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

**Solution :**

**Boolean data types : 1) True 2) False**

**Flag = True**

**Flag = False**

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

**Solution:**

**Types of Boolean Operators :**

**1) And “&”**

**2) Or “|”**

**3) 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 ).

**Solution :**

1. **Or**

**True + True = True**

**True + False = True**

**False + True = True**

**False + False = False**

1. **And**

**True + True = True**

**True + False = False**

**False + True = False**

**False + False = False**

1. **Not**

**! + True = False**

**! + False = True**

4. What are the values of the following expressions?

**Solution**

**(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.

**Solution :**

**Equal to : “==” , we use == to check if the values are the same or not.**

**Assignment Operator : “=” , This is used to assign value to variable.**

**Eg.**

**a=10 // assignment operator**

**If a == 10: // equal to check**

**print(“Equal”)**

**else :**

**print(“Not equal”)**

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')

**Solution :**

1. **Block :**

**if spam == 10:**

**print('eggs')**

1. **Block :**

**if spam > 5:**

**print('bacon')**

**else:**

**print('ham')**

1. **Block :**

**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.

**Solution:**

**if spam == 1:**

**print(“Hello”)**

**elif spam == 2:**

**print(“Howdy”):**

**else:**

**print(“Greeting”)**

9.If your programme is stuck in an endless loop, what keys you’ll press?

**Solution : ctrl-C**

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

**Solution :**

**break : keyword use to come out of loop.**

**continue : keyword use to pass below statements of that particular loop and execute further loops.**

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

**Solution : All will give the same result as range from 0 to 9.**

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.

**Solution :**

**for i in range(0,11):{**

**print(i)**

**}**

**counter =0**

**while counter < 11:**

**print(counter)**

**counter+=1**

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

**Solution :**

**we can call bacon() by,**

**spam.bacon()**