equal to) = is the assignment operator that stores a value in a variable and == is the equal to operator that compares two values and evaluates to a Boolean. A condition is an expression used in a flow control statement that evaluates to a Boolean value.

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')

Answer: The three blocks are everything inside the if statement and the lines print('bacon') and print('ham')

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

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.

Answer:

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?

Answer: To stop a program stuck in an endless loop press CTRL-C

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

Answer: The break statement will move the execution outside and just after a loop. The continue statement will move the execution to the start of the loop.

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

Answer: They all do the same thing. The range(10) call ranges from 0 up to 10 but not including 10, range(0, 10) explicitly tells the loop to start at 0, and range(0, 10, 1) explicitly tells the loop to increase the variable by 1 on each iteration.

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.

Answer:

**For loop query**

for i in range(1, 11):

print(i)

**While loop query**

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?

Answer: The function can be called with spam.bacon()

Regards,

Yashwant