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

Two Boolean data type are true and false

We write them as a=True or a=False

2. What are the three different types of 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 evaluates)

AND:

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

OR:

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

NOT:

|  |  |  |
| --- | --- | --- |
|  | False | False |
|  | True | 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?

> : Greater than

< : Less Than

== :Equal to

!= :Not Equal To

>= :Greater than or equal to

<= :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.

Equal has == symbol, i.e. 2 times =

If x==y:

Print(x)

Assignment has = symbol i.e. 1 time =

X=3

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:

1st block

spam = 0

2nd block

if spam == 10:

print('eggs')

3rd block

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.

Answer:

if spam==1:

print(‘Hello’)

if spam==2:

print(‘Howdy’)

else:

print(‘Greetings’)

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

In jupyter notebook we can press stop,to interrupt notebook.

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

Both are control flow statement.

Break is used to come out of loop when specific condition is met

Continue is used to skip the specific iteration when condition is met and proceed with next iteration.

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

Range(10): range starts from 0(default) end at 9 with 1 step(default)

Range(0,10): range start from 0 ends at 9 with 1 step(default)

Range(0,10,1):range starts from 0 end at 9 with 1 step

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(1,11):

print(i)

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?

from spam import bacon

b=bacon()

or

import spam

b= spam.bacon()