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 ).

**AND**

|  |  |  |
| --- | --- | --- |
| **T** | **T** | **T** |
| **T** | **F** | **F** |
| **F** | **T** | **F** |
| **F** | **F** | **F** |

**OR**

|  |  |  |
| --- | --- | --- |
| **T** | **T** | **T** |
| **T** | **F** | **T** |
| **F** | **T** | **T** |
| **F** | **F** | **F** |

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?

**Equal to**

**Not equal to**

**Greater than**

**Less than**

**Greater than or equal to**

**Less than or 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 returns a Boolean value while assignment doesn’t return anything.**

**A = 5**

**If (A == 5):**

**print(“this is right”)**

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')**

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')**

**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 is to break the loop abruptly.**

**The continue statement is not used to exit from the loop constructs.**

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

**range(10) goes from 0 to 10.We can decide only end of the range.**

**range(0, 10) goes from 0 to 10 with default step of 1. We can decide start and end of the range**

**range(0, 10, 1)? Goes from 0 to 10 with defined step counter of 1 . We can decide start and end of the range and step counter**

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 (i<11):**

**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?

**spam.bacon()**