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

**Ans: The two values of Boolean data type are True and False. These are written with first letter as capital and others as small and without quotes.**

2. What are the three different types of Boolean operators?

**Ans: Three types of Boolean operators are “and”, “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 ).

**Ans:**

|  |  |  |
| --- | --- | --- |
| **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?

**Ans: (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?

**Ans: 1. > greater than**

**2. >= greater than or equals to**

**3. < less than**

**4. <= less than or equals to**

**5. == equals to**

**6. != Not equals to**

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

**Ans: When comparing two values then qual to operator is used and it contain two “=” signs.**

**When assigning a value to a variable then assignment operator is used and it contains single “=” sign.**

**Ex: a = 10, b = 20 are assignments**

**a == b is a comparison**

7. Identify the three blocks in this code:

**Ans:**

**spam = 0**

**if spam == 10:**

**----Block 1 start----**

**print('eggs')**

**----Block 1 end----**

**if spam > 5:**

**----Block 2 start----**

**print('bacon')**

**----Block 2 end----**

**else:**

**----Block 3 start----**

**print('ham')**

**print('spam')**

**print('spam')**

**----Block 3 end----**

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.

**Ans:**

**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?

**Ans: Ctrl + C**

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

**Ans: Break: A break statement terminates the flow of a loop once a specified condition is met.**

**Continue: The 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)?

**Ans: All three functions return the same value because range function has three parameters “start”, “stop” and “step”. “Start” and “step” are optional parameters, and their default values are 0 and 1 respectively. Therefore the values does not change weather we specify the optional parameters or not.**

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.

**Ans: For loop**

**for n in range(1,11):**

**print(n)**

**While loop**

**n = 1**

**while n <= 10:**

**print(n)**

**n+=1**

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

**Ans: spam.bacon()**