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

True  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 evaluate ).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | A | B | A and B | | 0 | 0 | 0 | | 0 | 1 | 0 | | 1 | 0 | 0 | | 1 | 1 | 1 | | |  |  |  | | --- | --- | --- | | A | B | A or B | | 0 | 0 | 0 | | 0 | 1 | 1 | | 1 | 0 | 1 | | 1 | 1 | 1 | | |  |  | | --- | --- | | A | not A | | 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?

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.

=  assignment operator (used to assign the value)

== Equal to operator checks whether the two given operands are equal or not. If equal returns true otherwise false.

7. Identify the three blocks in this code:

spam = 0

if spam == 10: block 1

print('eggs')

if spam > 5: block 2

print('bacon')

else:

print('ham')

print('spam')

print('spam') block 3

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.

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?

Ctrl+c

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

break=>It terminates the execution of the current loop

continue=>It skips the current iteration and executes the very next iteration in the loop.

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

range(10)=> from 0 to 9 (0,9 inclusive)     range(stop)

range(0, 10)=>  from 0 to 9 (0,9 inclusive) range(start,stop)

range(0, 10, 1)=>  from 0 to 9 (0,9 inclusive) range(start,stop,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.

using for Loop

for i in range(1, 11):

    print(i)

using while Loop

i = 1

while(i<=10):

    print(i)

    i += 1

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

spam.bacon()