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

**Answer**

True and False

A=True

B=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 ).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **(X)** | **(Y)** | **NOT X ( ~ X )** | **X AND Y ( X and Y )** | **X OR Y ( X |or Y )** |
| false | false | true | false | false |
| false | true | true | false | true |
| true | false | false | false | true |
| true | true | false | true | true |

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) = **False**

1. not (5 > 4) =**False**
2. (5 > 4) or (3 == 5) = **True**
3. not ((5 > 4) or (3 == 5)) = **False**
4. (True and True) and (True == False) = **False**
5. (not False) or (not True) = **True**
6. What are the six comparison operators?

* == Equal x == y
* != Not equal x != y
* > Greater than x > y
* < Less than x < y
* >= Greater than or equal to x >= y
* <= Less than or equal to x <= y

1. How do you tell the difference between the equal to and assignment operators?Describe a condition and when you would use one.

= is an Assignment Operator it is used to assign the value of variable or expression, while == is an Equal to Operator and it is a relation operator used for comparison

Assignment operator A=5

Equal to if A==5:

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 - The code will not execute have an indentation error.**

1. 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 = 1  
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

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

* **Break** - A break statement is used to terminate the loop whenever a particular condition is satisfied.
* **Continue** - The continue statement skips the remaining lines of code, for the current iteration of the loop

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

* Range(10) – loop starts from 0 and ends with 9
* Range(0, 10) – we can specify the starting number here starting number is 0 so the loop will print (0 to 9)
* Range(0,10,1) - Loop starts with 0 and ends with 10th index so value 10 and each iteration count will increment 1

1. 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+=1

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

Import spam

Spam.bacon()