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

True and 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 ).

|  |  |  |  |
| --- | --- | --- | --- |
| True | == | True | True |
| True | == | False | False |
| False | == | True | False |
| False | == | False | True |
| True | AND | True | True |
| True | AND | False | False |
| False | AND | True | False |
| False | AND | False | False |
| True | OR | True | True |
| True | OR | False | True |
| False | OR | True | True |
| False | OR | False | False |

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 (<)

Less than or equal to (<=)

Greater than (>)

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.

Equal to will use this sign (==), assignment operator will only use this sign (=).

A condition where we would like to make a comparison, then we’ll use equal to (==) sign, while when we want to assign a variable with value, then we’ll use just one equal sign (=).

7. Identify the three blocks in this code:

spam = 0

if spam == 10: # first block

print('eggs')

if spam > 5: # second block

print('bacon')

else: # third block

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 = 0

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?

When “break” statement is encountered, the entire loop will quit completely without doing the rest of the statements of the loop, whereas when “continue” statement is encountered, it will give the control immediately to the loop (go to the beginning of the loop again) without doing the rest of the statements 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] will produce 0 – 9, range[0, 10] will produce 0 – 9 too, and range[0, 10, 1] will again produce the same thing which are 0 – 9.

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 range(1, 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