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?

**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 ).

**NOT**

|  |  |
| --- | --- |
| **True** | **False** |
| **False** | **True** |

**OR**

|  |  |  |
| --- | --- | --- |
| **False** | **False** | **False** |
| **False** | **True** | **True** |
| **True** | **False** | **True** |
| **True** | **True** | **True** |

**AND**

|  |  |  |
| --- | --- | --- |
| **False** | **False** | **False** |
| **False** | **True** | **False** |
| **True** | **False** | **False** |
| **True** | **True** | **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?

**1) Less than (<), 2) Greater than (>) , 3) Greater than or equal to (>=), 4) less than or equal to (<=), 5) Not equal to (!=), 6) 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 be mention as (a ==b) ----------------------------- Equal Operator**

**A=5 or b = 10 or spam = “string” --------------------------------- Assignment Operator**

7. Identify the three blocks in this code:

**spam = 0**

**if spam == 10:**

**print('eggs') ------------ UPTO this Block 1**

**if spam > 5:**

**print('bacon') ----------- UPTO this Block 2**

**else:**

**print('ham')**

**print('spam')**

**print('spam') ------------ UPTO this Block 3**

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 the value of Spam:" ))**

**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?

**Terminate key (Stop)**

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

**Break: Break statements exist to exit.** **The break stop the continuation of the loop.**

**Continue: The continue statement is used to skip code within a loop for certain iterations of the loop. After the code is skipped, the loop continues where it left off.** **continue does not stop the continuation of loop and it stops the current.**

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

**All are same**

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)**

**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()**