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?

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 ).

|  |  |  |
| --- | --- | --- |
| a | b | A and B |
| True | True | True |
| True | False | False |
| False | True | False |
| False | False | False |

|  |  |  |
| --- | --- | --- |
| a | b | A or B |
| True | True | True |
| True | False | True |
| False | True | True |
| False | False | False |

|  |  |
| --- | --- |
| a | not a |
| True | False |
| False | 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?

==, !=, > <, >=, <=

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” operator checks the equality of both side values.

“assignment operator” assign a value to a variable.

Use “Equal to” operator when we need to compare two values and use “assignment operator” when we need to reuse a variable 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')

There is no indentation. So no blocks. Correct code should be as below.

spam = 0

if spam == 10:

    print('eggs')

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.

spam = 0

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? CTRL +c

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

Break: Break statement alters the flow of a loop by terminating it when a specified condition is met.

Continue: Continue statement is used to skip the remaining code inside a loop for the current iteration only.

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

All are same.

Range ahs there parameters.

Start – optional. Default value is 0.

stop – required.

Step – optional. Default value is 1.

range(10) – loop will continue for 10 times and the value will be incremented by 1 from 0. Here 10 is the stop position.

range(0, 10) -- loop will continue for 10 times and the value will be incremented by 1 from 0. Here 10 is the stop position and 0 is the start position.

range(0, 10, 1) -- loop will continue for 10 times and the value will be incremented by 1 from 0. Here 10 is the stop position, 0 is the start position and 1 is the increment value.

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.

print('for loop start......')

x = range(1, 11, 1)

for n in x:

  print(n)

print('while loop start......')

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()