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 | A OR B |
| TRUE | FALSE | FALSE | TRUE |
| TRUE | TRUE | TRUE | TRUE |
| FALSE | TRUE | FALSE | TRUE |
| FALSE | 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 Operators: The ‘==’ operator checks whether the two given operands are equal or not. If so, it returns true. Otherwise, it returns false.

Assignment Operators: The ‘=’ Operator is used for assigning the value to a variable.

7. Identify the three blocks in this code:

spam = 0

if spam == 10: --- 1st Block

print('eggs')

if spam > 5: --- 2nd Block

print('bacon')

else: ---3rd 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 = int(input('Enter Number'))

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 + break

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

When break keyword is encountered, it will exit the loop and in case of continue keyword, the current iteration that is running will be stopped, and it will proceed with the next iteration.

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

Range(10) - generates numbers from 0 to 9

Range(0,10) - generates the numbers from 0 to 9

Range(0,10,1) - generates the numbers from 0 to 9 with 1 difference between each number

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 < 11:

print(i)

if (i == 11):

break

i += 1

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

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