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

Boolean data type are TRUE and FALSE

Eg:

Print(bool(17))

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

Boolean operator are 3

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

|  |  |  |
| --- | --- | --- |
| **A** | **B** | **C** |
| **1** | **1** | **1** |
| **1** | **0** | **0** |
| **0** | **1** | **0** |
| **0** | **0** | **0** |

OR

|  |  |  |
| --- | --- | --- |
| **A** | **B** | **C** |
| **1** | **1** | **1** |
| **1** | **0** | **1** |
| **0** | **1** | **1** |
| **0** | **0** | **0** |

NOT

|  |  |
| --- | --- |
| **A** | **B** |
| **1** | **0** |
| **0** | **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?

Operator Name Example

+ Addition x + y

- Subtraction x - y

\* Multiplication x \* y

/ Division x / y

% Modulus x % y

\*\* Exponentiation x \*\* y

// Floor division x // y

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

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

EG: a=5

'==' operator checks whether the two given operands are equal or not.

Eg:

a=6

b=2

if(a==b):

print(“ a and b are same”)

7. Identify the three blocks in this code:

spam = 0

if spam == 10: #block1

print('eggs')

if spam > 5: #block2

print('bacon')

else: #block3

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")

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 stop an infinite loop with CTRL + C

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

break statement in Python terminates the current loop and resumes execution at the next statement, just like the traditional break found in C.

continue statement in Python returns the control to the beginning of the while loop. It rejects all the remaining statements in the current iteration of the loop and moves the control back to the top of the loop.

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

Range(10) : start from 0 to 9

x = range(10)

for n in x:

print(n)

Range(0,10) : starts from 0 to 9

x = range(0,10)

for n in x:

print(n)

Range(0,10,1): Create a sequence of numbers from 3 to 19, but increment by 1:

x = range(0,10,1)

for n in x:

print(n)

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:

x = range(1,11)

for n in x:

print(n)

While loop:

x=1

while(x<=10):

print(x)

x+=1

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

Python module is a file containing Python definitions and statements. A module can define functions, classes, and variables. A module can also include runnable code. Grouping related code into a module makes the code easier to understand and use. It also makes the code logically organized.

spam.py

bacon()

importing module spam.py

import spam

print(spam.bacon())